

Chemical Analysis Report

WAS-SECT-2019-05-01-02

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

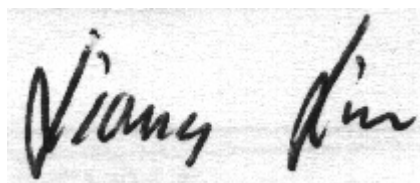
Event Description: **NWQI - Alligator Creek**
Request ID: **RQ-2019-04-29-30**
Customer: **WAS-SECT**
Project ID: **SMP**

Send Reports to:
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Tallahassee, FL 32399
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 22-MAY-2019 11:16

A handwritten signature in black ink, appearing to read "Liang Lin", is shown 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 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: Pine Barn Creek at Woodrest Rd

Collection Date/Time: 05/01/2019 11:46

Field ID: G3WA0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082333	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P363183	
	EPA 300.0 Rev. 2.1	Chloride	5.8		mg Cl/L	P363743	
		Sulfate	0.20	U	mg SO4/L	P363747	
	SM 2120 B	Color (true)	150		PCU	P363214	
	SM 2320 B-97	Total Alkalinity	8.5		mg CaCO3/L	P363868	
	SM 2540 C-97	TDS	51		mg/L	P363821	
	SM 2540 D-97	TSS	11		mg/L	P363832	
	SM 4500 F-C-97	Fluoride	0.052	I	mg F/L	P363761	
2082339	EPA 350.1 Rev. 2.0	Ammonia-N	0.23		mg N/L	P363625	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P363402	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P363309	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P363348	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P363354	
2082345	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.053		mg P/L	P363195	
2082378	EPA 8321B	2,4-D	0.0052	I	ug/L	P363161	
		Acesulfame K**	0.10	U	ug/L	P363198	
		AMPA**	0.10	U	ug/L	P363198	
		Sucralose**	0.010	U	ug/L	P363198	
		Acetaminophen**	0.0080	U	ug/L	P363161	
		Endothall**	0.25	U	ug/L	P363198	
		Glufosinate**	0.10	U	ug/L	P363198	
		Bentazon	8.0E-04	U	ug/L	P363161	
		Glyphosate**	0.10	U	ug/L	P363198	
		Carbamazepine**	8.0E-04	U	ug/L	P363161	
		Diuron	0.0020	U	ug/L	P363161	
		Fenuron	0.016	U	ug/L	P363161	
		Fluridone**	8.0E-04	U	ug/L	P363161	
		Imazapyr**	0.0040	U	ug/L	P363161	
		Hydrocodone**	0.0020	U	ug/L	P363161	
		Ibuprofen**	0.020	U	ug/L	P363161	
		Imidacloprid	0.0040	I	ug/L	P363161	MS
		Linuron	0.0040	U	ug/L	P363161	
		MCP	0.0020	U	ug/L	P363161	
		Naproxen**	0.0080	U	ug/L	P363161	
		Primidone**	0.0040	U	ug/L	P363161	
		Pyraclostrobin**	0.0020	U	ug/L	P363161	
		Triclopyr**	0.0040	U	ug/L	P363161	

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: Scurlock Creek at Pilgrim Rd

Collection Date/Time: 05/01/2019 11:23

Field ID: G3WA0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082334	EPA 180.1 Rev. 2.0	Turbidity	15		NTU	P363183	
	EPA 300.0 Rev. 2.1	Chloride	6.2		mg Cl/L	P363743	
		Sulfate	0.61		mg SO4/L	P363747	
	SM 2120 B	Color (true)	24		PCU	P363223	
	SM 2320 B-97	Total Alkalinity	57		mg CaCO3/L	P363868	
	SM 2540 C-97	TDS	92		mg/L	P363821	
	SM 2540 D-97	TSS	16		mg/L	P363832	
	SM 4500 F-C-97	Fluoride	0.046	I	mg F/L	P363761	
2082340	EPA 350.1 Rev. 2.0	Ammonia-N	0.34		mg N/L	P363625	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P363402	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.084		mg N/L	P363309	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P364072	
	SM 5310 B-00	Organic Carbon	8.0		mg C/L	P363354	
2082346	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P363195	
2082379	EPA 8321B	2,4-D	0.0020	U	ug/L	P363161	
		Acesulfame K**	0.10	U	ug/L	P363198	
		AMPA**	0.10	U	ug/L	P363198	
		Sucralose**	0.010	U	ug/L	P363198	
		Acetaminophen**	0.0080	U	ug/L	P363161	
		Endothall**	0.25	U	ug/L	P363198	
		Glufosinate**	0.10	U	ug/L	P363198	
		Bentazon	8.0E-04	U	ug/L	P363161	
		Glyphosate**	0.10	U	ug/L	P363198	
		Carbamazepine**	8.0E-04	U	ug/L	P363161	
		Diuron	0.0020	U	ug/L	P363161	
		Fenuron	0.016	U	ug/L	P363161	
		Fluridone**	8.0E-04	U	ug/L	P363161	
		Imazapyr**	0.0070	I	ug/L	P363161	
		Hydrocodone**	0.0020	U	ug/L	P363161	
		Ibuprofen**	0.020	U	ug/L	P363161	
		Imidacloprid	0.0020	U	ug/L	P363161	MS
		Linuron	0.0040	U	ug/L	P363161	
		MCPP	0.0020	U	ug/L	P363161	
		Naproxen**	0.0080	U	ug/L	P363161	
		Primidone**	0.0040	U	ug/L	P363161	
		Pyraclostrobin**	0.0020	U	ug/L	P363161	
		Triclopyr**	0.0040	U	ug/L	P363161	

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: Alligator Creek upstream of Bentley Rd.

