

Chemical Analysis Report

NE-DIST-2018-02-21-02

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

Event Description: **LSJR Downtown Fresh_2018**

Request ID: **RQ-2018-02-12-18**

Customer: **NE-DIST**

Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way W
Suite 100
Jacksonville, FL 32256-7577
Attn: Nicole Frederick

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

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 05-APR-2018 16:33



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: Trout River at Ramallah Rd.

Collection Date/Time: 02/20/2018 09:10

Field ID: 20030752

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969213	EPA 180.1 Rev. 2.0	Turbidity	2.4	A	NTU	P340364	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P340695	
		Sulfate	14		mg SO4/L	P340697	
	SM 2120 B	Color (true)	170		PCU	P340353	
	SM 2320 B-97	Total Alkalinity	3.5		mg CaCO3/L	P340875	
	SM 2540 C-97	TDS	103		mg/L	P340669	
	SM 2540 D-97	TSS	2	U	mg/L	P340553	
	SM 4500 F-C-97	Fluoride	0.038	I	mg F/L	P341122	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P340860	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.60	J	mg N/L	P340510	MS
1969215	EPA 353.2 Rev. 2.0	NO2NO3-N	0.081		mg N/L	P340584	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P340561	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P340643	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.036		mg P/L	P340387	
	dissolved						
1969264	EPA 8321B	2,4-D	0.0020	U	ug/L	P340347	
		Sucralose**	0.13		ug/L	P340390	
		Bentazon	0.0015	I	ug/L	P340347	MS
		MCP	0.0020	U	ug/L	P340347	MS
		Triclopyr**	0.0040	U	ug/L	P340347	
		Imidacloprid	0.0020	U	ug/L	P340347	
		Diuron	0.0020	U	ug/L	P340347	
		Primidone**	0.0040	U	ug/L	P340347	
		Linuron	0.0040	U	ug/L	P340347	
		Acetaminophen**	0.0080	U	ug/L	P340347	
		Fenuron	0.0080	U	ug/L	P340347	
		Imazapyr**	0.0040	U	ug/L	P340347	
		Carbamazepine**	4.0E-04	U	ug/L	P340347	
		Fluridone**	8.0E-04	U	ug/L	P340347	
	EPA 200.7 Rev. 4.4	Calcium	5.94		mg/L	P340541	
		Iron	720		ug/L	P340541	
		Magnesium	2.71		mg/L	P340541	
		Potassium	2.6		mg/L	P340541	
		Sodium	12.0		mg/L	P340541	
		Zinc	6.7	I	ug/L	P340541	
1969292	EPA 200.8 Rev. 5.4	Arsenic	0.48		ug/L	P340780	
		Cadmium	0.020	U	ug/L	P340780	
		Chromium	0.43	I	ug/L	P340780	
		Copper	0.38	I	ug/L	P340780	
		Lead	0.51		ug/L	P340780	
		Nickel	0.55	I	ug/L	P340780	
		Silver	0.010	U	ug/L	P340780	

Field ID: 20030752

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.							
SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.							
EPA 351.2 Rev. 2.0: Refer to the narrative for an explanation of QC Codes.							
EPA 8321B: Fenuron was detected in the method blank slightly above the MDL.							
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.							

Sample Location: Trout River at Garden St.

Collection Date/Time: 02/20/2018 09:35

Field ID: 20030751

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969214	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P340364	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P340695	
		Sulfate	10		mg SO4/L	P340697	
	SM 2120 B	Color (true)	150		PCU	P340353	
	SM 2320 B-97	Total Alkalinity	12		mg CaCO3/L	P340876	
	SM 2540 C-97	TDS	94		mg/L	P340669	
	SM 2540 D-97	TSS	2	U	mg/L	P340553	
1969216	SM 4500 F-C-97	Fluoride	0.037	I	mg F/L	P340880	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P340860	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P340510	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.078		mg N/L	P340584	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P340561	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P340643	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.033		mg P/L	P340387	
1969265	EPA 8321B	2,4-D	0.0020	U	ug/L	P340347	
		Sucralose**	0.23		ug/L	P340390	
		Bentazon	0.0010	I	ug/L	P340347	MS
		MCP	0.0020	U	ug/L	P340347	MS
		Triclopyr**	0.0040	U	ug/L	P340347	
		Imidacloprid	0.0020	U	ug/L	P340347	
		Diuron	0.0020	U	ug/L	P340347	
		Primidone**	0.0040	U	ug/L	P340347	
		Linuron	0.0040	U	ug/L	P340347	
		Acetaminophen**	0.0080	U	ug/L	P340347	
		Fenuron	0.0080	U	ug/L	P340347	
		Imazapyr**	0.0040	U	ug/L	P340347	
		Carbamazepine**	4.0E-04	U	ug/L	P340347	
		Fluridone**	8.0E-04	U	ug/L	P340347	
	EPA 200.7 Rev. 4.4	Calcium	8.67		mg/L	P340541	
1969293		Iron	690		ug/L	P340541	
		Magnesium	2.56		mg/L	P340541	
		Potassium	2.2		mg/L	P340541	
		Sodium	12.8		mg/L	P340541	
		Zinc	6.6	I	ug/L	P340541	
	EPA 200.8 Rev. 5.4	Arsenic	0.47		ug/L	P340780	

