

Chemical Analysis Report

NE-DIST-2019-06-21-01

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

Event Description: **Bmap 2**
Request ID: **RQ-2019-06-17-10**
Customer: **NE-DIST**
Project ID: **SMP**

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Date Certified: 09-JUL-2019 11:11



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 by the Florida Department of Health Environmental Laboratory Certification Program 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: BIG FISHWEIR CR SF @ HAMILTON ST

Collection Date/Time: 06/20/2019 09:55

Field ID: 20030801

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2097373	EPA 180.1 Rev. 2.0	Turbidity	6.4		NTU	P366131	
	EPA 300.0 Rev. 2.1	Chloride	140		mg Cl/L	P366534	
		Sulfate	33		mg SO4/L	P366535	
	SM 2120 B	Color (true)	34		PCU	P366126	
	SM 2320 B-97	Total Alkalinity	72		mg CaCO3/L	P366445	RPD
	SM 2540 C-97	TDS	350		mg/L	P366616	
	SM 2540 D-97	TSS	8	I	mg/L	P366608	
2097374	SM 4500 F-C-97	Fluoride	0.086	I	mg F/L	P366583	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P366547	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P366394	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P366334	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P366353	
2097375	SM 5310 B-00	Organic Carbon	6.3		mg C/L	P366314	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P366121	
2097409	EPA 8321B	2,4-D	0.071		ug/L	P365948	
		Acesulfame K**	0.22	I	ug/L	P366232	
		AMPA**	0.19	I	ug/L	P366232	
		Acetaminophen**	0.026	I	ug/L	P365948	
		Endothall**	0.25	U	ug/L	P366232	
		Glufosinate**	0.10	U	ug/L	P366232	
		Glyphosate**	0.93		ug/L	P366232	
		Bentazon	0.0036		ug/L	P365948	
		Sucralose**	0.25		ug/L	P366232	
		Carbamazepine**	8.0E-04	U	ug/L	P365948	
		Diuron	0.10		ug/L	P365948	
		Fenuron	0.016	U	ug/L	P365948	
		Fluridone**	8.0E-04	U	ug/L	P365948	
		Imazapyr**	0.16		ug/L	P365948	
		Hydrocodone**	0.0020	U	ug/L	P365948	
		Ibuprofen**	0.020	U	ug/L	P365948	
		Imidacloprid	0.11		ug/L	P365948	MS
		Linuron	0.0040	U	ug/L	P365948	
		MCP	0.0066	IJ	ug/L	P365948	LCS, MS
		Naproxen**	0.015	I	ug/L	P365948	
		Primidone**	0.0040	U	ug/L	P365948	
		Pyraclostrobin**	0.0020	U	ug/L	P365948	
		Triclopyr**	0.0040	U	ug/L	P365948	MS

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: Refer to the narrative for an explanation of QC Codes.

Sample Location: LITTLE FISHWEIR AT OAK ST

Collection Date/Time: 06/20/2019 10:20

Field ID: 20030953

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2097411	EPA 8321B	Acesulfame K**	0.10	I	ug/L	P366232	
		2,4-D	0.041	J	ug/L	P366199	MS
		AMPA**	0.20	I	ug/L	P366232	
		Acetaminophen**	0.0098	I	ug/L	P366199	
		Endothall**	0.25	U	ug/L	P366232	
		Glufosinate**	0.10	U	ug/L	P366232	
		Glyphosate**	1.3		ug/L	P366232	
		Bentazon	0.0083		ug/L	P366199	
		Sucralose**	0.019	I	ug/L	P366232	
		Carbamazepine**	8.0E-04	U	ug/L	P366199	
		Diuron	0.0058	I	ug/L	P366199	
		Fenuron	0.016	U	ug/L	P366199	
		Fluridone**	8.0E-04	U	ug/L	P366199	
		Imazapyr**	0.036	J	ug/L	P366199	MS
		Hydrocodone**	0.0020	U	ug/L	P366199	
		Ibuprofen**	0.020	U	ug/L	P366199	
		Imidacloprid	0.15	J	ug/L	P366199	MS
		Linuron	0.0040	U	ug/L	P366199	
		MCP	0.0079	IJ	ug/L	P366199	MS
		Naproxen**	0.0080	U	ug/L	P366199	
		Primidone**	0.0040	U	ug/L	P366199	
		Pyraclostrobin**	0.0020	U	ug/L	P366199	
		Triclopyr**	0.0040	U	ug/L	P366199	

Ref. Method and Comment:

