

Chemical Analysis Report

NE-DIST-2018-07-12-03

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

Event Description: **LSJR Southside 2**
Request ID: **RQ-2018-07-09-14**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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8800 Baymeadows Way West
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 06-AUG-2018 14:22

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

Case Narrative

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

Results for the following analytical groups are included in this report: 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: DEEP BOTTOM CREEK AT SCOTT MILL RD

Collection Date/Time: 07/11/2018 12:45

Field ID: 20030595

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2006897	EPA 180.1 Rev. 2.0	Turbidity	4.2	A	NTU	P348342	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P348903	
		Sulfate	15		mg SO4/L	P348911	
	SM 2120 B	Color (true)	91	A	PCU	P348333	
	SM 2320 B-97	Total Alkalinity	75		mg CaCO3/L	P348512	
	SM 2540 C-97	TDS	173		mg/L	P348623	
	SM 2540 D-97	TSS	2	I	mg/L	P348618	
	SM 4500 F-C-97	Fluoride	0.078	I	mg F/L	P348516	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.065		mg N/L	P348868	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P348571	
2006900	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P348419	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P348594	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P348653	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.016		mg P/L	P348347	
	EPA 8321B	2,4-D	0.15		ug/L	P348297	
2006940		Bentazon	0.036		ug/L	P348297	
		MCP	0.0089		ug/L	P348297	
		Triclopyr**	0.0040	U	ug/L	P348297	
		Imidacloprid	0.28		ug/L	P348297	
		Diuron	0.19		ug/L	P348297	
		Pyraclostrobin**	0.0020	U	ug/L	P348297	
		Primidone**	0.0040	U	ug/L	P348297	
		Linuron	0.0040	U	ug/L	P348297	
		Acetaminophen**	0.0080	U	ug/L	P348297	RPD
		Fenuron	0.016	U	ug/L	P348297	
		Imazapyr**	0.14		ug/L	P348297	
		Carbamazepine**	5.0E-04	I	ug/L	P348297	
		Fluridone**	0.093		ug/L	P348297	
		Hydrocodone**	8.0E-04	U	ug/L	P348297	
		Sucralose**	0.14		ug/L	P348298	MS, RPD
	EPA 200.7 Rev. 4.4	Calcium	30.7		mg/L	P348507	
		Iron	1.25E+03		ug/L	P348507	
		Magnesium	4.86		mg/L	P348507	
2006948		Potassium	1.7		mg/L	P348507	
		Sodium	13.5		mg/L	P348507	
		Zinc	6.5	I	ug/L	P348507	
	EPA 200.8 Rev. 5.4	Arsenic	1.68		ug/L	P348507	
		Cadmium	0.020	U	ug/L	P348507	
		Chromium	0.62	I	ug/L	P348507	
		Copper	1.20		ug/L	P348507	
		Lead	0.21		ug/L	P348507	
		Nickel	0.53	I	ug/L	P348507	
		Silver	0.010	U	ug/L	P348507	

Field ID: 20030595

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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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 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: DEEP BOTTOM CREEK AT I-295

Collection Date/Time: 07/11/2018 13:35

Field ID: 20030596

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2006898	EPA 180.1 Rev. 2.0	Turbidity	9.3		NTU	P348342	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P348903	
		Sulfate	19		mg SO4/L	P348911	
	SM 2120 B	Color (true)	110		PCU	P348333	
	SM 2320 B-97	Total Alkalinity	70		mg CaCO3/L	P348512	
	SM 2540 C-97	TDS	200	A	mg/L	P348623	
	SM 2540 D-97	TSS	2	IA	mg/L	P348618	
	SM 4500 F-C-97	Fluoride	0.087	I	mg F/L	P348516	
2006901	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P348868	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P348836	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P348419	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P348594	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P348653	
2006904	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.033		mg P/L	P348347	
2006941	EPA 8321B	2,4-D	0.045		ug/L	P348297	
		Bentazon	0.040		ug/L	P348297	
		MCP	0.010		ug/L	P348297	
		Triclopyr**	0.0040	U	ug/L	P348297	
		Imidacloprid	0.082		ug/L	P348297	
		Diuron	0.24		ug/L	P348297	
		Pyraclostrobin**	0.0020	U	ug/L	P348297	
		Primidone**	0.0040	U	ug/L	P348297	
		Linuron	0.0040	U	ug/L	P348297	
		Acetaminophen**	0.083		ug/L	P348297	RPD
		Fenuron	0.019	I	ug/L	P348297	
		Imazapyr**	0.17		ug/L	P348297	
		Carbamazepine**	4.0E-04	U	ug/L	P348297	
		Fluridone**	0.12		ug/L	P348297	
		Hydrocodone**	8.0E-04	U	ug/L	P348297	
		Sucralose**	0.12		ug/L	P348298	MS, RPD
2006949	EPA 200.7 Rev. 4.4	Calcium	29.3		mg/L	P348507	
		Iron	2.04E+03		ug/L	P348507	
		Magnesium	6.06		mg/L	P348507	
		Potassium	1.8		mg/L	P348507	
		Sodium	16.1		mg/L	P348507	
		Zinc	5.0	U	ug/L	P348507	
	EPA 200.8 Rev. 5.4	Arsenic	1.69		ug/L	P348507	
		Cadmium	0.020	U	ug/L	P348507	
		Chromium	0.66	I	ug/L	P348507	
		Copper	0.88		ug/L	P348507	
		Lead	0.19	I	ug/L	P348507	
		Nickel	0.42	I	ug/L	P348507	
		Silver	0.010	U	ug/L	P348507	

Field ID: 20030596

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: DEEP BOTTOM CR AT CHEATHAM TRAIL