Field ID: 20030751

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969293	EPA 200.8 Rev. 5.4	Cadmium	0.020	U	ug/L	P340780	
		Chromium	0.41	I	ug/L	P341282	
		Copper	0.34	I	ug/L	P340780	
		Lead	0.42		ug/L	P340780	
		Nickel	0.45	I	ug/L	P341282	
		Silver	0.010	U	ug/L	P340780	

Ref. Method and Comment:

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

EPA 8321B: Fenuron was detected in the method blank slightly above the MDL.

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

Sample Location: Blockhouse CR @ Duval Rd.

Collection Date/Time: 02/20/2018 10:10

Field ID: 20030746

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969266	EPA 8321B	2,4-D	0.025		ug/L	P340347	
		Sucralose**	0.22		ug/L	P340390	
		Bentazon	0.026		ug/L	P340347	MS
		MCP	0.0031	I	ug/L	P340347	MS
		Triclopyr**	0.0040	U	ug/L	P340347	
		Imidacloprid	0.041		ug/L	P340347	
		Diuron	0.0020	U	ug/L	P340347	
		Primidone**	0.0040	U	ug/L	P340347	
		Linuron	0.0040	U	ug/L	P340347	
		Acetaminophen**	0.0080	U	ug/L	P340347	SUR
		Fenuron	0.0080	U	ug/L	P340347	
		Imazapyr**	0.22		ug/L	P340347	
		Carbamazepine**	0.0010	I	ug/L	P340347	
		Fluridone**	0.0021	I	ug/L	P340347	

Ref. Method and Comment:

EPA 8321B: Fenuron was detected in the method blank slightly above the MDL.

Sample Location: Block House 100m abv Irma Rd.

Collection Date/Time: 02/20/2018 10:20

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969204	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P340363	
	EPA 300.0 Rev. 2.1	Chloride	33		mg Cl/L	P340695	
		Sulfate	12		mg SO4/L	P340697	
		Color (true)	150		PCU	P340353	
	SM 2320 B-97	Total Alkalinity	64		mg CaCO3/L	P340875	
	SM 2540 C-97	TDS	177		mg/L	P340669	
	SM 2540 D-97	TSS	4	I	mg/L	P340553	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P341122	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P340858	
		Kjeldahl Nitrogen	0.76		mg N/L	P340510	MS
1969207	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P340584	

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969207	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P340561	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P340642	
1969210	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.086		mg P/L	P340387	
1969261	EPA 8321B	2,4-D	0.017		ug/L	P340347	
		Sucralose**	0.53		ug/L	P340390	
		Bentazon	0.021	J	ug/L	P340347	MS
		MCP	0.0032	IJ	ug/L	P340347	MS
		Triclopyr**	0.0040	U	ug/L	P340347	
		Imidacloprid	0.027		ug/L	P340347	
		Diuron	0.0020	U	ug/L	P340347	
		Primidone**	0.0040	U	ug/L	P340347	
		Linuron	0.0040	U	ug/L	P340347	
		Acetaminophen**	0.0080	U	ug/L	P340347	
		Fenuron	0.0080	U	ug/L	P340347	
		Imazapyr**	0.15		ug/L	P340347	
		Carbamazepine**	0.0034		ug/L	P340347	
		Fluridone**	0.0017	I	ug/L	P340347	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: Fenuron was detected in the method blank slightly above the MDL. Refer to the narrative for an explanation of QC Codes.

Sample Location: Hogans CR at Broad St.

Collection Date/Time: 02/20/2018 11:15

Field ID: 20030729

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969267	EPA 8321B	2,4-D	0.0020	U	ug/L	P340347	
		Sucralose**	0.20		ug/L	P340390	
		Bentazon	0.038		ug/L	P340347	MS
		MCP	0.0020	U	ug/L	P340347	MS
		Triclopyr**	0.0040	U	ug/L	P340347	
		Imidacloprid	0.021		ug/L	P340347	
		Diuron	0.0020	U	ug/L	P340347	
		Primidone**	0.0040	U	ug/L	P340347	
		Linuron	0.0040	U	ug/L	P340347	
		Acetaminophen**	0.27		ug/L	P340347	
		Fenuron	0.0080	U	ug/L	P340347	
		Imazapyr**	0.064		ug/L	P340347	
		Carbamazepine**	4.0E-04	U	ug/L	P340347	
		Fluridone**	0.0018	I	ug/L	P340347	

Ref. Method and Comment:

EPA 8321B: Fenuron was detected in the method blank slightly above the MDL.