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

**Sample Location: TROUT R @ DINSMORE BOAT RAMP DOCK
NR US 1**

Collection Date/Time: 06/20/2019 10:55

Field ID: 20030123

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2097379	EPA 180.1 Rev. 2.0	Turbidity	10	A	NTU	P366131	
	EPA 300.0	Bromide	14		mg Br/L	P366634	
	SM 2320 B-97	Total Alkalinity	74		mg CaCO3/L	P366362	
	SM 2540 D-97	TSS	18		mg/L	P366610	
	SM 4500 F-C-97	Fluoride	0.30		mg F/L	P366365	
2097380	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P366280	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.90		mg N/L	P366639	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P366317	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P366253	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P366314	
2097381	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.074		mg P/L	P366122	
2097410	EPA 8321B	2,4-D	0.036		ug/L	P365948	
		Acesulfame K**	0.10	UJ	ug/L	P366232	SUR
		AMPA**	1.0	U	ug/L	P366232	
		Acetaminophen**	0.0080	U	ug/L	P365948	
		Endothall**	0.25	UJ	ug/L	P366232	SUR
		Glufosinate**	1.0	U	ug/L	P366232	
		Glyphosate**	1.0	U	ug/L	P366232	
		Bentazon	0.0025	I	ug/L	P365948	
		Sucralose**	0.35		ug/L	P366232	
		Carbamazepine**	8.0E-04	U	ug/L	P365948	
		Diuron	0.011		ug/L	P365948	
		Fenuron	0.016	U	ug/L	P365948	
		Fluridone**	0.0066		ug/L	P365948	
		Imazapyr**	0.35		ug/L	P365948	
		Hydrocodone**	0.0020	U	ug/L	P365948	
		Ibuprofen**	0.020	U	ug/L	P365948	
		Imidacloprid	0.014		ug/L	P365948	MS
		Linuron	0.0040	U	ug/L	P365948	
		MCP	0.0023	IJ	ug/L	P365948	LCS, MS
		Naproxen**	0.0080	U	ug/L	P365948	
		Primidone**	0.0040	U	ug/L	P365948	
		Pyraclostrobin**	0.0020	U	ug/L	P365948	
		Triclopyr**	0.0040	U	ug/L	P365948	MS

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: Refer to the narrative for an explanation of QC Codes.

EPA 8321B: Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in sample duplicate. MDL for some parameters elevated due to matrix interference.

Sample Location: TROUT RIVER AT OLD KINGS RD

Collection Date/Time: 06/20/2019 11:05

Field ID: 20030753

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2097382	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P366131	
	EPA 300.0 Rev. 2.1	Chloride	51		mg Cl/L	P366534	
		Sulfate	59		mg SO4/L	P366535	
	SM 2120 B	Color (true)	100		PCU	P366127	
	SM 2320 B-97	Total Alkalinity	53		mg CaCO3/L	P366445	RPD
	SM 2540 C-97	TDS	236		mg/L	P366616	
	SM 2540 D-97	TSS	2	I	mg/L	P366608	
	SM 4500 F-C-97	Fluoride	0.070	I	mg F/L	P366583	
2097383	EPA 350.1 Rev. 2.0	Ammonia-N	0.066		mg N/L	P366548	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.78		mg N/L	P366315	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P366334	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P366324	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P366314	
2097384	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P366121	

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: MONCRIEF CR AT MONCRIEF ROAD

Collection Date/Time: 06/20/2019 11:35

Field ID: 20030726

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2097376	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P366131	
	EPA 300.0 Rev. 2.1	Chloride	7.5		mg Cl/L	P366534	
		Sulfate	17		mg SO4/L	P366535	
		Color (true)	31		PCU	P366126	
	SM 2320 B-97	Total Alkalinity	80		mg CaCO3/L	P366445	RPD
	SM 2540 C-97	TDS	127		mg/L	P366616	
	SM 2540 D-97	TSS	5	I	mg/L	P366608	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P366583	
2097377	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P366548	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P366394	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P366334	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P366397	
	SM 5310 B-00	Organic Carbon	6.0		mg C/L	P366314	
2097378	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.043		mg P/L	P366121	
2097414	EPA 200.7 Rev. 4.4	Barium	34.3		ug/L	P366213	
		Calcium	33.6		mg/L	P366213	
		Iron	740		ug/L	P366213	
		Magnesium	4.21		mg/L	P366213	
		Potassium	2.0		mg/L	P366213	
		Sodium	6.8		mg/L	P366213	
		Zinc	9.4	I	ug/L	P366213	
	EPA 200.8 Rev. 5.4	Aluminum	73		ug/L	P366213	
		Antimony	0.22		ug/L	P366213	
		Arsenic	1.74		ug/L	P366213	
		Boron**	31.3		ug/L	P366213	
		Cadmium	0.020	U	ug/L	P366213	
		Chromium	0.42	I	ug/L	P366213	
		Copper	1.75		ug/L	P366213	
		Lead	1.42		ug/L	P366213	
		Nickel	0.74	I	ug/L	P366213	
		Selenium	0.20	U	ug/L	P366213	
		Silver	0.010	U	ug/L	P366213	
		Thallium	0.10	U	ug/L	P366213	

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: P366131

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366213

Component	Result	Code	Units
Barium	1.0	U	ug/L
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: P366213

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0
Batch ID: P366634

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366534

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366535

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: P366280

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366547

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366548

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366315

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366394

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366639

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366317

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366334

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366253

Component	Result	Code	Units
Total-P	0.005	U	mg P/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366324

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366353

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366397

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P366121

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P366122

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

Reference Method: EPA 8321B
 Batch ID: P365948

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	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	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
Naproxen	0.0080	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: P366199

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P366199

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	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	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
Naproxen	0.0080	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: P366232

