

Chemical Analysis Report

NW-DIST-2017-09-29-02

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

Event Description: **Laurel Hill Run WBID 42 100 101 117 35A 76 92**
Request ID: **RQ-2017-09-25-23**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government St
Suite 208A
Pensacola, FL 32502-5794
Attn: Michael King

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

Certified by: Liang Lin, Environmental Administrator

Date Certified: 17-OCT-2017 10:51

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: Turkey Ck @ Williams Rd.

Collection Date/Time: 09/28/2017 12:30

Field ID: G3NW0409

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932928	EPA 180.1 Rev. 2.0	Turbidity	4.9		NTU	P332489	
	EPA 300.0 Rev. 2.1	Chloride	4.4		mg Cl/L	P332576	
		Sulfate	1.2		mg SO4/L	P332578	
	SM 2120 B	Color (true)	42		PCU	P332472	
	SM 2320 B-97	Total Alkalinity	3.1		mg CaCO3/L	P332668	
	SM 2540 C-97	TDS	34		mg/L	P333015	
	SM 2540 D-97	TSS	6	I	mg/L	P332951	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P332671	MS
1932934	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P332819	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P332714	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.51		mg N/L	P332861	
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P332626	
	SM 5310 B-00	Organic Carbon	2.8		mg C/L	P332874	
1932940	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P332477	

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: Turkey Ck @ Williams Rd.

Collection Date/Time: 09/28/2017 12:30

Field ID: G3NW0409

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932960	EPA 8321B	Sucralose**	0.016	I	ug/L	P332452	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P332453	
		Diuron	8.0E-04	U	ug/L	P332453	
		Fenuron	0.0080	U	ug/L	P332453	
		Imidacloprid	0.0024	I	ug/L	P332453	
		Bentazon	8.0E-04	U	ug/L	P332453	MS
		Linuron	0.0040	U	ug/L	P332453	
		Acetaminophen**	0.0080	U	ug/L	P332453	
		MCP	0.0020	U	ug/L	P332453	
		Carbamazepine**	4.0E-04	U	ug/L	P332453	
		Triclopyr**	0.0040	U	ug/L	P332453	
		Primidone**	0.0040	U	ug/L	P332453	
		Fluridone**	4.0E-04	U	ug/L	P332453	

Ref. Method and Comment:

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

Sample Location: Turkey Creek @ Williams Rd. Duplicate

Collection Date/Time: 09/28/2017 12:35

Field ID: G4NW0409DUPLICATE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932929	EPA 180.1 Rev. 2.0	Turbidity	5.0		NTU	P332489	
	EPA 300.0 Rev. 2.1	Chloride	4.6		mg Cl/L	P332576	
		Sulfate	1.2		mg SO4/L	P332578	
	SM 2120 B	Color (true)	42		PCU	P332472	

Field ID: G4NW0409DUPLICATE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932929	SM 2320 B-97	Total Alkalinity	2.9		mg CaCO3/L	P332668	
	SM 2540 C-97	TDS	28		mg/L	P333015	
	SM 2540 D-97	TSS	6	I	mg/L	P332951	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P332671	MS
1932935	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P332819	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20	I	mg N/L	P332714	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.51		mg N/L	P332861	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P332626	
	SM 5310 B-00	Organic Carbon	2.8		mg C/L	P332874	
1932941	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P332477	

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: Turkey Creek @ Williams Rd. Duplicate

Collection Date/Time: 09/28/2017 12:35

Field ID: G4NW0409DUPLICATE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932961	EPA 8321B	Sucralose**	0.017	I	ug/L	P332452	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P332453	
		Diuron	8.0E-04	U	ug/L	P332453	
		Fenuron	0.0080	U	ug/L	P332453	
		Imidacloprid	0.0023	I	ug/L	P332453	
		Bentazon	8.0E-04	U	ug/L	P332453	MS
		Linuron	0.0040	U	ug/L	P332453	
		Acetaminophen**	0.0080	U	ug/L	P332453	
		MCP	0.0020	U	ug/L	P332453	
		Carbamazepine**	4.0E-04	U	ug/L	P332453	
		Triclopyr**	0.0040	U	ug/L	P332453	
		Primidone**	0.0040	U	ug/L	P332453	
		Fluridone**	4.0E-04	U	ug/L	P332453	

