

Chemical Analysis Report

SE-DIST-2017-07-21-02

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

Event Description: **SMP-Broward Blue**
Request ID: **RQ-2017-07-10-11**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

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Certified by: Colin Wright, Program Administrator

Date Certified: 14-AUG-2017 13:12

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light-colored 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: South New R.Canal @ S Flamingo

Collection Date/Time: 07/20/2017 10:00

Field ID: 28030546

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915531	EPA 180.1 Rev. 2.0	Turbidity	2.0	A	NTU	P328946	
	EPA 300.0 Rev. 2.1	Chloride	53		mg Cl/L	P329011	
		Sulfate	5.2		mg SO4/L	P329013	
	SM 2120 B	Color (true)	50		PCU	P328937	
	SM 2320 B-97	Total Alkalinity	214	A	mg CaCO3/L	P329038	
	SM 2540 C-97	TDS	303		mg/L	P329361	
	SM 2540 D-97	TSS	2	I	mg/L	P329366	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P329040	
1915533	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P329099	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P328969	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P329128	
	EPA 365.1 Rev. 2.0	Total-P	0.027		mg P/L	P329044	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P329079	
1915535	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P328963	
1915590	EPA 8321B	Sucralose**	0.080		ug/L	P329066	
	USGS O-2060-01	2,4-D	3.7		ug/L	P329041	
		Diuron	0.18		ug/L	P329041	
		Fenuron	0.0080	U	ug/L	P329041	
		Imidacloprid	0.019		ug/L	P329041	MS
		Bentazon	0.016		ug/L	P329041	
		Linuron	0.0040	U	ug/L	P329041	
		Acetaminophen**	0.0080	U	ug/L	P329041	
		MCP	0.0020	U	ug/L	P329041	
		Carbamazepine**	4.0E-04	U	ug/L	P329041	
		Triclopyr**	0.0040	U	ug/L	P329041	
		Primidone**	0.0040	U	ug/L	P329041	
		Fluridone**	0.029		ug/L	P329041	

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: 2,4-D-d3 surrogate recovery is not available due to matrix interference.

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

Sample Location: S. New River Canal (east)

Collection Date/Time: 07/20/2017 10:35

Field ID: G4SE0047

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915532	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P328946	
	EPA 300.0 Rev. 2.1	Chloride	41		mg Cl/L	P329011	
		Sulfate	6.8		mg SO4/L	P329013	
	SM 2120 B	Color (true)	59		PCU	P328937	
	SM 2320 B-97	Total Alkalinity	212		mg CaCO3/L	P329038	
	SM 2540 C-97	TDS	330	A	mg/L	P329361	
	SM 2540 D-97	TSS	3	IA	mg/L	P329366	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P329040	
1915534	EPA 350.1 Rev. 2.0	Ammonia-N	0.37		mg N/L	P329226	

Field ID: G4SE0047

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915534	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P328969	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P329128	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P329044	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P329079	
1915536	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P328948	
1915591	EPA 8321B	Sucralose**	0.14		ug/L	P329066	
	USGS O-2060-01	2,4-D	0.065		ug/L	P329041	
		Diuron	0.16		ug/L	P329041	
		Fenuron	0.0080	U	ug/L	P329041	
		Imidacloprid	0.035		ug/L	P329041	MS
		Bentazon	0.039		ug/L	P329041	
		Linuron	0.0040	U	ug/L	P329041	
		Acetaminophen**	0.0080	U	ug/L	P329041	
		MCP	0.0020	U	ug/L	P329041	
		Carbamazepine**	0.0019		ug/L	P329041	
		Triclopyr**	0.0040	U	ug/L	P329041	
		Primidone**	0.0040	U	ug/L	P329041	
		Fluridone**	0.016		ug/L	P329041	

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: MS accuracy for diuron could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Dania Cutoff Canal @ US1