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P366126

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P366127

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P366362

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

Reference Method: SM 2320 B-97
Batch ID: P366445

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P366616

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P366608

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P366610

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P366365

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P366583

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P366314

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: P366213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.9		P	85 - 115
Calcium	103		P	85 - 115
Iron	101		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	103		P	85 - 115
Sodium	103		P	85 - 115
Zinc	96.6		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	94.9		P	85 - 115
Antimony	96.4		P	85 - 115
Arsenic	98.3		P	85 - 115
Boron	93.7		P	85 - 115
Cadmium	95.5		P	85 - 115
Chromium	96.0		P	85 - 115
Copper	91.9		P	85 - 115
Lead	96.0		P	85 - 115
Nickel	95.0		P	85 - 115
Selenium	96.8		P	85 - 115
Silver	95.3		P	85 - 115
Thallium	97.7		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P366634

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366534

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366535

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366280

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366547

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366548

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366315

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366394

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: P366639

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366317

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366334

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366253

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366324

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366353

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: P366397

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: P366121

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366122

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.7		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P365948

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	113		P	40 - 150
Acetaminophen	125		P	30 - 150
Bentazon	87.9		P	30 - 150
Carbamazepine	102		P	40 - 150
Diuron	94.7		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	112		P	40 - 150
Hydrocodone	100		P	40 - 150
Ibuprofen	71.7		P	30 - 150
Imazapyr	72.3		P	40 - 150
Imidacloprid	101		P	40 - 150
Linuron	71.0		P	40 - 150
MCPP	151		F	40 - 150
Naproxen	102		P	40 - 150
Primidone	93.2		P	40 - 150
Pyraclostrobin	85.9		P	30 - 150
Triclopyr	98.5		P	30 - 150

Reference Method: EPA 8321B
Batch ID: P366199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	116		P	40 - 150
Acetaminophen	82.7		P	30 - 150
Bentazon	117		P	30 - 150
Carbamazepine	82.5		P	40 - 150
Diuron	83.2		P	40 - 150
Fenuron	100		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P366199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluridone	93.2		P	40 - 150
Hydrocodone	98.7		P	40 - 150
Ibuprofen	83.5		P	30 - 150
Imazapyr	131		P	40 - 150
Imidacloprid	87.5		P	40 - 150
Linuron	63.2		P	40 - 150
MCPP	137		P	40 - 150
Naproxen	84.5		P	40 - 150
Primidone	79.5		P	40 - 150
Pyraclostrobin	69.4		P	30 - 150
Triclopyr	107		P	30 - 150

Reference Method: EPA 8321B
Batch ID: P366232

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	116		P	40 - 150
AMPA	95.3		P	40 - 150
Endothall	94.4		P	40 - 150
Glufosinate	86.8		P	40 - 150
Glyphosate	95.3		P	40 - 140
Sucralose	103		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P366126

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.6		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P366127

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

Reference Method: SM 2320 B-97
Batch ID: P366362

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 2320 B-97
Batch ID: P366445

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P366365

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P366583

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P366314

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: P366213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097324	Barium	97.5	96.7	P/P	80 - 120
2097324	Calcium	103		P	80 - 120
2097324	Iron	104	104	P/P	80 - 120
2097324	Magnesium	104		P	80 - 120
2097324	Potassium	105		P	80 - 120
2097324	Sodium	99.5		P	80 - 120
2097324	Zinc	100	99.5	P/P	80 - 120
2097848	Barium	100		P	80 - 120
2097848	Calcium	102		P	80 - 120
2097848	Iron	104		P	80 - 120
2097848	Magnesium	107		P	80 - 120
2097848	Potassium	107		P	80 - 120
2097848	Sodium	103		P	80 - 120
2097848	Zinc	98.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097324	Aluminum	95.5	91.4	P/P	80 - 120
2097324	Antimony	98.1	96.9	P/P	80 - 120
2097324	Arsenic	102	100	P/P	80 - 120
2097324	Boron	95.2	92.6	P/P	80 - 120
2097324	Cadmium	98.9	96.1	P/P	80 - 120
2097324	Chromium	94.3	91.8	P/P	80 - 120
2097324	Copper	87.4	91.2	P/P	80 - 120
2097324	Lead	97.7	95.5	P/P	80 - 120
2097324	Nickel	95.9	93.1	P/P	80 - 120
2097324	Selenium	100	99.2	P/P	80 - 120
2097324	Silver	94.9	93.4	P/P	80 - 120
2097324	Thallium	99.9	97.7	P/P	80 - 120
2097848	Aluminum	94.5		P	80 - 120
2097848	Antimony	96.2		P	80 - 120
2097848	Arsenic	98.4		P	80 - 120
2097848	Boron	91.8		P	80 - 120
2097848	Cadmium	96.3		P	80 - 120
2097848	Chromium	94.6		P	80 - 120
2097848	Copper	99.9		P	80 - 120
2097848	Lead	96.4		P	80 - 120
2097848	Nickel	94.9		P	80 - 120
2097848	Selenium	96.2		P	80 - 120
2097848	Silver	95.8		P	80 - 120
2097848	Thallium	98.8		P	80 - 120

Reference Method: EPA 300.0
Batch ID: P366634

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097263	Bromide	96.6	97.5	P/P	90 - 110
2098522	Bromide	94.4		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366534

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097148	Chloride	96.8		P	90 - 110
2097263	Chloride	99.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366535

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097148	Sulfate	96.0		P	90 - 110
2097263	Sulfate	99.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098072	Ammonia-N	105	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366547

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097269	Ammonia-N	105	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097479	Ammonia-N	106	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097921	Kjeldahl Nitrogen	107	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097305	Kjeldahl Nitrogen	95.9	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097360	Kjeldahl Nitrogen	97.8	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366317

