

Chemical Analysis Report

NE-DIST-2018-04-20-01

Florida Department of Environmental Protection
Central Laboratory
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DOH Accreditation E31780

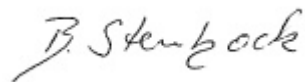
Event Description: **bmap tribs 2**
Request ID: **RQ-2018-04-16-44**
Customer: **NE-DIST**
Project ID: **SMP**

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Date Certified: 04-JUN-2018 16:32



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: NW TRIBUTARY TO OPEN CR AT HODGES

Collection Date/Time: 04/19/2018 08:10

Field ID: 20030848

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986317	EPA 180.1 Rev. 2.0	Turbidity	5.3	A	NTU	P343841	
	EPA 300.0 Rev. 2.1	Chloride	44		mg Cl/L	P344011	
		Sulfate	76		mg SO4/L	P344013	
	SM 2120 B	Color (true)	30	A	PCU	P343821	
	SM 2320 B-97	Total Alkalinity	63		mg CaCO3/L	P344451	
	SM 2540 C-97	TDS	241		mg/L	P344258	
	SM 2540 D-97	TSS	6	I	mg/L	P344264	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P344455	
1986320	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P344181	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.63		mg N/L	P343889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P343944	
	EPA 365.1 Rev. 2.0	Total-P	0.078		mg P/L	P344358	
	SM 5310 B-00	Organic Carbon	9.8		mg C/L	P344204	
1986323	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P343833	
1986408	EPA 8321B	2,4-D	0.015		ug/L	P343718	
		Bentazon	0.030		ug/L	P343718	
		MCP	0.0027	I	ug/L	P343718	
		Triclopyr**	0.0040	U	ug/L	P343718	
		Imidacloprid	0.024		ug/L	P343718	MS
		Diuron	0.0040	I	ug/L	P343718	
		Pyraclostrobin**	0.0020	U	ug/L	P343718	
		Primidone**	0.0068	I	ug/L	P343718	
		Linuron	0.0040	U	ug/L	P343718	
		Acetaminophen**	0.0080	U	ug/L	P343718	
		Fenuron	0.0080	U	ug/L	P343718	
		Imazapyr**	0.56		ug/L	P343718	
		Carbamazepine**	5.4E-04	I	ug/L	P343718	
		Fluridone**	0.10		ug/L	P343718	
		Hydrocodone**	8.0E-04	U	ug/L	P343718	
		Sucralose**	1.3		ug/L	P343719	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 8321B: MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: TERRAPIN CREEK AT FAYE ROAD

Collection Date/Time: 04/19/2018 09:00

Field ID: 20030653

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986318	EPA 180.1 Rev. 2.0	Turbidity	5.2		NTU	P343841	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P344011	
		Sulfate	15		mg SO4/L	P344013	
	SM 2120 B	Color (true)	87		PCU	P343821	

Field ID: 20030653

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986318	SM 2320 B-97	Total Alkalinity	27		mg CaCO3/L	P344517	
	SM 2540 C-97	TDS	100	A	mg/L	P344259	
	SM 2540 D-97	TSS	3	IA	mg/L	P344265	
	SM 4500 F-C-97	Fluoride	0.056	I	mg F/L	P344456	
1986321	EPA 350.1 Rev. 2.0	Ammonia-N	0.058		mg N/L	P344181	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P343889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.038		mg N/L	P343944	
	EPA 365.1 Rev. 2.0	Total-P	0.080		mg P/L	P344407	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P344204	
1986324	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.039		mg P/L	P343833	
1986409	EPA 8321B	2,4-D	0.0028	I	ug/L	P343718	
		Bentazon	8.0E-04	U	ug/L	P343718	
		MCP	0.0020	U	ug/L	P343718	
		Triclopyr**	0.0040	U	ug/L	P343718	
		Imidacloprid	0.0020	U	ug/L	P343718	MS
		Diuron	0.0020	U	ug/L	P343718	
		Pyraclostrobin**	0.0020	U	ug/L	P343718	
		Primidone**	0.0040	U	ug/L	P343718	
		Linuron	0.0040	U	ug/L	P343718	
		Acetaminophen**	0.0080	U	ug/L	P343718	
		Fenuron	0.0080	U	ug/L	P343718	
		Imazapyr**	0.026		ug/L	P343718	
		Carbamazepine**	4.0E-04	U	ug/L	P343718	
		Fluridone**	0.11		ug/L	P343718	
		Hydrocodone**	8.0E-04	U	ug/L	P343718	
		Sucralose**	0.10	U	ug/L	P343719	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 8321B: MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: TROUT RIVER AT OLD KINGS RD

Collection Date/Time: 04/19/2018 09:45

Field ID: 20030753

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986319	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P343841	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P344011	
		Sulfate	5.6		mg SO4/L	P344013	
		Color (true)	250		PCU	P343821	
	SM 2320 B-97	Total Alkalinity	23		mg CaCO3/L	P344517	
	SM 2540 C-97	TDS	115		mg/L	P344259	
	SM 2540 D-97	TSS	3	I	mg/L	P344265	
	SM 4500 F-C-97	Fluoride	0.053	I	mg F/L	P344456	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P344181	

Field ID: 20030753

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986322	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P343889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.035		mg N/L	P343944	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P343978	
	SM 5310 B-00	Organic Carbon	27		mg C/L	P344289	
1986325	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.072		mg P/L	P343833	
1986410	EPA 8321B	2,4-D	0.0020	U	ug/L	P343718	
		Bentazon	0.0081		ug/L	P343718	
		MCP	0.0020	U	ug/L	P343718	
		Triclopyr**	0.0040	U	ug/L	P343718	
		Imidacloprid	0.0046	I	ug/L	P343718	MS
		Diuron	0.0020	U	ug/L	P343718	
		Pyraclostrobin**	0.0020	U	ug/L	P343718	
		Primidone**	0.0040	U	ug/L	P343718	
		Linuron	0.0040	U	ug/L	P343718	
		Acetaminophen**	0.0080	U	ug/L	P343718	
		Fenuron	0.0080	U	ug/L	P343718	
		Imazapyr**	0.020		ug/L	P343718	
		Carbamazepine**	4.0E-04	U	ug/L	P343718	
		Fluridone**	0.0013	I	ug/L	P343718	
		Hydrocodone**	8.0E-04	U	ug/L	P343718	
		Sucralose**	0.11	I	ug/L	P343719	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 8321B: MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: MONCRIEF CR OF 33RD ST BRID

Collection Date/Time: 04/19/2018 10:55

Field ID: 20030316

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986326	EPA 180.1 Rev. 2.0	Turbidity	4.8		NTU	P343841	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P344011	
		Sulfate	23		mg SO4/L	P344013	
		Color (true)	23		PCU	P343821	
	SM 2320 B-97	Total Alkalinity	107		mg CaCO3/L	P344517	
	SM 2540 C-97	TDS	173		mg/L	P344259	
	SM 2540 D-97	TSS	7	I	mg/L	P344265	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P344456	
1986331	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P344181	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P343889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P343945	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P344040	
	SM 5310 B-00	Organic Carbon	7.1		mg C/L	P344289	
1986336	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P343833	