Collection Date/Time: 07/11/2018 13:10

Field ID: 20030592

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2006899	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P348342	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P348903	
		Sulfate	17		mg SO4/L	P348911	
		Color (true)	87		PCU	P348333	
	SM 2120 B	Total Alkalinity	73		mg CaCO3/L	P348512	
	SM 2540 C-97	TDS	168		mg/L	P348623	
	SM 2540 D-97	TSS	35		mg/L	P348618	
	SM 4500 F-C-97	Fluoride	0.074	I	mg F/L	P348516	
2006902	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P348869	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.72		mg N/L	P348571	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P348419	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P348594	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P348653	
2006905	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.020		mg P/L	P348347	
2006942	EPA 8321B	2,4-D	0.14		ug/L	P348297	
		Bentazon	0.033		ug/L	P348297	
		MCP	0.0091		ug/L	P348297	
		Triclopyr**	0.0040	U	ug/L	P348297	
		Imidacloprid	0.30		ug/L	P348297	
		Diuron	0.21		ug/L	P348297	
		Pyraclostrobin**	0.0020	U	ug/L	P348297	
		Primidone**	0.0040	U	ug/L	P348297	
		Linuron	0.0040	U	ug/L	P348297	
		Acetaminophen**	0.0080	U	ug/L	P348297	RPD
		Fenuron	0.016	U	ug/L	P348297	
		Imazapyr**	0.17		ug/L	P348297	
		Carbamazepine**	0.0022		ug/L	P348297	
		Fluridone**	0.099		ug/L	P348297	
		Hydrocodone**	8.0E-04	U	ug/L	P348297	
		Sucralose**	0.11		ug/L	P348298	MS, RPD
2006950	EPA 200.7 Rev. 4.4	Calcium	30.8		mg/L	P348507	
		Iron	1.14E+03		ug/L	P348507	
		Magnesium	4.96		mg/L	P348507	
		Potassium	1.8		mg/L	P348507	
		Sodium	13.6		mg/L	P348507	
		Zinc	7.0	I	ug/L	P348507	
		Arsenic	1.81		ug/L	P348507	
	EPA 200.8 Rev. 5.4	Cadmium	0.020	U	ug/L	P348507	
		Chromium	0.59	I	ug/L	P348507	
		Copper	1.23		ug/L	P348507	
		Lead	0.21		ug/L	P348507	
		Nickel	0.54	I	ug/L	P348507	
		Silver	0.010	U	ug/L	P348507	

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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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 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: CORMORANT BRANCH @ MARBON RD

Collection Date/Time: 07/11/2018 11:20

Field ID: 20030852dup

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2006944	EPA 8321B	2,4-D	0.030		ug/L	P348391	
		Bentazon	0.033		ug/L	P348391	
		MCP	0.0052	I	ug/L	P348391	MS
		Triclopyr**	0.0040	U	ug/L	P348391	MS
		Imidacloprid	0.41		ug/L	P348391	
		Diuron	0.048		ug/L	P348391	
		Pyraclostrobin**	0.0020	U	ug/L	P348391	
		Primidone**	0.0040	U	ug/L	P348391	
		Linuron	0.0040	U	ug/L	P348391	
		Acetaminophen**	0.0080	U	ug/L	P348391	
		Fenuron	0.016	U	ug/L	P348391	
		Imazapyr**	0.44		ug/L	P348391	
		Carbamazepine**	4.0E-04	U	ug/L	P348391	
		Fluridone**	0.058		ug/L	P348391	
		Hydrocodone**	8.0E-04	U	ug/L	P348391	
		Sucralose**	0.14		ug/L	P348298	MS, RPD

**Sample Location: CORMORANT BRANCH AT JULINGTON
CREEK ROAD**

Collection Date/Time: 07/11/2018 10:10

Field ID: 20030685

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2006906	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P348342	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P348903	
		Sulfate	13		mg SO4/L	P348911	
	SM 2120 B	Color (true)	230		PCU	P348334	
	SM 2320 B-97	Total Alkalinity	49		mg CaCO3/L	P348512	
	SM 2540 C-97	TDS	166		mg/L	P348623	
	SM 2540 D-97	TSS	5	I	mg/L	P348618	
	SM 4500 F-C-97	Fluoride	0.072	I	mg F/L	P348516	
2006907	EPA 350.1 Rev. 2.0	Ammonia-N	0.053		mg N/L	P348869	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.86		mg N/L	P348571	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.084		mg N/L	P348419	
	EPA 365.1 Rev. 2.0	Total-P	0.099		mg P/L	P348594	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P348653	
2006908	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054		mg P/L	P348348	
2006943	EPA 8321B	2,4-D	0.020		ug/L	P348297	
		Bentazon	0.029		ug/L	P348297	
		MCP	0.0021	I	ug/L	P348297	
		Triclopyr**	0.0040	U	ug/L	P348297	
		Imidacloprid	0.073		ug/L	P348297	
		Diuron	0.012		ug/L	P348297	
		Pyraclostrobin**	0.0020	U	ug/L	P348297	
		Primidone**	0.0040	U	ug/L	P348297	
		Linuron	0.0040	U	ug/L	P348297	
		Acetaminophen**	0.0080	U	ug/L	P348297	RPD
		Fenuron	0.016	U	ug/L	P348297	
		Imazapyr**	0.28		ug/L	P348297	
		Carbamazepine**	4.4E-04	I	ug/L	P348297	
		Fluridone**	0.051		ug/L	P348297	
		Hydrocodone**	8.0E-04	U	ug/L	P348297	
		Sucralose**	0.43		ug/L	P348298	MS, RPD

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 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: CORMORANT BRANCH @ MARBON RD

Collection Date/Time: 07/11/2018 11:15

Field ID: 20030852

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2006945	EPA 8321B	2,4-D	0.029		ug/L	P348391	
		Bentazon	0.031		ug/L	P348391	
		MCP	0.0046	I	ug/L	P348391	MS
		Triclopyr**	0.0040	U	ug/L	P348391	MS
		Imidacloprid	0.38		ug/L	P348391	
		Diuron	0.045		ug/L	P348391	
		Pyraclostrobin**	0.0020	U	ug/L	P348391	
		Primidone**	0.0040	U	ug/L	P348391	
		Linuron	0.0040	U	ug/L	P348391	
		Acetaminophen**	0.0080	U	ug/L	P348391	
		Fenuron	0.016	U	ug/L	P348391	
		Imazapyr**	0.43		ug/L	P348391	
		Carbamazepine**	4.0E-04	U	ug/L	P348391	
		Fluridone**	0.053		ug/L	P348391	
		Hydrocodone**	8.0E-04	U	ug/L	P348391	
		Sucralose**	0.13		ug/L	P348298	MS, RPD

