

Chemical Analysis Report

SE-DIST-2017-10-19-01

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

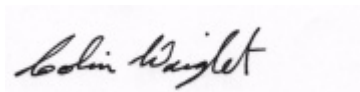
Event Description: **SMP-Dade Green Run**
Request ID: **RQ-2017-10-16-32**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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2199 South Rock Road
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Certified by: Colin Wright, Program Administrator

Date Certified: 22-NOV-2017 09:11

A handwritten signature in black ink, appearing to read "Colin Wright", is placed over a light gray rectangular background.

Case Narrative

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

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: C-100 / CUTLER DRAIN

Collection Date/Time: 10/18/2017 10:25

Field ID: G4SECD09

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938445	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P333720	
	EPA 300.0 Rev. 2.1	Chloride	35		mg Cl/L	P333836	
		Sulfate	12		mg SO4/L	P333840	
	SM 2120 B	Color (true)	7.8		PCU	P333745	
	SM 2320 B-97	Total Alkalinity	196		mg CaCO3/L	P333848	
	SM 2540 C-97	TDS	271		mg/L	P334314	
	SM 2540 D-97	TSS	2	U	mg/L	P334525	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P333856	
1938450	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P334087	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P334067	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P334095	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P333947	
	SM 5310 B-00	Organic Carbon	3.6		mg C/L	P334346	
1938455	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333754	
1938499	EPA 8321B	Sucralose**	0.010	U	ug/L	P333672	
	USGS O-2060-01	2,4-D	0.0020	UQ	ug/L	P335339	
		Diuron	9.8E-04	I	ug/L	P333877	
		Fenuron	0.0080	U	ug/L	P333877	
		Imidacloprid	0.0015	I	ug/L	P333877	MS
		Bentazon	8.0E-04	UQ	ug/L	P335339	
		Linuron	0.0040	U	ug/L	P333877	
		Acetaminophen**	0.0080	U	ug/L	P333877	
		MCP	0.0020	UQ	ug/L	P335339	
		Carbamazepine**	4.0E-04	U	ug/L	P333877	MS
		Triclopyr**	0.0040	UQ	ug/L	P335339	
		Primidone**	0.0040	U	ug/L	P333877	
		Fluridone**	0.0027		ug/L	P333877	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.

Sample Location: C-2 / SNAPPER CREEK

Collection Date/Time: 10/18/2017 11:00

Field ID: G4SE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938446	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P333720	
	EPA 300.0 Rev. 2.1	Chloride	44		mg Cl/L	P333836	
		Sulfate	1.6		mg SO4/L	P333840	
	SM 2120 B	Color (true)	50	A	PCU	P333745	
	SM 2320 B-97	Total Alkalinity	190		mg CaCO3/L	P334018	
	SM 2540 C-97	TDS	275		mg/L	P334314	
	SM 2540 D-97	TSS	2	U	mg/L	P334525	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P334462	
1938451	EPA 350.1 Rev. 2.0	Ammonia-N	0.31		mg N/L	P334087	

Field ID: G4SE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938451	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P334067	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P334095	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P334038	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P334346	
1938456	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333752	
1938500	EPA 8321B	Sucralose**	0.050		ug/L	P333672	
	USGS O-2060-01	2,4-D	0.0020	UQ	ug/L	P335339	
		Diuron	0.0017	I	ug/L	P333877	
		Fenuron	0.0080	U	ug/L	P333877	
		Imidacloprid	0.0030	I	ug/L	P333877	MS
		Bentazon	0.0048	Q	ug/L	P335339	
		Linuron	0.0040	U	ug/L	P333877	
		Acetaminophen**	0.0080	U	ug/L	P333877	
		MCP	0.0020	UQ	ug/L	P335339	
		Carbamazepine**	9.3E-04	I	ug/L	P333877	MS
		Triclopyr**	0.0040	UQ	ug/L	P335339	
		Primidone**	0.0040	U	ug/L	P333877	
		Fluridone**	0.0015	I	ug/L	P333877	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.

USGS O-2060-01: Results confirmed.

Sample Location: C-2 / SNAPPER CREEK

Collection Date/Time: 10/18/2017 11:15

Field ID: G4SE0097-DUPE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938447	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P333720	
	EPA 300.0 Rev. 2.1	Chloride	44		mg Cl/L	P333837	
		Sulfate	1.6		mg SO4/L	P333841	
	SM 2120 B	Color (true)	51		PCU	P333745	
	SM 2320 B-97	Total Alkalinity	190		mg CaCO3/L	P334018	
	SM 2540 C-97	TDS	271		mg/L	P334314	
	SM 2540 D-97	TSS	2	U	mg/L	P334525	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P334462	
1938452	EPA 350.1 Rev. 2.0	Ammonia-N	0.31		mg N/L	P334087	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P334067	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P334095	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P334038	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P334346	
1938457	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333752	
1938501	EPA 8321B	Sucralose**	0.046		ug/L	P333921	
	USGS O-2060-01	2,4-D	0.0020	UQ	ug/L	P335339	
		Diuron	0.0018	I	ug/L	P333877	
		Fenuron	0.0080	U	ug/L	P333877	