Field ID: 20030316

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986411	EPA 8321B	2,4-D	0.035		ug/L	P343931	
		Bentazon	0.013		ug/L	P343931	
		MCPP	0.024		ug/L	P343931	
		Triclopyr**	0.0040	U	ug/L	P343931	
		Imidacloprid	0.032		ug/L	P343931	
		Diuron	0.017		ug/L	P343931	
		Pyraclostrobin**	0.0020	U	ug/L	P343931	
		Primidone**	0.0040	U	ug/L	P343931	
		Linuron	0.0040	U	ug/L	P343931	
		Acetaminophen**	0.094		ug/L	P343931	
		Fenuron	0.016	U	ug/L	P343931	
		Imazapyr**	0.29		ug/L	P343931	
		Carbamazepine**	0.0081		ug/L	P343931	
		Fluridone**	0.82		ug/L	P343931	
		Hydrocodone**	8.0E-04	U	ug/L	P343931	
		Sucralose**	0.10	U	ug/L	P343719	
1986416	EPA 200.7 Rev. 4.4	Calcium	43.2		mg/L	P343891	
		Iron	840		ug/L	P343891	
		Magnesium	5.26		mg/L	P343891	
		Potassium	1.9		mg/L	P343891	
		Sodium	10.2		mg/L	P343891	
		Zinc	5.5	I	ug/L	P343891	
	EPA 200.8 Rev. 5.4	Arsenic	1.60		ug/L	P343891	
		Cadmium	0.020	U	ug/L	P343891	
		Chromium	0.44	I	ug/L	P343891	
		Copper	1.41		ug/L	P343891	
		Lead	0.79		ug/L	P343891	
		Nickel	0.72	I	ug/L	P343891	
		Silver	0.010	U	ug/L	P343891	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 8321B: MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: MONCRIEF AT 21 ST - DUP

Collection Date/Time: 04/19/2018 10:25

Field ID: 20030897DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986327	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P343841	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P344011	
		Sulfate	45		mg SO4/L	P344013	
		Color (true)	13		PCU	P343821	
	SM 2320 B-97	Total Alkalinity	168		mg CaCO3/L	P344517	
	SM 2540 C-97	TDS	276		mg/L	P344259	

Field ID: 20030897DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986327	SM 2540 D-97	TSS	4	I	mg/L	P344265	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P344456	
1986332	EPA 350.1 Rev. 2.0	Ammonia-N	0.092		mg N/L	P344181	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P343889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P343945	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P344040	
	SM 5310 B-00	Organic Carbon	5.6		mg C/L	P344289	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P343833	
1986412	EPA 8321B	2,4-D	0.014		ug/L	P343718	
		Bentazon	0.0057		ug/L	P343718	
		MCP	0.0056	I	ug/L	P343718	
		Triclopyr**	0.0040	U	ug/L	P343718	
		Imidacloprid	0.030		ug/L	P343718	MS
		Diuron	0.0025	I	ug/L	P343718	
		Pyraclostrobin**	0.0020	U	ug/L	P343718	
		Primidone**	0.0040	U	ug/L	P343718	
		Linuron	0.0040	U	ug/L	P343718	
		Acetaminophen**	0.0080	U	ug/L	P343718	
		Fenuron	0.0080	U	ug/L	P343718	
		Imazapyr**	0.21		ug/L	P343718	
		Carbamazepine**	3.6E-04	T	ug/L	P343718	
		Fluridone**	0.011		ug/L	P343718	
		Hydrocodone**	8.0E-04	U	ug/L	P343718	
		Sucralose**	0.13	I	ug/L	P343719	
	EPA 200.7 Rev. 4.4	Calcium	68.1		mg/L	P343891	
		Iron	1.35E+03		ug/L	P343891	
		Magnesium	9.37		mg/L	P343891	
		Potassium	2.3		mg/L	P343891	
		Sodium	18.6		mg/L	P343891	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P343891	
		Arsenic	1.41		ug/L	P343891	
		Cadmium	0.020	U	ug/L	P343891	
		Chromium	0.40	U	ug/L	P343891	
		Copper	0.55	I	ug/L	P343891	
		Lead	0.22		ug/L	P343891	
		Nickel	0.86		ug/L	P343891	
		Silver	0.010	U	ug/L	P343891	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 8321B: MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: MONCRIEF AT 21 ST

Collection Date/Time: 04/19/2018 10:15

Field ID: 20030897

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986328	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P343841	
	EPA 300.0 Rev. 2.1	Chloride	24		mg Cl/L	P344011	
		Sulfate	45		mg SO4/L	P344013	
	SM 2120 B	Color (true)	14		PCU	P343822	
	SM 2320 B-97	Total Alkalinity	166		mg CaCO3/L	P344517	
	SM 2540 C-97	TDS	286		mg/L	P344259	
	SM 2540 D-97	TSS	4	I	mg/L	P344265	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P344456	
1986333	EPA 350.1 Rev. 2.0	Ammonia-N	0.092		mg N/L	P344181	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P343889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P343945	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P344040	
	SM 5310 B-00	Organic Carbon	5.4		mg C/L	P344289	
1986338	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P343833	
1986413	EPA 8321B	2,4-D	0.013		ug/L	P343718	
		Bentazon	0.0055		ug/L	P343718	
		MCP	0.0055	I	ug/L	P343718	
		Triclopyr**	0.0040	U	ug/L	P343718	
		Imidacloprid	0.032		ug/L	P343718	MS
		Diuron	0.0025	I	ug/L	P343718	
		Pyraclostrobin**	0.0020	U	ug/L	P343718	
		Primidone**	0.0040	U	ug/L	P343718	
		Linuron	0.0040	U	ug/L	P343718	
		Acetaminophen**	0.0080	U	ug/L	P343718	
		Fenuron	0.0080	U	ug/L	P343718	
		Imazapyr**	0.22		ug/L	P343718	
		Carbamazepine**	4.1E-04	I	ug/L	P343718	
		Fluridone**	0.0098		ug/L	P343718	
		Hydrocodone**	8.0E-04	U	ug/L	P343718	
		Sucralose**	0.15	I	ug/L	P343719	
	EPA 200.7 Rev. 4.4	Calcium	68.2		mg/L	P343891	
		Iron	1.39E+03		ug/L	P343891	
		Magnesium	9.51		mg/L	P343891	
		Potassium	2.3		mg/L	P343891	
		Sodium	18.8		mg/L	P343891	
		Zinc	5.0	U	ug/L	P343891	
	EPA 200.8 Rev. 5.4	Arsenic	1.43		ug/L	P343891	
		Cadmium	0.020	U	ug/L	P343891	
		Chromium	0.63	I	ug/L	P343891	
		Copper	0.45	I	ug/L	P343891	
		Lead	0.23		ug/L	P343891	
		Nickel	0.80	I	ug/L	P343891	
		Silver	0.010	U	ug/L	P343891	

Field ID: 20030897

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment:							
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.							
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.							
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.							
EPA 8321B: MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample.							