Collection Date/Time: 07/20/2017 10:55

Field ID: 28030552

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915540	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P328946	
	SM 2320 B-97	Total Alkalinity	176		mg CaCO3/L	P329082	
	SM 2540 D-97	TSS	10		mg/L	P329371	
	SM 4500 F-C-97	Fluoride	0.62		mg F/L	P329187	
1915541	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P329098	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.80		mg N/L	P328968	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P329209	
	EPA 365.1 Rev. 2.0	Total-P	0.036		mg P/L	P329046	
	SM 5310 B-00	Organic Carbon	8.0		mg C/L	P329080	
1915542	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P328951	
1915592	EPA 8321B	Sucralose**	0.62		ug/L	P329066	
	USGS O-2060-01	2,4-D	0.039		ug/L	P329041	
		Diuron	0.20		ug/L	P329041	
		Fenuron	0.0080	U	ug/L	P329041	
		Imidacloprid	0.018	J	ug/L	P329041	MS
		Bentazon	0.030		ug/L	P329041	
		Linuron	0.0040	U	ug/L	P329041	
		Acetaminophen**	0.0080	U	ug/L	P329041	
		MCP	0.0020	U	ug/L	P329041	

Field ID: 28030552

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915592	USGS O-2060-01	Carbamazepine**	0.0038		ug/L	P329041	
		Triclopyr**	0.0040	U	ug/L	P329041	
		Primidone**	0.0040	U	ug/L	P329041	
		Fluridone**	0.012		ug/L	P329041	
1915630	EPA 200.7 Rev. 4.4	Iron	110	I	ug/L	P329068	
	EPA 200.8 Rev. 5.4	Arsenic	0.75		ug/L	P329068	
		Cadmium	0.060	U	ug/L	P329068	
		Chromium	1.2	U	ug/L	P329068	
		Copper	1.5	I	ug/L	P329068	
		Lead	0.15	U	ug/L	P329068	
		Nickel	0.60	U	ug/L	P329068	
		Silver	0.030	U	ug/L	P329068	
		Zinc	3.8	I	ug/L	P329068	

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: MS accuracy for diuron could not be assessed due to high concentration of parameter in the spiked sample. Refer to the narrative for an explanation of QC Codes.

Sample Location: C-10 Canal @ Stirling Rd

Collection Date/Time: 07/20/2017 11:25

Field ID: G4SE0036

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915543	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P328946	
	SM 2320 B-97	Total Alkalinity	183		mg CaCO3/L	P329082	
	SM 2540 D-97	TSS	5	I	mg/L	P329371	
	SM 4500 F-C-97	Fluoride	0.43		mg F/L	P329187	
1915544	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P329098	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P328968	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P329209	
	EPA 365.1 Rev. 2.0	Total-P	0.085		mg P/L	P329046	
	SM 5310 B-00	Organic Carbon	6.9		mg C/L	P329478	
1915545	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.044		mg P/L	P328948	
1915593	EPA 8321B	Sucralose**	1.7		ug/L	P329066	
	USGS O-2060-01	2,4-D	0.027		ug/L	P329041	
		Diuron	0.090		ug/L	P329041	
		Fenuron	0.0080	U	ug/L	P329041	
		Imidacloprid	0.020		ug/L	P329041	MS
		Bentazon	0.018		ug/L	P329041	
		Linuron	0.0040	U	ug/L	P329041	
		Acetaminophen**	0.0080	U	ug/L	P329041	
		MCP	0.0020	U	ug/L	P329041	
		Carbamazepine**	0.013		ug/L	P329041	
		Triclopyr**	0.0040	U	ug/L	P329041	
		Primidone**	0.0081	I	ug/L	P329041	
		Fluridone**	0.012		ug/L	P329041	

Field ID: G4SE0036

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment: SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. USGS O-2060-01: MS accuracy for diuron could not be assessed due to high concentration of parameter in the spiked sample.							

Sample Location: West Lake Middle North Sheridan

Collection Date/Time: 07/20/2017 11:55

Field ID: G4SE0037

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915537	EPA 180.1 Rev. 2.0	Turbidity	8.0		NTU	P328946	
	SM 2320 B-97	Total Alkalinity	153		mg CaCO3/L	P329082	
	SM 2540 D-97	TSS	11		mg/L	P329371	
	SM 4500 F-C-97	Fluoride	0.96		mg F/L	P329187	
1915538	EPA 350.1 Rev. 2.0	Ammonia-N	0.026		mg N/L	P329098	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P328968	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.050		mg N/L	P329209	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P329046	
	SM 5310 B-00	Organic Carbon	5.2		mg C/L	P329080	
1915539	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P328951	

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: West Lake Middle North Sheridan blank