Field ID: G4SE0097-DUPE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938501	USGS O-2060-01	Imidacloprid	0.0023	I	ug/L	P333877	MS
		Bentazon	0.0051	Q	ug/L	P335339	
		Linuron	0.0040	U	ug/L	P333877	
		Acetaminophen**	0.0080	U	ug/L	P333877	
		MCP	0.0020	UQ	ug/L	P335339	
		Carbamazepine**	9.6E-04	I	ug/L	P333877	MS
		Triclopyr**	0.0040	UQ	ug/L	P335339	
		Primidone**	0.0040	U	ug/L	P333877	
		Fluridone**	0.0011	I	ug/L	P333877	

Ref. Method and Comment:

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

USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.

USGS O-2060-01: Results confirmed.

Sample Location: CORAL GABLES CANAL

Collection Date/Time: 10/18/2017 11:40

Field ID: G4SE0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938448	EPA 180.1 Rev. 2.0	Turbidity	4.6		NTU	P333720	
	EPA 300.0 Rev. 2.1	Chloride	30		mg Cl/L	P333837	
		Sulfate	19		mg SO4/L	P333841	
		Color (true)	6.0	I	PCU	P333745	
	SM 2320 B-97	Total Alkalinity	227		mg CaCO3/L	P333927	
	SM 2540 C-97	TDS	298		mg/L	P334314	
	SM 2540 D-97	TSS	2	I	mg/L	P334525	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P333928	
	EPA 350.1 Rev. 2.0	Ammonia-N	1.0		mg N/L	P334087	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P334067	
1938453	EPA 353.2 Rev. 2.0	NO2NO3-N	0.31		mg N/L	P334095	
	EPA 365.1 Rev. 2.0	Total-P	0.060		mg P/L	P334038	
	SM 5310 B-00	Organic Carbon	2.8		mg C/L	P334346	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.01	I	mg P/L	P333754	
	dissolved						
1938502	EPA 8321B	Sucralose**	2.1		ug/L	P333921	
	USGS O-2060-01	2,4-D	0.0020	UQ	ug/L	P335339	
		Diuron	0.010		ug/L	P333877	
		Fenuron	0.0080	U	ug/L	P333877	
		Imidacloprid	0.0022	I	ug/L	P333877	MS
		Bentazon	0.0042	Q	ug/L	P335339	
		Linuron	0.0040	U	ug/L	P333877	
		Acetaminophen**	0.0080	U	ug/L	P333877	
		MCP	0.0020	UQ	ug/L	P335339	
		Carbamazepine**	0.15		ug/L	P333877	MS
		Triclopyr**	0.0040	UQ	ug/L	P335339	
		Primidone**	0.022		ug/L	P333877	
		Fluridone**	0.0024		ug/L	P333877	

Field ID: G4SE0096

Matrix: W-SURF-FRH

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.							
USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.							

Sample Location: C-6 / MIAMI CANAL (WEST)

Collection Date/Time: 10/18/2017 12:25

Field ID: G4SE0094

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938460	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P333720	
	EPA 300.0 Rev. 2.1	Chloride	60		mg Cl/L	P333837	
		Sulfate	6.3		mg SO4/L	P333841	
	SM 2120 B	Color (true)	54		PCU	P333745	
	SM 2320 B-97	Total Alkalinity	191		mg CaCO3/L	P333925	
	SM 2540 C-97	TDS	315	A	mg/L	P334314	
	SM 2540 D-97	TSS	2	IA	mg/L	P334525	
	SM 4500 F-C-97	Fluoride	0.28		mg F/L	P334462	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P334087	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P334067	
1938462	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P334095	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P334038	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P334346	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333754	
	EPA 8321B	Sucralose**	0.029	I	ug/L	P333921	
1938504	USGS O-2060-01	2,4-D	0.0048	IQ	ug/L	P335339	
		Diuron	8.0E-04	U	ug/L	P333877	
		Fenuron	0.0080	U	ug/L	P333877	
		Imidacloprid	0.0061		ug/L	P333877	MS
		Bentazon	0.040	Q	ug/L	P335339	
		Linuron	0.0040	U	ug/L	P333877	
		Acetaminophen**	0.0080	U	ug/L	P333877	
		MCP	0.0020	UQ	ug/L	P335339	
		Carbamazepine**	4.0E-04	U	ug/L	P333877	MS
		Triclopyr**	0.0040	UQ	ug/L	P335339	
		Primidone**	0.0040	U	ug/L	P333877	
		Fluridone**	7.7E-04	I	ug/L	P333877	
	EPA 200.7 Rev. 4.4	Calcium	62.7		mg/L	P333876	
		Iron	160		ug/L	P333876	
		Magnesium	11.9		mg/L	P333876	
1938506		Potassium	3.5		mg/L	P333876	
		Sodium	41.1		mg/L	P333876	
		Zinc	5.0	U	ug/L	P333876	
	EPA 200.8 Rev. 5.4	Arsenic	0.89		ug/L	P333876	
		Cadmium	0.020	U	ug/L	P333876	
		Chromium	0.40	U	ug/L	P333876	
		Copper	0.26	I	ug/L	P333876	
		Lead	0.061	I	ug/L	P333876	

Field ID: G4SE0094

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938506	EPA 200.8 Rev. 5.4	Nickel	0.22	I	ug/L	P334745	
		Selenium	0.20	U	ug/L	P333876	
		Silver	0.010	U	ug/L	P333876	

Ref. Method and Comment:

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

USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.