Collection Date/Time: 05/01/2019 10:52

Field ID: G3WA0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082335	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P363183	
	EPA 300.0 Rev. 2.1	Chloride	6.7		mg Cl/L	P363743	
		Sulfate	0.42	I	mg SO4/L	P363747	
	SM 2120 B	Color (true)	60		PCU	P363214	
	SM 2320 B-97	Total Alkalinity	25		mg CaCO3/L	P363868	
	SM 2540 C-97	TDS	53		mg/L	P363821	
	SM 2540 D-97	TSS	6	I	mg/L	P363832	
	SM 4500 F-C-97	Fluoride	0.055	I	mg F/L	P363761	
2082341	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P363625	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P363402	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P363309	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P363523	
	SM 5310 B-00	Organic Carbon	5.7		mg C/L	P363354	
2082347	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P363195	
2082380	EPA 8321B	2,4-D	0.0020	U	ug/L	P363161	
		Acesulfame K**	0.10	U	ug/L	P363198	
		AMPA**	0.18	I	ug/L	P363198	
		Sucralose**	0.072		ug/L	P363198	
		Acetaminophen**	0.0080	U	ug/L	P363161	
		Endothall**	0.25	U	ug/L	P363198	
		Glufosinate**	0.10	U	ug/L	P363198	
		Bentazon	8.0E-04	U	ug/L	P363161	
		Glyphosate**	0.10	U	ug/L	P363198	
		Carbamazepine**	8.0E-04	U	ug/L	P363161	
		Diuron	0.0020	U	ug/L	P363161	
		Fenuron	0.016	U	ug/L	P363161	
		Fluridone**	8.0E-04	U	ug/L	P363161	
		Imazapyr**	0.0040	U	ug/L	P363161	
		Hydrocodone**	0.0020	U	ug/L	P363161	
		Ibuprofen**	0.020	U	ug/L	P363161	
		Imidacloprid	0.0035	I	ug/L	P363161	MS
		Linuron	0.0040	U	ug/L	P363161	
		MCPP	0.0020	U	ug/L	P363161	
		Naproxen**	0.0080	U	ug/L	P363161	
		Primidone**	0.0040	U	ug/L	P363161	
		Pyraclostrobin**	0.0020	U	ug/L	P363161	
		Triclopyr**	0.0040	U	ug/L	P363161	

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: Little Alligator Creek at SR 273

Collection Date/Time: 05/01/2019 10:31

Field ID: G3WA0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082336	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P363183	
	EPA 300.0 Rev. 2.1	Chloride	6.1		mg Cl/L	P363743	
		Sulfate	0.49	I	mg SO4/L	P363747	
	SM 2120 B	Color (true)	59	A	PCU	P363215	
	SM 2320 B-97	Total Alkalinity	25		mg CaCO3/L	P363868	
	SM 2540 C-97	TDS	62		mg/L	P363821	
	SM 2540 D-97	TSS	5	I	mg/L	P363832	
2082342	SM 4500 F-C-97	Fluoride	0.055	I	mg F/L	P363761	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P363625	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.68		mg N/L	P363402	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P363309	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P363523	
2082348	SM 5310 B-00	Organic Carbon	6.0		mg C/L	P363354	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.011		mg P/L	P363195	
2082381	EPA 8321B	2,4-D	0.0020	U	ug/L	P363186	
		Acesulfame K**	0.10	U	ug/L	P363198	
		AMPA**	0.17	I	ug/L	P363198	
		Sucralose**	0.048		ug/L	P363198	
		Acetaminophen**	0.0080	U	ug/L	P363186	
		Endothall**	0.25	U	ug/L	P363198	
		Glufosinate**	0.10	U	ug/L	P363198	
		Bentazon	8.0E-04	U	ug/L	P363186	
		Glyphosate**	0.10	U	ug/L	P363198	
		Carbamazepine**	8.0E-04	U	ug/L	P363186	
		Diuron	0.0020	U	ug/L	P363186	
		Fenuron	0.016	U	ug/L	P363186	
		Fluridone**	8.0E-04	U	ug/L	P363186	
		Imazapyr**	0.0081	I	ug/L	P363186	
		Hydrocodone**	0.0020	U	ug/L	P363186	
		Ibuprofen**	0.020	U	ug/L	P363186	
		Imidacloprid	0.0033	I	ug/L	P363186	
		Linuron	0.0040	U	ug/L	P363186	
		MCP	0.0020	U	ug/L	P363186	
		Naproxen**	0.0080	U	ug/L	P363186	
		Primidone**	0.0040	U	ug/L	P363186	
		Pyraclostrobin**	0.0020	U	ug/L	P363186	
		Triclopyr**	0.0040	U	ug/L	P363186	

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: Unnamed Creek at Palmview Rd