Sample Location: Hogan CR @ Washington St.

Collection Date/Time: 02/20/2018 11:35

Field ID: 20030773

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
-----------	-------------	-----------	--------	------	-------	----------	----------

Field ID: 20030773

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969205	EPA 180.1 Rev. 2.0	Turbidity	6.5		NTU	P340363	
	EPA 300.0 Rev. 2.1	Chloride	1.6E+03		mg Cl/L	P340695	
		Sulfate	250		mg SO4/L	P340697	
	SM 2120 B	Color (true)	130		PCU	P340353	
	SM 2320 B-97	Total Alkalinity	94		mg CaCO3/L	P340875	
	SM 2540 C-97	TDS	2.97E+03		mg/L	P340669	
	SM 2540 D-97	TSS	8	I	mg/L	P340553	
	SM 4500 F-C-97	Fluoride	0.25		mg F/L	P341122	
1969208	EPA 350.1 Rev. 2.0	Ammonia-N	0.073		mg N/L	P340681	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P340511	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.25		mg N/L	P340658	
	EPA 365.1 Rev. 2.0	Total-P	0.094		mg P/L	P340516	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P340642	
1969211	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054		mg P/L	P340389	
1969262	EPA 8321B	2,4-D	0.0048	I	ug/L	P340347	
		Sucralose**	0.35		ug/L	P340390	
		Bentazon	0.0095		ug/L	P340347	MS
		MCP	0.0020	U	ug/L	P340347	MS
		Triclopyr**	0.0040	U	ug/L	P340347	
		Imidacloprid	0.023		ug/L	P340347	
		Diuron	0.0083		ug/L	P340347	
		Primidone**	0.0040	U	ug/L	P340347	
		Linuron	0.0090	I	ug/L	P340347	
		Acetaminophen**	0.0080	U	ug/L	P340347	
		Fenuron	0.0080	U	ug/L	P340347	
		Imazapyr**	0.046		ug/L	P340347	
		Carbamazepine**	0.0012	I	ug/L	P340347	
		Fluridone**	0.0019	I	ug/L	P340347	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: Fenuron was detected in the method blank slightly above the MDL.

Sample Location: Deer CR @ Talleyrand Ave.

Collection Date/Time: 02/20/2018 12:20

Field ID: 20030792

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969206	EPA 180.1 Rev. 2.0	Turbidity	15		NTU	P340364	
	EPA 300.0 Rev. 2.1	Chloride	970		mg Cl/L	P340695	
		Sulfate	230		mg SO4/L	P340697	
	SM 2120 B	Color (true)	72	A	PCU	P340353	
	SM 2320 B-97	Total Alkalinity	165		mg CaCO3/L	P340875	
	SM 2540 C-97	TDS	2.05E+03		mg/L	P340669	
	SM 2540 D-97	TSS	8	I	mg/L	P340553	
	SM 4500 F-C-97	Fluoride	0.46		mg F/L	P341122	

Field ID: 20030792

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969209	EPA 350.1 Rev. 2.0	Ammonia-N	0.43		mg N/L	P340681	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P340511	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.28		mg N/L	P340659	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P340516	
	SM 5310 B-00	Organic Carbon	8.1		mg C/L	P340643	
1969212	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P340389	
1969263	EPA 8321B	2,4-D	0.0020	U	ug/L	P340347	
		Sucralose**	0.13		ug/L	P340390	
		Bentazon	0.0012	I	ug/L	P340347	MS
		MCP	0.0020	U	ug/L	P340347	MS
		Triclopyr**	0.0040	U	ug/L	P340347	
		Imidacloprid	0.0031	I	ug/L	P340347	
		Diuron	0.0094		ug/L	P340347	
		Primidone**	0.0040	U	ug/L	P340347	
		Linuron	0.0040	U	ug/L	P340347	
		Acetaminophen**	0.019	I	ug/L	P340347	
		Fenuron	0.0080	U	ug/L	P340347	
		Imazapyr**	0.024		ug/L	P340347	
		Carbamazepine**	5.0E-04	I	ug/L	P340347	
		Fluridone**	8.0E-04	U	ug/L	P340347	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: Fenuron was detected in the method blank slightly above the MDL.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P340363

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P340364

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P340541

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340541

Component	Result	Code	Units
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340780

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341282

Component	Result	Code	Units
Chromium	0.40	U	ug/L
Nickel	0.20	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340695