Collection Date/Time: 07/20/2017 12:05

Field ID: G4SE0037-blank

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915546	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P329099	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P329111	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P329128	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P329044	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P329079	
1915547	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P328963	
1915594	EPA 8321B	Sucralose**	0.010	U	ug/L	P329066	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P329041	
		Diuron	8.0E-04	U	ug/L	P329041	
		Fenuron	0.0080	U	ug/L	P329041	
		Imidacloprid	8.0E-04	U	ug/L	P329041	MS
		Bentazon	8.0E-04	U	ug/L	P329041	
		Linuron	0.0040	U	ug/L	P329041	
		Acetaminophen**	0.0080	U	ug/L	P329041	
		MCP	0.0020	U	ug/L	P329041	
		Carbamazepine**	4.0E-04	U	ug/L	P329041	
		Triclopyr**	0.0040	U	ug/L	P329041	
		Primidone**	0.0040	U	ug/L	P329041	
		Fluridone**	4.0E-04	U	ug/L	P329041	
1915631	EPA 200.7 Rev. 4.4	Iron	30	U	ug/L	P328987	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P328987	

Field ID: G4SE0037-blank

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1915631	EPA 200.8 Rev. 5.4	Cadmium	0.020	U	ug/L	P328987	
		Chromium	0.40	U	ug/L	P328987	
		Copper	0.20	U	ug/L	P328987	
		Lead	0.050	U	ug/L	P328987	
		Nickel	0.20	U	ug/L	P328987	
		Silver	0.010	U	ug/L	P328987	
		Zinc	1.0	U	ug/L	P328987	

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P328946

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P328987

Component	Result	Code	Units
Iron	30	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P329068

Component	Result	Code	Units
Iron	30	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P328987

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
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L
Zinc	1.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P329068

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
Nickel	0.20	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P329068

Component	Result	Code	Units
Silver	0.010	U	ug/L
Zinc	1.0	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P329011

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P329013

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329098

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329099

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329226

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328968

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328969

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P329111

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329128

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329209

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P329044

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P329046

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328948

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328951

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328963

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

Reference Method: EPA 8321B
Batch ID: P329066

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P328937

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P329038

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

Reference Method: SM 2320 B-97
Batch ID: P329082

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

Reference Method: SM 2540 C-97
Batch ID: P329361

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P329366

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P329371

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P329040

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P329187

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P329079

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

Reference Method: SM 5310 B-00
Batch ID: P329080

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

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P329478

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

Reference Method: USGS O-2060-01
Batch ID: P329041

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
MCP	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 200.7 Rev. 4.4
Batch ID: P328987

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	101		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P329068

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P328987

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	104		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	101		P	85 - 115
Copper	101		P	85 - 115
Lead	99.3		P	85 - 115
Nickel	102		P	85 - 115
Silver	99.9		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P329068

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P329068

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	101		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	102		P	85 - 115
Copper	97.1		P	85 - 115
Lead	97.8		P	85 - 115
Nickel	100		P	85 - 115
Silver	98.5		P	85 - 115
Zinc	99.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P329011

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P329013

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329098

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329099

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329226

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328968

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328969

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P329111

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329128

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329209

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: P329044

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.3		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P329046

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328948

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328951

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328963

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

Reference Method: EPA 8321B
Batch ID: P329066

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	56.0		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P329038

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

Reference Method: SM 2320 B-97
Batch ID: P329082

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

Reference Method: SM 4500 F-C-97
Batch ID: P329040

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

Reference Method: SM 4500 F-C-97
Batch ID: P329187

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

Reference Method: SM 5310 B-00
Batch ID: P329079

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

Reference Method: SM 5310 B-00
Batch ID: P329080

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

Reference Method: SM 5310 B-00
Batch ID: P329478

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.9		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P329041

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	107		P	40 - 150
Acetaminophen	107		P	30 - 150
Bentazon	100		P	40 - 150
Carbamazepine	103		P	40 - 150
Diuron	97.3		P	40 - 150
Fenuron	115		P	40 - 150
Fluridone	99.5		P	40 - 150
Imidacloprid	102		P	40 - 160
Linuron	101		P	40 - 150
MCPP	97.5		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01
Batch ID: P329041

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Primidone	112		P	40 - 150
Triclopyr	92.8		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P328987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914792	Iron	105		P	80 - 120
1915651	Iron	106	104	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P329068