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097358	NO2NO3-N	105	104	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P366334

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097374	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366253

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097024	Total-P	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097921	Total-P	99.0	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366353

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097374	Total-P	100	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366397

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097377	Total-P	99.5	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P366121

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097265	O-Phosphate-P	94.8	96.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P366122

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097381	O-Phosphate-P	96.0	97.7	P/P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P365948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096571	2,4-D	93.1	117	P/P	40 - 150
2096571	Acetaminophen	98.9	101	P/P	30 - 150
2096571	Bentazon	45.8	94.5	P/P	30 - 150
2096571	Carbamazepine	72.2	80.2	P/P	40 - 150
2096571	Diuron	63.8	71.6	P/P	40 - 150
2096571	Fenuron	78.3	87.3	P/P	40 - 150
2096571	Fluridone	70.0	81.4	P/P	40 - 150
2096571	Hydrocodone	96.0	101	P/P	40 - 150
2096571	Ibuprofen	63.0	70.3	P/P	30 - 150
2096571	Imazapyr	97.5	115	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P365948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096571	Imidacloprid	136	164	P/F	40 - 150
2096571	Linuron	60.7	59.7	P/P	40 - 150
2096571	MCP	144	176	P/F	40 - 150
2096571	Naproxen	62.1	55.0	P/P	40 - 150
2096571	Primidone	77.4	78.5	P/P	40 - 150
2096571	Pyraclostrobin	87.1	90.1	P/P	30 - 150
2096571	Triclopyr	130	154	P/F	30 - 150

Reference Method: EPA 8321B
Batch ID: P366199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097411	2,4-D	137	161	P/F	40 - 150
2097411	Acetaminophen	101	111	P/P	30 - 150
2097411	Bentazon	101	106	P/P	30 - 150
2097411	Carbamazepine	84.4	85.3	P/P	40 - 150
2097411	Diuron	77.0	78.4	P/P	40 - 150
2097411	Fenuron	93.2	96.6	P/P	40 - 150
2097411	Fluridone	85.2	84.1	P/P	40 - 150
2097411	Hydrocodone	116	117	P/P	40 - 150
2097411	Ibuprofen	83.3	90.6	P/P	30 - 150
2097411	Imazapyr	139	182	P/F	40 - 150
2097411	Imidacloprid	174	198	F/F	40 - 150
2097411	Linuron	55.0	53.0	P/P	40 - 150
2097411	MCP	187	189	F/F	40 - 150
2097411	Naproxen	95.4	81.8	P/P	40 - 150
2097411	Primidone	92.6	99.7	P/P	40 - 150
2097411	Pyraclostrobin	71.8	73.2	P/P	30 - 150
2097411	Triclopyr	122	136	P/P	30 - 150

Reference Method: EPA 8321B
Batch ID: P366232

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097186	Acesulfame K	134	139	P/P	40 - 150
2097186	AMPA	70.6	71.9	P/P	40 - 150
2097186	Endothall	97.7	100	P/P	40 - 150
2097186	Glufosinate	82.5	83.7	P/P	40 - 150
2097186	Glyphosate	77.1	79.8	P/P	40 - 140
2097186	Sucralose	107	106	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P366365

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096586	Fluoride	97.1	97.8	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P366583

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098178	Fluoride	97.8	99.1	P/P	89 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P366314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097303	Organic Carbon	95.0	96.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P366131

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097379	Turbidity	0.966	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097324	Barium	0.832	Spike	P	0 - 20
2097324	Calcium	0.900	Spike	P	0 - 20
2097324	Iron	0.570	Spike	P	0 - 20
2097324	Magnesium	0.641	Spike	P	0 - 20
2097324	Potassium	0.971	Spike	P	0 - 20
2097324	Sodium	1.10	Spike	P	0 - 20
2097324	Zinc	0.846	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097324	Aluminum	3.99	Spike	P	0 - 20
2097324	Antimony	1.23	Spike	P	0 - 20
2097324	Arsenic	1.64	Spike	P	0 - 20
2097324	Boron	1.81	Spike	P	0 - 20
2097324	Cadmium	2.88	Spike	P	0 - 20
2097324	Chromium	2.62	Spike	P	0 - 20
2097324	Copper	4.20	Spike	P	0 - 20
2097324	Lead	2.19	Spike	P	0 - 20
2097324	Nickel	2.96	Spike	P	0 - 20
2097324	Selenium	0.930	Spike	P	0 - 20
2097324	Silver	1.58	Spike	P	0 - 20
2097324	Thallium	2.21	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P366634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097263	Bromide	0.904	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097148	Chloride	0.862	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097148	Sulfate	0.932	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098072	Ammonia-N	0.853	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366547

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097269	Ammonia-N	0.441	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097479	Ammonia-N	0.350	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097921	Kjeldahl Nitrogen	3.86	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097305	Kjeldahl Nitrogen	2.70	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097360	Kjeldahl Nitrogen	1.56	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097358	NO2NO3-N	1.44	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366334

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097374	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366253

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097024	Total-P	0.815	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097921	Total-P	0.472	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366353

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097374	Total-P	1.86	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366397

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097377	Total-P	2.21	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366121