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340697

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340681

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340858

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340860

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340510

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340511

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340584

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340658

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340659

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340516

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340561

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340387

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340389

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P340347

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	0.0020	U	ug/L
Fenuron	0.023	I	ug/L
Fluridone	8.0E-04	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P340390

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P340353

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P340875

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

Reference Method: SM 2320 B-97
Batch ID: P340876

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

Reference Method: SM 2540 C-97
Batch ID: P340669

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P340553

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P340880

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P341122

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P340642

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

Reference Method: SM 5310 B-00
Batch ID: P340643

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340541

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	107		P	85 - 115
Iron	110		P	85 - 115
Magnesium	112		P	85 - 115
Potassium	105		P	85 - 115
Sodium	100		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340780

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	103		P	85 - 115
Cadmium	107		P	85 - 115
Chromium	101		P	85 - 115
Copper	99.7		P	85 - 115
Lead	110		P	85 - 115
Nickel	99.4		P	85 - 115
Silver	87.6		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341282

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	102		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341282

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Nickel	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340695

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340697

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	94.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340681

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340858

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340860

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340510

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340511

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340584

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340658

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: P340659

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340516

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340561

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340387

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340389

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

Reference Method: EPA 8321B
Batch ID: P340347

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	70.4		P	40 - 150
Acetaminophen	94.7		P	30 - 150
Bentazon	87.0		P	30 - 150
Carbamazepine	113		P	40 - 150
Diuron	63.0		P	40 - 150
Fenuron	96.6		P	40 - 150
Fluridone	68.5		P	40 - 150
Imazapyr	64.2		P	40 - 150
Imidacloprid	90.7		P	40 - 160
Linuron	70.8		P	40 - 150
MCPP	80.1		P	40 - 150
Primidone	86.2		P	40 - 150
Triclopyr	67.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P340390

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	108		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P340875

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	95 - 108

Reference Method: SM 2320 B-97
Batch ID: P340876

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

Reference Method: SM 4500 F-C-97
Batch ID: P340880

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

Reference Method: SM 4500 F-C-97
Batch ID: P341122

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P340642

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.8		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P340643

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968796	Calcium	105		P	80 - 120
1968796	Iron	107	108	P/P	80 - 120
1968796	Magnesium	108	109	P/P	80 - 120
1968796	Potassium	103	105	P/P	80 - 120
1968796	Sodium	99.5		P	80 - 120
1968796	Zinc	101	102	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969260	Iron	112		P	80 - 120
1969260	Potassium	108		P	80 - 120
1969260	Sodium	103		P	80 - 120
1969260	Zinc	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968797	Arsenic	104	102	P/P	80 - 120
1968797	Cadmium	109	105	P/P	80 - 120
1968797	Chromium	102	97.8	P/P	80 - 120
1968797	Copper	100	96.0	P/P	80 - 120
1968797	Lead	113	109	P/P	80 - 120
1968797	Nickel	100	93.5	P/P	80 - 120
1968797	Silver	89.0	85.3	P/P	80 - 120
1969259	Arsenic	105		P	80 - 120
1969259	Cadmium	107		P	80 - 120
1969259	Chromium	97.7		P	80 - 120
1969259	Copper	98.9		P	80 - 120
1969259	Lead	111		P	80 - 120
1969259	Nickel	99.2		P	80 - 120
1969259	Silver	88.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341282

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968893	Chromium	87.9	84.8	P/P	80 - 120
1968893	Nickel	93.7	92.2	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340695

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965558	Chloride	95.3		P	90 - 110
1969432	Chloride	95.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340697

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965558	Sulfate	95.5		P	90 - 110
1969432	Sulfate	93.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968367	Ammonia-N	102	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340858

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969144	Ammonia-N	97.1	99.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340860

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969215	Ammonia-N	96.2	99.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340510

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969215	Kjeldahl Nitrogen	110	111	P/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340511

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969209	Kjeldahl Nitrogen	109	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340584

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969150	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340658

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967162	NO2NO3-N	103	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340659

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969209	NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969063	Total-P	92.0	92.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969207	Total-P	94.4	97.7	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340387

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969089	O-Phosphate-P	92.2	93.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P340347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969261	2,4-D	43.7	45.9	P/P	40 - 150
1969261	Acetaminophen	120	131	P/P	30 - 150
1969261	Bentazon	16.2	14.8	F/F	30 - 150
1969261	Carbamazepine	112	109	P/P	40 - 150
1969261	Diuron	60.2	62.6	P/P	40 - 150
1969261	Fenuron	96.7	92.8	P/P	40 - 150
1969261	Fluridone	64.2	66.3	P/P	40 - 150
1969261	Imazapyr	81.0	81.0	P/P	40 - 150
1969261	Imidacloprid	138	156	P/P	40 - 160
1969261	Linuron	73.4	76.2	P/P	40 - 150
1969261	MCCP	37.1	36.9	F/F	40 - 150
1969261	Primidone	108	131	P/P	40 - 150
1969261	Triclopyr	46.0	46.8	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340390