Sample Location: GOODBYS CR @ PLAZA GATE RD

Collection Date/Time: 04/19/2018 11:40

Field ID: 20030537

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986329	EPA 180.1 Rev. 2.0	Turbidity	9.6		NTU	P343841	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P344011	
		Sulfate	17		mg SO4/L	P344013	
	SM 2120 B	Color (true)	40	A	PCU	P343822	
	SM 2320 B-97	Total Alkalinity	123		mg CaCO3/L	P344517	
	SM 2540 C-97	TDS	205		mg/L	P344259	
	SM 2540 D-97	TSS	3	I	mg/L	P344265	
1986334	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P344456	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.094		mg N/L	P344181	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P343889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.040		mg N/L	P343945	
	EPA 365.1 Rev. 2.0	Total-P	0.072		mg P/L	P344040	
1986339	SM 5310 B-00	Organic Carbon	8.8		mg C/L	P344289	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P343833	
1986414	EPA 8321B	2,4-D	0.022		ug/L	P343931	
		Bentazon	0.041		ug/L	P343931	
		MCP	0.0020	U	ug/L	P343931	
		Triclopyr**	0.0040	U	ug/L	P343931	
		Imidacloprid	0.020		ug/L	P343931	
		Diuron	0.028		ug/L	P343931	
		Pyraclostrobin**	0.0020	U	ug/L	P343931	
		Primidone**	0.0040	U	ug/L	P343931	
		Linuron	0.0040	U	ug/L	P343931	
		Acetaminophen**	0.0080	U	ug/L	P343931	
		Fenuron	0.018	I	ug/L	P343931	
		Imazapyr**	1.6		ug/L	P343931	
		Carbamazepine**	4.0E-04	U	ug/L	P343931	
		Fluridone**	0.55		ug/L	P343931	
		Hydrocodone**	8.0E-04	U	ug/L	P343931	
		Sucralose**	0.13	I	ug/L	P343719	
1986419	EPA 200.7 Rev. 4.4	Calcium	46.4		mg/L	P343891	
		Iron	1.69E+03		ug/L	P343891	
		Magnesium	5.40		mg/L	P343891	
		Potassium	1.7		mg/L	P343891	
		Sodium	14.9		mg/L	P343891	

Field ID: 20030537

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986419	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P343891	
	EPA 200.8 Rev. 5.4	Arsenic	2.48		ug/L	P343891	
		Cadmium	0.020	U	ug/L	P343891	
		Chromium	0.62	I	ug/L	P343891	
		Copper	0.54	I	ug/L	P343891	
		Lead	0.085	I	ug/L	P343891	
		Nickel	0.51	I	ug/L	P343891	
		Silver	0.010	U	ug/L	P343891	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 8321B: MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: GOODBYS CR ABOVE WEST BRANCH AT SAN CLERC Collection Date/Time: 04/19/2018 12:10

Field ID: 20030891

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986330	EPA 180.1 Rev. 2.0	Turbidity	6.6		NTU	P343841	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P344012	
		Sulfate	22		mg SO4/L	P344014	
	SM 2120 B	Color (true)	38		PCU	P343822	
	SM 2320 B-97	Total Alkalinity	123		mg CaCO3/L	P344517	
	SM 2540 C-97	TDS	230		mg/L	P344259	
	SM 2540 D-97	TSS	2	I	mg/L	P344265	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P344456	
1986335	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P344181	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.53		mg N/L	P343889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P343945	
	EPA 365.1 Rev. 2.0	Total-P	0.072		mg P/L	P344040	
	SM 5310 B-00	Organic Carbon	8.2		mg C/L	P344289	
1986340	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.029		mg P/L	P343833	
1986415	EPA 8321B	2,4-D	0.011		ug/L	P343931	
		Bentazon	0.026		ug/L	P343931	
		MCP	0.0020	U	ug/L	P343931	
		Triclopyr**	0.0040	U	ug/L	P343931	
		Imidacloprid	0.028		ug/L	P343931	
		Diuron	0.022		ug/L	P343931	
		Pyraclostrobin**	0.0020	U	ug/L	P343931	
		Primidone**	0.0040	U	ug/L	P343931	
		Linuron	0.0040	U	ug/L	P343931	
		Acetaminophen**	0.0080	U	ug/L	P343931	
		Fenuron	0.016	U	ug/L	P343931	
		Imazapyr**	0.92		ug/L	P343931	

Field ID: 20030891

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986415	EPA 8321B	Carbamazepine**	4.0E-04	U	ug/L	P343931	
		Fluridone**	0.26		ug/L	P343931	
		Hydrocodone**	8.0E-04	U	ug/L	P343931	
		Sucralose**	0.10	U	ug/L	P343719	
1986420	EPA 200.7 Rev. 4.4	Calcium	49.0		mg/L	P343891	
		Iron	1.30E+03		ug/L	P343891	
		Magnesium	6.99		mg/L	P343891	
		Potassium	1.8		mg/L	P343891	
	EPA 200.8 Rev. 5.4	Sodium	16.4		mg/L	P343891	
		Zinc	5.0	U	ug/L	P343891	
		Arsenic	2.47		ug/L	P343891	
		Cadmium	0.020	U	ug/L	P343891	
		Chromium	0.40	U	ug/L	P344319	
		Copper	0.61	I	ug/L	P343891	
		Lead	0.12	I	ug/L	P343891	
		Nickel	0.30	I	ug/L	P344319	
		Silver	0.010	U	ug/L	P343891	

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: MS accuracy for imidacloprid 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: P343841

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P343891

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

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P343891

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344319

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: P344011

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344012

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344013

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344014

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344181

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343889

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343944

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343945

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343978

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344040

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344358

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344407

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343833

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

Reference Method: EPA 8321B
Batch ID: P343718

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	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	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
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P343719

Component	Result	Code	Units
Sucralose	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P343931

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	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	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
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B
Batch ID: P343821

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P343822

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P344451

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

Reference Method: SM 2320 B-97
Batch ID: P344517

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

Reference Method: SM 2540 C-97
Batch ID: P344258

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P344259

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P344264

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P344265

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P344455

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P344456

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P344204

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

Reference Method: SM 5310 B-00
Batch ID: P344289

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: P343891

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	106		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	99.9		P	85 - 115
Sodium	96.9		P	85 - 115
Zinc	98.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343891

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343891

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cadmium	98.2		P	85 - 115
Chromium	95.0		P	85 - 115
Copper	98.3		P	85 - 115
Lead	96.5		P	85 - 115
Nickel	101		P	85 - 115
Silver	99.2		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344319

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	95.6		P	85 - 115
Nickel	95.8		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344011

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344012

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344013

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344014

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344181

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343889

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.8		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P343944

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P343945

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: P343978

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P344040

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P344358

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P344407

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P343833

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.2		P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P343718

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	95.8		P	40 - 150
Acetaminophen	94.1		P	30 - 150
Bentazon	105		P	30 - 150
Carbamazepine	104		P	40 - 150
Diuron	83.2		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	90.0		P	40 - 150
Hydrocodone	107		P	40 - 150
Imazapyr	120		P	40 - 150
Imidacloprid	114		P	40 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
 Batch ID: P343718