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

Sample Location: C-6 @ NW 118th AVE

Collection Date/Time: 10/18/2017 12:45

Field ID: G4SE0101

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938461	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P333721	
	EPA 300.0 Rev. 2.1	Chloride	60		mg Cl/L	P333837	
		Sulfate	6.3		mg SO4/L	P333841	
	SM 2120 B	Color (true)	54		PCU	P333745	
	SM 2320 B-97	Total Alkalinity	192		mg CaCO3/L	P333925	
	SM 2540 C-97	TDS	313		mg/L	P334314	
	SM 2540 D-97	TSS	3	I	mg/L	P334525	
	SM 4500 F-C-97	Fluoride	0.28		mg F/L	P333926	
1938463	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P334087	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P334067	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P334096	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P334038	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P334346	
1938465	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333754	
1938505	EPA 8321B	Sucralose**	0.026	I	ug/L	P333921	
	USGS O-2060-01	2,4-D	0.0048	IQ	ug/L	P335339	
		Diuron	8.0E-04	U	ug/L	P333877	
		Fenuron	0.0080	U	ug/L	P333877	
		Imidacloprid	0.0063		ug/L	P333877	MS
		Bentazon	0.040	Q	ug/L	P335339	
		Linuron	0.0040	U	ug/L	P333877	
		Acetaminophen**	0.0080	U	ug/L	P333877	
		MCP	0.0020	UQ	ug/L	P335339	
		Carbamazepine**	4.0E-04	U	ug/L	P333877	MS
		Triclopyr**	0.0040	UQ	ug/L	P335339	
		Primidone**	0.0040	U	ug/L	P333877	
		Fluridone**	0.0014	I	ug/L	P333877	
1938507	EPA 200.7 Rev. 4.4	Calcium	63.0		mg/L	P333876	
		Iron	150		ug/L	P333876	
		Magnesium	11.8		mg/L	P333876	
		Potassium	3.5		mg/L	P333876	
		Sodium	41.4		mg/L	P333876	
		Zinc	5.0	U	ug/L	P333876	

Field ID: G4SE0101

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938507	EPA 200.8 Rev. 5.4	Arsenic	0.91		ug/L	P333876	
		Cadmium	0.020	U	ug/L	P333876	
		Chromium	0.40	U	ug/L	P333876	
		Copper	0.34	I	ug/L	P333876	
		Lead	0.062	I	ug/L	P333876	
		Nickel	0.22	I	ug/L	P334745	
		Selenium	0.20	U	ug/L	P333876	
		Silver	0.010	U	ug/L	P333876	

Ref. Method and Comment:

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

USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.

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

Sample Location: SNAKE CREEK CANAL

Collection Date/Time: 10/18/2017 13:30

Field ID: 28040381

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938449	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P333720	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P333837	
		Sulfate	3.7		mg SO4/L	P333841	
	SM 2120 B	Color (true)	26		PCU	P333745	
	SM 2320 B-97	Total Alkalinity	147		mg CaCO3/L	P333925	
	SM 2540 C-97	TDS	211		mg/L	P334314	
	SM 2540 D-97	TSS	2	U	mg/L	P334525	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P333926	
1938454	EPA 350.1 Rev. 2.0	Ammonia-N	0.082		mg N/L	P334087	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.79		mg N/L	P334067	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P334095	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P334038	
	SM 5310 B-00	Organic Carbon	8.5		mg C/L	P334346	
1938459	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333754	
1938503	EPA 8321B	Sucralose**	0.25		ug/L	P333921	
	USGS O-2060-01	2,4-D	0.023	Q	ug/L	P335339	
		Diuron	0.0073		ug/L	P333877	
		Fenuron	0.0080	U	ug/L	P333877	
		Imidacloprid	0.044		ug/L	P333877	MS
		Bentazon	0.016	Q	ug/L	P335339	
		Linuron	0.0040	U	ug/L	P333877	
		Acetaminophen**	0.0080	U	ug/L	P333877	
		MCP	0.0020	UQ	ug/L	P335339	
		Carbamazepine**	0.0017		ug/L	P333877	MS
		Triclopyr**	0.0040	UQ	ug/L	P335339	
		Primidone**	0.0040	U	ug/L	P333877	
		Fluridone**	0.029		ug/L	P333877	

Field ID: 28040381

Matrix: W-SURF-FRH

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.							
USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.							