Collection Date/Time: 05/01/2019 12:36

Field ID: G3WA0013

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082337	EPA 180.1 Rev. 2.0	Turbidity	18		NTU	P363183	
	EPA 300.0 Rev. 2.1	Chloride	4.6		mg Cl/L	P363743	
		Sulfate	0.37	I	mg SO4/L	P363747	
		Color (true)	66		PCU	P363223	
	SM 2120 B	Total Alkalinity	5.8		mg CaCO3/L	P363868	
	SM 2540 C-97	TDS	56		mg/L	P363821	
	SM 2540 D-97	TSS	15		mg/L	P363832	
	SM 4500 F-C-97	Fluoride	0.041	I	mg F/L	P363761	
2082343	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P363625	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P363402	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.059		mg N/L	P363309	
	EPA 365.1 Rev. 2.0	Total-P	0.066		mg P/L	P363349	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P363354	
2082349	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.01	I	mg P/L	P363195	
2082382	EPA 8321B	2,4-D	0.0061	I	ug/L	P363186	
		Acesulfame K**	0.10	U	ug/L	P363198	
		AMPA**	0.10	U	ug/L	P363198	
		Sucralose**	0.010	U	ug/L	P363198	
		Acetaminophen**	0.0080	U	ug/L	P363186	
		Endothall**	0.25	U	ug/L	P363198	
		Glufosinate**	0.10	U	ug/L	P363198	
		Bentazon	8.0E-04	U	ug/L	P363186	
		Glyphosate**	0.10	U	ug/L	P363198	
		Carbamazepine**	8.0E-04	U	ug/L	P363186	
		Diuron	0.0020	U	ug/L	P363186	
		Fenuron	0.016	U	ug/L	P363186	
		Fluridone**	8.0E-04	U	ug/L	P363186	
		Imazapyr**	0.012	I	ug/L	P363186	
		Hydrocodone**	0.0020	U	ug/L	P363186	
		Ibuprofen**	0.020	U	ug/L	P363186	
		Imidacloprid	0.0020	U	ug/L	P363186	
		Linuron	0.0040	U	ug/L	P363186	
		MCPP	0.0020	U	ug/L	P363186	
		Naproxen**	0.0080	U	ug/L	P363186	
		Primidone**	0.0040	U	ug/L	P363186	
		Pyraclostrobin**	0.0020	U	ug/L	P363186	
		Triclopyr**	0.0040	U	ug/L	P363186	

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: Unnamed Creek at Woodrest Rd

Collection Date/Time: 05/01/2019 12:11

Field ID: G3WA0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082338	EPA 180.1 Rev. 2.0	Turbidity	14	A	NTU	P363184	
	EPA 300.0 Rev. 2.1	Chloride	4.2		mg Cl/L	P363743	
		Sulfate	0.30	I	mg SO4/L	P363747	
	SM 2120 B	Color (true)	150		PCU	P363214	
	SM 2320 B-97	Total Alkalinity	3.9		mg CaCO3/L	P363868	
	SM 2540 C-97	TDS	43		mg/L	P363821	
	SM 2540 D-97	TSS	8	I	mg/L	P363832	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P363761	
2082344	EPA 350.1 Rev. 2.0	Ammonia-N	0.097		mg N/L	P363625	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P363402	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P363309	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P363349	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P363354	
2082350	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.011		mg P/L	P363195	
2082383	EPA 8321B	2,4-D	0.0022	I	ug/L	P363186	
		Acesulfame K**	0.10	U	ug/L	P363198	
		AMPA**	0.10	U	ug/L	P363198	
		Sucralose**	0.010	U	ug/L	P363198	
		Acetaminophen**	0.0080	U	ug/L	P363186	
		Endothall**	0.25	U	ug/L	P363198	
		Glufosinate**	0.10	U	ug/L	P363198	
		Bentazon	0.0025	I	ug/L	P363186	
		Glyphosate**	0.10	U	ug/L	P363198	
		Carbamazepine**	8.0E-04	U	ug/L	P363186	
		Diuron	0.0020	U	ug/L	P363186	
		Fenuron	0.016	U	ug/L	P363186	
		Fluridone**	8.0E-04	U	ug/L	P363186	
		Imazapyr**	0.0040	U	ug/L	P363186	
		Hydrocodone**	0.0020	U	ug/L	P363186	
		Ibuprofen**	0.020	U	ug/L	P363186	
		Imidacloprid	0.0083		ug/L	P363186	
		Linuron	0.0040	U	ug/L	P363186	
		MCP	0.0020	U	ug/L	P363186	
		Naproxen**	0.0080	U	ug/L	P363186	
		Primidone**	0.0040	U	ug/L	P363186	
		Pyraclostrobin**	0.0020	U	ug/L	P363186	
		Triclopyr**	0.0040	U	ug/L	P363186	

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: Alligator Creek Upstream of SR 273

Collection Date/Time: 05/01/2019 10:02

Field ID: G3WA0005

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082330	EPA 180.1 Rev. 2.0	Turbidity	8.9		NTU	P363183	
	EPA 300.0 Rev. 2.1	Chloride	4.9		mg Cl/L	P363743	
		Sulfate	0.38	I	mg SO4/L	P363747	
	SM 2120 B	Color (true)	120		PCU	P363214	
	SM 2320 B-97	Total Alkalinity	9.9		mg CaCO3/L	P363868	
	SM 2540 C-97	TDS	57		mg/L	P363820	
	SM 2540 D-97	TSS	5	I	mg/L	P363831	
	SM 4500 F-C-97	Fluoride	0.041	I	mg F/L	P363761	
2082331	EPA 350.1 Rev. 2.0	Ammonia-N	0.090		mg N/L	P363627	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.89		mg N/L	P363402	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P363309	
	EPA 365.1 Rev. 2.0	Total-P	0.074		mg P/L	P363348	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P363354	
2082332	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.028		mg P/L	P363195	
2082377	EPA 8321B	2,4-D	0.0037	I	ug/L	P363161	
		Acesulfame K**	0.10	U	ug/L	P363198	
		AMPA**	0.10	U	ug/L	P363198	
		Sucralose**	0.010	U	ug/L	P363198	
		Acetaminophen**	0.0080	U	ug/L	P363161	
		Endothall**	0.25	U	ug/L	P363198	
		Glufosinate**	0.10	U	ug/L	P363198	
		Bentazon	8.0E-04	U	ug/L	P363161	
		Glyphosate**	0.10	U	ug/L	P363198	
		Carbamazepine**	8.0E-04	U	ug/L	P363161	
		Diuron	0.0020	U	ug/L	P363161	
		Fenuron	0.016	U	ug/L	P363161	
		Fluridone**	8.0E-04	U	ug/L	P363161	
		Imazapyr**	0.0040	U	ug/L	P363161	
		Hydrocodone**	0.0020	U	ug/L	P363161	
		Ibuprofen**	0.020	U	ug/L	P363161	
		Imidacloprid	0.0094		ug/L	P363161	MS
		Linuron	0.0040	U	ug/L	P363161	
		MCPP	0.0020	U	ug/L	P363161	
		Naproxen**	0.0080	U	ug/L	P363161	
		Primidone**	0.0040	U	ug/L	P363161	
		Pyraclostrobin**	0.0020	U	ug/L	P363161	
		Triclopyr**	0.0040	U	ug/L	P363161	
2082387	EPA 200.7 Rev. 4.4	Barium	13.3		ug/L	P363403	
		Calcium	4.27		mg/L	P363403	
		Iron	1.38E+03		ug/L	P363403	
		Magnesium	1.36		mg/L	P363403	
		Potassium	1.3		mg/L	P363403	
		Sodium	1.9	I	mg/L	P363403	