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097265	O-Phosphate-P	2.19	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097381	O-Phosphate-P	0.996	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P365948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096571	2,4-D	14.2	Spike	P	0 - 30
2096571	Acetaminophen	2.31	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P365948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096571	Bentazon	6.06	Spike	P	0 - 30
2096571	Carbamazepine	9.76	Spike	P	0 - 30
2096571	Diuron	9.91	Spike	P	0 - 30
2096571	Fenuron	10.9	Spike	P	0 - 30
2096571	Fluridone	3.44	Spike	P	0 - 30
2096571	Hydrocodone	4.84	Spike	P	0 - 30
2096571	Ibuprofen	11.0	Spike	P	0 - 30
2096571	Imazapyr	10.3	Spike	P	0 - 30
2096571	Imidacloprid	2.49	Spike	P	0 - 30
2096571	Linuron	1.71	Spike	P	0 - 30
2096571	MCPP	19.1	Spike	P	0 - 30
2096571	Naproxen	12.1	Spike	P	0 - 30
2096571	Primidone	1.16	Spike	P	0 - 30
2096571	Pyraclostrobin	3.35	Spike	P	0 - 30
2096571	Triclopyr	17.1	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P366199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097411	2,4-D	11.9	Spike	P	0 - 30
2097411	Acetaminophen	8.61	Spike	P	0 - 30
2097411	Bentazon	2.77	Spike	P	0 - 30
2097411	Carbamazepine	1.14	Spike	P	0 - 30
2097411	Diuron	1.59	Spike	P	0 - 30
2097411	Fenuron	3.59	Spike	P	0 - 30
2097411	Fluridone	1.25	Spike	P	0 - 30
2097411	Hydrocodone	1.01	Spike	P	0 - 30
2097411	Ibuprofen	8.35	Spike	P	0 - 30
2097411	Imazapyr	20.8	Spike	P	0 - 30
2097411	Imidacloprid	6.52	Spike	P	0 - 30
2097411	Linuron	3.84	Spike	P	0 - 30
2097411	MCPP	1.01	Spike	P	0 - 30
2097411	Naproxen	15.4	Spike	P	0 - 30
2097411	Primidone	7.35	Spike	P	0 - 30
2097411	Pyraclostrobin	1.99	Spike	P	0 - 30
2097411	Triclopyr	11.2	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P366232

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097186	Acesulfame K	4.04	Spike	P	0 - 30
2097186	AMPA	1.74	Spike	P	0 - 30
2097186	Endothall	2.39	Spike	P	0 - 30
2097186	Glufosinate	1.47	Spike	P	0 - 30
2097186	Glyphosate	3.43	Spike	P	0 - 30
2097186	Sucralose	1.04	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P366126

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097367	Color (true)	1.84	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P366127

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097478	Color (true)	2.87	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P366362

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096586	Total Alkalinity	0.299	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P366445

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098178	Total Alkalinity	5.44	Sample	F	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P366616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097302	TDS	5.50	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P366365

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096586	Fluoride	0.473	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
Batch ID: P366583

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098178	Fluoride	0.979	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P366314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097303	Organic Carbon	1.00	Spike	P	0 - 20

Quality Assurance Report

Precision

* 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: 2097409
Field Sample ID: 20030801

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	76.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	62.6	P	30 - 160
EPA 8321B	Diuron-d6	54.2	P	30 - 160
EPA 8321B	Endothall-d6	89.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	70.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	59.2	P	30 - 160
EPA 8321B	Primidone-d5	82.5	P	30 - 160
EPA 8321B	Sucralose-d6	142	P	30 - 160

Lab Sample ID: 2097410
Field Sample ID: 20030123

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	110	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.4	P	30 - 160
EPA 8321B	Diuron-d6	64.9	P	30 - 160
EPA 8321B	Endothall-d6	1170	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	83.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	67.8	P	30 - 160
EPA 8321B	Primidone-d5	83.0	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160

Lab Sample ID: 2097411
Field Sample ID: 20030953

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	141	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.6	P	30 - 160
EPA 8321B	Diuron-d6	69.5	P	30 - 160
EPA 8321B	Endothall-d6	92.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	79.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.7	P	30 - 160
EPA 8321B	Primidone-d5	83.3	P	30 - 160
EPA 8321B	Sucralose-d6	94.3	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A92279

Included Lab Sample IDs: 2097375, 2097378, 2097381, 2097384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.3	97.4	P/P	90 - 110
O-Phosphate-P	99.1	97.3	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A92280

Included Lab Sample IDs: 2097373, 2097376, 2097382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.1	99.5	P/P	90 - 115
Color (true)	99.5	102	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A92281

Included Lab Sample IDs: 2097373, 2097376, 2097379, 2097382

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A92336

Included Lab Sample IDs: 2097373, 2097376, 2097382

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A92337

Included Lab Sample IDs: 2097380

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A92352

Included Lab Sample IDs: 2097414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	101	P/P	90 - 110
Calcium	104	103	P/P	90 - 110
Iron	101	102	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Potassium	99.9	100	P/P	90 - 110
Sodium	102	104	P/P	90 - 110
Zinc	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A92358

Included Lab Sample IDs: 2097380

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A92358

Included Lab Sample IDs: 2097380

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92359

Included Lab Sample IDs: 2097380

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

Reference Method: EPA 8321B

Run ID: A92361

Included Lab Sample IDs: 2097409, 2097410, 2097411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	126	71.0	P/P	60 - 160
Endothall	99.8	98.6	P/P	60 - 160