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P333720

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P333721

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P333876

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P333876

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334745

Component	Result	Code	Units
Nickel	0.20	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333836

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333837

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333840

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333841

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334087

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334067

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334095

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334096

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333947

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334038

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333752

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333754

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

Reference Method: EPA 8321B
Batch ID: P333672

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P333921

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P333745

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P333848

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

Reference Method: SM 2320 B-97
Batch ID: P333925

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

Reference Method: SM 2320 B-97
Batch ID: P333927

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

Reference Method: SM 2320 B-97
Batch ID: P334018

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P334314

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P334525

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P333856

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P333926

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P333928

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P334462

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P334346

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

Reference Method: USGS O-2060-01
Batch ID: P333877

Component	Result	Code	Units
Acetaminophen	0.0080	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
Primidone	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P335339

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
MCP	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P333876

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	103		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	103		P	85 - 115
Sodium	102		P	85 - 115
Zinc	99.5		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P333876

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	102		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	98.7		P	85 - 115
Copper	101		P	85 - 115
Lead	96.9		P	85 - 115
Selenium	99.3		P	85 - 115
Silver	96.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Nickel	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333836

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333837

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333840

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333841

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334087

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334067

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	108		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334095

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334096

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333947

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334038

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333752

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333754

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

Reference Method: EPA 8321B
Batch ID: P333672

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	81.5		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P333921

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	105		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P333848

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

Reference Method: SM 2320 B-97
Batch ID: P333925

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

Reference Method: SM 2320 B-97
Batch ID: P333927

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

Reference Method: SM 2320 B-97
Batch ID: P334018

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

Reference Method: SM 4500 F-C-97
Batch ID: P333856

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

Reference Method: SM 4500 F-C-97
Batch ID: P333926

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.5		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
 Batch ID: P333928

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	92 - 103

Reference Method: SM 4500 F-C-97
 Batch ID: P334462

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.1		P	92 - 103

Reference Method: SM 5310 B-00
 Batch ID: P334346

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P333877

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	77.5		P	30 - 150
Carbamazepine	128		P	40 - 150
Diuron	111		P	40 - 150
Fenuron	109		P	40 - 150
Fluridone	114		P	40 - 150
Imidacloprid	96.1		P	40 - 160
Linuron	110		P	40 - 150
Primidone	106		P	40 - 150

Reference Method: USGS O-2060-01
 Batch ID: P335339

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	97.9		P	40 - 150
Bentazon	84.9		P	30 - 150
MCP	81.1		P	40 - 150
Triclopyr	81.4		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P333876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938323	Iron	103		P	75 - 125
1938323	Magnesium	104		P	75 - 125
1938323	Potassium	105	101	P/P	75 - 125
1938323	Sodium	103		P	75 - 125
1938323	Zinc	97.9	96.9	P/P	75 - 125
1938507	Calcium	99.1		P	80 - 120
1938507	Iron	105		P	80 - 120
1938507	Magnesium	103		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P333876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938507	Potassium	98.3		P	80 - 120
1938507	Sodium	101		P	80 - 120
1938507	Zinc	99.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P333876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938323	Arsenic	105	101	P/P	75 - 125
1938323	Cadmium	104	102	P/P	75 - 125
1938323	Chromium	95.6	94.4	P/P	75 - 125
1938323	Copper	97.9	96.3	P/P	75 - 125
1938323	Lead	98.4	97.5	P/P	75 - 125
1938323	Selenium	100	96.7	P/P	75 - 125
1938323	Silver	96.4	95.1	P/P	75 - 125
1938507	Arsenic	99.5		P	80 - 120
1938507	Cadmium	99.2		P	80 - 120
1938507	Chromium	93.2		P	80 - 120
1938507	Copper	94.4		P	80 - 120
1938507	Lead	95.6		P	80 - 120
1938507	Selenium	97.0		P	80 - 120
1938507	Silver	93.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938506	Nickel	100		P	80 - 120
1942857	Nickel	101	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333836

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938063	Chloride	100		P	90 - 110
1938064	Chloride	99.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938615	Chloride	105		P	90 - 110
1938621	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333840

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938063	Sulfate	99.0		P	90 - 110
1938064	Sulfate	98.4		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938615	Sulfate	103		P	90 - 110
1938621	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334087

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938450	Ammonia-N	97.5	95.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938452	Kjeldahl Nitrogen	96.0	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334095

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938392	NO2NO3-N	99.5	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938463	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938450	Total-P	96.0	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334038

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938451	Total-P	99.3	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938078	O-Phosphate-P	97.8	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333754

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938455	O-Phosphate-P	96.9	92.6	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P333672

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1937810	Sucralose	54.8	53.2	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P333921

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938505	Sucralose	61.0	61.4	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P333856

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938387	Fluoride	103	104	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P333926

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938516	Fluoride	95.9	96.4	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P333928