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968751	Sucralose	117	118	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P340880

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969418	Fluoride	96.2	98.1	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P340642

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969005	Organic Carbon	95.1	97.1	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P340643

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969209	Organic Carbon	94.9	96.7	P/P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P340363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969135	Turbidity	4.03	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P340364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969213	Turbidity	3.79	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968796	Calcium	2.48	Spike	P	0 - 20
1968796	Iron	1.07	Spike	P	0 - 20
1968796	Magnesium	0.467	Spike	P	0 - 20
1968796	Potassium	0.859	Spike	P	0 - 20
1968796	Sodium	0.286	Spike	P	0 - 20
1968796	Zinc	0.931	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968797	Arsenic	1.34	Spike	P	0 - 20
1968797	Cadmium	4.19	Spike	P	0 - 20
1968797	Chromium	4.65	Spike	P	0 - 20
1968797	Copper	4.07	Spike	P	0 - 20
1968797	Lead	3.42	Spike	P	0 - 20
1968797	Nickel	3.65	Spike	P	0 - 20
1968797	Silver	4.14	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341282

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968893	Chromium	3.57	Spike	P	0 - 20
1968893	Nickel	1.55	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340695

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969432	Chloride	1.51	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340697

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969432	Sulfate	0.0717	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968367	Ammonia-N	0.0708	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969144	Ammonia-N	1.53	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340860

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969215	Ammonia-N	1.83	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340510

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969215	Kjeldahl Nitrogen	0.878	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340511

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969209	Kjeldahl Nitrogen	3.37	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340584

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969150	NO2NO3-N	0.432	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340658

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967162	NO2NO3-N	0.966	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340659

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969209	NO2NO3-N	0.410	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969063	Total-P	0.348	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969207	Total-P	2.45	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340387

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969089	O-Phosphate-P	1.48	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969170	O-Phosphate-P	0.298	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P340347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969261	2,4-D	3.38	Spike	P	0 - 30
1969261	Acetaminophen	8.04	Spike	P	0 - 30
1969261	Bentazon	3.35	Spike	P	0 - 30
1969261	Carbamazepine	2.97	Spike	P	0 - 30
1969261	Diuron	3.91	Spike	P	0 - 30
1969261	Fenuron	0.416	Spike	P	0 - 30
1969261	Fluridone	3.16	Spike	P	0 - 30
1969261	Imazapyr	5.38	Spike	P	0 - 30
1969261	Imidacloprid	9.78	Spike	P	0 - 30
1969261	Linuron	3.70	Spike	P	0 - 30
1969261	MCP	0.532	Spike	P	0 - 30
1969261	Primidone	18.8	Spike	P	0 - 30
1969261	Triclopyr	1.83	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P340390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968751	Sucralose	0.439	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P340353

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969206	Color (true)	4.65	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P340875

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969661	Total Alkalinity	0.0134	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P340876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969418	Total Alkalinity	0.654	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P340669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969418	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P340880

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969418	Fluoride	1.46	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P341122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969250	Fluoride	0.926	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P340642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969005	Organic Carbon	1.67	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P340643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969209	Organic Carbon	1.36	Spike	P	0 - 20

* 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: 1969261
Field Sample ID: G2NE1159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	53.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	137	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.0	P	30 - 160
EPA 8321B	Diuron-d6	73.6	P	30 - 160
EPA 8321B	Primidone-d5	98.4	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	40 - 160

Lab Sample ID: 1969262
Field Sample ID: 20030773

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	58.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	137	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.5	P	30 - 160
EPA 8321B	Diuron-d6	77.2	P	30 - 160
EPA 8321B	Primidone-d5	95.4	P	30 - 160
EPA 8321B	Sucralose-d6	91.2	P	40 - 160

Lab Sample ID: 1969263
Field Sample ID: 20030792

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	46.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	130	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.8	P	30 - 160
EPA 8321B	Diuron-d6	77.4	P	30 - 160
EPA 8321B	Primidone-d5	64.6	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	40 - 160

Lab Sample ID: 1969264
Field Sample ID: 20030752

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	70.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	124	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.0	P	30 - 160
EPA 8321B	Diuron-d6	69.8	P	30 - 160
EPA 8321B	Primidone-d5	90.2	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1969264
Field Sample ID: 20030752

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	127	P	40 - 160

Lab Sample ID: 1969265
Field Sample ID: 20030751

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	69.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	142	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.4	P	30 - 160
EPA 8321B	Diuron-d6	80.8	P	30 - 160
EPA 8321B	Primidone-d5	94.1	P	30 - 160
EPA 8321B	Sucralose-d6	140	P	40 - 160