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Linuron	98.9		P	40 - 150
MCPP	98.6		P	40 - 150
Primidone	105		P	40 - 150
Pyraclostrobin	84.1		P	40 - 150
Triclopyr	105		P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P343719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	88.0		P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P343931

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	88.8		P	40 - 150
Acetaminophen	93.1		P	30 - 150
Bentazon	117		P	30 - 150
Carbamazepine	96.8		P	40 - 150
Diuron	90.4		P	40 - 150
Fenuron	110		P	40 - 150
Fluridone	87.8		P	40 - 150
Hydrocodone	115		P	40 - 150
Imazapyr	104		P	40 - 150
Imidacloprid	104		P	40 - 160
Linuron	90.8		P	40 - 150
MCPP	103		P	40 - 150
Primidone	97.8		P	40 - 150
Pyraclostrobin	83.1		P	40 - 150
Triclopyr	106		P	40 - 150

Reference Method: SM 2320 B-97
 Batch ID: P344451

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 2320 B-97
 Batch ID: P344517

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
 Batch ID: P344455

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.2		P	91 - 105

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P344456

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.2		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P344204

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P344289

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P343891

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1985957	Calcium	97.1		P	80 - 120
1985957	Iron	103		P	80 - 120
1985957	Magnesium	100		P	80 - 120
1985957	Potassium	95.5		P	80 - 120
1985957	Sodium	94.7		P	80 - 120
1985957	Zinc	97.0		P	80 - 120
1986219	Calcium	98.1		P	80 - 120
1986219	Iron	103	102	P/P	80 - 120
1986219	Magnesium	99.4		P	80 - 120
1986219	Potassium	97.2	95.4	P/P	80 - 120
1986219	Sodium	95.9		P	80 - 120
1986219	Zinc	93.8	96.6	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343891

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1985957	Arsenic	103		P	80 - 120
1985957	Cadmium	102		P	80 - 120
1985957	Chromium	97.0		P	80 - 120
1985957	Copper	96.5		P	80 - 120
1985957	Lead	99.6		P	80 - 120
1985957	Nickel	99.1		P	80 - 120
1985957	Silver	99.2		P	80 - 120
1986219	Arsenic	102	103	P/P	80 - 120
1986219	Cadmium	103	102	P/P	80 - 120
1986219	Chromium	95.6	96.9	P/P	80 - 120
1986219	Copper	94.5	95.5	P/P	80 - 120
1986219	Lead	97.3	99.2	P/P	80 - 120
1986219	Nickel	97.4	98.7	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343891

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986219	Silver	98.8	100	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344319

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1987474	Chromium	89.5	89.9	P/P	75 - 125
1987474	Nickel	90.6	91.4	P/P	75 - 125

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344011

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986195	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344012

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986330	Chloride	95.8	95.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986195	Sulfate	97.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344014

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986330	Sulfate	94.9	93.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344181

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986277	Ammonia-N	95.4	97.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343889

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986333	Kjeldahl Nitrogen	103	97.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343944

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986246	NO2NO3-N	100	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343945

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986331	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343978

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1985968	Total-P	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344040

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986335	Total-P	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1987975	Total-P	100	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344407

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1988076	Total-P	104	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343833

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986236	O-Phosphate-P	99.5	98.8	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P343718

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1985800	2,4-D	73.2	69.0	P/P	40 - 150
1985800	Acetaminophen	105	110	P/P	30 - 150
1985800	Bentazon	43.0	42.4	P/P	30 - 150
1985800	Carbamazepine	77.0	80.9	P/P	40 - 150
1985800	Diuron	69.8	69.4	P/P	40 - 150
1985800	Fenuron	75.8	78.8	P/P	40 - 150
1985800	Fluridone	74.5	76.3	P/P	40 - 150
1985800	Hydrocodone	108	114	P/P	40 - 150
1985800	Imidacloprid	193	201	F/F	40 - 160
1985800	Linuron	88.0	101	P/P	40 - 150
1985800	MCP	70.2	65.1	P/P	40 - 150
1985800	Primidone	91.2	101	P/P	40 - 150
1985800	Pyraclostrobin	80.2	81.6	P/P	40 - 150
1985800	Triclopyr	78.2	78.0	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P343719

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986060	Sucralose	46.4	49.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P343931

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986950	2,4-D	80.1	76.0	P/P	40 - 150
1986950	Acetaminophen	128	117	P/P	30 - 150
1986950	Bentazon	75.6	68.5	P/P	30 - 150
1986950	Carbamazepine	116	108	P/P	40 - 150
1986950	Diuron	96.5	88.5	P/P	40 - 150
1986950	Fenuron	121	108	P/P	40 - 150
1986950	Fluridone	88.8	80.4	P/P	40 - 150
1986950	Hydrocodone	146	135	P/P	40 - 150
1986950	Imazapyr	119	87.0	P/P	40 - 150
1986950	Linuron	100	89.9	P/P	40 - 150
1986950	MCCP	92.7	84.2	P/P	40 - 150
1986950	Primidone	131	110	P/P	40 - 150
1986950	Pyraclostrobin	103	97.6	P/P	40 - 150
1986950	Triclopyr	96.1	88.3	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P344455

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986212	Fluoride	96.2	95.6	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P344456

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986604	Fluoride	94.7	95.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P344204

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986171	Organic Carbon	95.9	98.0	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P344289

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986322	Organic Carbon	101		P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P343841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986317	Turbidity	0.375	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P343891

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986219	Calcium	0.595	Spike	P	0 - 20
1986219	Iron	1.23	Spike	P	0 - 20
1986219	Magnesium	1.68	Spike	P	0 - 20
1986219	Potassium	1.56	Spike	P	0 - 20
1986219	Sodium	0.309	Spike	P	0 - 20
1986219	Zinc	2.93	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343891

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986219	Arsenic	1.04	Spike	P	0 - 20
1986219	Cadmium	0.628	Spike	P	0 - 20
1986219	Chromium	1.25	Spike	P	0 - 20
1986219	Copper	1.10	Spike	P	0 - 20
1986219	Lead	1.87	Spike	P	0 - 20
1986219	Nickel	1.25	Spike	P	0 - 20
1986219	Silver	1.68	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344319

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1987474	Chromium	0.349	Spike	P	0 - 20
1987474	Nickel	0.720	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344011

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986195	Chloride	1.21	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986330	Chloride	0.110	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986195	Sulfate	2.51	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986330	Sulfate	0.738	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986277	Ammonia-N	1.51	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986333	Kjeldahl Nitrogen	4.57	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343944

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986246	NO2NO3-N	1.14	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343945

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986331	NO2NO3-N	1.45	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343978

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1985968	Total-P	0.479	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986335	Total-P	1.36	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1987975	Total-P	2.18	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344407

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1988076	Total-P	4.42	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986236	O-Phosphate-P	0.706	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P343718