Reference Method: SM 5310 B-00

Run ID: A92362

Included Lab Sample IDs: 2097374, 2097377, 2097380, 2097383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.5	94.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92363

Included Lab Sample IDs: 2097409, 2097410, 2097411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	73.1	71.7	P/P	60 - 160
Glufosinate	77.9	80.5	P/P	60 - 160
Glyphosate	77.2	82.8	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92368

Included Lab Sample IDs: 2097414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.4	95.0	P/P	90 - 110
Antimony	97.0	96.7	P/P	90 - 110
Arsenic	97.4	97.3	P/P	90 - 110
Boron	94.0	91.1	P/P	90 - 110
Cadmium	95.5	95.2	P/P	90 - 110
Chromium	95.1	95.8	P/P	90 - 110
Lead	96.3	96.4	P/P	90 - 110
Nickel	95.2	95.3	P/P	90 - 110
Selenium	97.4	98.1	P/P	90 - 110
Silver	93.4	93.6	P/P	90 - 110
Thallium	94.3	93.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A92371

Included Lab Sample IDs: 2097374, 2097377, 2097383

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

Reference Method: EPA 8321B

Run ID: A92372

Included Lab Sample IDs: 2097409, 2097410, 2097411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	103	107	P/P	60 - 160
Sucralose	110	103	P/P	60 - 160

Reference Method: SM 2320 B-97

Run ID: A92380

Included Lab Sample IDs: 2097379

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

Reference Method: SM 4500 F-C-97

Run ID: A92380

Included Lab Sample IDs: 2097379

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92385

Included Lab Sample IDs: 2097383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.6	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92400

Included Lab Sample IDs: 2097383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.6	94.2	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A92417

Included Lab Sample IDs: 2097373, 2097376, 2097382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92424

Included Lab Sample IDs: 2097374, 2097377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.1	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92424

Included Lab Sample IDs: 2097374, 2097377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.9	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A92461

Included Lab Sample IDs: 2097374, 2097377, 2097383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	106	106	P/P	90 - 110
Ammonia-N	108	107	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92463

Included Lab Sample IDs: 2097409, 2097410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.7	82.8	P/P	50 - 150
Acetaminophen	131	103	P/P	60 - 160
Bentazon	91.9	91.4	P/P	50 - 160
Carbamazepine	71.3	101	P/P	60 - 150
Diuron	107	108	P/P	60 - 150
Fenuron	98.3	88.7	P/P	60 - 150
Fluridone	120	114	P/P	60 - 160
Hydrocodone	91.9	86.9	P/P	60 - 150
Ibuprofen	86.4	87.7	P/P	50 - 160
Imazapyr	81.3	53.6	P/P	50 - 150
Imidacloprid	91.8	91.6	P/P	60 - 150
Linuron	90.5	93.1	P/P	60 - 150
MCPP	92.5	78.6	P/P	50 - 150
Naproxen	82.5	98.4	P/P	50 - 160
Primidone	102	85.4	P/P	60 - 150
Pyraclostrobin	104	98.8	P/P	60 - 150
Triclopyr	85.6	79.7	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92469

Included Lab Sample IDs: 2097414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	101	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92486

Included Lab Sample IDs: 2097374, 2097377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.4	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A92490

Included Lab Sample IDs: 2097373, 2097376, 2097382

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

Reference Method: EPA 300.0

Run ID: A92511

Included Lab Sample IDs: 2097379

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92534

Included Lab Sample IDs: 2097380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.1	95.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92569

Included Lab Sample IDs: 2097411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.4	81.7	P/P	50 - 150
Acetaminophen	106	103	P/P	60 - 160
Bentazon	120	112	P/P	50 - 160
Carbamazepine	102	104	P/P	60 - 150
Diuron	103	106	P/P	60 - 150
Fenuron	101	107	P/P	60 - 150
Fluridone	105	102	P/P	60 - 160
Hydrocodone	109	94.6	P/P	60 - 150
Ibuprofen	72.9	82.6	P/P	50 - 160
Imazapyr	93.7	122	P/P	50 - 150
Imidacloprid	93.1	88.9	P/P	60 - 150
Linuron	88.9	91.4	P/P	60 - 150
MCPP	92.2	81.6	P/P	50 - 150
Naproxen	109	132	P/P	50 - 160
Primidone	91.3	100	P/P	60 - 150
Pyraclostrobin	87.8	78.6	P/P	60 - 150
Triclopyr	91.8	80.8	P/P	50 - 150