Ref. Method and Comment:

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

Sample Location: FIELD BLANK

Collection Date/Time: 09/28/2017 12:40

Field ID: FIELD BLANK

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932930	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P332489	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P332576	
		Sulfate	0.20	U	mg SO4/L	P332578	
	SM 2120 B	Color (true)	2.5	U	PCU	P332472	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P332668	
	SM 2540 C-97	TDS	15	U	mg/L	P333014	
	SM 2540 D-97	TSS	2	U	mg/L	P332950	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P332671	MS
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P332819	

Field ID: FIELD BLANK

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932936	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P332714	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P332861	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P332626	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P332874	
1932942	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P332477	

Sample Location: FIELD BLANK

Collection Date/Time: 09/28/2017 12:40

Field ID: FIELD BLANK

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932962	EPA 8321B	Sucralose**	0.010	U	ug/L	P332452	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P332453	
		Diuron	8.0E-04	U	ug/L	P332453	
		Fenuron	0.0080	U	ug/L	P332453	
		Imidacloprid	8.0E-04	U	ug/L	P332453	
		Bentazon	8.0E-04	U	ug/L	P332453	MS
		Linuron	0.0040	U	ug/L	P332453	
		Acetaminophen**	0.0080	U	ug/L	P332453	
		MCP	0.0020	U	ug/L	P332453	
		Carbamazepine**	4.0E-04	U	ug/L	P332453	
		Triclopyr**	0.0040	U	ug/L	P332453	
		Primidone**	0.0040	U	ug/L	P332453	
		Fluridone**	4.0E-04	U	ug/L	P332453	

Ref. Method and Comment:

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

Sample Location: Caney Creek @ Hwy 2A

Collection Date/Time: 09/28/2017 13:50

Field ID: G4NW0397

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932931	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P332489	
	EPA 300.0 Rev. 2.1	Chloride	5.5		mg Cl/L	P332576	
		Sulfate	0.37	I	mg SO4/L	P332578	
	SM 2120 B	Color (true)	51		PCU	P332472	
	SM 2320 B-97	Total Alkalinity	6.2		mg CaCO3/L	P332839	
	SM 2540 C-97	TDS	28		mg/L	P333015	
	SM 2540 D-97	TSS	2	I	mg/L	P332951	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P332842	
1932937	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P332819	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20		mg N/L	P332714	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P332861	
	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P332626	
	SM 5310 B-00	Organic Carbon	3.5		mg C/L	P332874	
1932943	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.027		mg P/L	P332477	

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: Eightmile Creek @ CR 181

Collection Date/Time: 09/28/2017 14:30

Field ID: G3NW0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932932	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P332489	
	EPA 300.0 Rev. 2.1	Chloride	2.8	A	mg Cl/L	P332576	
		Sulfate	0.81	A	mg SO4/L	P332578	
	SM 2120 B	Color (true)	67	A	PCU	P332473	
	SM 2320 B-97	Total Alkalinity	33		mg CaCO3/L	P332839	
	SM 2540 C-97	TDS	51		mg/L	P333015	
	SM 2540 D-97	TSS	3	I	mg/L	P332951	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P332842	
1932938	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P332819	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P332714	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P332862	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P332626	
	SM 5310 B-00	Organic Carbon	5.2		mg C/L	P332874	
1932944	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P332477	

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: Long Creek upstream of C.R. 2