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915630	Iron	102	102	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P328987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914792	Arsenic	104		P	80 - 120
1914792	Cadmium	109		P	80 - 120
1914792	Chromium	103		P	80 - 120
1914792	Copper	97.4		P	80 - 120
1914792	Lead	99.6		P	80 - 120
1914792	Nickel	99.8		P	80 - 120
1914792	Silver	102		P	80 - 120
1914792	Zinc	99.4		P	80 - 120
1915651	Arsenic	105	105	P/P	80 - 120
1915651	Cadmium	110	110	P/P	80 - 120
1915651	Chromium	102	102	P/P	80 - 120
1915651	Copper	97.7	97.8	P/P	80 - 120
1915651	Lead	100	100	P/P	80 - 120
1915651	Nickel	99.2	99.5	P/P	80 - 120
1915651	Silver	102	102	P/P	80 - 120
1915651	Zinc	101	100	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P329068

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915630	Arsenic	115	115	P/P	70 - 130
1915630	Cadmium	105	102	P/P	70 - 130
1915630	Chromium	74.8	74.2	P/P	70 - 130
1915630	Copper	99.4	101	P/P	70 - 130
1915630	Lead	111	111	P/P	70 - 130
1915630	Nickel	99.5	99.3	P/P	70 - 130
1915630	Silver	95.2	95.6	P/P	70 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P329068

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915630	Zinc	92.9	92.7	P/P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P329011

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915595	Chloride	98.4		P	90 - 110
1915597	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P329013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915595	Sulfate	99.6		P	90 - 110
1915597	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329098

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915326	Ammonia-N	104	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329099

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915525	Ammonia-N	104	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329226

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915499	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915512	Kjeldahl Nitrogen	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328969

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915526	Kjeldahl Nitrogen	106	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P329111

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914616	Kjeldahl Nitrogen	96.5	98.6	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329128

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915447	NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329209

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915326	NO2NO3-N	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P329044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915533	Total-P	100	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P329046

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915327	Total-P	99.3	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915313	O-Phosphate-P	95.4	96.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328951

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915332	O-Phosphate-P	94.2	96.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328963

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915535	O-Phosphate-P	94.9	97.0	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P329066

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915441	Sucralose	66.4	61.9	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P329040

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915531	Fluoride	99.9	101	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
 Batch ID: P329187

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915321	Fluoride	97.6	97.6	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P329079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915372	Organic Carbon	103		P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P329080

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915375	Organic Carbon	100	101	P/P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P329478

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914798	Organic Carbon	98.7	97.2	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P329041

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915592	2,4-D	129	114	P/P	40 - 150
1915592	Acetaminophen	127	127	P/P	30 - 150
1915592	Bentazon	58.7	66.2	P/P	40 - 150
1915592	Carbamazepine	129	127	P/P	40 - 150
1915592	Fenuron	91.3	89.3	P/P	40 - 150
1915592	Fluridone	66.4	54.3	P/P	40 - 150
1915592	Imidacloprid	223	199	F/F	40 - 160
1915592	Linuron	105	98.1	P/P	40 - 150
1915592	MCP	120	105	P/P	40 - 150
1915592	Primidone	104	114	P/P	40 - 150
1915592	Triclopyr	122	106	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P328946

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915531	Turbidity	0.506	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P328987

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P328987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915651	Iron	1.69	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P329068

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915630	Iron	0.0591	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P328987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915651	Arsenic	0.179	Spike	P	0 - 20
1915651	Cadmium	0.197	Spike	P	0 - 20
1915651	Chromium	0.0694	Spike	P	0 - 20
1915651	Copper	0.0845	Spike	P	0 - 20
1915651	Lead	0.184	Spike	P	0 - 20
1915651	Nickel	0.321	Spike	P	0 - 20
1915651	Silver	0.724	Spike	P	0 - 20
1915651	Zinc	0.233	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P329068

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915630	Arsenic	0.0565	Spike	P	0 - 20
1915630	Cadmium	2.80	Spike	P	0 - 20
1915630	Chromium	0.746	Spike	P	0 - 20
1915630	Copper	1.04	Spike	P	0 - 20
1915630	Lead	0.522	Spike	P	0 - 20
1915630	Nickel	0.282	Spike	P	0 - 20
1915630	Silver	0.393	Spike	P	0 - 20
1915630	Zinc	0.149	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P329011

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915597	Chloride	1.23	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P329013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915597	Sulfate	0.920	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329098