Lab Sample ID: 1969266
Field Sample ID: 20030746

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	60.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	161	F	30 - 160
EPA 8321B	Carbamazepine-d10	71.8	P	30 - 160
EPA 8321B	Diuron-d6	71.2	P	30 - 160
EPA 8321B	Primidone-d5	96.4	P	30 - 160
EPA 8321B	Sucralose-d6	143	P	40 - 160

Lab Sample ID: 1969267
Field Sample ID: 20030729

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	46.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	126	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.5	P	30 - 160
EPA 8321B	Diuron-d6	73.7	P	30 - 160
EPA 8321B	Primidone-d5	85.0	P	30 - 160
EPA 8321B	Sucralose-d6	123	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A82214
Included Lab Sample IDs: 1969204, 1969205, 1969206, 1969213, 1969214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.1	99.4	P/P	85 - 115
Color (true)	98.7	95.4	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82216
Included Lab Sample IDs: 1969204, 1969205, 1969206, 1969213, 1969214

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A82216

Included Lab Sample IDs: 1969204, 1969205, 1969206, 1969213, 1969214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	100	P/P	95 - 105
Turbidity	101	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A82222

Included Lab Sample IDs: 1969210, 1969211, 1969212, 1969217, 1969218

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82271

Included Lab Sample IDs: 1969209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82286

Included Lab Sample IDs: 1969207, 1969215, 1969216

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	99.5	P/P	90 - 110
NO2NO3-N	99.5	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82296

Included Lab Sample IDs: 1969207

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82302

Included Lab Sample IDs: 1969208, 1969215, 1969216

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.0	P/P	90 - 110
Total-P	102	100	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A82308

Included Lab Sample IDs: 1969207, 1969208, 1969209, 1969215, 1969216

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	96.6	P/P	90 - 110
Organic Carbon	96.6	96.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82310

Included Lab Sample IDs: 1969207, 1969208, 1969209, 1969215, 1969216

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	109	P/P	90 - 110
Kjeldahl Nitrogen	109	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82314

Included Lab Sample IDs: 1969208, 1969209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	99.5	P/P	90 - 110
NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82317

Included Lab Sample IDs: 1969208, 1969209

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A82319

Included Lab Sample IDs: 1969292, 1969293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	104	P/P	90 - 110
Calcium	104	103	P/P	90 - 110
Iron	101	102	P/P	90 - 110
Iron	102	101	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	100	100	P/P	90 - 110
Potassium	99.8	100	P/P	90 - 110
Sodium	100	101	P/P	90 - 110
Sodium	101	100	P/P	90 - 110
Zinc	101	100	P/P	90 - 110
Zinc	103	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A82322

Included Lab Sample IDs: 1969204, 1969205, 1969206, 1969213, 1969214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	97.8	P/P	90 - 110
Chloride	102	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	99.8	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A82357

Included Lab Sample IDs: 1969261, 1969262, 1969263, 1969264, 1969265, 1969266, 1969267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	107	92.1	P/P	50 - 150
2,4-D	92.1	96.9	P/P	50 - 150
Acetaminophen	109	112	P/P	60 - 150
Acetaminophen	109	109	P/P	60 - 150
Bentazon	108	94.5	P/P	50 - 150
Bentazon	94.5	112	P/P	50 - 150
Carbamazepine	114	131	P/P	60 - 150
Carbamazepine	124	114	P/P	60 - 150
Diuron	106	93.4	P/P	60 - 150
Diuron	93.4	102	P/P	60 - 150
Fenuron	108	108	P/P	60 - 150
Fenuron	108	108	P/P	60 - 150
Fluridone	105	107	P/P	60 - 160
Fluridone	106	105	P/P	60 - 160
Imazapyr	109	94.1	P/P	50 - 150
Imazapyr	94.1	119	P/P	50 - 150
Imidacloprid	95.7	106	P/P	60 - 150
Imidacloprid	96.3	95.7	P/P	60 - 150
Linuron	100	103	P/P	60 - 150
Linuron	103	107	P/P	60 - 150
MCPP	99.4	99.7	P/P	50 - 150
MCPP	99.7	83.4	P/P	50 - 150
Primidone	96.3	97.4	P/P	60 - 150
Primidone	97.4	97.7	P/P	60 - 150
Triclopyr	105	99.4	P/P	50 - 150
Triclopyr	93.8	105	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82391

Included Lab Sample IDs: 1969207, 1969215, 1969216

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

Reference Method: SM 2320 B-97

Run ID: A82400

Included Lab Sample IDs: 1969204, 1969205, 1969206, 1969213, 1969214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	99.1	P/P	90 - 110
Total Alkalinity	99.1	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A82400