Collection Date/Time: 09/28/2017 15:10

Field ID: G4NW0304

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932933	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P332489	
	EPA 300.0 Rev. 2.1	Chloride	4.7		mg Cl/L	P332576	
		Sulfate	0.45	I	mg SO4/L	P332578	
	SM 2120 B	Color (true)	59		PCU	P332473	
	SM 2320 B-97	Total Alkalinity	8.7		mg CaCO3/L	P332839	
	SM 2540 C-97	TDS	41		mg/L	P333015	
	SM 2540 D-97	TSS	3	I	mg/L	P332951	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P332842	
1932939	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P332819	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.25		mg N/L	P332714	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P332862	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P332626	
	SM 5310 B-00	Organic Carbon	4.0		mg C/L	P332874	
1932945	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P332477	

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: P332489

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332576

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332578

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332819

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332714

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332861

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332862

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332626

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332477

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

Reference Method: EPA 8321B
Batch ID: P332452

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P332472

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P332473

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P332668

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

Reference Method: SM 2320 B-97
Batch ID: P332839

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

Reference Method: SM 2540 C-97
Batch ID: P333014

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P333015

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P332950

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P332951

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P332671

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P332842

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P332874

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

Reference Method: USGS O-2060-01
Batch ID: P332453

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332576

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332578

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332819

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332714

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.4		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332861

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332862

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332626

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: P332477

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

Reference Method: EPA 8321B
Batch ID: P332452

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	77.3		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P332668

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Reference Method: SM 2320 B-97
Batch ID: P332839

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P332671

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P332842

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.4		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P332874

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.0		P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P332453

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	69.0		P	40 - 150
Acetaminophen	99.8		P	30 - 150
Bentazon	45.4		P	40 - 150
Carbamazepine	110		P	40 - 150
Diuron	99.9		P	40 - 150
Fenuron	104		P	40 - 150
Fluridone	101		P	40 - 150
Imidacloprid	99.9		P	40 - 160
Linuron	98.8		P	40 - 150
MCP	68.5		P	40 - 150
Primidone	103		P	40 - 150
Triclopyr	68.9		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P332576

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932931	Chloride	97.4		P	90 - 110
1932932	Chloride	97.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P332578

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932931	Sulfate	99.2		P	90 - 110
1932932	Sulfate	99.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P332819

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932890	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P332714

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932937	Kjeldahl Nitrogen	102	99.0	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332861

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932852	NO2NO3-N	105	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932938	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332626

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932988	Total-P	94.0	97.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332477

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932944	O-Phosphate-P	97.3	98.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P332452

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932875	Sucralose	149	85.4	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P332671

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932743	Fluoride	106	106	F/F	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P332842

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932985	Fluoride	96.1	95.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P332874

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932889	Organic Carbon	93.4	94.6	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P332453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932874	2,4-D	62.2	67.3	P/P	40 - 150
1932874	Acetaminophen	76.5	84.4	P/P	30 - 150
1932874	Bentazon	30.0	36.6	F/F	40 - 150
1932874	Carbamazepine	80.6	84.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
 Batch ID: P332453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932874	Diuron	63.6	64.9	P/P	40 - 150
1932874	Fenuron	77.9	83.3	P/P	40 - 150
1932874	Fluridone	59.2	50.5	P/P	40 - 150
1932874	Linuron	86.6	88.2	P/P	40 - 150
1932874	MCP	50.8	53.2	P/P	40 - 150
1932874	Primidone	86.2	87.6	P/P	40 - 150
1932874	Triclopyr	47.3	48.7	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P332489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932854	Turbidity	7.59	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P332576

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932932	Chloride	1.65	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P332578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932932	Sulfate	9.75	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P332819

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932890	Ammonia-N	0.392	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P332714

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932937	Kjeldahl Nitrogen	2.76	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P332861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932852	NO2NO3-N	0.264	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932938	NO2NO3-N	0.284	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332626

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932988	Total-P	3.63	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332477

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932944	O-Phosphate-P	1.43	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P332452

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932875	Sucralose	27.7	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P332472

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932848	Color (true)	1.36	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P332473

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932932	Color (true)	0.458	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P332668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932743	Total Alkalinity	0.548	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P332839

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932985	Total Alkalinity	0.401	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P333014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932842	TDS	4.03	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P333015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932888	TDS	5.13	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P332950