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938577	Fluoride	96.8	98.0	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P334462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939076	Fluoride	98.6	102	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P334346

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938453	Organic Carbon	99.6	100	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P333877

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938443	Acetaminophen	119	115	P/P	30 - 150
1938443	Carbamazepine	154	147	F/P	40 - 150
1938443	Diuron	115	106	P/P	40 - 150
1938443	Fenuron	106	105	P/P	40 - 150
1938443	Fluridone	125	108	P/P	40 - 150
1938443	Imidacloprid	173	167	F/F	40 - 160
1938443	Linuron	120	114	P/P	40 - 150
1938443	Primidone	130	117	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P335339

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938672	2,4-D	76.7	84.3	P/P	40 - 150
1938672	Bentazon	69.2	66.4	P/P	30 - 150
1938672	MCP	58.9	58.9	P/P	40 - 150
1938672	Triclopyr	54.0	59.8	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P333720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938421	Turbidity	2.95	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P333721

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938515	Turbidity	0.959	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P333876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938323	Calcium	1.40	Spike	P	0 - 20
1938323	Iron	1.35	Spike	P	0 - 20
1938323	Magnesium	1.16	Spike	P	0 - 20
1938323	Potassium	1.73	Spike	P	0 - 20
1938323	Sodium	0.0153	Spike	P	0 - 20
1938323	Zinc	1.00	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P333876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938323	Arsenic	2.37	Spike	P	0 - 20
1938323	Cadmium	1.98	Spike	P	0 - 20
1938323	Chromium	1.14	Spike	P	0 - 20
1938323	Copper	1.26	Spike	P	0 - 20
1938323	Lead	0.974	Spike	P	0 - 20
1938323	Selenium	3.44	Spike	P	0 - 20
1938323	Silver	1.37	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1942857	Nickel	0.222	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938064	Chloride	1.39	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938621	Chloride	0.470	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938621	Sulfate	0.371	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938450	Ammonia-N	1.46	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938452	Kjeldahl Nitrogen	3.77	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938392	NO2NO3-N	0.795	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938463	NO2NO3-N	1.33	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938450	Total-P	3.88	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334038

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938451	Total-P	0.565	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938078	O-Phosphate-P	4.12	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333754

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938455	O-Phosphate-P	4.54	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P333672

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1937810	Sucralose	2.12	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P333921

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938505	Sucralose	0.562	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P333745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938446	Color (true)	0.644	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P333848

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938387	Total Alkalinity	0.456	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P333925

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938516	Total Alkalinity	3.76	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P333927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938577	Total Alkalinity	0.118	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P334018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939076	Total Alkalinity	0.334	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P334314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938460	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P333856

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938387	Fluoride	0.948	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P333926

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938516	Fluoride	0.471	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P333928

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938577	Fluoride	0.982	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P334462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939076	Fluoride	2.95	Spike	P	0 - 3.0

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P334346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938453	Organic Carbon	0.702	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P333877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938443	Acetaminophen	3.60	Spike	P	0 - 30
1938443	Carbamazepine	4.38	Spike	P	0 - 30
1938443	Diuron	8.17	Spike	P	0 - 30
1938443	Fenuron	1.12	Spike	P	0 - 30
1938443	Fluridone	14.2	Spike	P	0 - 30
1938443	Imidacloprid	3.83	Spike	P	0 - 30
1938443	Linuron	4.53	Spike	P	0 - 30
1938443	Primidone	10.8	Spike	P	0 - 30

Reference Method: USGS O-2060-01
Batch ID: P335339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938672	2,4-D	5.24	Spike	P	0 - 30
1938672	Bentazon	2.28	Spike	P	0 - 30
1938672	MCP	0.0	Spike	P	0 - 30
1938672	Triclopyr	10.2	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: 1938499
Field Sample ID: G4SECD09

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	86.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	144	P	30 - 160
EPA 8321B	Diuron-d6	105	P	30 - 160
EPA 8321B	Primidone-d5	115	P	30 - 160
EPA 8321B	Sucralose-d6	68.2	P	40 - 160
USGS O-2060-01	2,4-D-d3	52.4	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	86.3	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	144	P	30 - 160
USGS O-2060-01	Diuron-d6	105	P	30 - 160
USGS O-2060-01	Primidone-d5	115	P	30 - 160
USGS O-2060-01	Sucralose-d6	68.2	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1938500
Field Sample ID: G4SE0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	92.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	112	P	30 - 160
EPA 8321B	Diuron-d6	77.9	P	30 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Sucralose-d6	67.2	P	40 - 160
USGS O-2060-01	2,4-D-d3	49.2	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	92.7	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	112	P	30 - 160
USGS O-2060-01	Diuron-d6	77.9	P	30 - 160
USGS O-2060-01	Primidone-d5	103	P	30 - 160
USGS O-2060-01	Sucralose-d6	67.2	P	40 - 160