Sample Location: OLDFIELD CR @ LORETTO RD

Collection Date/Time: 07/11/2018 11:40

Field ID: 20030563

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2006909	EPA 180.1 Rev. 2.0	Turbidity	7.5		NTU	P348342	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P348903	
		Sulfate	17		mg SO4/L	P348911	
		Color (true)	74		PCU	P348333	
	SM 2120 B	Total Alkalinity	83		mg CaCO3/L	P348512	
	SM 2540 C-97	TDS	168		mg/L	P348623	
	SM 2540 D-97	TSS	4	I	mg/L	P348618	
	SM 4500 F-C-97	Fluoride	0.091	I	mg F/L	P348516	
2006911	EPA 350.1 Rev. 2.0	Ammonia-N	0.068		mg N/L	P348869	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P348571	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P348419	
	EPA 365.1 Rev. 2.0	Total-P	0.081		mg P/L	P348594	
	SM 5310 B-00	Organic Carbon	8.6		mg C/L	P348653	
2006913	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P348348	
2006951	EPA 200.7 Rev. 4.4	Calcium	34.8		mg/L	P348507	
		Iron	1.68E+03		ug/L	P348507	
		Magnesium	5.02		mg/L	P348507	
		Potassium	1.8		mg/L	P348507	
		Sodium	12.6		mg/L	P348507	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P348507	
		Arsenic	1.58		ug/L	P348507	
		Cadmium	0.020	U	ug/L	P348507	
		Chromium	0.44	I	ug/L	P348507	
		Copper	3.31		ug/L	P348507	
		Lead	0.18	I	ug/L	P348507	
		Nickel	0.40	I	ug/L	P348507	
		Silver	0.010	U	ug/L	P348507	

Ref. Method and Comment:

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

Sample Location: OLDFIELD CR @ JULINGTON CREEK ROAD Collection Date/Time: 07/11/2018 10:40

Field ID: 20030684

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2006910	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P348342	
	EPA 300.0 Rev. 2.1	Chloride	24	A	mg Cl/L	P348904	
		Sulfate	22	A	mg SO4/L	P348912	
		Color (true)	110		PCU	P348333	
	SM 2320 B-97	Total Alkalinity	72		mg CaCO3/L	P348512	
	SM 2540 C-97	TDS	178		mg/L	P348623	
	SM 2540 D-97	TSS	2	I	mg/L	P348618	
	SM 4500 F-C-97	Fluoride	0.093	I	mg F/L	P348516	
2006912	EPA 350.1 Rev. 2.0	Ammonia-N	0.047		mg N/L	P348869	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P348564	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.26		mg N/L	P348419	
	EPA 365.1 Rev. 2.0	Total-P	0.087		mg P/L	P348594	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P348653	
2006914	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.051		mg P/L	P348348	
2006952	EPA 200.7 Rev. 4.4	Calcium	30.2		mg/L	P348507	
		Iron	1.15E+03		ug/L	P348507	
		Magnesium	6.44		mg/L	P348507	
		Potassium	2.2		mg/L	P348507	
		Sodium	15.1		mg/L	P348507	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P348507	
		Arsenic	1.69		ug/L	P348507	
		Cadmium	0.020	U	ug/L	P348507	
		Chromium	0.40	U	ug/L	P348507	
		Copper	1.72		ug/L	P348507	
		Lead	0.19	I	ug/L	P348507	
		Nickel	0.41	I	ug/L	P348507	
		Silver	0.010	U	ug/L	P348507	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P348342

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P348507

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: P348507

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 300.0 Rev. 2.1
Batch ID: P348903

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348904

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348911

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348912

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348868

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348869

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348564

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348571

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348836

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348419

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348594

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348347

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348348

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: P348297

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	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
MCP	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: P348298

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P348391

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	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
MCP	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: P348333

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P348334

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P348334

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P348512

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

Reference Method: SM 2540 C-97
Batch ID: P348623

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P348618

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P348516

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P348653

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: P348507

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	102		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	100		P	85 - 115
Sodium	98.3		P	85 - 115
Zinc	99.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P348507

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	100		P	85 - 115
Cadmium	97.6		P	85 - 115
Chromium	95.9		P	85 - 115
Copper	99.5		P	85 - 115
Lead	96.0		P	85 - 115
Nickel	100		P	85 - 115
Silver	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348903

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348904

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348912

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348868

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348869

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348564

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348571

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348836

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348419

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: P348594

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348347

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	95.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348348

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

Reference Method: EPA 8321B
Batch ID: P348297

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	104		P	40 - 150
Acetaminophen	98.4		P	30 - 150
Bentazon	107		P	30 - 150
Carbamazepine	93.9		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P348297

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diuron	105		P	40 - 150
Fenuron	108		P	40 - 150
Fluridone	96.7		P	40 - 150
Hydrocodone	105		P	40 - 150
Imazapyr	96.8		P	40 - 150
Imidacloprid	97.7		P	40 - 160
Linuron	91.3		P	40 - 150
MCPP	100		P	40 - 150
Primidone	92.1		P	40 - 150
Pyraclostrobin	95.8		P	40 - 150
Triclopyr	103		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P348298

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	116		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P348391