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements. Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery			MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity								0.966	
EPA 200.7 Rev. 4.4	Barium	98.9			97.5	96.7	100			0.832
	Calcium	103			103	102				0.900
	Iron	101			104	104	104			0.570
	Magnesium	102			104	107				0.641
	Potassium	103			105	107				0.971
	Sodium	103			99.5	103				1.10
	Zinc	96.6			100	99.5	98.8			0.846
EPA 200.8 Rev. 5.4	Aluminum	94.9			95.5	91.4	94.5			3.99
	Antimony	96.4			98.1	96.9	96.2			1.23
	Arsenic	98.3			102	100	98.4			1.64
	Boron	93.7			95.2	92.6	91.8			1.81
	Cadmium	95.5			98.9	96.1	96.3			2.88
	Chromium	96.0			94.3	91.8	94.6			2.62
	Copper	91.9			99.9	87.4	91.2			4.20
	Lead	96.0			97.7	95.5	96.4			2.19
	Nickel	95.0			95.9	93.1	94.9			2.96
	Selenium	96.8			100	99.2	96.2			0.930
	Silver	95.3			94.9	93.4	95.8			1.58
	Thallium	97.7			99.9	97.7	98.8			2.21
EPA 300.0	Bromide	98.2			96.6	97.5	94.4			0.904
EPA 300.0 Rev. 2.1	Chloride	98.6			96.8	99.3			0.862	
	Sulfate	98.6			96.0	99.6			0.932	
EPA 350.1 Rev. 2.0	Ammonia-N	103			105	106				0.853
	Ammonia-N	103			105	104				0.441
	Ammonia-N	106			106	106				0.350
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107			107	102				3.86
	Kjeldahl Nitrogen	100			95.9	100				2.70
	Kjeldahl Nitrogen	103			97.8	100				1.56
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	103			105	104				1.44
	NO ₂ NO ₃ -N	101			100	100				0.0
EPA 365.1 Rev. 2.0	Total-P	98.4			103	104				0.815
	Total-P	103			99.0	99.5				0.472
	Total-P	102			100	103				1.86
	Total-P	100			99.5	102				2.21
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.4			94.8	96.9				2.19
	O-Phosphate-P	97.7			96.0	97.7				0.996
EPA 8321B	2,4-D	113			93.1	117				14.2
	2,4-D	116			137	161				11.9
	Acesulfame K	116			134	139				4.04
	Acetaminophen	125			98.9	101				2.31
	Acetaminophen	82.7			101	111				8.61
	AMPA	95.3			70.6	71.9				1.74
	Bentazon	87.9			45.8	94.5				6.06
	Bentazon	117			101	106				2.77
	Carbamazepine	102			72.2	80.2				9.76
	Carbamazepine	82.5			84.4	85.3				1.14
	Diuron	94.7			63.8	71.6				9.91
	Diuron	83.2			77.0	78.4				1.59
	Endothall	94.4			97.7	100				2.39
	Fenuron	103			78.3	87.3				10.9
	Fenuron	100			93.2	96.6				3.59
	Fluridone	112			70.0	81.4				3.44
	Fluridone	93.2			85.2	84.1				1.25

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Glufosinate	86.8	83.7	82.5			1.47
	Glyphosate	95.3	77.1	79.8			3.43
	Hydrocodone	100	96.0	101			4.84
	Hydrocodone	98.7	116	117			1.01
	Ibuprofen	71.7	63.0	70.3			11.0
	Ibuprofen	83.5	83.3	90.6			8.35
	Imazapyr	72.3	97.5	115			10.3
	Imazapyr	131	139	182			20.8
	Imidacloprid	101	136	164			2.49
	Imidacloprid	87.5	174	198			6.52
	Linuron	71.0	60.7	59.7			1.71
	Linuron	63.2	55.0	53.0			3.84
	MCPP	151	144	176			19.1
	MCPP	137	187	189			1.01
	Naproxen	102	62.1	55.0			12.1
	Naproxen	84.5	95.4	81.8			15.4
	Primidone	93.2	77.4	78.5			1.16
	Primidone	79.5	92.6	99.7			7.35
	Pyraclostrobin	85.9	87.1	90.1			3.35
	Pyraclostrobin	69.4	71.8	73.2			1.99
	Sucralose	103	107	106			1.04
	Triclopyr	98.5	130	154			17.1
	Triclopyr	107	122	136			11.2
SM 2120 B	Color (true)	99.6				1.84	
	Color (true)	100				2.87	
SM 2320 B-97	Total Alkalinity	103				0.299	
	Total Alkalinity	103				5.44	
SM 2540 C-97	TDS					5.50	
SM 4500 F-C-97	Fluoride	97.9	97.1	97.8			0.473
	Fluoride	98.0	97.8	99.1			0.979
SM 5310 B-00	Organic Carbon	96.0	95.0	96.6			1.00

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2097373, 2097376, 2097379, 2097382
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2097414
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2097414
EPA 300.0 / E31780	Bromide in aqueous matrices	2097379
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2097373, 2097376, 2097382
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2097373, 2097376, 2097382
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2097374, 2097377, 2097380, 2097383
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2097374, 2097377, 2097380, 2097383
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2097374, 2097377, 2097380, 2097383
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2097374, 2097377, 2097380, 2097383

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2097375, 2097378, 2097381, 2097384
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2097409, 2097410, 2097411
SM 2120 B / E31780	True Color measured at 450 nm	2097373, 2097376, 2097382
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2097373, 2097376, 2097379, 2097382
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2097373, 2097376, 2097382
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2097373, 2097376, 2097379, 2097382
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2097373, 2097376, 2097379, 2097382
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2097374, 2097377, 2097380, 2097383