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1985800	2,4-D	4.35	Spike	P	0 - 30
1985800	Acetaminophen	4.74	Spike	P	0 - 30
1985800	Bentazon	0.982	Spike	P	0 - 30
1985800	Carbamazepine	4.92	Spike	P	0 - 30
1985800	Diuron	0.635	Spike	P	0 - 30
1985800	Fenuron	3.77	Spike	P	0 - 30
1985800	Fluridone	2.34	Spike	P	0 - 30
1985800	Hydrocodone	5.46	Spike	P	0 - 30
1985800	Imazapyr	1.13	Spike	P	0 - 30
1985800	Imidacloprid	3.76	Spike	P	0 - 30
1985800	Linuron	13.8	Spike	P	0 - 30
1985800	MCP	7.45	Spike	P	0 - 30
1985800	Primidone	9.71	Spike	P	0 - 30
1985800	Pyraclostrobin	1.74	Spike	P	0 - 30
1985800	Triclopyr	0.270	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P343719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986060	Sucralose	4.17	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P343931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986950	2,4-D	5.24	Spike	P	0 - 30
1986950	Acetaminophen	8.51	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P343931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986950	Bentazon	7.81	Spike	P	0 - 30
1986950	Carbamazepine	7.17	Spike	P	0 - 30
1986950	Diuron	7.50	Spike	P	0 - 30
1986950	Fenuron	10.8	Spike	P	0 - 30
1986950	Fluridone	8.24	Spike	P	0 - 30
1986950	Hydrocodone	8.33	Spike	P	0 - 30
1986950	Imazapyr	11.2	Spike	P	0 - 30
1986950	Imidacloprid	11.5	Spike	P	0 - 30
1986950	Linuron	11.1	Spike	P	0 - 30
1986950	MCPP	9.64	Spike	P	0 - 30
1986950	Primidone	17.4	Spike	P	0 - 30
1986950	Pyraclostrobin	5.76	Spike	P	0 - 30
1986950	Triclopyr	8.54	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P343821

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986317	Color (true)	2.10	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P343822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986329	Color (true)	11.2	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P344451

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986212	Total Alkalinity	0.229	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P344517

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986604	Total Alkalinity	0.603	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P344258

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1985676	TDS	6.82	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P344259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986318	TDS	4.98	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P344455

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986212	Fluoride	0.476	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P344456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986604	Fluoride	0.479	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P344204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986171	Organic Carbon	2.07	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P344289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986322	Organic Carbon	0.376	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: 1986408
Field Sample ID: 20030848

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	62.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.5	P	30 - 160
EPA 8321B	Diuron-d6	66.9	P	30 - 160
EPA 8321B	Primidone-d5	98.8	P	30 - 160
EPA 8321B	Sucralose-d6	83.3	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1986409
Field Sample ID: 20030653

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	74.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	108	P	30 - 160
EPA 8321B	Diuron-d6	79.1	P	30 - 160
EPA 8321B	Primidone-d5	114	P	30 - 160
EPA 8321B	Sucralose-d6	73.5	P	40 - 160

Lab Sample ID: 1986410
Field Sample ID: 20030753

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	60.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	117	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.4	P	30 - 160
EPA 8321B	Diuron-d6	68.2	P	30 - 160
EPA 8321B	Primidone-d5	91.7	P	30 - 160
EPA 8321B	Sucralose-d6	59.6	P	40 - 160

Lab Sample ID: 1986411
Field Sample ID: 20030316

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	50.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	131	P	30 - 160
EPA 8321B	Carbamazepine-d10	111	P	30 - 160
EPA 8321B	Diuron-d6	83.4	P	30 - 160
EPA 8321B	Primidone-d5	130	P	30 - 160
EPA 8321B	Sucralose-d6	90.1	P	40 - 160

Lab Sample ID: 1986412
Field Sample ID: 20030897DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	65.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	115	P	30 - 160
EPA 8321B	Diuron-d6	79.2	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	84.8	P	40 - 160

Lab Sample ID: 1986413
Field Sample ID: 20030897

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	63.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	117	P	30 - 160
EPA 8321B	Diuron-d6	79.6	P	30 - 160
EPA 8321B	Primidone-d5	115	P	30 - 160
EPA 8321B	Sucralose-d6	76.8	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1986414
Field Sample ID: 20030537

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	56.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	142	P	30 - 160
EPA 8321B	Carbamazepine-d10	112	P	30 - 160
EPA 8321B	Diuron-d6	84.8	P	30 - 160
EPA 8321B	Primidone-d5	142	P	30 - 160
EPA 8321B	Sucralose-d6	89.4	P	40 - 160

Lab Sample ID: 1986415
Field Sample ID: 20030891

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	64.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	128	P	30 - 160
EPA 8321B	Carbamazepine-d10	113	P	30 - 160
EPA 8321B	Diuron-d6	85.5	P	30 - 160
EPA 8321B	Primidone-d5	130	P	30 - 160
EPA 8321B	Sucralose-d6	76.5	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A83378
Included Lab Sample IDs: 1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	99.0	P/P	90 - 115
Color (true)	99.0	100	P/P	90 - 115
Color (true)	99.6	101	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A83379
Included Lab Sample IDs: 1986323, 1986324, 1986325, 1986336, 1986337, 1986338, 1986339, 1986340

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.1	97.9	P/P	90 - 110
O-Phosphate-P	98.8	98.1	P/P	90 - 110
O-Phosphate-P	98.9	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A83380
Included Lab Sample IDs: 1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A83415
Included Lab Sample IDs: 1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A83415

Included Lab Sample IDs: 1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	105	P/P	90 - 110
Chloride	102	104	P/P	90 - 110
Chloride	105	102	P/P	90 - 110
Chloride	106	102	P/P	90 - 110
Sulfate	101	106	P/P	90 - 110
Sulfate	101	103	P/P	90 - 110
Sulfate	104	101	P/P	90 - 110
Sulfate	106	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A83419

Included Lab Sample IDs: 1986320, 1986321, 1986322, 1986331, 1986332, 1986333, 1986334, 1986335

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: A83432

Included Lab Sample IDs: 1986416, 1986417, 1986418, 1986419, 1986420

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	100	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	98.6	98.5	P/P	90 - 110
Copper	98.8	98.3	P/P	90 - 110
Lead	98.6	98.8	P/P	90 - 110
Nickel	98.2	97.8	P/P	90 - 110
Silver	100	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A83433

Included Lab Sample IDs: 1986416, 1986417, 1986418, 1986419, 1986420

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.2	97.8	P/P	90 - 110
Iron	98.9	99.3	P/P	90 - 110
Magnesium	99.8	100	P/P	90 - 110
Potassium	94.6	94.4	P/P	90 - 110
Sodium	95.2	95.2	P/P	90 - 110
Zinc	97.0	99.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83447

Included Lab Sample IDs: 1986322

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A83449

Included Lab Sample IDs: 1986408, 1986409, 1986410, 1986411, 1986412, 1986413, 1986414, 1986415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	71.2	84.3	P/P	60 - 150
Sucralose	84.3	87.6	P/P	60 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A83458