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	65.0		P	40 - 150
Acetaminophen	100		P	30 - 150
Bentazon	76.4		P	30 - 150
Carbamazepine	79.8		P	40 - 150
Diuron	75.6		P	40 - 150
Fenuron	107		P	40 - 150
Fluridone	92.9		P	40 - 150
Hydrocodone	101		P	40 - 150
Imazapyr	94.7		P	40 - 150
Imidacloprid	110		P	40 - 160
Linuron	93.2		P	40 - 150
MCPP	97.9		P	40 - 150
Primidone	114		P	40 - 150
Pyraclostrobin	90.1		P	40 - 150
Triclopyr	86.9		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P348333

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

Reference Method: SM 2120 B
Batch ID: P348334

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P348512

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

Reference Method: SM 4500 F-C-97
Batch ID: P348516

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.4		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P348653

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P348507

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006762	Calcium	98.5		P	80 - 120
2006762	Iron	101	102	P/P	80 - 120
2006762	Magnesium	102		P	80 - 120
2006762	Potassium	98.7	99.2	P/P	80 - 120
2006762	Sodium	97.2		P	80 - 120
2006762	Zinc	98.7	99.9	P/P	80 - 120
2007494	Calcium	100		P	80 - 120
2007494	Iron	100		P	80 - 120
2007494	Magnesium	101		P	80 - 120
2007494	Potassium	95.1		P	80 - 120
2007494	Sodium	97.9		P	80 - 120
2007494	Zinc	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P348507

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006762	Arsenic	100	103	P/P	80 - 120
2006762	Cadmium	99.8	100	P/P	80 - 120
2006762	Chromium	94.5	94.7	P/P	80 - 120
2006762	Copper	94.9	97.6	P/P	80 - 120
2006762	Lead	96.4	98.0	P/P	80 - 120
2006762	Nickel	97.1	98.6	P/P	80 - 120
2006762	Silver	97.7	102	P/P	80 - 120
2007494	Arsenic	100		P	80 - 120
2007494	Cadmium	99.3		P	80 - 120
2007494	Chromium	99.2		P	80 - 120
2007494	Copper	98.5		P	80 - 120
2007494	Lead	98.5		P	80 - 120
2007494	Nickel	99.9		P	80 - 120
2007494	Silver	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006813	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348904

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006910	Chloride	106		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006813	Sulfate	102		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006910	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348868

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006868	Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348869

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006936	Ammonia-N	104	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348564

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006966	Kjeldahl Nitrogen	98.5	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348571

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006900	Kjeldahl Nitrogen	105	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348419

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006900	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006901	Total-P	95.3	95.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006903	O-Phosphate-P	95.8	96.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348348

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006913	O-Phosphate-P	95.8	96.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P348297

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006852	Acetaminophen	96.9	70.1	P/P	30 - 150
2006852	Bentazon	74.0	74.1	P/P	30 - 150
2006852	Carbamazepine	85.0	69.5	P/P	40 - 150
2006852	Diuron	89.0	68.9	P/P	40 - 150
2006852	Fenuron	95.8	83.9	P/P	40 - 150
2006852	Fluridone	99.5	73.7	P/P	40 - 150
2006852	Hydrocodone	60.6	80.9	P/P	40 - 150
2006852	Imazapyr	113	109	P/P	40 - 150
2006852	Imidacloprid	156	132	P/P	40 - 160
2006852	Linuron	73.0	70.5	P/P	40 - 150
2006852	MCP	139	136	P/P	40 - 150
2006852	Primidone	102	83.0	P/P	40 - 150
2006852	Pyraclostrobin	93.5	94.0	P/P	40 - 150
2006852	Triclopyr	137	136	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P348298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006741	Sucralose	162	107	F/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P348391

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007965	2,4-D	119	121	P/P	40 - 150
2007965	Acetaminophen	96.2	90.0	P/P	30 - 150
2007965	Bentazon	65.5	62.6	P/P	30 - 150
2007965	Carbamazepine	61.5	59.0	P/P	40 - 150
2007965	Diuron	51.8	51.4	P/P	40 - 150
2007965	Fenuron	71.2	65.1	P/P	40 - 150
2007965	Fluridone	83.5	79.3	P/P	40 - 150
2007965	Hydrocodone	69.6	64.1	P/P	40 - 150
2007965	Imazapyr	73.3	75.6	P/P	40 - 150
2007965	Imidacloprid	112	104	P/P	40 - 160
2007965	Linuron	78.8	76.4	P/P	40 - 150
2007965	MCP	150	160	F/F	40 - 150
2007965	Primidone	86.4	78.7	P/P	40 - 150
2007965	Pyraclostrobin	86.4	89.4	P/P	40 - 150
2007965	Triclopyr	174	193	F/F	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P348516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006737	Fluoride	99.5	100	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P348653

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006900	Organic Carbon	95.3	94.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P348342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006897	Turbidity	0.238	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P348507

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006762	Calcium	1.39	Spike	P	0 - 20
2006762	Iron	1.04	Spike	P	0 - 20
2006762	Magnesium	0.128	Spike	P	0 - 20
2006762	Potassium	0.296	Spike	P	0 - 20
2006762	Sodium	1.21	Spike	P	0 - 20
2006762	Zinc	1.20	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P348507

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006762	Arsenic	2.63	Spike	P	0 - 20
2006762	Cadmium	0.553	Spike	P	0 - 20
2006762	Chromium	0.229	Spike	P	0 - 20
2006762	Copper	2.75	Spike	P	0 - 20
2006762	Lead	1.63	Spike	P	0 - 20
2006762	Nickel	1.47	Spike	P	0 - 20
2006762	Silver	3.86	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006813	Chloride	6.32	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006910	Chloride	6.18	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006813	Sulfate	7.31	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006910	Sulfate	6.77	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006868	Ammonia-N	0.396	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348869

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006936	Ammonia-N	1.94	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348564

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006966	Kjeldahl Nitrogen	1.89	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006900	Kjeldahl Nitrogen	2.68	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007213	Kjeldahl Nitrogen	0.494	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348419

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006900	NO2NO3-N	0.323	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006901	Total-P	0.155	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006903	O-Phosphate-P	0.800	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348348