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915326	Ammonia-N	1.80	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329099

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915525	Ammonia-N	1.34	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P329226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915499	Ammonia-N	0.766	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915512	Kjeldahl Nitrogen	1.25	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328969

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915526	Kjeldahl Nitrogen	0.0561	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P329111

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914616	Kjeldahl Nitrogen	1.52	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329128

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915447	NO2NO3-N	0.436	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P329209

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915326	NO2NO3-N	1.37	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P329044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915533	Total-P	3.10	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P329046

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915327	Total-P	1.33	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915313	O-Phosphate-P	1.56	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328951

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915332	O-Phosphate-P	1.89	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915535	O-Phosphate-P	2.19	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P329066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915441	Sucralose	7.00	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P328937

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915377	Color (true)	2.42	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P329038

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915531	Total Alkalinity	0.372	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P329082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915321	Total Alkalinity	0.00491	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P329361

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915532	TDS	1.52	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P329040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915531	Fluoride	0.502	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P329187

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915321	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P329079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915372	Organic Carbon	2.14	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P329080

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915375	Organic Carbon	0.513	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P329478

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914798	Organic Carbon	0.884	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P329041

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915592	2,4-D	6.96	Spike	P	0 - 30
1915592	Acetaminophen	0.236	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P329041

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915592	Bentazon	5.50	Spike	P	0 - 30
1915592	Carbamazepine	1.60	Spike	P	0 - 30
1915592	Diuron	15.1	Spike	P	0 - 30
1915592	Fenuron	2.21	Spike	P	0 - 30
1915592	Fluridone	13.4	Spike	P	0 - 30
1915592	Imidacloprid	9.12	Spike	P	0 - 30
1915592	Linuron	6.93	Spike	P	0 - 30
1915592	MCPD	13.4	Spike	P	0 - 30
1915592	Primidone	9.31	Spike	P	0 - 30
1915592	Triclopyr	14.8	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: 1915590
Field Sample ID: 28030546

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	101	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	132	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	123	P	30 - 160
USGS O-2060-01	Diuron-d6	92.0	P	30 - 160
USGS O-2060-01	Primidone-d5	109	P	30 - 160

Lab Sample ID: 1915591
Field Sample ID: G4SE0047

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	90.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	150	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	133	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	116	P	30 - 160
USGS O-2060-01	Diuron-d6	100	P	30 - 160
USGS O-2060-01	Primidone-d5	125	P	30 - 160

Lab Sample ID: 1915592
Field Sample ID: 28030552

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	127	P	40 - 160
USGS O-2060-01	2,4-D-d3	144	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	141	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	138	P	30 - 160
USGS O-2060-01	Diuron-d6	85.8	P	30 - 160
USGS O-2060-01	Primidone-d5	125	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1915593
Field Sample ID: G4SE0036

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	113	P	40 - 160
USGS O-2060-01	2,4-D-d3	135	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	122	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	134	P	30 - 160
USGS O-2060-01	Diuron-d6	92.4	P	30 - 160
USGS O-2060-01	Primidone-d5	107	P	30 - 160

Lab Sample ID: 1915594
Field Sample ID: G4SE0037-blank

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	108	P	40 - 160
USGS O-2060-01	2,4-D-d3	104	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	109	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	130	P	30 - 160
USGS O-2060-01	Diuron-d6	125	P	30 - 160
USGS O-2060-01	Primidone-d5	115	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A77800
Included Lab Sample IDs: 1915531, 1915532

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

Reference Method: SM 2120 B
Run ID: A77871
Included Lab Sample IDs: 1915531, 1915532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A77872
Included Lab Sample IDs: 1915531, 1915532, 1915537, 1915540, 1915543

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A77873
Included Lab Sample IDs: 1915535, 1915536, 1915539, 1915542, 1915545, 1915547

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.0	97.6	P/P	90 - 110
O-Phosphate-P	98.1	98.3	P/P	90 - 110
O-Phosphate-P	98.3	98.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A77919

Included Lab Sample IDs: 1915531, 1915532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A77919

Included Lab Sample IDs: 1915531, 1915532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.7	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77933

Included Lab Sample IDs: 1915533, 1915534, 1915538, 1915541, 1915544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	103	P/P	90 - 110
Kjeldahl Nitrogen	101	100	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A77939