Field ID: G3WA0005

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082387	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P363403	
	EPA 200.8 Rev. 5.4	Aluminum	404		ug/L	P363403	
		Antimony	0.050	U	ug/L	P363403	
		Arsenic	0.72		ug/L	P363403	
		Boron**	12.5		ug/L	P363403	
		Cadmium	0.020	U	ug/L	P363403	
		Chromium	0.81	I	ug/L	P363403	
		Copper	0.68	I	ug/L	P363403	
		Lead	0.68		ug/L	P363403	
		Nickel	0.50	U	ug/L	P363403	
		Selenium	0.20	U	ug/L	P363403	
		Silver	0.010	U	ug/L	P363403	
		Thallium	0.10	U	ug/L	P363403	

Ref. Method and Comment:

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

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 05/13/2019.

Sample Location: Minnow Creek At Lovewood Rd

Collection Date/Time: 05/01/2019 09:33

Field ID: G3WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082327	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P363183	
	EPA 300.0 Rev. 2.1	Chloride	6.2		mg Cl/L	P363438	
		Sulfate	0.32	I	mg SO4/L	P363440	
		Color (true)	85		PCU	P363214	
	SM 2120 B	Total Alkalinity	13		mg CaCO3/L	P363868	
	SM 2540 C-97	TDS	49		mg/L	P363820	
	SM 2540 D-97	TSS	5	I	mg/L	P363831	
	SM 4500 F-C-97	Fluoride	0.042	I	mg F/L	P363761	
2082328	EPA 350.1 Rev. 2.0	Ammonia-N	0.057		mg N/L	P363627	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P363402	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.070		mg N/L	P363308	
	EPA 365.1 Rev. 2.0	Total-P	0.041		mg P/L	P363348	
	SM 5310 B-00	Organic Carbon	6.9		mg C/L	P363352	
2082329	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P363195	
2082375	EPA 8321B	Aldicarb	0.020	U	ug/L	P363186	
		Aldicarb Sulfone	0.0020	U	ug/L	P363186	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P363186	
		Carbaryl	0.0020	U	ug/L	P363186	
		Carbofuran	0.0020	U	ug/L	P363186	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P363186	
		Methiocarb	0.0020	U	ug/L	P363186	
		Methomyl	0.0020	U	ug/L	P363186	
		Oxamyl	0.0020	U	ug/L	P363186	
		Propoxur	0.0020	U	ug/L	P363186	
2082376		2,4-D	0.010		ug/L	P363161	
		Acesulfame K**	0.10	U	ug/L	P363198	
		AMPA**	0.10	U	ug/L	P363198	
		Sucralose**	0.010	U	ug/L	P363198	
		Acetaminophen**	0.0080	U	ug/L	P363161	
		Endothall**	0.25	U	ug/L	P363198	
		Glufosinate**	0.10	U	ug/L	P363198	
		Bentazon	8.0E-04	U	ug/L	P363161	
		Glyphosate**	0.10	U	ug/L	P363198	
		Carbamazepine**	8.0E-04	U	ug/L	P363161	
		Diuron	0.019		ug/L	P363161	
		Fenuron	0.016	U	ug/L	P363161	
		Fluridone**	8.0E-04	U	ug/L	P363161	
		Imazapyr**	0.016	I	ug/L	P363161	
		Hydrocodone**	0.0020	U	ug/L	P363161	
		Ibuprofen**	0.020	U	ug/L	P363161	
		Imidacloprid	0.0079	I	ug/L	P363161	MS
		Linuron	0.0040	U	ug/L	P363161	
		MCP	0.0020	U	ug/L	P363161	