Lab Sample ID: 1938501
Field Sample ID: G4SE0097-DUPE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	99.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	111	P	30 - 160
EPA 8321B	Diuron-d6	84.6	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	66.6	P	40 - 160
USGS O-2060-01	2,4-D-d3	49.6	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	99.9	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	111	P	30 - 160
USGS O-2060-01	Diuron-d6	84.6	P	30 - 160
USGS O-2060-01	Primidone-d5	108	P	30 - 160
USGS O-2060-01	Sucralose-d6	66.6	P	40 - 160

Lab Sample ID: 1938502
Field Sample ID: G4SE0096

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	89.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	139	P	30 - 160
EPA 8321B	Diuron-d6	101	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	65.4	P	40 - 160
USGS O-2060-01	2,4-D-d3	40.0	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	89.3	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	139	P	30 - 160
USGS O-2060-01	Diuron-d6	101	P	30 - 160
USGS O-2060-01	Primidone-d5	111	P	30 - 160
USGS O-2060-01	Sucralose-d6	65.4	P	40 - 160

Lab Sample ID: 1938503
Field Sample ID: 28040381

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	126	P	30 - 160
EPA 8321B	Diuron-d6	89.8	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1938503
Field Sample ID: 28040381

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	66.2	P	40 - 160
USGS O-2060-01	2,4-D-d3	69.3	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	106	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	126	P	30 - 160
USGS O-2060-01	Diuron-d6	89.8	P	30 - 160
USGS O-2060-01	Primidone-d5	113	P	30 - 160
USGS O-2060-01	Sucralose-d6	66.2	P	40 - 160

Lab Sample ID: 1938504
Field Sample ID: G4SE0094

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	100	P	30 - 160
EPA 8321B	Carbamazepine-d10	114	P	30 - 160
EPA 8321B	Diuron-d6	84.5	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	64.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	68.6	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	100	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	114	P	30 - 160
USGS O-2060-01	Diuron-d6	84.5	P	30 - 160
USGS O-2060-01	Primidone-d5	104	P	30 - 160
USGS O-2060-01	Sucralose-d6	64.0	P	40 - 160

Lab Sample ID: 1938505
Field Sample ID: G4SE0101

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	114	P	30 - 160
EPA 8321B	Diuron-d6	80.7	P	30 - 160
EPA 8321B	Primidone-d5	97.6	P	30 - 160
EPA 8321B	Sucralose-d6	67.4	P	40 - 160
USGS O-2060-01	2,4-D-d3	68.3	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	105	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	114	P	30 - 160
USGS O-2060-01	Diuron-d6	80.7	P	30 - 160
USGS O-2060-01	Primidone-d5	97.6	P	30 - 160
USGS O-2060-01	Sucralose-d6	67.4	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A79674
Included Lab Sample IDs: 1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A79682

Included Lab Sample IDs: 1938455, 1938456, 1938457, 1938458, 1938459, 1938464, 1938465

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	101	P/P	90 - 110
O-Phosphate-P	97.3	99.9	P/P	90 - 110
O-Phosphate-P	98.6	100	P/P	90 - 110
O-Phosphate-P	99.9	98.6	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A79684

Included Lab Sample IDs: 1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.6	100	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A79726

Included Lab Sample IDs: 1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Chloride	101	101	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A79730

Included Lab Sample IDs: 1938445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.0	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A79730

Included Lab Sample IDs: 1938445

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

Reference Method: SM 2320 B-97

Run ID: A79765

Included Lab Sample IDs: 1938448, 1938449, 1938460, 1938461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.2	102	P/P	90 - 110
Total Alkalinity	99.6	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A79765

Included Lab Sample IDs: 1938448, 1938449, 1938461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	99.0	P/P	90 - 110
Fluoride	98.1	98.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A79773

Included Lab Sample IDs: 1938506, 1938507

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	108	108	P/P	90 - 110
Cadmium	107	105	P/P	90 - 110
Chromium	105	98.7	P/P	90 - 110
Copper	107	109	P/P	90 - 110
Lead	102	103	P/P	90 - 110
Selenium	107	107	P/P	90 - 110
Silver	101	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A79774

Included Lab Sample IDs: 1938506, 1938507

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Iron	104	102	P/P	90 - 110
Magnesium	104	103	P/P	90 - 110
Potassium	101	100	P/P	90 - 110
Sodium	101	101	P/P	90 - 110
Zinc	98.3	96.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A79792

Included Lab Sample IDs: 1938446, 1938447

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79802

Included Lab Sample IDs: 1938450

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A79814

Included Lab Sample IDs: 1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	98.6	P/P	90 - 110
Ammonia-N	98.6	99.0	P/P	90 - 110
Ammonia-N	99.6	98.6	P/P	90 - 110
Ammonia-N	99.8	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A79823

Included Lab Sample IDs: 1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79825

Included Lab Sample IDs: 1938453

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79852

Included Lab Sample IDs: 1938451, 1938452, 1938454, 1938462, 1938463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	101	P/P	90 - 110
Total-P	97.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79896