Included Lab Sample IDs: 1915533, 1915534, 1915538, 1915541, 1915546

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	103	105	P/P	90 - 110
Organic Carbon	105	102	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A77941

Included Lab Sample IDs: 1915537, 1915540, 1915543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.5	P/P	90 - 110
Total Alkalinity	99.5	102	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A77942

Included Lab Sample IDs: 1915631

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	100	98.9	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A77945

Included Lab Sample IDs: 1915533, 1915538, 1915541, 1915544, 1915546

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A77954

Included Lab Sample IDs: 1915533, 1915534, 1915546

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A77973

Included Lab Sample IDs: 1915631

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	106	103	P/P	90 - 110
Cadmium	104	105	P/P	90 - 110
Chromium	102	103	P/P	90 - 110
Copper	104	102	P/P	90 - 110
Lead	98.2	98.6	P/P	90 - 110
Nickel	104	102	P/P	90 - 110
Silver	99.1	99.1	P/P	90 - 110
Zinc	104	104	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A77975

Included Lab Sample IDs: 1915630

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

Reference Method: SM 4500 F-C-97

Run ID: A77980

Included Lab Sample IDs: 1915537, 1915540, 1915543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.1	97.4	P/P	90 - 110
Fluoride	97.4	97.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A77988

Included Lab Sample IDs: 1915538, 1915541, 1915544

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77990

Included Lab Sample IDs: 1915533, 1915534, 1915546

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A77993

Included Lab Sample IDs: 1915534

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77995

Included Lab Sample IDs: 1915546

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A78013

Included Lab Sample IDs: 1915538, 1915541, 1915544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	97.8	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A78087

Included Lab Sample IDs: 1915544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	97.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A78094

Included Lab Sample IDs: 1915630

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	106	P/P	90 - 110
Cadmium	103	104	P/P	90 - 110
Chromium	102	97.8	P/P	90 - 110
Copper	98.9	104	P/P	90 - 110
Lead	96.6	99.7	P/P	90 - 110
Nickel	98.9	103	P/P	90 - 110
Silver	97.5	101	P/P	90 - 110
Zinc	102	104	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A78123

Included Lab Sample IDs: 1915590, 1915591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	60.8	66.1	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A78247

Included Lab Sample IDs: 1915592, 1915593, 1915594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	80.4	111	P/P	60 - 160
Sucralose	85.9	116	P/P	60 - 160

Reference Method: USGS O-2060-01

Run ID: A78250

Included Lab Sample IDs: 1915590, 1915591, 1915592, 1915593, 1915594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	111	73.4	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A78250

Included Lab Sample IDs: 1915590, 1915591, 1915592, 1915593, 1915594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	114	111	P/P	50 - 150
2,4-D	65.8	84.5	P/P	50 - 150
2,4-D	96.3	95.1	P/P	50 - 150
Acetaminophen	108	88.0	P/P	60 - 150
Acetaminophen	88.0	99.5	P/P	60 - 150
Acetaminophen	94.0	106	P/P	60 - 150
Bentazon	107	89.8	P/P	50 - 150
Bentazon	130	97.1	P/P	50 - 150
Bentazon	97.1	122	P/P	50 - 150
Carbamazepine	101	95.7	P/P	60 - 150
Carbamazepine	104	101	P/P	60 - 150
Carbamazepine	93.9	96.6	P/P	60 - 150
Diuron	102	89.7	P/P	60 - 150
Diuron	112	103	P/P	60 - 150
Diuron	97.2	102	P/P	60 - 150
Fenuron	108	112	P/P	60 - 150
Fenuron	112	99.9	P/P	60 - 150
Fenuron	99.6	112	P/P	60 - 150
Fluridone	102	95.8	P/P	60 - 160
Fluridone	102	106	P/P	60 - 160
Fluridone	106	99.1	P/P	60 - 160
Imidacloprid	104	99.6	P/P	60 - 150
Imidacloprid	94.4	115	P/P	60 - 150
Imidacloprid	99.6	92.6	P/P	60 - 150
Linuron	119	103	P/P	60 - 150
Linuron	88.6	81.8	P/P	60 - 150
Linuron	99.2	88.6	P/P	60 - 150
MCPP	102	82.8	P/P	50 - 150
MCPP	110	94.4	P/P	50 - 150
MCPP	113	102	P/P	50 - 150
Primidone	75.5	93.4	P/P	60 - 150
Primidone	90.5	75.5	P/P	60 - 150
Primidone	98.8	113	P/P	60 - 150
Triclopyr	117	111	P/P	50 - 150
Triclopyr	120	125	P/P	50 - 150
Triclopyr	125	84.2	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			Precision	
			LCS			SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					0.506	
EPA 200.7 Rev. 4.4	Iron	101	105	106	104		1.69
	Iron	105	102	102			0.0591
EPA 200.8 Rev. 5.4	Arsenic	104	104	105	105		0.179