Field ID: G3WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082376	EPA 8321B	Naproxen**	0.0080	U	ug/L	P363161	
		Primidone**	0.0040	U	ug/L	P363161	
		Pyraclostrobin**	0.0020	U	ug/L	P363161	
		Triclopyr**	0.0040	U	ug/L	P363161	
2082384	EPA 8270D	Aldrin	4.1	U	ng/L	P363430	
		Alpha-BHC	2.1	U	ng/L	P363430	
		Alpha-Chlordane	1.0	U	ng/L	P363430	
		Beta-BHC	10	UJ	ng/L	P363430	CCV
		Bifenthrin**	4.1	U	ng/L	P363430	
		Delta-BHC	10	UJ	ng/L	P363430	CCV
		Gamma-BHC	10	UJ	ng/L	P363430	CCV
		Carbophenothion	12	U	ng/L	P363430	
		Chlorothalonil	2.1	UJ	ng/L	P363430	CCV
		Cis-Nonachlor**	1.0	U	ng/L	P363430	
		Cypermethrin	21	U	ng/L	P363430	
		DDD-p,p'	8.3	U	ng/L	P363430	
		DDE-p,p'	8.3	U	ng/L	P363430	
		DDT-p,p'	10	U	ng/L	P363430	
		Dicofol	31	U	ng/L	P363430	
		Dieldrin	4.1	U	ng/L	P363430	
		Endosulfan I	4.1	U	ng/L	P363430	
		Endosulfan II	4.1	U	ng/L	P363430	
		Endosulfan Sulfate	2.1	U	ng/L	P363430	
		Endrin	2.1	U	ng/L	P363430	
		Endrin Aldehyde	2.1	U	ng/L	P363430	
		Endrin Ketone	2.1	U	ng/L	P363430	
		Ethalfuralin**	3.1	U	ng/L	P363430	
		Gamma-Chlordane	1.0	U	ng/L	P363430	
		Heptachlor	1.5	U	ng/L	P363430	
		Heptachlor Epoxide	2.1	U	ng/L	P363430	
		Hexachlorobenzene**	2.1	U	ng/L	P363430	MS
		Methoxychlor	4.1	U	ng/L	P363430	
		Mirex	2.1	U	ng/L	P363430	
		Permethrin	10	U	ng/L	P363430	
		Trans-Nonachlor**	1.0	U	ng/L	P363430	
		Trifluralin	2.6	U	ng/L	P363430	
		Chlordane	5.2	U	ng/L	P363430	
		Toxaphene	31	U	ng/L	P363430	
2082385	EPA 8270E	Acetochlor	0.27	U	ng/L	P363224	
		Alachlor	0.27	U	ng/L	P363224	
		Ametryn	0.65	U	ng/L	P363224	
		Atrazine	10		ng/L	P363224	
		Atrazine Desethyl	1.6	UJ	ng/L	P363224	LCS, RPD
		Azinphos Methyl	5.4	U	ng/L	P363224	
		Bromacil	0.54	UJ	ng/L	P363224	LCS, RPD

Field ID: G3WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082385	EPA 8270E	Butylate	0.43	UJ	ng/L	P363224	LCS
		Chlorpyrifos Ethyl	0.27	UJ	ng/L	P363224	LCS
		Chlorpyrifos Methyl	0.11	U	ng/L	P363224	
		Cyanazine	3.5	UJ	ng/L	P363224	RPD
		Demeton	7.6	U	ng/L	P363224	
		Diazinon	0.14	U	ng/L	P363224	
		Dimethenamid**	0.11	U	ng/L	P363224	
		Disulfoton	0.54	U	ng/L	P363224	
		Dithiopyr**	0.11	U	ng/L	P363224	
		EPTC	1.4	UJ	ng/L	P363224	LCS
		Ethion	0.16	U	ng/L	P363224	
		Ethoprop	0.11	U	ng/L	P363224	
		Fenamiphos	0.54	UJ	ng/L	P363224	LCS, RPD
		Fipronil	0.27	U	ng/L	P363224	
		Fipronil Desulfinyl**	0.14	U	ng/L	P363224	
		Fipronil Sulfide	0.16	U	ng/L	P363224	
		Fipronil Sulfone	0.16	U	ng/L	P363224	
		Fonofos	0.22	U	ng/L	P363224	
		Hexazinone	0.54	UJ	ng/L	P363224	LCS, RPD
		Malathion	0.38	U	ng/L	P363224	
		Metalaxyl	0.33	UJ	ng/L	P363224	LCS, RPD
		Metolachlor	8.2	J	ng/L	P363224	LCS
		Metribuzin	0.81	UJ	ng/L	P363224	CCV
		Mevinphos	0.54	UJ	ng/L	P363224	RPD
		Molinate	0.33	UJ	ng/L	P363224	LCS
		Norflurazon	0.54	UJ	ng/L	P363224	LCS, RPD
		Oxadiazon**	0.11	UJ	ng/L	P363224	LCS
		Parathion Ethyl	0.27	U	ng/L	P363224	
		Parathion Methyl	0.60	U	ng/L	P363224	
		Pendimethalin	1.1	U	ng/L	P363224	
		Phorate	0.27	U	ng/L	P363224	
		Prodiamine**	0.19	U	ng/L	P363224	
		Prometon	0.98	UJ	ng/L	P363224	RPD
		Prometryn	0.22	U	ng/L	P363224	
		Simazine	0.54	U	ng/L	P363224	
		Tebuconazole**	2.9	J	ng/L	P363224	RPD
		Terbufos	0.11	U	ng/L	P363224	
		Terbutylazine	0.46	U	ng/L	P363224	
2082386	EPA 200.7 Rev. 4.4	Barium	14.7		ug/L	P363403	
		Calcium	5.07		mg/L	P363403	
		Iron	1.56E+03		ug/L	P363403	
		Magnesium	1.62		mg/L	P363403	
		Potassium	1.3		mg/L	P363403	
		Sodium	1.9	I	mg/L	P363403	
		Zinc	5.0	U	ug/L	P363403	

Field ID: G3WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082386	EPA 200.8 Rev. 5.4	Aluminum	334		ug/L	P363403	
		Antimony	0.050	U	ug/L	P363403	
		Arsenic	0.74		ug/L	P363403	
		Boron**	11.2		ug/L	P363403	
		Cadmium	0.020	U	ug/L	P363403	
		Chromium	0.41	I	ug/L	P363403	
		Copper	0.50	I	ug/L	P363403	
		Lead	0.55		ug/L	P363945	
		Nickel	0.50	U	ug/L	P363403	
		Selenium	0.20	U	ug/L	P363403	
		Silver	0.010	U	ug/L	P363403	
		Thallium	0.10	U	ug/L	P363403	

Ref. Method and Comment:

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

EPA 8270D: Refer to the narrative for an explanation of QC Codes.