Included Lab Sample IDs: 1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	97.5	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A79905

Included Lab Sample IDs: 1938499, 1938500, 1938501, 1938502, 1938503, 1938504, 1938505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	106	114	P/P	60 - 150
Acetaminophen	114	111	P/P	60 - 150
Carbamazepine	113	115	P/P	60 - 150
Carbamazepine	115	118	P/P	60 - 150
Diuron	105	109	P/P	60 - 150
Diuron	109	112	P/P	60 - 150
Fenuron	108	110	P/P	60 - 150
Fenuron	110	112	P/P	60 - 150
Fluridone	112	112	P/P	60 - 160
Fluridone	112	114	P/P	60 - 160
Imidacloprid	103	118	P/P	60 - 150
Imidacloprid	118	110	P/P	60 - 150
Linuron	109	118	P/P	60 - 150
Linuron	111	109	P/P	60 - 150
Primidone	102	107	P/P	60 - 150
Primidone	107	102	P/P	60 - 150

Reference Method: SM 5310 B-00

Run ID: A79911

Included Lab Sample IDs: 1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	98.2	P/P	90 - 110
Organic Carbon	98.2	98.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A79920

Included Lab Sample IDs: 1938499, 1938500, 1938501, 1938502, 1938503, 1938504, 1938505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	103	111	P/P	60 - 150
Sucralose	112	127	P/P	60 - 150
Sucralose	127	103	P/P	60 - 150

Reference Method: SM 4500 F-C-97

Run ID: A79949

Included Lab Sample IDs: 1938446, 1938447, 1938460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A80104

Included Lab Sample IDs: 1938506, 1938507

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

Reference Method: USGS O-2060-01

Run ID: A80386

Included Lab Sample IDs: 1938499, 1938500, 1938501, 1938502, 1938503, 1938504, 1938505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	105	112	P/P	50 - 150
2,4-D	112	104	P/P	50 - 150
Bentazon	111	116	P/P	50 - 150
Bentazon	116	119	P/P	50 - 150
MCP	107	103	P/P	50 - 150
MCP	111	107	P/P	50 - 150
Triclopyr	108	101	P/P	50 - 150
Triclopyr	116	108	P/P	50 - 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				2.95	
	Turbidity				0.959	
EPA 200.7 Rev. 4.4	Calcium	102	99.1			1.40
	Iron	103	105	103		1.35
	Magnesium	103	103	104		1.16
	Potassium	103	98.3	105	101	1.73
	Sodium	102	103	101		0.0153
	Zinc	99.5	99.4	97.9	96.9	1.00

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 200.8 Rev. 5.4	Arsenic	102	105	101	99.5			2.37
	Cadmium	102	104	102	99.2			1.98
	Chromium	98.7	95.6	94.4	93.2			1.14
	Copper	101	97.9	96.3	94.4			1.26
	Lead	96.9	98.4	97.5	95.6			0.974
	Nickel	104	100	101	101			0.222
	Selenium	99.3	100	96.7	97.0			3.44
	Silver	96.7	96.4	95.1	93.3			1.37
EPA 300.0 Rev. 2.1	Chloride	101	99.2	100			1.39	
	Chloride	103	103	105			0.470	
	Sulfate	98.8	98.4	99.0				
	Sulfate	102	102	103			0.371	
EPA 350.1 Rev. 2.0	Ammonia-N	94.9	97.5	95.6				1.46
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	96.0	103				3.77
EPA 353.2 Rev. 2.0	NO2NO3-N	102	99.5	101				0.795
	NO2NO3-N	102	102	104				1.33
EPA 365.1 Rev. 2.0	Total-P	100	96.0	99.8				3.88
	Total-P	102	99.3	99.9				0.565
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.0	97.8	103				4.12
	O-Phosphate-P	101	96.9	92.6				4.54
EPA 8321B	Sucralose	81.5	54.8	53.2				2.12
	Sucralose	105	61.0	61.4				0.562
SM 2120 B	Color (true)						0.644	
SM 2320 B-97	Total Alkalinity	102					0.456	
	Total Alkalinity	102					3.76	
	Total Alkalinity	102					0.118	
	Total Alkalinity	101					0.334	
SM 2540 C-97	TDS						0.0	
SM 4500 F-C-97	Fluoride	95.0	103	104				0.948
	Fluoride	95.5	95.9	96.4				0.471
	Fluoride	99.8	96.8	98.0				0.982
	Fluoride	99.1	98.6	102				2.95
SM 5310 B-00	Organic Carbon	97.6	99.6	100				0.702
USGS O-2060-01	2,4-D	97.9	76.7	84.3				5.24
	Acetaminophen	77.5	119	115				3.60
	Bentazon	84.9	69.2	66.4				2.28
	Carbamazepine	128	154	147				4.38
	Diuron	111	115	106				8.17
	Fenuron	109	106	105				1.12
	Fluridone	114	125	108				14.2
	Imidacloprid	96.1	173	167				3.83
	Linuron	110	120	114				4.53
	MCPP	81.1	58.9	58.9				0.0
	Primidone	106	130	117				10.8
	Triclopyr	81.4	54.0	59.8				10.2