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932842	TSS	5.41	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P332671

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932743	Fluoride	0.492	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P332842

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932985	Fluoride	0.492	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P332874

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932889	Organic Carbon	0.909	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P332453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932874	2,4-D	7.10	Spike	P	0 - 30
1932874	Acetaminophen	9.89	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
 Batch ID: P332453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932874	Bentazon	7.20	Spike	P	0 - 30
1932874	Carbamazepine	4.42	Spike	P	0 - 30
1932874	Diuron	1.06	Spike	P	0 - 30
1932874	Fenuron	6.75	Spike	P	0 - 30
1932874	Fluridone	10.3	Spike	P	0 - 30
1932874	Imidacloprid	2.85	Spike	P	0 - 30
1932874	Linuron	1.78	Spike	P	0 - 30
1932874	MCP	4.73	Spike	P	0 - 30
1932874	Primidone	1.63	Spike	P	0 - 30
1932874	Triclopyr	2.79	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: 1932960
 Field Sample ID: G3NW0409

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	84.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.5	P	30 - 160
EPA 8321B	Diuron-d6	73.1	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	77.1	P	40 - 160
USGS O-2060-01	2,4-D-d3	52.5	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	84.8	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	99.5	P	30 - 160
USGS O-2060-01	Diuron-d6	73.1	P	30 - 160
USGS O-2060-01	Primidone-d5	111	P	30 - 160
USGS O-2060-01	Sucralose-d6	77.1	P	40 - 160

Lab Sample ID: 1932961
 Field Sample ID: G4NW0409DUPLICATE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	87.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	120	P	30 - 160
EPA 8321B	Diuron-d6	87.8	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	83.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	58.6	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	87.0	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	120	P	30 - 160
USGS O-2060-01	Diuron-d6	87.8	P	30 - 160
USGS O-2060-01	Primidone-d5	109	P	30 - 160
USGS O-2060-01	Sucralose-d6	83.0	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1932962
 Field Sample ID: FIELD BLANK

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	135	P	30 - 160
EPA 8321B	Carbamazepine-d10	107	P	30 - 160
EPA 8321B	Diuron-d6	93.4	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	76.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	64.8	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	135	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	107	P	30 - 160
USGS O-2060-01	Diuron-d6	93.4	P	30 - 160
USGS O-2060-01	Primidone-d5	101	P	30 - 160
USGS O-2060-01	Sucralose-d6	76.0	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
 Run ID: A79203
 Included Lab Sample IDs: 1932928, 1932929, 1932930, 1932931, 1932932, 1932933

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	98.2	P/P	90 - 110
Chloride	98.2	99.0	P/P	90 - 110
Sulfate	103	98.6	P/P	90 - 110
Sulfate	98.6	101	P/P	90 - 110

Reference Method: SM 2120 B
 Run ID: A79248
 Included Lab Sample IDs: 1932928, 1932929, 1932930, 1932931, 1932932, 1932933

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.6	98.5	P/P	85 - 115
Color (true)	98.5	98.8	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Run ID: A79251
 Included Lab Sample IDs: 1932940, 1932941, 1932942, 1932943, 1932944, 1932945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.7	P/P	90 - 110
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	97.6	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
 Run ID: A79255
 Included Lab Sample IDs: 1932928, 1932929, 1932930, 1932931, 1932932, 1932933

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A79318

Included Lab Sample IDs: 1932928, 1932929, 1932930

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	99.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A79318

Included Lab Sample IDs: 1932928, 1932929, 1932930

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79355

Included Lab Sample IDs: 1932934, 1932935, 1932936, 1932937, 1932938, 1932939

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A79368

Included Lab Sample IDs: 1932934, 1932935, 1932936, 1932937, 1932938, 1932939

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

Reference Method: SM 2320 B-97

Run ID: A79374

Included Lab Sample IDs: 1932931, 1932932, 1932933

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	99.2	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A79374

Included Lab Sample IDs: 1932931, 1932932, 1932933

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	99.5	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A79377