EPA 8270E: MS accuracy for norflurazon and bromacil not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 05/13/2019.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P363183

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P363184

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P363403

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: P363403

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 200.8 Rev. 5.4
Batch ID: P363945

Component	Result	Code	Units
Lead	0.20	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363438

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363440

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363743

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363747

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363625

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363627

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P363402

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363308

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363309

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363348

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363349

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363523

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364072

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363195

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

Reference Method: EPA 8270D
Batch ID: P363430

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
Bifenthrin	4.0	U	ng/L
Carbophenothion	12	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	8.0	U	ng/L
DDE-p,p'	8.0	U	ng/L
DDT-p,p'	10	U	ng/L
Delta-BHC	10	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	10	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D

Batch ID: P363430

Component	Result	Code	Units
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E

Batch ID: P363224

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E**Batch ID: P363224**

Component	Result	Code	Units
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8276**Batch ID: P363430**

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B**Batch ID: P363161**

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
MCP	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: P363186**

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P363186

Component	Result	Code	Units
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P363198

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: P363214

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P363215

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P363223

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P363868

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

Reference Method: SM 2540 C-97
Batch ID: P363820

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P363821

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P363831

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P363832

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P363761

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P363352

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

Reference Method: SM 5310 B-00
Batch ID: P363354

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: P363403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	96.6		P	85 - 115
Calcium	101		P	85 - 115
Iron	101		P	85 - 115
Magnesium	99.9		P	85 - 115
Potassium	99.2		P	85 - 115
Sodium	100		P	85 - 115
Zinc	95.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P363403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.1		P	85 - 115
Antimony	98.1		P	85 - 115
Arsenic	99.4		P	85 - 115
Boron	105		P	85 - 115
Cadmium	99.2		P	85 - 115
Chromium	98.8		P	85 - 115
Copper	97.3		P	85 - 115
Lead	96.6		P	85 - 115
Nickel	98.6		P	85 - 115
Selenium	105		P	85 - 115
Silver	99.4		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P363945

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lead	98.6		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P363438

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P363440

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P363743

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363747

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363625

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363627

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P363402

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: P363308

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363309

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: P363348

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363349

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363523

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: P364072

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P363195

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

Reference Method: EPA 8270D

Batch ID: P363430

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	38.3	38.2	P/P	20 - 93.0
Alpha-BHC	116	110	P/P	57 - 119
Alpha-Chlordane	76.2	72.9	P/P	58 - 112
Beta-BHC	130	106	P/P	56 - 149
Bifenthrin	56.8	57.9	P/P	50 - 130
Carbophenothion	67.9	65.2	P/P	26 - 147
Chlorothalonil	123	135	P/P	20 - 155
Cis-Nonachlor	80.1	75.8	P/P	50 - 130
Cypermethrin	53.2	61.1	P/P	40 - 137
DDD-p,p'	94.4	84.6	P/P	65 - 129
DDE-p,p'	74.1	68.8	P/P	57 - 116
DDT-p,p'	87.3	82.8	P/P	53 - 133
Delta-BHC	111	99.1	P/P	59 - 163
Dicofol	92.5	108	P/P	24 - 138
Dieldrin	86.2	78.0	P/P	60 - 120
Endosulfan I	91.5	91.9	P/P	64 - 118
Endosulfan II	108	106	P/P	58 - 142
Endosulfan Sulfate	101	102	P/P	60 - 127
Endrin	91.1	87.8	P/P	59 - 122
Endrin Aldehyde	96.3	80.5	P/P	49 - 132
Endrin Ketone	99.5	99.9	P/P	64 - 121
Ethalfuralin	79.8	80.8	P/P	50 - 130
Gamma-BHC	99.3	111	P/P	56 - 141
Gamma-Chlordane	72.1	69.4	P/P	56 - 110
Heptachlor	65.6	64.8	P/P	46 - 96.0
Heptachlor Epoxide	87.4	84.5	P/P	61 - 112
Hexachlorobenzene	62.2	56.5	P/P	50 - 130
Methoxychlor	107	100	P/P	63 - 134
Mirex	50.6	49.4	P/P	45 - 100
Permethrin	55.0	58.2	P/P	53 - 115
Trans-Nonachlor	70.0	66.6	P/P	50 - 130
Trifluralin	86.0	89.5	P/P	39 - 142

Reference Method: EPA 8270E

Batch ID: P363224

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	121	113	P/P	71 - 121
Alachlor	119	110	P/P	72 - 119
Ametryn	107	104	P/P	47 - 144