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006913	O-Phosphate-P	0.311	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P348297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006852	2,4-D	2.38	Spike	P	0 - 30
2006852	Acetaminophen	32.1	Spike	F	0 - 30
2006852	Bentazon	0.226	Spike	P	0 - 30
2006852	Carbamazepine	20.1	Spike	P	0 - 30
2006852	Diuron	25.5	Spike	P	0 - 30
2006852	Fenuron	13.2	Spike	P	0 - 30
2006852	Fluridone	29.0	Spike	P	0 - 30
2006852	Hydrocodone	28.7	Spike	P	0 - 30
2006852	Imazapyr	3.55	Spike	P	0 - 30
2006852	Imidacloprid	17.1	Spike	P	0 - 30
2006852	Linuron	3.52	Spike	P	0 - 30
2006852	MCP	2.04	Spike	P	0 - 30
2006852	Primidone	20.4	Spike	P	0 - 30
2006852	Pyraclostrobin	0.472	Spike	P	0 - 30
2006852	Triclopyr	0.447	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P348298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006741	Sucralose	34.5	Spike	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P348391

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007965	2,4-D	1.56	Spike	P	0 - 30
2007965	Acetaminophen	6.71	Spike	P	0 - 30
2007965	Bentazon	2.71	Spike	P	0 - 30
2007965	Carbamazepine	4.17	Spike	P	0 - 30
2007965	Diuron	0.777	Spike	P	0 - 30
2007965	Fenuron	8.95	Spike	P	0 - 30
2007965	Fluridone	5.04	Spike	P	0 - 30
2007965	Hydrocodone	8.17	Spike	P	0 - 30
2007965	Imazapyr	0.964	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P348391

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007965	Imidacloprid	5.92	Spike	P	0 - 30
2007965	Linuron	3.04	Spike	P	0 - 30
2007965	MCP	6.23	Spike	P	0 - 30
2007965	Primidone	9.34	Spike	P	0 - 30
2007965	Pyraclostrobin	3.42	Spike	P	0 - 30
2007965	Triclopyr	9.96	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P348333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006897	Color (true)	0.0287	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P348334

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006962	Color (true)	1.09	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P348512

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006737	Total Alkalinity	0.472	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P348623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006898	TDS	8.52	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P348516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006737	Fluoride	0.519	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P348653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006900	Organic Carbon	0.515	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: 2006940
Field Sample ID: 20030595

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	114	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.5	P	30 - 160
EPA 8321B	Diuron-d6	52.6	P	30 - 160
EPA 8321B	Primidone-d5	82.1	P	30 - 160
EPA 8321B	Sucralose-d6	93.6	P	40 - 160

Lab Sample ID: 2006941
Field Sample ID: 20030596

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	93.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.4	P	30 - 160
EPA 8321B	Diuron-d6	56.2	P	30 - 160
EPA 8321B	Primidone-d5	81.3	P	30 - 160
EPA 8321B	Sucralose-d6	90.3	P	40 - 160

Lab Sample ID: 2006942
Field Sample ID: 20030592

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	88.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.1	P	30 - 160
EPA 8321B	Diuron-d6	60.2	P	30 - 160
EPA 8321B	Primidone-d5	91.2	P	30 - 160
EPA 8321B	Sucralose-d6	94.6	P	40 - 160

Lab Sample ID: 2006943
Field Sample ID: 20030685

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	109	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	65.1	P	30 - 160
EPA 8321B	Diuron-d6	57.5	P	30 - 160
EPA 8321B	Primidone-d5	80.7	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	40 - 160

Lab Sample ID: 2006944
Field Sample ID: 20030852dup

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	97.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.4	P	30 - 160
EPA 8321B	Diuron-d6	58.9	P	30 - 160
EPA 8321B	Primidone-d5	95.2	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2006945
Field Sample ID: 20030852

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	98.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	58.0	P	30 - 160
EPA 8321B	Diuron-d6	57.2	P	30 - 160
EPA 8321B	Primidone-d5	89.2	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A85184

Included Lab Sample IDs: 2006897, 2006898, 2006899, 2006906, 2006909, 2006910

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 115
Color (true)	102	100	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A85185

Included Lab Sample IDs: 2006897, 2006898, 2006899, 2006906, 2006909, 2006910

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	98.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A85186

Included Lab Sample IDs: 2006903, 2006904, 2006905, 2006908, 2006913, 2006914

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.3	96.2	P/P	90 - 110
O-Phosphate-P	98.1	97.6	P/P	90 - 110
O-Phosphate-P	98.5	96.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A85220

Included Lab Sample IDs: 2006900, 2006901, 2006902, 2006907, 2006911, 2006912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A85232

Included Lab Sample IDs: 2006940, 2006941, 2006942, 2006943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.1	107	P/P	50 - 150
Acetaminophen	104	107	P/P	60 - 160
Bentazon	121	121	P/P	50 - 150
Carbamazepine	110	111	P/P	60 - 160
Diuron	119	119	P/P	60 - 150
Fenuron	110	109	P/P	60 - 150
Fluridone	109	111	P/P	60 - 160
Hydrocodone	110	107	P/P	60 - 150
Imazapyr	85.6	97.7	P/P	50 - 150
Imidacloprid	94.4	95.5	P/P	60 - 150
Linuron	106	106	P/P	60 - 150
MCPP	97.6	95.7	P/P	50 - 150
Primidone	96.4	97.4	P/P	60 - 150
Pyraclostrobin	104	109	P/P	60 - 150
Triclopyr	89.9	97.7	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A85254

Included Lab Sample IDs: 2006897, 2006898, 2006899, 2006906, 2006909, 2006910

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

Reference Method: SM 4500 F-C-97

Run ID: A85254

Included Lab Sample IDs: 2006897, 2006898, 2006899, 2006906, 2006909, 2006910

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A85287

Included Lab Sample IDs: 2006948, 2006949, 2006950, 2006951, 2006952

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	97.9	P/P	90 - 110
Calcium	98.4	100	P/P	90 - 110
Iron	100	98.7	P/P	90 - 110
Iron	101	100	P/P	90 - 110
Magnesium	101	99.3	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	97.7	97.1	P/P	90 - 110
Potassium	98.6	97.7	P/P	90 - 110
Sodium	97.3	97.3	P/P	90 - 110
Sodium	97.3	97.3	P/P	90 - 110
Zinc	103	99.2	P/P	90 - 110
Zinc	99.2	99.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A85288