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 200.8 Rev. 5.4	Arsenic	101	115	115				0.0565
	Cadmium	103	109	110	110			0.197
	Cadmium	103	105	102				2.80
	Chromium	101	103	102	102			0.0694
	Chromium	102	74.8	74.2				0.746
	Copper	101	97.4	97.7	97.8			0.0845
	Copper	97.1	99.4	101				1.04
	Lead	99.3	99.6	100	100			0.184
	Lead	97.8	111	111				0.522
	Nickel	102	99.8	99.2	99.5			0.321
	Nickel	100	99.5	99.3				0.282
	Silver	99.9	102	102	102			0.724
	Silver	98.5	95.2	95.6				0.393
	Zinc	100	99.4	101	100			0.233
	Zinc	99.0	92.9	92.7				0.149
EPA 300.0 Rev. 2.1	Chloride	97.1	102	98.4			1.23	
	Sulfate	98.1	102	99.6			0.920	
EPA 350.1 Rev. 2.0	Ammonia-N	103	104	106				1.80
	Ammonia-N	101	104	101				1.34
	Ammonia-N	108	103	104				0.766
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109	102	101				1.25
	Kjeldahl Nitrogen	105	106	106				0.0561
	Kjeldahl Nitrogen	97.1	96.5	98.6				1.52
EPA 353.2 Rev. 2.0	NO2NO3-N	103	103	102				0.436
	NO2NO3-N	102	104	102				1.37
EPA 365.1 Rev. 2.0	Total-P	98.3	100	97.0				3.10
	Total-P	101	99.3	101				1.33
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.6	95.4	96.9				1.56
	O-Phosphate-P	102	94.2	96.0				1.89
	O-Phosphate-P	103	94.9	97.0				2.19
EPA 8321B	Sucralose	56.0	66.4	61.9				7.00
SM 2120 B	Color (true)						2.42	
SM 2320 B-97	Total Alkalinity	102					0.372	
	Total Alkalinity	102					0.0049	
SM 2540 C-97	TDS						1.52	
SM 4500 F-C-97	Fluoride	96.5	99.9	101				0.502
	Fluoride	96.5	97.6	97.6				0.0
SM 5310 B-00	Organic Carbon	103	103					2.14
	Organic Carbon	103	100	101				0.513
	Organic Carbon	96.9	98.7	97.2				0.884
USGS O-2060-01	2,4-D	107	129	114				6.96
	Acetaminophen	107	127	127				0.236
	Bentazon	100	58.7	66.2				5.50
	Carbamazepine	103	129	127				1.60
	Diuron	97.3						15.1
	Fenuron	115	91.3	89.3				2.21
	Fluridone	99.5	66.4	54.3				13.4
	Imidacloprid	102	223	199				9.12
	Linuron	101	105	98.1				6.93
	MCPD	97.5	120	105				13.4
	Primidone	112	104	114				9.31
	Triclopyr	92.8	122	106				14.8

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1915531, 1915532, 1915537, 1915540, 1915543
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1915630, 1915631
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1915630, 1915631
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1915531, 1915532
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1915531, 1915532
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1915533, 1915534, 1915538, 1915541, 1915544, 1915546
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1915533, 1915534, 1915538, 1915541, 1915544, 1915546
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1915533, 1915534, 1915538, 1915541, 1915544, 1915546
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1915533, 1915534, 1915538, 1915541, 1915544, 1915546
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1915535, 1915536, 1915539, 1915542, 1915545, 1915547
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1915590, 1915591, 1915592, 1915593, 1915594
SM 2120 B / E31780	True Color measured at 450 nm	1915531, 1915532
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1915531, 1915532, 1915537, 1915540, 1915543
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1915531, 1915532
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1915531, 1915532, 1915537, 1915540, 1915543
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1915531, 1915532, 1915537, 1915540, 1915543
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1915533, 1915534, 1915538, 1915541, 1915544, 1915546
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1915590, 1915591, 1915592, 1915593, 1915594
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1915590, 1915591, 1915592, 1915593, 1915594