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P363224

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Atrazine	113	105	P/P	75 - 123
Atrazine Desethyl	32.3	53.5	F/P	45 - 133
Azinphos Methyl	95.1	109	P/P	66 - 165
Bromacil	40.2	78.9	F/P	43 - 123
Butylate	84.2	75.2	F/P	27 - 83.0
Chlorpyrifos Ethyl	123	108	F/P	70 - 117
Chlorpyrifos Methyl	113	98.0	P/P	71 - 120
Cyanazine	52.1	84.4	P/P	34 - 264
Demeton	85.0	72.2	P/P	41 - 122
Diazinon	117	103	P/P	70 - 127
Dimethenamid	115	113	P/P	66 - 123
Disulfoton	87.9	73.8	P/P	56 - 127
Dithiopyr	122	113	P/P	67 - 125
EPTC	87.0	79.4	F/P	24 - 84.0
Ethion	128	114	P/P	53 - 132
Ethoprop	115	101	P/P	57 - 117
Fenamiphos	12.3	36.7	F/F	55 - 136
Fipronil	84.5	107	P/P	64 - 126
Fipronil Desulfinyl	103	103	P/P	47 - 114
Fipronil Sulfide	110	105	P/P	57 - 120
Fipronil Sulfone	93.8	103	P/P	52 - 115
Fonofos	109	90.8	P/P	61 - 121
Hexazinone	45.6	83.8	F/P	62 - 131
Malathion	116	107	P/P	67 - 126
Metalaxyl	8.60	37.4	F/F	54 - 128
Metolachlor	120	115	F/P	71 - 118
Metribuzin	76.7	84.4	P/P	42 - 221
Mevinphos	49.8	73.3	P/P	45 - 114
Molinate	98.4	86.7	F/P	33 - 91.0
Norflurazon	47.4	97.2	F/P	60 - 123
Oxadiazon	130	121	F/P	66 - 121
Parathion Ethyl	103	102	P/P	73 - 111
Parathion Methyl	103	99.3	P/P	74 - 126
Pendimethalin	126	118	P/P	63 - 131
Phorate	96.1	80.2	P/P	54 - 115
Prodiamine	132	133	P/P	38 - 140
Prometon	63.6	100	P/P	61 - 120
Prometryn	110	106	P/P	62 - 126
Simazine	111	109	P/P	75 - 126
Tebuconazole	21.0	56.0	P/P	21 - 115
Terbufos	108	92.6	P/P	65 - 116
Terbutylazine	115	109	P/P	73 - 117

Reference Method: EPA 8276

Batch ID: P363430

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	69.6	79.5	P/P	43 - 128
Toxaphene	92.6	94.4	P/P	38 - 140

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P363161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	70.7		P	40 - 150
Acetaminophen	91.0		P	30 - 150
Bentazon	95.4		P	30 - 150
Carbamazepine	83.3		P	40 - 150
Diuron	89.7		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	141		P	40 - 150
Hydrocodone	97.4		P	40 - 150
Ibuprofen	74.6		P	40 - 150
Imazapyr	97.2		P	40 - 150
Imidacloprid	97.3		P	40 - 150
Linuron	106		P	40 - 150
MCPP	74.5		P	40 - 150
Naproxen	58.3		P	40 - 150
Primidone	75.8		P	40 - 150
Pyraclostrobin	72.7		P	40 - 150
Triclopyr	42.2		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P363186

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	89.4		P	40 - 150
3-Hydroxycarbofuran	83.4		P	40 - 150
Acetaminophen	94.5		P	30 - 150
Aldicarb	77.6		P	30 - 150
Aldicarb Sulfone	99.5		P	40 - 150
Aldicarb Sulfoxide	102		P	40 - 150
Bentazon	110		P	30 - 150
Carbamazepine	97.6		P	40 - 150
Carbaryl	84.1		P	40 - 150
Carbofuran	82.9		P	40 - 150
Diuron	91.0		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	97.1		P	40 - 150
Hydrocodone	96.5		P	40 - 150
Ibuprofen	77.1		P	40 - 150
Imazapyr	98.6		P	40 - 150
Imidacloprid	105		P	40 - 150
Linuron	73.3		P	40 - 150
MCPP	104		P	40 - 150
Methiocarb	76.2		P	40 - 150
Methomyl	75.8		P	40 - 150
Naproxen	83.9		P	40 - 150
Oxamyl	97.8		P	40 - 150
Primidone	93.3		P	40 - 150
Propoxur	78.2		P	40 - 150
Pyraclostrobin	74.0		P	40 - 150
Triclopyr	64.6		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P363198

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	71.4		P	40 - 150
AMPA	105		P	40 - 150
Endothall	69.4		P	40 - 150
Glufosinate	100		P	40 - 150
Glyphosate	92.4		P	40 - 140
Sucralose	104		P	40 - 150

Reference Method: SM 2120 B

Batch ID: P363214

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

Reference Method: SM 2120 B

Batch ID: P363215

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

Reference Method: SM 2120 B

Batch ID: P363223

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.5		P	85 - 115

Reference Method: SM 2320 B-97

Batch ID: P363868

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 106

Reference Method: SM 4500 F-C-97

Batch ID: P363761

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.5		P	92 - 103

Reference Method: SM 5310 B-00

Batch ID: P363352

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.4		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P363354

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P363403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082813	Barium	98.7		P	80 - 120
2082813	Calcium	105		P	80 - 120
2082813	Iron	101		P	80 - 120
2082813	Magnesium	103		P	80 - 120
2082813	Potassium	98.0		P	80 - 120
2082813	Sodium	103		P	80 - 120
2082813	Zinc	100		P	80 - 120
2082842	Barium	99.5	101	P/P	80 - 120
2082842	Calcium	104		P	80 - 120
2082842	Iron	108	107	P/P	80 - 120
2082842	Magnesium	103		P	80 - 120
2082842	Potassium	101		P	80 - 120
2082842	Sodium	104		P	80 - 120
2082842	Zinc	100	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P363403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082813	Aluminum	95.3		P	80 - 120
2082813	Antimony	96.1		P	80 - 120
2082813	Arsenic	98.9		P	80 - 120
2082813	Boron	105		P	80 - 120
2082813	Cadmium	98.2		P	80 - 120
2082813	Chromium	99.2		P	80 - 120
2082813	Copper	98.1		P	80 - 120
2082813	Lead	96.6		P	80 - 120
2082813	Nickel	99.6		P	80 - 120
2082813	Selenium	106		P	80 - 120
2082813	Silver	99.1		P	80 - 120
2082813	Thallium	104		P	80 - 120
2082842	Aluminum	99.8	98.6	P/P	80 - 120
2082842	Antimony	101	99.0	P/P	80 - 120
2082842	Arsenic	104	103	P/P	80 - 120
2082842	Boron	110	110	P/P	80 - 120
2082842	Cadmium	102	99.7	P/P	80 - 120
2082842	Chromium	103	100	P/P	80 - 120
2082842	Copper	102	99.1	P/P	80 - 120
2082842	Lead	101	99.0	P/P	80 - 120
2082842	Nickel	102	101	P/P	80 - 120
2082842	Selenium	108	108	P/P	80 - 120
2082842	Silver	103	100	P/P	80 - 120
2082842	Thallium	108	107	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P363945