Included Lab Sample IDs: 2006948, 2006949, 2006950, 2006951, 2006952

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	99.5	99.1	P/P	90 - 110
Cadmium	97.0	98.5	P/P	90 - 110
Chromium	98.9	99.6	P/P	90 - 110
Copper	101	100	P/P	90 - 110
Lead	97.6	99.4	P/P	90 - 110
Nickel	100	99.9	P/P	90 - 110
Silver	99.2	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A85298

Included Lab Sample IDs: 2006901, 2006902, 2006907, 2006911, 2006912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	100	P/P	90 - 110
Total-P	100	99.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A85302

Included Lab Sample IDs: 2006900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.8	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A85307

Included Lab Sample IDs: 2006900, 2006901, 2006902, 2006907, 2006911, 2006912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	93.6	P/P	90 - 110
Organic Carbon	97.0	97.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A85319

Included Lab Sample IDs: 2006940, 2006941, 2006942, 2006943, 2006944, 2006945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	129	130	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A85337

Included Lab Sample IDs: 2006897, 2006898, 2006899, 2006906, 2006909, 2006910

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	96.8	98.5	P/P	90 - 110
Chloride	98.5	102	P/P	90 - 110
Sulfate	100	104	P/P	90 - 110
Sulfate	97.7	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A85352

Included Lab Sample IDs: 2006912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.0	95.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A85364

Included Lab Sample IDs: 2006900, 2006902, 2006907, 2006911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.6	97.5	P/P	90 - 110
Kjeldahl Nitrogen	97.5	97.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A85375

Included Lab Sample IDs: 2006900, 2006901, 2006902, 2006907, 2006911, 2006912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.0	P/P	90 - 110
Ammonia-N	99.0	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A85405

Included Lab Sample IDs: 2006901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.7	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A85612

Included Lab Sample IDs: 2006945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	107	P/P	50 - 150
Bentazon	111	127	P/P	50 - 150
MCP	108	120	P/P	50 - 150
Triclopyr	98.7	118	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A85626

Included Lab Sample IDs: 2006944, 2006945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	111	109	P/P	60 - 150
Carbamazepine	112	108	P/P	60 - 150
Diuron	91.5	95.7	P/P	60 - 150
Fenuron	107	106	P/P	60 - 150
Fluridone	110	109	P/P	60 - 160
Hydrocodone	109	109	P/P	60 - 150
Imazapyr	91.7	92.4	P/P	50 - 150
Imidacloprid	110	104	P/P	60 - 150
Linuron	108	104	P/P	60 - 150
Primidone	92.1	105	P/P	60 - 150
Pyraclostrobin	105	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						0.238	
EPA 200.7 Rev. 4.4	Calcium	101	98.5	100				1.39
	Iron	102	101	102	100			1.04
	Magnesium	103	102	101				0.128
	Potassium	100	98.7	99.2	95.1			0.296
	Sodium	98.3	97.2	97.9				1.21
	Zinc	99.4	98.7	99.9	101			1.20
EPA 200.8 Rev. 5.4	Arsenic	100	100	103	100			2.63
	Cadmium	97.6	99.8	100	99.3			0.553
	Chromium	95.9	94.5	94.7	99.2			0.229
	Copper	99.5	94.9	97.6	98.5			2.75
	Lead	96.0	96.4	98.0	98.5			1.63
	Nickel	100	97.1	98.6	99.9			1.47
	Silver	100	97.7	102	101			3.86
EPA 300.0 Rev. 2.1	Chloride	99.8	103				6.32	
	Chloride	101	106				6.18	
	Sulfate	99.7	102				7.31	
	Sulfate	100	100				6.77	
EPA 350.1 Rev. 2.0	Ammonia-N	102	102	102				0.396
	Ammonia-N	96.7	104	107				1.94
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	98.5	102				1.89
	Kjeldahl Nitrogen	101	105	101				2.68
	Kjeldahl Nitrogen	102						0.494
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	101	102				0.323
EPA 365.1 Rev. 2.0	Total-P	94.4	95.3	95.5				0.155
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	95.2	95.8	96.7				0.800
	O-Phosphate-P	98.1	95.8	96.2				0.311
EPA 8321B	2,4-D	104						2.38
	2,4-D	65.0	119	121				1.56
	Acetaminophen	98.4	70.1	96.9				32.1
	Acetaminophen	100	96.2	90.0				6.71
	Bentazon	107	74.0	74.1				0.226
	Bentazon	76.4	65.5	62.6				2.71
	Carbamazepine	93.9	69.5	85.0				20.1
	Carbamazepine	79.8	61.5	59.0				4.17
	Diuron	105	68.9	89.0				25.5
	Diuron	75.6	51.8	51.4				0.777
	Fenuron	108	83.9	95.8				13.2
	Fenuron	107	71.2	65.1				8.95
	Fluridone	96.7	73.7	99.5				29.0
	Fluridone	92.9	83.5	79.3				5.04
	Hydrocodone	105	80.9	60.6				28.7
	Hydrocodone	101	69.6	64.1				8.17
	Imazapyr	96.8	113	109				3.55
	Imazapyr	94.7	73.3	75.6				0.964
	Imidacloprid	97.7	132	156				17.1
	Imidacloprid	110	112	104				5.92
	Linuron	91.3	73.0	70.5				3.52
	Linuron	93.2	78.8	76.4				3.04
	MCPP	100	139	136				2.04
	MCPP	97.9	150	160				6.23
	Primidone	92.1	83.0	102				20.4
	Primidone	114	86.4	78.7				9.34
	Pyraclostrobin	95.8	93.5	94.0				0.472