Included Lab Sample IDs: 1986320, 1986321, 1986322, 1986331, 1986332, 1986333, 1986334, 1986335

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83488

Included Lab Sample IDs: 1986331, 1986334, 1986335

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A83494

Included Lab Sample IDs: 1986320, 1986321, 1986322, 1986331, 1986332, 1986333, 1986334, 1986335

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

Reference Method: SM 5310 B-00

Run ID: A83500

Included Lab Sample IDs: 1986320, 1986321

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.0	97.0	P/P	90 - 110
Organic Carbon	98.2	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83513

Included Lab Sample IDs: 1986332, 1986333

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

Reference Method: SM 5310 B-00

Run ID: A83539

Included Lab Sample IDs: 1986322, 1986331, 1986332, 1986333, 1986334, 1986335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.1	97.4	P/P	90 - 110
Organic Carbon	97.4	98.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A83582

Included Lab Sample IDs: 1986420

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	98.6	98.3	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A83593

Included Lab Sample IDs: 1986317

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A83593

Included Lab Sample IDs: 1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	98.5	P/P	90 - 110
Fluoride	98.5	99.0	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A83608

Included Lab Sample IDs: 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A83609

Included Lab Sample IDs: 1986420

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83619

Included Lab Sample IDs: 1986320, 1986321

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

Reference Method: EPA 8321B

Run ID: A83753

Included Lab Sample IDs: 1986408, 1986409, 1986410, 1986411, 1986412, 1986413, 1986414, 1986415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	105	P/P	50 - 150
2,4-D	105	106	P/P	50 - 150
2,4-D	106	99.7	P/P	50 - 150
Acetaminophen	107	102	P/P	60 - 150
Bentazon	130	134	P/P	50 - 150
Bentazon	136	140	P/P	50 - 150
Bentazon	140	130	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A83753

Included Lab Sample IDs: 1986408, 1986409, 1986410, 1986411, 1986412, 1986413, 1986414, 1986415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbamazepine	117	116	P/P	60 - 150
Diuron	106	91.2	P/P	60 - 150
Fenuron	116	115	P/P	60 - 150
Fluridone	103	99.4	P/P	60 - 160
Hydrocodone	112	117	P/P	60 - 150
Imazapyr	116	117	P/P	50 - 150
Imidacloprid	108	108	P/P	60 - 150
Linuron	109	109	P/P	60 - 150
MCPPP	105	105	P/P	50 - 150
MCPPP	105	104	P/P	50 - 150
MCPPP	106	105	P/P	50 - 150
Primidone	98.3	96.2	P/P	60 - 150
Pyraclostrobin	102	103	P/P	60 - 150
Triclopyr	108	115	P/P	50 - 160
Triclopyr	115	108	P/P	50 - 160
Triclopyr	115	104	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A83769

Included Lab Sample IDs: 1986411, 1986414, 1986415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	113	112	P/P	60 - 150
Carbamazepine	111	110	P/P	60 - 150
Diuron	118	115	P/P	60 - 150
Fenuron	113	115	P/P	60 - 150
Fluridone	115	111	P/P	60 - 160
Hydrocodone	121	122	P/P	60 - 150
Imazapyr	102	103	P/P	50 - 150
Imazapyr	113	111	P/P	50 - 150
Imidacloprid	111	106	P/P	60 - 150
Linuron	118	123	P/P	60 - 150
Primidone	104	106	P/P	60 - 150
Pyraclostrobin	113	114	P/P	60 - 150

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				0.375	
EPA 200.7 Rev. 4.4	Calcium	101	97.1 98.1			0.595
	Iron	106	103 103 102			1.23
	Magnesium	102	100 99.4			1.68
	Potassium	99.9	95.5 97.2 95.4			1.56
	Sodium	96.9	94.7 95.9			0.309

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 200.7 Rev. 4.4	Zinc	98.0	97.0	93.8	96.6		2.93
EPA 200.8 Rev. 5.4	Arsenic	102	103	102	103		1.04
	Cadmium	98.2	102	103	102		0.628
	Chromium	95.0	97.0	95.6	96.9		1.25
	Chromium	95.6	89.5	89.9			0.349
	Copper	98.3	96.5	94.5	95.5		1.10
	Lead	96.5	99.6	97.3	99.2		1.87
	Nickel	101	99.1	97.4	98.7		1.25
	Nickel	95.8	90.6	91.4			0.720
	Silver	99.2	99.2	98.8	100		1.68
EPA 300.0 Rev. 2.1	Chloride	99.9	101			1.21	
	Chloride	101	95.8	95.6			0.110
	Sulfate	98.1	97.9			2.51	
	Sulfate	99.1	94.9	93.7			0.738
EPA 350.1 Rev. 2.0	Ammonia-N	100	95.4	97.0			1.51
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.8	103	97.1			4.57
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	102			1.14
	NO2NO3-N	102	102	104			1.45
EPA 365.1 Rev. 2.0	Total-P	102	101	100			0.479
	Total-P	100	104	103			1.36
	Total-P	104	100	103			2.18
	Total-P	100	104	99.5			4.42
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2	99.5	98.8			0.706
EPA 8321B	2,4-D	95.8	73.2	69.0			4.35
	2,4-D	88.8	80.1	76.0			5.24
	Acetaminophen	94.1	105	110			4.74
	Acetaminophen	93.1	128	117			8.51
	Bentazon	105	43.0	42.4			0.982
	Bentazon	117	75.6	68.5			7.81
	Carbamazepine	104	77.0	80.9			4.92
	Carbamazepine	96.8	116	108			7.17
	Diuron	83.2	69.8	69.4			0.635
	Diuron	90.4	96.5	88.5			7.50
	Fenuron	112	75.8	78.8			3.77
	Fenuron	110	121	108			10.8
	Fluridone	90.0	74.5	76.3			2.34
	Fluridone	87.8	88.8	80.4			8.24
	Hydrocodone	107	108	114			5.46
	Hydrocodone	115	146	135			8.33
	Imazapyr	120					1.13
	Imazapyr	104	119	87.0			11.2
	Imidacloprid	114	193	201			3.76
	Imidacloprid	104					11.5
	Linuron	98.9	88.0	101			13.8
	Linuron	90.8	100	89.9			11.1
	MCPP	98.6	70.2	65.1			7.45
	MCPP	103	92.7	84.2			9.64
	Primidone	105	91.2	101			9.71
	Primidone	97.8	131	110			17.4
	Pyraclostrobin	84.1	80.2	81.6			1.74
	Pyraclostrobin	83.1	103	97.6			5.76
	Sucralose	88.0	46.4	49.1			4.17
	Triclopyr	105	78.2	78.0			0.270
	Triclopyr	106	96.1	88.3			8.54

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision		
				LCS	SMP	MS
SM 2120 B	Color (true)				2.10	
	Color (true)				11.2	
SM 2320 B-97	Total Alkalinity	102			0.229	
	Total Alkalinity	102			0.603	
SM 2540 C-97	TDS				6.82	
	TDS				4.98	
SM 4500 F-C-97	Fluoride	95.2	96.2 95.6			0.476
	Fluoride	95.2	94.7 95.2			0.479
SM 5310 B-00	Organic Carbon	95.8	95.9 98.0			2.07
	Organic Carbon	96.1	101			0.376