Included Lab Sample IDs: 1969214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
 Run ID: A82412
 Included Lab Sample IDs: 1969292, 1969293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	99.3	98.7	P/P	90 - 110
Chromium	95.0	94.0	P/P	90 - 110
Copper	98.7	100	P/P	90 - 110
Lead	105	105	P/P	90 - 110
Nickel	98.2	101	P/P	90 - 110
Silver	100	101	P/P	90 - 110

Reference Method: EPA 8321B
 Run ID: A82414
 Included Lab Sample IDs: 1969261, 1969262, 1969263, 1969264, 1969265, 1969266, 1969267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	106	P/P	60 - 150
Sucralose	106	103	P/P	60 - 150

Reference Method: SM 4500 F-C-97
 Run ID: A82484
 Included Lab Sample IDs: 1969204, 1969205, 1969206, 1969213

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.2	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
 Run ID: A82559
 Included Lab Sample IDs: 1969293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	96.2	95.9	P/P	90 - 110
Nickel	97.0	94.9	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
 Run ID: A82707
 Included Lab Sample IDs: 1969292, 1969293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	94.0	98.2	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
 Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
 Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				4.03	
	Turbidity				3.79	
EPA 200.7 Rev. 4.4	Calcium	107	105			2.48
	Iron	110	107 108 112			1.07

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 200.7 Rev. 4.4	Magnesium	112	108	109				0.467
	Potassium	105	103	105	108			0.859
	Sodium	100	99.5	103				0.286
	Zinc	103	101	102	101			0.931
EPA 200.8 Rev. 5.4	Arsenic	103	104	102	105			1.34
	Cadmium	107	109	105	107			4.19
	Chromium	101	102	97.8	97.7			4.65
	Chromium	102	87.9	84.8				3.57
	Copper	99.7	100	96.0	98.9			4.07
	Lead	110	113	109	111			3.42
	Nickel	99.4	100	93.5	99.2			3.65
	Nickel	100	93.7	92.2				1.55
	Silver	87.6	89.0	85.3	88.3			4.14
	Chloride	96.2	95.8	95.3			1.51	
EPA 300.0 Rev. 2.1	Sulfate	94.1	93.9	95.5			0.0717	
	Ammonia-N	98.4	102	102				0.0708
EPA 350.1 Rev. 2.0	Ammonia-N	100	97.1	99.1				1.53
	Ammonia-N	98.4	96.2	99.7				1.83
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	110	111				0.878
	Kjeldahl Nitrogen	109	109	104				3.37
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	101				0.432
	NO2NO3-N	103	103	104				0.966
	NO2NO3-N	104	102					0.410
EPA 365.1 Rev. 2.0	Total-P	101	92.0	92.3				0.348
	Total-P	99.6	94.4	97.7				2.45
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5	92.2	93.7				1.48
	O-Phosphate-P	98.6						0.298
EPA 8321B	2,4-D	70.4	43.7	45.9				3.38
	Acetaminophen	94.7	120	131				8.04
	Bentazon	87.0	16.2	14.8				3.35
	Carbamazepine	113	112	109				2.97
	Diuron	63.0	60.2	62.6				3.91
	Fenuron	96.6	96.7	92.8				0.416
	Fluridone	68.5	64.2	66.3				3.16
	Imazapyr	64.2	81.0	81.0				5.38
	Imidacloprid	90.7	138	156				9.78
	Linuron	70.8	73.4	76.2				3.70
	MCPP	80.1	37.1	36.9				0.532
	Primidone	86.2	108	131				18.8
	Sucralose	108	117	118				0.439
	Triclopyr	67.3	46.0	46.8				1.83
SM 2120 B	Color (true)						4.65	
SM 2320 B-97	Total Alkalinity	100					0.0134	
	Total Alkalinity	101					0.654	
SM 2540 C-97	TDS						0.0	
SM 4500 F-C-97	Fluoride	93.5	96.2	98.1				1.46
	Fluoride	94.7						0.926
SM 5310 B-00	Organic Carbon	93.8	95.1	97.1				1.67
	Organic Carbon	94.8	94.9	96.7				1.36

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
---------------------	-------------	--------------------