Included Lab Sample IDs: 1932960, 1932961, 1932962

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	95.5	105	P/P	50 - 150
Acetaminophen	103	105	P/P	60 - 150
Bentazon	117	118	P/P	50 - 150
Carbamazepine	108	109	P/P	60 - 150
Diuron	106	100	P/P	60 - 150
Fenuron	104	102	P/P	60 - 150
Fluridone	104	105	P/P	60 - 160
Imidacloprid	93.7	96.9	P/P	60 - 150
Linuron	106	103	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A79377

Included Lab Sample IDs: 1932960, 1932961, 1932962

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MCP	98.5	96.8	P/P	50 - 150
Primidone	97.3	84.0	P/P	60 - 150
Tricopyr	101	101	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A79383

Included Lab Sample IDs: 1932934, 1932935, 1932936, 1932937, 1932938, 1932939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO ₂ NO ₃ -N	102	102	P/P	90 - 110
NO ₂ NO ₃ -N	102	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A79389

Included Lab Sample IDs: 1932934, 1932935, 1932936, 1932937, 1932938, 1932939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.6	96.0	P/P	90 - 110
Organic Carbon	97.0	95.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79434

Included Lab Sample IDs: 1932934, 1932935, 1932936, 1932937, 1932938, 1932939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.1	96.8	P/P	90 - 110
Kjeldahl Nitrogen	96.8	97.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A79445

Included Lab Sample IDs: 1932960, 1932961, 1932962

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	111	105	P/P	60 - 150

* 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				7.59	
EPA 300.0 Rev. 2.1	Chloride	98.0	97.8 97.4		1.65	
	Sulfate	100	99.4 99.2		9.75	
EPA 350.1 Rev. 2.0	Ammonia-N	99.0	101 101			0.392
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.4	102 99.0			2.76
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	106	105 104			0.264

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 353.2 Rev. 2.0	NO2NO3-N	106	106	106		0.284
EPA 365.1 Rev. 2.0	Total-P	100	94.0	97.7		3.63
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104	97.3	98.7		1.43
EPA 8321B	Sucralose	77.3	149	85.4		27.7
SM 2120 B	Color (true)				1.36	
	Color (true)				0.458	
SM 2320 B-97	Total Alkalinity	102			0.548	
	Total Alkalinity	101			0.401	
SM 2540 C-97	TDS				4.03	
	TDS				5.13	
SM 2540 D-97	TSS				5.41	
SM 4500 F-C-97	Fluoride	98.3	106	106		0.492
	Fluoride	95.4	96.1	95.6		0.492
SM 5310 B-00	Organic Carbon	95.0	93.4	94.6		0.909
USGS O-2060-01	2,4-D	69.0	62.2	67.3		7.10
	Acetaminophen	99.8	76.5	84.4		9.89
	Bentazon	45.4	30.0	36.6		7.20
	Carbamazepine	110	80.6	84.2		4.42
	Diuron	99.9	63.6	64.9		1.06
	Fenuron	104	77.9	83.3		6.75
	Fluridone	101	59.2	50.5		10.3
	Imidacloprid	99.9				2.85
	Linuron	98.8	86.6	88.2		1.78
	MCPP	68.5	50.8	53.2		4.73
	Primidone	103	86.2	87.6		1.63
	Triclopyr	68.9	47.3	48.7		2.79

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1932928, 1932929, 1932930, 1932931, 1932932, 1932933
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1932928, 1932929, 1932930, 1932931, 1932932, 1932933
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1932928, 1932929, 1932930, 1932931, 1932932, 1932933
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1932934, 1932935, 1932936, 1932937, 1932938, 1932939
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1932934, 1932935, 1932936, 1932937, 1932938, 1932939
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1932934, 1932935, 1932936, 1932937, 1932938, 1932939
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1932934, 1932935, 1932936, 1932937, 1932938, 1932939
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1932940, 1932941, 1932942, 1932943, 1932944, 1932945
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1932960, 1932961, 1932962
SM 2120 B / E31780	True Color measured at 450 nm	1932928, 1932929, 1932930, 1932931, 1932932, 1932933
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1932928, 1932929, 1932930, 1932931, 1932932, 1932933
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1932928, 1932929, 1932930, 1932931, 1932932, 1932933
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1932928, 1932929, 1932930, 1932931, 1932932, 1932933