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Pyraclostrobin	90.1	86.4	89.4			3.42
	Sucralose	116	162	107			34.5
	Triclopyr	103	137	136			0.447
	Triclopyr	86.9	174	193			9.96
SM 2120 B	Color (true)	98.7				0.0287	
	Color (true)	100				1.09	
SM 2320 B-97	Total Alkalinity	102				0.472	
SM 2540 C-97	TDS					8.52	
SM 4500 F-C-97	Fluoride	99.4	99.5	100			0.519
SM 5310 B-00	Organic Carbon	96.0	95.3	94.5			0.515

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2006897, 2006898, 2006899, 2006906, 2006909, 2006910
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2006948, 2006949, 2006950, 2006951, 2006952
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2006948, 2006949, 2006950, 2006951, 2006952
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2006897, 2006898, 2006899, 2006906, 2006909, 2006910
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2006897, 2006898, 2006899, 2006906, 2006909, 2006910
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2006900, 2006901, 2006902, 2006907, 2006911, 2006912
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2006900, 2006901, 2006902, 2006907, 2006911, 2006912
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2006900, 2006901, 2006902, 2006907, 2006911, 2006912
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2006900, 2006901, 2006902, 2006907, 2006911, 2006912
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2006903, 2006904, 2006905, 2006908, 2006913, 2006914
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2006940, 2006941, 2006942, 2006943, 2006944, 2006945
SM 2120 B / E31780	True Color measured at 450 nm	2006897, 2006898, 2006899, 2006906, 2006909, 2006910
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2006897, 2006898, 2006899, 2006906, 2006909, 2006910
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2006897, 2006898, 2006899, 2006906, 2006909, 2006910
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2006897, 2006898, 2006899, 2006906, 2006909, 2006910
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2006897, 2006898, 2006899, 2006906, 2006909, 2006910
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2006900, 2006901, 2006902, 2006907, 2006911, 2006912

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	07/12/2018			07/12/2018 17:20	William L. Brown IV	2006897, 2006898, 2006899, 2006906, 2006909, 2006910
EPA 200.7 Rev. 4.4	07/12/2018	07/16/2018 17:30	Elliott D. Healy	07/17/2018 15:24	Betina Topolski	2006948
	07/12/2018	07/16/2018 17:30	Elliott D. Healy	07/17/2018 15:30	Betina Topolski	2006949
	07/12/2018	07/16/2018 17:30	Elliott D. Healy	07/17/2018 16:01	Betina Topolski	2006950
	07/12/2018	07/16/2018 17:30	Elliott D. Healy	07/17/2018 16:08	Betina Topolski	2006951
	07/12/2018	07/16/2018 17:30	Elliott D. Healy	07/17/2018 16:14	Betina Topolski	2006952
EPA 200.8 Rev. 5.4	07/12/2018	07/16/2018 17:30	Elliott D. Healy	07/17/2018 17:47	Robert K Palmer	2006948
	07/12/2018	07/16/2018 17:30	Elliott D. Healy	07/17/2018 17:56	Robert K Palmer	2006949
	07/12/2018	07/16/2018 17:30	Elliott D. Healy	07/17/2018 18:06	Robert K Palmer	2006950
	07/12/2018	07/16/2018 17:30	Elliott D. Healy	07/17/2018 18:15	Robert K Palmer	2006951
	07/12/2018	07/16/2018 17:30	Elliott D. Healy	07/17/2018 18:24	Robert K Palmer	2006952
EPA 300.0 Rev. 2.1	07/12/2018			07/20/2018 17:39	Lipi Saha	2006897
	07/12/2018			07/20/2018 17:51	Lipi Saha	2006898
	07/12/2018			07/20/2018 18:03	Lipi Saha	2006899
	07/12/2018			07/20/2018 18:38	Lipi Saha	2006906
	07/12/2018			07/20/2018 18:50	Lipi Saha	2006909
	07/12/2018			07/20/2018 19:38	Lipi Saha	2006910
EPA 350.1 Rev. 2.0	07/12/2018			07/20/2018 10:18	Ping Hua	2006900
	07/12/2018			07/20/2018 10:19	Ping Hua	2006901
	07/12/2018			07/20/2018 10:34	Ping Hua	2006902
	07/12/2018			07/20/2018 10:36	Ping Hua	2006907
	07/12/2018			07/20/2018 10:37	Ping Hua	2006911
	07/12/2018			07/20/2018 10:39	Ping Hua	2006912
EPA 351.2 Rev. 2.0	07/12/2018	07/17/2018 10:30	Adrian Shelby	07/18/2018 17:15	Joseph Suarez	2006900
	07/12/2018	07/17/2018 10:30	Adrian Shelby	07/18/2018 17:23	Joseph Suarez	2006902
	07/12/2018	07/17/2018 10:30	Adrian Shelby	07/18/2018 17:24	Joseph Suarez	2006907
	07/12/2018	07/17/2018 10:30	Adrian Shelby	07/18/2018 17:25	Joseph Suarez	2006911
	07/12/2018	07/17/2018 10:30	Adrian Shelby	07/19/2018 13:11	Joseph Suarez	2006912
	07/12/2018	07/20/2018 11:00	Adrian Shelby	07/23/2018 09:40	Joseph Suarez	2006901
EPA 353.2 Rev. 2.0	07/12/2018			07/13/2018 13:40	Lauren Bottorf	2006900
	07/12/2018			07/13/2018 13:46	Lauren Bottorf	2006901
	07/12/2018			07/13/2018 13:47	Lauren Bottorf	2006902
	07/12/2018			07/13/2018 13:49	Lauren Bottorf	2006907
	07/12/2018			07/13/2018 13:50	Lauren Bottorf	2006911
	07/12/2018			07/13/2018 13:51	Lauren Bottorf	2006912
EPA 365.1 Rev. 2.0	07/12/2018	07/17/2018 13:30	Sima Feizi	07/18/2018 09:45	Beverly Y. Sanders	2006901
	07/12/2018	07/17/2018 13:30	Sima Feizi	07/18/2018 09:56	Beverly Y. Sanders	2006902
	07/12/2018	07/17/2018 13:30	Sima Feizi	07/18/2018 09:57	Beverly Y. Sanders	2006907
	07/12/2018	07/17/2018 13:30	Sima Feizi	07/18/2018 09:58	Beverly Y. Sanders	2006911