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1969204, 1969205, 1969206, 1969213, 1969214
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1969292, 1969293
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1969292, 1969293
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1969204, 1969205, 1969206, 1969213, 1969214
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1969204, 1969205, 1969206, 1969213, 1969214
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1969207, 1969208, 1969209, 1969215, 1969216
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1969207, 1969208, 1969209, 1969215, 1969216
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1969207, 1969208, 1969209, 1969215, 1969216
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1969207, 1969208, 1969209, 1969215, 1969216
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1969210, 1969211, 1969212, 1969217, 1969218
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1969261, 1969262, 1969263, 1969264, 1969265, 1969266, 1969267
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1969261, 1969262, 1969263, 1969264, 1969265, 1969266, 1969267
SM 2120 B / E31780	True Color measured at 450 nm	1969204, 1969205, 1969206, 1969213, 1969214
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1969204, 1969205, 1969206, 1969213, 1969214
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1969204, 1969205, 1969206, 1969213, 1969214
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1969204, 1969205, 1969206, 1969213, 1969214
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1969204, 1969205, 1969206, 1969213, 1969214
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1969207, 1969208, 1969209, 1969215, 1969216

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	02/21/2018			02/21/2018 15:50	Sima Feizi	1969204, 1969205, 1969206, 1969213, 1969214
EPA 200.7 Rev. 4.4	02/21/2018	02/26/2018	Vijayalakshmi Reddy	02/27/2018	Betina Topolski	1969292, 1969293
EPA 200.8 Rev. 5.4	02/21/2018	03/01/2018	Vijayalakshmi Reddy	03/02/2018	Nadine Brooks	1969292, 1969293
	02/21/2018	03/01/2018	Vijayalakshmi Reddy	03/19/2018	Robert K Palmer	1969292, 1969293
	02/21/2018	03/09/2018	Elliott D. Healy	03/12/2018	Nadine Brooks	1969293
EPA 300.0 Rev. 2.1	02/21/2018			02/27/2018	Julia Storbeck	1969204, 1969213, 1969214
	02/21/2018			02/28/2018	Julia Storbeck	1969205, 1969206
EPA 350.1 Rev. 2.0	02/21/2018			02/27/2018	Ping Hua	1969208, 1969209
	02/21/2018			03/01/2018	Ping Hua	1969207, 1969215, 1969216
EPA 351.2 Rev. 2.0	02/21/2018	02/23/2018	Adrian Shelby	02/27/2018	Joseph Suarez	1969207, 1969208, 1969209, 1969215, 1969216
EPA 353.2 Rev. 2.0	02/21/2018			02/26/2018	Lauren Bottorf	1969207, 1969215, 1969216
	02/21/2018			02/27/2018	Lauren Bottorf	1969208, 1969209
EPA 365.1 Rev. 2.0	02/21/2018	02/23/2018	Sima Feizi	02/26/2018	Beverly Y. Sanders	1969209
	02/21/2018	02/23/2018	Sima Feizi	02/27/2018	Beverly Y. Sanders	1969208
	02/21/2018	02/26/2018	Sima Feizi	02/27/2018	Beverly Y. Sanders	1969207, 1969215, 1969216
EPA 365.1 Rev. 2.0 dissolved	02/21/2018			02/21/2018 15:39	Megan Treadwell	1969210
	02/21/2018			02/21/2018 15:40	Megan Treadwell	1969211
	02/21/2018			02/21/2018 15:41	Megan Treadwell	1969212, 1969217
	02/21/2018			02/21/2018 15:42	Megan Treadwell	1969218
EPA 8321B	02/21/2018	02/22/2018	Hoor Shaik	02/27/2018	Julie Michelle Frank	1969261, 1969262
	02/21/2018	02/22/2018	Hoor Shaik	02/28/2018	Julie Michelle Frank	1969261, 1969262, 1969263, 1969264, 1969265, 1969266, 1969267
	02/21/2018	02/22/2018	Julie Michelle Frank	03/02/2018	Juyoung Kim	1969261, 1969262, 1969263, 1969264, 1969265, 1969266, 1969267
SM 2120 B	02/21/2018			02/21/2018 15:02	Tanya Welborn	1969205
	02/21/2018			02/21/2018 15:04	Tanya Welborn	1969206
	02/21/2018			02/21/2018 15:05	Tanya Welborn	1969214
	02/21/2018			02/21/2018 15:28	Tanya Welborn	1969204
	02/21/2018			02/21/2018 15:29	Tanya Welborn	1969213
SM 2320 B-97	02/21/2018			03/02/2018	Lauren Bottorf	1969204, 1969205, 1969206, 1969213, 1969214
SM 2540 C-97	02/21/2018			02/23/2018	DeAsia Armster	1969204, 1969205, 1969206, 1969213, 1969214
SM 2540 D-97	02/21/2018			02/23/2018	DeAsia Armster	1969204, 1969205, 1969206, 1969213, 1969214
SM 4500 F-C-97	02/21/2018			03/02/2018	Lauren Bottorf	1969214
	02/21/2018			03/07/2018	Dale L. Simmons	1969204, 1969205, 1969206, 1969213
SM 5310 B-00	02/21/2018			02/26/2018	Megan Treadwell	1969207, 1969208, 1969209, 1969215, 1969216