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1932928, 1932929, 1932930, 1932931, 1932932, 1932933
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1932934, 1932935, 1932936, 1932937, 1932938, 1932939
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1932960, 1932961, 1932962
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1932960, 1932961, 1932962

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	09/29/2017			09/29/2017 14:45	DeAsia Armster	1932928, 1932929, 1932930, 1932931, 1932932, 1932933
EPA 300.0 Rev. 2.1	09/29/2017			09/29/2017	Julia Storbeck	1932931, 1932932
	09/29/2017			09/30/2017	Julia Storbeck	1932928, 1932929, 1932930, 1932933
EPA 350.1 Rev. 2.0	09/29/2017			10/05/2017	Sofia Elnemr	1932934, 1932935, 1932936, 1932937, 1932938, 1932939
EPA 351.2 Rev. 2.0	09/29/2017	10/04/2017	Adrian Shelby	10/06/2017	Joseph Suarez	1932934, 1932935, 1932936, 1932937, 1932938, 1932939
EPA 353.2 Rev. 2.0	09/29/2017			10/06/2017	Beverly Y. Sanders	1932934, 1932935, 1932936, 1932937, 1932938, 1932939
EPA 365.1 Rev. 2.0	09/29/2017	10/03/2017	Sima Feizi	10/05/2017	Lipi Saha	1932934, 1932935, 1932936, 1932937, 1932938, 1932939
EPA 365.1 Rev. 2.0 dissolved	09/29/2017			09/29/2017 14:52	Megan Treadwell	1932944
	09/29/2017			09/29/2017 15:17	Megan Treadwell	1932940
	09/29/2017			09/29/2017 15:18	Megan Treadwell	1932941
	09/29/2017			09/29/2017 15:19	Megan Treadwell	1932942
	09/29/2017			09/29/2017 15:20	Megan Treadwell	1932943
	09/29/2017			09/29/2017 15:25	Megan Treadwell	1932945
EPA 8321B	09/29/2017	10/04/2017	Hoor Shaik	10/06/2017	Juyoung Kim	1932960, 1932961, 1932962
SM 2120 B	09/29/2017			09/29/2017 14:45	Tanya Welborn	1932928
	09/29/2017			09/29/2017 14:46	Tanya Welborn	1932929
	09/29/2017			09/29/2017 14:47	Tanya Welborn	1932930
	09/29/2017			09/29/2017 14:48	Tanya Welborn	1932931
	09/29/2017			09/29/2017 14:51	Tanya Welborn	1932932
	09/29/2017			09/29/2017 14:52	Tanya Welborn	1932933
SM 2320 B-97	09/29/2017			10/04/2017	Dale L. Simmons	1932928, 1932929, 1932930
	09/29/2017			10/05/2017	Dale L. Simmons	1932931, 1932932, 1932933
SM 2540 C-97	09/29/2017			10/04/2017	Yijie Li	1932928, 1932929, 1932930, 1932931, 1932932, 1932933
SM 2540 D-97	09/29/2017			10/04/2017	Yijie Li	1932928, 1932929, 1932930, 1932931, 1932932, 1932933
SM 4500 F-C-97	09/29/2017			10/04/2017	Dale L. Simmons	1932928, 1932929, 1932930
	09/29/2017			10/05/2017	Dale L. Simmons	1932931, 1932932, 1932933
SM 5310 B-00	09/29/2017			10/06/2017	Ping Hua	1932934, 1932935, 1932936, 1932937, 1932938, 1932939
USGS O-2060-01	09/29/2017	10/04/2017	Hoor Shaik	10/07/2017	Julie Michelle Frank	1932960, 1932961, 1932962