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1986416, 1986417, 1986418, 1986419, 1986420
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1986416, 1986417, 1986418, 1986419, 1986420
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1986320, 1986321, 1986322, 1986331, 1986332, 1986333, 1986334, 1986335
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1986320, 1986321, 1986322, 1986331, 1986332, 1986333, 1986334, 1986335
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1986320, 1986321, 1986322, 1986331, 1986332, 1986333, 1986334, 1986335
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1986320, 1986321, 1986322, 1986331, 1986332, 1986333, 1986334, 1986335
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1986323, 1986324, 1986325, 1986336, 1986337, 1986338, 1986339, 1986340
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1986408, 1986409, 1986410, 1986411, 1986412, 1986413, 1986414, 1986415
SM 2120 B / E31780	True Color measured at 450 nm	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1986320, 1986321, 1986322, 1986331, 1986332, 1986333, 1986334, 1986335

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	04/20/2018			04/20/2018 16:58	Tanya Welborn	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
EPA 200.7 Rev. 4.4	04/20/2018	04/23/2018 13:40	Elliott D. Healy	04/24/2018 15:39	Betina Topolski	1986416
	04/20/2018	04/23/2018 13:40	Elliott D. Healy	04/24/2018 15:47	Betina Topolski	1986417
	04/20/2018	04/23/2018 13:40	Elliott D. Healy	04/24/2018 15:54	Betina Topolski	1986418
	04/20/2018	04/23/2018 13:40	Elliott D. Healy	04/24/2018 16:02	Betina Topolski	1986419
EPA 200.8 Rev. 5.4	04/20/2018	04/23/2018 13:40	Elliott D. Healy	04/24/2018 16:09	Betina Topolski	1986420
	04/20/2018	04/23/2018 13:40	Elliott D. Healy	04/24/2018 18:25	Nadine Brooks	1986416
	04/20/2018	04/23/2018 13:40	Elliott D. Healy	04/24/2018 18:35	Nadine Brooks	1986417
	04/20/2018	04/23/2018 13:40	Elliott D. Healy	04/24/2018 18:45	Nadine Brooks	1986418
	04/20/2018	04/23/2018 13:40	Elliott D. Healy	04/24/2018 18:54	Nadine Brooks	1986419
	04/20/2018	04/23/2018 13:40	Elliott D. Healy	04/24/2018 19:04	Nadine Brooks	1986420
	04/20/2018	04/30/2018 15:15	Elliott D. Healy	05/01/2018 19:56	Robert K Palmer	1986420
	04/20/2018	04/30/2018 15:15	Elliott D. Healy	05/02/2018 10:20	Robert K Palmer	1986420
EPA 300.0 Rev. 2.1	04/20/2018			04/24/2018 15:37	Lipi Saha	1986317
	04/20/2018			04/24/2018 18:24	Lipi Saha	1986318
	04/20/2018			04/24/2018 18:36	Lipi Saha	1986319
	04/20/2018			04/24/2018 18:48	Lipi Saha	1986326
	04/20/2018			04/24/2018 19:00	Lipi Saha	1986327
	04/20/2018			04/24/2018 19:36	Lipi Saha	1986328
	04/20/2018			04/24/2018 19:48	Lipi Saha	1986329
	04/20/2018			04/24/2018 21:12	Lipi Saha	1986330
EPA 350.1 Rev. 2.0	04/20/2018			04/25/2018 10:38	Ping Hua	1986320
	04/20/2018			04/25/2018 10:39	Ping Hua	1986321
	04/20/2018			04/25/2018 10:41	Ping Hua	1986322
	04/20/2018			04/25/2018 10:42	Ping Hua	1986331
	04/20/2018			04/25/2018 10:44	Ping Hua	1986332
	04/20/2018			04/25/2018 10:53	Ping Hua	1986333
	04/20/2018			04/25/2018 10:55	Ping Hua	1986334
	04/20/2018			04/25/2018 10:56	Ping Hua	1986335
EPA 351.2 Rev. 2.0	04/20/2018	04/23/2018 16:00	Adrian Shelby	04/25/2018 11:51	Tanya Welborn	1986320
	04/20/2018	04/23/2018 16:00	Adrian Shelby	04/25/2018 11:52	Tanya Welborn	1986321
	04/20/2018	04/23/2018 16:00	Adrian Shelby	04/25/2018 11:54	Tanya Welborn	1986322
	04/20/2018	04/23/2018 16:00	Adrian Shelby	04/25/2018 11:55	Tanya Welborn	1986331
	04/20/2018	04/23/2018 16:00	Adrian Shelby	04/25/2018 11:57	Tanya Welborn	1986332
	04/20/2018	04/23/2018 16:00	Adrian Shelby	04/25/2018 11:58	Tanya Welborn	1986333
	04/20/2018	04/23/2018 16:00	Adrian Shelby	04/25/2018 12:03	Tanya Welborn	1986334
	04/20/2018	04/23/2018 16:00	Adrian Shelby	04/25/2018 12:05	Tanya Welborn	1986335
EPA 353.2 Rev. 2.0	04/20/2018			04/24/2018 12:05	Lauren Bottorf	1986320
	04/20/2018			04/24/2018 12:07	Lauren Bottorf	1986321