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1938506, 1938507

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1938506, 1938507
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1938455, 1938456, 1938457, 1938458, 1938459, 1938464, 1938465
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1938499, 1938500, 1938501, 1938502, 1938503, 1938504, 1938505
SM 2120 B / E31780	True Color measured at 450 nm	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1938499, 1938500, 1938501, 1938502, 1938503, 1938504, 1938505
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1938499, 1938500, 1938501, 1938502, 1938503, 1938504, 1938505

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	10/19/2017			10/19/2017 18:20	DeAsia Armster	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
EPA 200.7 Rev. 4.4	10/19/2017	10/23/2017	Elliott D. Healy	10/24/2017	Betina Topolski	1938506, 1938507
EPA 200.8 Rev. 5.4	10/19/2017	10/23/2017	Elliott D. Healy	10/24/2017	Nadine Brooks	1938506, 1938507
	10/19/2017	11/06/2017	Elliott D. Healy	11/07/2017	Robert K Palmer	1938506, 1938507
EPA 300.0 Rev. 2.1	10/19/2017			10/20/2017	Julia Storbeck	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
EPA 350.1 Rev. 2.0	10/19/2017			10/25/2017	Sofia Elnemr	1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463
EPA 351.2 Rev. 2.0	10/19/2017	10/26/2017	Adrian Shelby	10/27/2017	Joseph Suarez	1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463
EPA 353.2 Rev. 2.0	10/19/2017			10/26/2017	Beverly Y. Sanders	1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463
EPA 365.1 Rev. 2.0	10/19/2017	10/24/2017	Sima Feizi	10/25/2017	Lipi Saha	1938450
	10/19/2017	10/25/2017	Sima Feizi	10/26/2017	Lipi Saha	1938453
	10/19/2017	10/25/2017	Sima Feizi	10/27/2017	Lipi Saha	1938451, 1938452, 1938454, 1938462, 1938463
EPA 365.1 Rev. 2.0 dissolved	10/19/2017			10/19/2017 14:52	Megan Treadwell	1938455
	10/19/2017			10/19/2017 15:11	Megan Treadwell	1938456
	10/19/2017			10/19/2017 15:16	Megan Treadwell	1938457
	10/19/2017			10/19/2017 15:34	Megan Treadwell	1938458
	10/19/2017			10/19/2017 15:35	Megan Treadwell	1938459
	10/19/2017			10/19/2017 15:36	Megan Treadwell	1938464, 1938465
EPA 8321B	10/19/2017	10/24/2017	Juyoung Kim	10/26/2017	Juyoung Kim	1938501, 1938502, 1938503, 1938504, 1938505
	10/19/2017	10/25/2017	Juyoung Kim	10/26/2017	Juyoung Kim	1938499, 1938500
SM 2120 B	10/19/2017			10/19/2017 16:11	Tanya Welborn	1938445
	10/19/2017			10/19/2017 16:13	Tanya Welborn	1938446
	10/19/2017			10/19/2017 16:14	Tanya Welborn	1938447, 1938448
	10/19/2017			10/19/2017 16:15	Tanya Welborn	1938449
	10/19/2017			10/19/2017 16:16	Tanya Welborn	1938460
	10/19/2017			10/19/2017 16:17	Tanya Welborn	1938461
SM 2320 B-97	10/19/2017			10/20/2017	Dale L. Simmons	1938445
	10/19/2017			10/23/2017	Dale L. Simmons	1938449, 1938460, 1938461
	10/19/2017			10/24/2017	Dale L. Simmons	1938446, 1938447, 1938448
SM 2540 C-97	10/19/2017			10/23/2017	DeAsia Armster	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
SM 2540 D-97	10/19/2017			10/23/2017	DeAsia Armster	1938445, 1938446, 1938447, 1938448, 1938449, 1938460, 1938461
SM 4500 F-C-97	10/19/2017			10/20/2017	Dale L. Simmons	1938445
	10/19/2017			10/23/2017	Dale L. Simmons	1938449, 1938461
	10/19/2017			10/24/2017	Dale L. Simmons	1938448

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	10/19/2017			10/31/2017	Dale L. Simmons	1938446, 1938447, 1938460
SM 5310 B-00	10/19/2017			10/30/2017	Ping Hua	1938450, 1938451, 1938452, 1938453, 1938454, 1938462, 1938463
USGS O-2060-01	10/19/2017	10/23/2017	Hoor Shaik	10/28/2017	Julie Michelle Frank	1938499, 1938500, 1938501, 1938502, 1938503, 1938504, 1938505
	10/19/2017	11/15/2017	Hoor Shaik	11/18/2017	Julie Michelle Frank	1938499, 1938500, 1938501, 1938502, 1938503, 1938504, 1938505