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	06/21/2019			06/21/2019 16:50	Adrian Shelby	2097373, 2097376, 2097379, 2097382
EPA 200.7 Rev. 4.4	06/21/2019	06/24/2019 16:50	Elliott D. Healy	06/25/2019 15:00	Betina Topolski	2097414
EPA 200.8 Rev. 5.4	06/21/2019	06/24/2019 16:50	Elliott D. Healy	06/26/2019 01:13	Robert K Palmer	2097414
	06/21/2019	06/24/2019 16:50	Elliott D. Healy	07/01/2019 12:45	Robert K Palmer	2097414
EPA 300.0	06/21/2019			07/02/2019 00:14	Jhamieka S. Greenwood	2097379
EPA 300.0 Rev. 2.1	06/21/2019			06/28/2019 15:46	Jhamieka S. Greenwood	2097373
	06/21/2019			06/28/2019 15:58	Jhamieka S. Greenwood	2097376
	06/21/2019			06/28/2019 16:10	Jhamieka S. Greenwood	2097382
EPA 350.1 Rev. 2.0	06/21/2019			06/25/2019 14:07	Ping Hua	2097380
	06/21/2019			06/27/2019 13:02	Ping Hua	2097374
	06/21/2019			06/27/2019 13:08	Ping Hua	2097377
	06/21/2019			06/27/2019 14:38	Ping Hua	2097383
EPA 351.2 Rev. 2.0	06/21/2019	06/26/2019 11:25	Sima Feizi	06/27/2019 10:26	Joseph Suarez	2097383
	06/21/2019	06/27/2019 11:45	Sima Feizi	07/01/2019 16:14	Joseph Suarez	2097374
	06/21/2019	06/27/2019 11:45	Sima Feizi	07/01/2019 16:16	Joseph Suarez	2097377
	06/21/2019	07/02/2019 12:30	Adrian Shelby	07/03/2019 11:30	Joseph Suarez	2097380
EPA 353.2 Rev. 2.0	06/21/2019			06/26/2019 09:07	Beverly Y. Sanders	2097380
	06/21/2019			06/26/2019 11:00	Beverly Y. Sanders	2097374
	06/21/2019			06/26/2019 11:06	Beverly Y. Sanders	2097377
	06/21/2019			06/26/2019 11:08	Beverly Y. Sanders	2097383
EPA 365.1 Rev. 2.0	06/21/2019	06/25/2019 11:00	Lipi Saha	06/26/2019 10:01	Lipi Saha	2097380
	06/21/2019	06/26/2019 12:15	Sima Feizi	06/27/2019 10:30	Lipi Saha	2097383
	06/21/2019	06/27/2019 13:40	Sima Feizi	06/28/2019 10:12	Lipi Saha	2097374
	06/21/2019	06/27/2019 13:40	Sima Feizi	06/28/2019 10:49	Lipi Saha	2097377
EPA 365.1 Rev. 2.0 dissolved	06/21/2019			06/21/2019 16:11	Jhamieka S. Greenwood	2097381
	06/21/2019			06/21/2019 16:18	Jhamieka S. Greenwood	2097375
	06/21/2019			06/21/2019 16:19	Jhamieka S. Greenwood	2097378, 2097384
EPA 8321B	06/21/2019	06/21/2019 12:30	Hoor Shaik	06/22/2019 15:15	Juyoung Kim	2097409
	06/21/2019	06/21/2019 12:30	Hoor Shaik	06/22/2019 15:50	Juyoung Kim	2097410
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/25/2019 11:39	Rebecca Ware	2097409
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/25/2019 12:00	Rebecca Ware	2097411
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/25/2019 12:43	Rebecca Ware	2097410
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/25/2019 21:17	Rebecca Ware	2097409
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/25/2019 21:31	Rebecca Ware	2097410
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/25/2019 21:45	Rebecca Ware	2097411
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/26/2019 11:00	Rebecca Ware	2097409
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/26/2019 11:12	Rebecca Ware	2097410
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/26/2019 11:41	Rebecca Ware	2097411
	06/21/2019	06/27/2019 09:00	Hoor Shaik	07/05/2019 19:46	Juyoung Kim	2097411
SM 2120 B	06/21/2019			06/21/2019 16:51	Madeline Funaro	2097373

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B	06/21/2019			06/21/2019 16:52	Madeline Funaro	2097376
	06/21/2019			06/21/2019 16:55	Madeline Funaro	2097382
SM 2320 B-97	06/21/2019			06/26/2019 06:19	Dale L. Simmons	2097379
	06/21/2019			06/27/2019 07:15	Dale L. Simmons	2097373
	06/21/2019			06/27/2019 07:27	Dale L. Simmons	2097376
	06/21/2019			06/27/2019 07:39	Dale L. Simmons	2097382
SM 2540 C-97	06/21/2019			06/26/2019 15:02	Yijie Li	2097373, 2097376, 2097382
SM 2540 D-97	06/21/2019			06/26/2019 15:02	Yijie Li	2097373, 2097376, 2097379, 2097382
SM 4500 F-C-97	06/21/2019			06/26/2019 04:20	Dale L. Simmons	2097379
	06/21/2019			07/01/2019 21:58	Dale L. Simmons	2097373
	06/21/2019			07/01/2019 22:02	Dale L. Simmons	2097376
	06/21/2019			07/01/2019 22:06	Dale L. Simmons	2097382
SM 5310 B-00	06/21/2019			06/25/2019 05:08	Madeline Funaro	2097374
	06/21/2019			06/25/2019 05:21	Madeline Funaro	2097377
	06/21/2019			06/25/2019 05:34	Madeline Funaro	2097380
	06/21/2019			06/25/2019 05:47	Madeline Funaro	2097383