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 353.2 Rev. 2.0	04/20/2018			04/24/2018 12:08	Lauren Bottorf	1986322
	04/20/2018			04/24/2018 12:15	Lauren Bottorf	1986331
	04/20/2018			04/24/2018 12:21	Lauren Bottorf	1986332
	04/20/2018			04/24/2018 12:22	Lauren Bottorf	1986333
	04/20/2018			04/24/2018 12:23	Lauren Bottorf	1986334
	04/20/2018			04/24/2018 12:24	Lauren Bottorf	1986335
EPA 365.1 Rev. 2.0	04/20/2018	04/24/2018 15:27	Sima Feizi	04/25/2018 10:42	Beverly Y. Sanders	1986322
	04/20/2018	04/25/2018 13:20	Sima Feizi	04/26/2018 16:52	Lipi Saha	1986335
	04/20/2018	04/25/2018 13:20	Sima Feizi	04/26/2018 16:55	Lipi Saha	1986331
	04/20/2018	04/25/2018 13:20	Sima Feizi	04/26/2018 16:59	Lipi Saha	1986334
	04/20/2018	04/25/2018 13:20	Sima Feizi	04/27/2018 12:58	Beverly Y. Sanders	1986332
	04/20/2018	04/25/2018 13:20	Sima Feizi	04/27/2018 12:59	Beverly Y. Sanders	1986333
EPA 365.1 Rev. 2.0 dissolved	04/20/2018	05/01/2018 14:01	Sima Feizi	05/02/2018 13:51	Lipi Saha	1986320
	04/20/2018	05/01/2018 14:01	Sima Feizi	05/02/2018 14:08	Lipi Saha	1986321
	04/20/2018			04/20/2018 15:19	Megan Treadwell	1986323
	04/20/2018			04/20/2018 15:20	Megan Treadwell	1986324
	04/20/2018			04/20/2018 15:26	Megan Treadwell	1986336
	04/20/2018			04/20/2018 15:27	Megan Treadwell	1986337
EPA 8321B	04/20/2018			04/20/2018 15:28	Megan Treadwell	1986338
	04/20/2018			04/20/2018 15:29	Megan Treadwell	1986339
	04/20/2018			04/20/2018 15:30	Megan Treadwell	1986340
	04/20/2018			04/20/2018 15:41	Megan Treadwell	1986325
	04/20/2018	04/24/2018 10:00	Hoor Shaik	05/04/2018 09:08	Juyoung Kim	1986408
	04/20/2018	04/24/2018 10:00	Hoor Shaik	05/04/2018 10:17	Juyoung Kim	1986409
	04/20/2018	04/24/2018 10:00	Hoor Shaik	05/04/2018 10:51	Juyoung Kim	1986410
	04/20/2018	04/24/2018 10:00	Hoor Shaik	05/04/2018 11:26	Juyoung Kim	1986412
	04/20/2018	04/24/2018 10:00	Hoor Shaik	05/04/2018 12:01	Juyoung Kim	1986413
	04/20/2018	04/24/2018 10:00	Hoor Shaik	05/06/2018 15:53	Juyoung Kim	1986408
	04/20/2018	04/24/2018 10:00	Hoor Shaik	05/06/2018 16:28	Juyoung Kim	1986409
	04/20/2018	04/24/2018 10:00	Hoor Shaik	05/06/2018 17:02	Juyoung Kim	1986410
	04/20/2018	04/24/2018 10:00	Hoor Shaik	05/06/2018 17:37	Juyoung Kim	1986412
	04/20/2018	04/24/2018 10:00	Hoor Shaik	05/06/2018 18:12	Juyoung Kim	1986413
	04/20/2018	04/24/2018 15:30	Juyoung Kim	04/24/2018 21:23	Juyoung Kim	1986408
	04/20/2018	04/24/2018 15:30	Juyoung Kim	04/24/2018 21:39	Juyoung Kim	1986409
	04/20/2018	04/24/2018 15:30	Juyoung Kim	04/24/2018 21:55	Juyoung Kim	1986410
	04/20/2018	04/24/2018 15:30	Juyoung Kim	04/24/2018 22:11	Juyoung Kim	1986411
	04/20/2018	04/24/2018 15:30	Juyoung Kim	04/24/2018 22:42	Juyoung Kim	1986412
	04/20/2018	04/24/2018 15:30	Juyoung Kim	04/24/2018 22:58	Juyoung Kim	1986413
	04/20/2018	04/24/2018 15:30	Juyoung Kim	04/24/2018 23:14	Juyoung Kim	1986414
	04/20/2018	04/24/2018 15:30	Juyoung Kim	04/24/2018 23:30	Juyoung Kim	1986415

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	04/20/2018	04/25/2018 14:00	Hoor Shaik	05/04/2018 15:28	Juyoung Kim	1986411
	04/20/2018	04/25/2018 14:00	Hoor Shaik	05/04/2018 16:37	Juyoung Kim	1986414
	04/20/2018	04/25/2018 14:00	Hoor Shaik	05/04/2018 17:12	Juyoung Kim	1986415
	04/20/2018	04/25/2018 14:00	Hoor Shaik	05/05/2018 16:24	Juyoung Kim	1986411
	04/20/2018	04/25/2018 14:00	Hoor Shaik	05/05/2018 16:58	Juyoung Kim	1986414
	04/20/2018	04/25/2018 14:00	Hoor Shaik	05/05/2018 17:33	Juyoung Kim	1986415
	04/20/2018	04/25/2018 14:00	Hoor Shaik	05/08/2018 06:00	Juyoung Kim	1986411
	04/20/2018	04/25/2018 14:00	Hoor Shaik	05/08/2018 06:35	Juyoung Kim	1986414
	04/20/2018	04/25/2018 14:00	Hoor Shaik	05/08/2018 07:10	Juyoung Kim	1986415
SM 2120 B	04/20/2018			04/20/2018 15:05	Tanya Welborn	1986317
	04/20/2018			04/20/2018 15:06	Tanya Welborn	1986318
	04/20/2018			04/20/2018 15:08	Tanya Welborn	1986326, 1986327
	04/20/2018			04/20/2018 15:11	Tanya Welborn	1986328
	04/20/2018			04/20/2018 15:13	Tanya Welborn	1986329
	04/20/2018			04/20/2018 15:14	Tanya Welborn	1986330
	04/20/2018			04/20/2018 15:29	Tanya Welborn	1986319
SM 2320 B-97	04/20/2018			05/01/2018 22:51	Dale L. Simmons	1986317
	04/20/2018			05/02/2018 18:38	Dale L. Simmons	1986318
	04/20/2018			05/02/2018 18:46	Dale L. Simmons	1986319
	04/20/2018			05/02/2018 18:54	Dale L. Simmons	1986326
	04/20/2018			05/02/2018 19:03	Dale L. Simmons	1986327
	04/20/2018			05/02/2018 19:11	Dale L. Simmons	1986328
	04/20/2018			05/02/2018 19:19	Dale L. Simmons	1986329
	04/20/2018			05/02/2018 19:27	Dale L. Simmons	1986330
SM 2540 C-97	04/20/2018			04/24/2018 15:21	Yijie Li	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
SM 2540 D-97	04/20/2018			04/24/2018 15:21	Yijie Li	1986317, 1986318, 1986319, 1986326, 1986327, 1986328, 1986329, 1986330
SM 4500 F-C-97	04/20/2018			05/01/2018 22:51	Dale L. Simmons	1986317
	04/20/2018			05/02/2018 00:45	Dale L. Simmons	1986318
	04/20/2018			05/02/2018 00:55	Dale L. Simmons	1986319
	04/20/2018			05/02/2018 01:06	Dale L. Simmons	1986326
	04/20/2018			05/02/2018 01:16	Dale L. Simmons	1986327
	04/20/2018			05/02/2018 01:27	Dale L. Simmons	1986328
	04/20/2018			05/02/2018 01:37	Dale L. Simmons	1986329
	04/20/2018			05/02/2018 01:47	Dale L. Simmons	1986330
	04/20/2018			04/26/2018 04:18	Megan Treadwell	1986320
SM 5310 B-00	04/20/2018			04/26/2018 05:06	Megan Treadwell	1986321
	04/20/2018			04/27/2018 19:07	Julia Storbeck	1986322
	04/20/2018			04/27/2018 20:09	Julia Storbeck	1986334

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	04/20/2018			04/27/2018 20:38	Julia Storbeck	1986331
	04/20/2018			04/27/2018 20:52	Julia Storbeck	1986332
	04/20/2018			04/27/2018 21:37	Julia Storbeck	1986333
	04/20/2018			04/27/2018 21:52	Julia Storbeck	1986335