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0	07/12/2018	07/17/2018 13:30	Sima Feizi	07/18/2018 10:00	Beverly Y. Sanders	2006912
	07/12/2018	07/17/2018 13:30	Sima Feizi	07/18/2018 11:43	Beverly Y. Sanders	2006900
EPA 365.1 Rev. 2.0 dissolved	07/12/2018			07/12/2018 16:58	Julia Storbeck	2006903
	07/12/2018			07/12/2018 17:02	Julia Storbeck	2006913
	07/12/2018			07/12/2018 17:54	Julia Storbeck	2006904
	07/12/2018			07/12/2018 17:55	Julia Storbeck	2006905
	07/12/2018			07/12/2018 18:00	Julia Storbeck	2006908
	07/12/2018			07/12/2018 18:01	Julia Storbeck	2006914
EPA 8321B	07/12/2018	07/13/2018 10:00	Hoor Shaik	07/14/2018 23:42	Juyoung Kim	2006940
	07/12/2018	07/13/2018 10:00	Hoor Shaik	07/15/2018 00:17	Juyoung Kim	2006941
	07/12/2018	07/13/2018 10:00	Hoor Shaik	07/15/2018 00:51	Juyoung Kim	2006942
	07/12/2018	07/13/2018 10:00	Hoor Shaik	07/15/2018 01:26	Juyoung Kim	2006943
	07/12/2018	07/13/2018 10:00	Hoor Shaik	07/15/2018 16:26	Juyoung Kim	2006940
	07/12/2018	07/13/2018 10:00	Hoor Shaik	07/15/2018 17:00	Juyoung Kim	2006941
	07/12/2018	07/13/2018 10:00	Hoor Shaik	07/15/2018 17:35	Juyoung Kim	2006942
	07/12/2018	07/13/2018 10:00	Hoor Shaik	07/15/2018 18:10	Juyoung Kim	2006943
	07/12/2018	07/16/2018 11:30	Juyoung Kim	07/17/2018 06:40	Mohammad Ghaffari	2006940
	07/12/2018	07/16/2018 11:30	Juyoung Kim	07/17/2018 06:55	Mohammad Ghaffari	2006941
	07/12/2018	07/16/2018 11:30	Juyoung Kim	07/17/2018 07:10	Mohammad Ghaffari	2006942
	07/12/2018	07/16/2018 11:30	Juyoung Kim	07/17/2018 07:24	Mohammad Ghaffari	2006943
	07/12/2018	07/16/2018 11:30	Juyoung Kim	07/17/2018 07:39	Mohammad Ghaffari	2006944
	07/12/2018	07/16/2018 11:30	Juyoung Kim	07/17/2018 07:54	Mohammad Ghaffari	2006945
	07/12/2018	07/18/2018 10:30	Hoor Shaik	07/24/2018 01:07	Juyoung Kim	2006944
	07/12/2018	07/18/2018 10:30	Hoor Shaik	07/24/2018 01:42	Juyoung Kim	2006945
	07/12/2018	07/18/2018 10:30	Hoor Shaik	07/26/2018 05:09	Juyoung Kim	2006944
	07/12/2018	07/18/2018 10:30	Hoor Shaik	07/26/2018 06:18	Juyoung Kim	2006945
SM 2120 B	07/12/2018			07/12/2018 15:15	Tanya Welborn	2006897
	07/12/2018			07/12/2018 15:16	Tanya Welborn	2006898
	07/12/2018			07/12/2018 15:17	Tanya Welborn	2006899
	07/12/2018			07/12/2018 15:18	Tanya Welborn	2006909
	07/12/2018			07/12/2018 15:19	Tanya Welborn	2006910
	07/12/2018			07/12/2018 15:36	Tanya Welborn	2006906
SM 2320 B-97	07/12/2018			07/14/2018 08:31	Dale L. Simmons	2006897
	07/12/2018			07/14/2018 08:41	Dale L. Simmons	2006898
	07/12/2018			07/14/2018 08:51	Dale L. Simmons	2006899
	07/12/2018			07/14/2018 09:02	Dale L. Simmons	2006906
	07/12/2018			07/14/2018 09:12	Dale L. Simmons	2006909
	07/12/2018			07/14/2018 09:23	Dale L. Simmons	2006910
SM 2540 C-97	07/12/2018			07/13/2018 17:35	William L. Brown IV	2006897, 2006898, 2006899, 2006906, 2006909, 2006910

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-97	07/12/2018			07/13/2018 17:35	William L. Brown IV	2006897, 2006898, 2006899, 2006906, 2006909, 2006910
SM 4500 F-C-97	07/12/2018			07/14/2018 08:31	Dale L. Simmons	2006897
	07/12/2018			07/14/2018 08:41	Dale L. Simmons	2006898
	07/12/2018			07/14/2018 08:51	Dale L. Simmons	2006899
	07/12/2018			07/14/2018 09:02	Dale L. Simmons	2006906
	07/12/2018			07/14/2018 09:12	Dale L. Simmons	2006909
SM 5310 B-00	07/12/2018			07/14/2018 09:23	Dale L. Simmons	2006910
	07/12/2018			07/17/2018 14:22	Megan Treadwell	2006900
	07/12/2018			07/17/2018 15:22	Megan Treadwell	2006901
	07/12/2018			07/17/2018 15:52	Megan Treadwell	2006902
	07/12/2018			07/17/2018 16:07	Megan Treadwell	2006907
	07/12/2018			07/17/2018 17:07	Megan Treadwell	2006911
	07/12/2018			07/17/2018 17:22	Megan Treadwell	2006912