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	07/21/2017			07/21/2017 15:46	DeAsia Armster	1915531, 1915532, 1915537, 1915540, 1915543
EPA 200.7 Rev. 4.4	07/21/2017	07/24/2017	Elliott D. Healy	07/25/2017	Betina Topolski	1915631
	07/21/2017	07/25/2017	Elliott D. Healy	07/26/2017	Betina Topolski	1915630
EPA 200.8 Rev. 5.4	07/21/2017	07/24/2017	Elliott D. Healy	07/26/2017	Nadine Brooks	1915631
	07/21/2017	07/25/2017	Elliott D. Healy	08/01/2017	Nadine Brooks	1915630
EPA 300.0 Rev. 2.1	07/21/2017			07/22/2017	Julia Storbeck	1915531, 1915532
EPA 350.1 Rev. 2.0	07/21/2017			07/25/2017	Sofia Elnemr	1915533, 1915538, 1915541, 1915544, 1915546
	07/21/2017			07/26/2017	Sofia Elnemr	1915534
EPA 351.2 Rev. 2.0	07/21/2017	07/24/2017	Adrian Shelby	07/25/2017	Joseph Suarez	1915533, 1915534, 1915538, 1915541, 1915544
	07/21/2017	07/26/2017	Adrian Shelby	07/27/2017	Joseph Suarez	1915546
EPA 353.2 Rev. 2.0	07/21/2017			07/26/2017	Beverly Y. Sanders	1915533, 1915534, 1915546
	07/21/2017			07/27/2017	Beverly Y. Sanders	1915538, 1915541, 1915544
EPA 365.1 Rev. 2.0	07/21/2017	07/25/2017	Vijayalakshmi Reddy	07/27/2017	Lipi Saha	1915533, 1915534, 1915546
	07/21/2017	07/25/2017	Vijayalakshmi Reddy	07/28/2017	Lipi Saha	1915538, 1915541, 1915544
EPA 365.1 Rev. 2.0 dissolved	07/21/2017			07/21/2017 15:24	Ping Hua	1915536
	07/21/2017			07/21/2017 15:25	Ping Hua	1915545
	07/21/2017			07/21/2017 15:28	Ping Hua	1915535
	07/21/2017			07/21/2017 15:38	Ping Hua	1915539
	07/21/2017			07/21/2017 15:39	Ping Hua	1915542
	07/21/2017			07/21/2017 15:48	Ping Hua	1915547
EPA 8321B	07/21/2017	07/27/2017	Julie Michelle Frank	07/28/2017	Mohammad Ghaffari	1915590, 1915591
	07/21/2017	07/27/2017	Julie Michelle Frank	08/04/2017	Mohammad Ghaffari	1915592, 1915593, 1915594
SM 2120 B	07/21/2017			07/21/2017 15:19	Tanya Welborn	1915531, 1915532
SM 2320 B-97	07/21/2017			07/24/2017	Dale L. Simmons	1915531
	07/21/2017			07/25/2017	Dale L. Simmons	1915532, 1915537, 1915540, 1915543
SM 2540 C-97	07/21/2017			07/26/2017	Yijie Li	1915531, 1915532
SM 2540 D-97	07/21/2017			07/26/2017	Yijie Li	1915531, 1915532, 1915537, 1915540, 1915543
SM 4500 F-C-97	07/21/2017			07/24/2017	Dale L. Simmons	1915531
	07/21/2017			07/25/2017	Dale L. Simmons	1915532
	07/21/2017			07/27/2017	Dale L. Simmons	1915537, 1915540, 1915543
SM 5310 B-00	07/21/2017			07/25/2017	Sofia Elnemr	1915533, 1915534, 1915538, 1915541, 1915546
	07/21/2017			07/31/2017	Sofia Elnemr	1915544
USGS O-2060-01	07/21/2017	07/25/2017	Hoor Shaik	08/01/2017	Juyoung Kim	1915592
	07/21/2017	07/25/2017	Hoor Shaik	08/02/2017	Juyoung Kim	1915590, 1915591, 1915593, 1915594
	07/21/2017	07/25/2017	Hoor Shaik	08/03/2017	Juyoung Kim	1915590