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082386	Lead	96.9	97.6	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082046	Chloride	96.6		P	90 - 110
2082117	Chloride	99.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363440

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082046	Sulfate	97.8		P	90 - 110
2082117	Sulfate	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363743

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082330	Chloride	99.4		P	90 - 110
2082411	Chloride	94.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082330	Sulfate	99.4		P	90 - 110
2082411	Sulfate	96.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363625

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082397	Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363627

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2081828	Ammonia-N	102	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P363402

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082279	Kjeldahl Nitrogen	109	111	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363308

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082105	NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363309

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363309

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082331	NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363348

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082143	Total-P	101	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363349

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082342	Total-P	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363523

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2083112	Total-P	98.5	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364072

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085064	Total-P	95.4	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363195

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082123	O-Phosphate-P	97.8	98.5	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P363430

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082071	Aldrin	59.3	58.6	P/P	25 - 92.0
2082071	Alpha-BHC	110	118	P/P	49 - 130
2082071	Alpha-Chlordane	81.0	82.6	P/P	50 - 115
2082071	Beta-BHC	101	117	P/P	43 - 157
2082071	Bifenthrin	73.4	71.9	P/P	50 - 130
2082071	Carbophenothion	94.4	98.6	P/P	27 - 180
2082071	Chlorothalonil	185	172	P/P	10 - 216
2082071	Cis-Nonachlor	86.3	87.1	P/P	50 - 130
2082071	Cypermethrin	80.8	85.7	P/P	40 - 153
2082071	DDD-p,p'	92.0	93.1	P/P	53 - 128
2082071	DDE-p,p'	75.1	75.5	P/P	48 - 116
2082071	DDT-p,p'	94.0	91.5	P/P	47 - 128
2082071	Delta-BHC	115	133	P/P	51 - 196
2082071	Dicofol	93.0	101	P/P	10 - 147
2082071	Dieldrin	83.1	86.2	P/P	48 - 128
2082071	Endosulfan I	99.0	108	P/P	58 - 126

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270D

Batch ID: P363430

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082071	Endosulfan II	101	115	P/P	50 - 150
2082071	Endosulfan Sulfate	110	112	P/P	56 - 130
2082071	Endrin	92.1	97.0	P/P	50 - 126
2082071	Endrin Aldehyde	52.3	50.0	P/P	12 - 145
2082071	Endrin Ketone	108	108	P/P	59 - 132
2082071	Ethalfuralin	93.1	92.7	P/P	50 - 130
2082071	Gamma-BHC	95.8	121	P/P	50 - 155
2082071	Gamma-Chlordane	77.7	80.0	P/P	50 - 112
2082071	Heptachlor	73.3	70.5	P/P	41 - 98.0
2082071	Heptachlor Epoxide	84.9	87.7	P/P	55 - 117
2082071	Hexachlorobenzene	56.0	49.0	P/F	50 - 130
2082071	Methoxychlor	108	103	P/P	55 - 133
2082071	Mirex	63.9	63.4	P/P	44 - 101
2082071	Permethrin	68.1	68.5	P/P	52 - 124
2082071	Trans-Nonachlor	72.3	76.1	P/P	50 - 130
2082071	Trifluralin	87.8	89.5	P/P	10 - 201

Reference Method: EPA 8270E

Batch ID: P363224

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082155	Acetochlor	98.4	103	P/P	63 - 129
2082155	Alachlor	98.5	102	P/P	65 - 127
2082155	Ametryn	99.0	101	P/P	40 - 164
2082155	Atrazine	105	120	P/P	66 - 135
2082155	Atrazine Desethyl	69.8	70.2	P/P	14 - 157
2082155	Azinphos Methyl	104	112	P/P	49 - 180
2082155	Butylate	39.4	47.4	P/P	10 - 94.0
2082155	Chlorpyrifos Ethyl	112	111	P/P	58 - 123
2082155	Chlorpyrifos Methyl	93.6	100	P/P	58 - 125
2082155	Cyanazine	112	128	P/P	24 - 253
2082155	Demeton	70.3	74.7	P/P	25 - 149
2082155	Diazinon	96.7	101	P/P	59 - 144
2082155	Dimethenamid	97.6	102	P/P	46 - 139
2082155	Disulfoton	88.4	86.9	P/P	54 - 132
2082155	Dithiopyr	100	106	P/P	64 - 130
2082155	EPTC	40.8	52.4	P/P	10 - 92.0
2082155	Ethion	105	113	P/P	30 - 148
2082155	Ethoprop	83.9	93.0	P/P	50 - 130
2082155	Fenamiphos	93.0	97.9	P/P	49 - 142
2082155	Fipronil	98.1	101	P/P	46 - 140
2082155	Fipronil Desulfinyl	92.2	92.2	P/P	30 - 121
2082155	Fipronil Sulfide	95.9	100	P/P	31 - 136
2082155	Fipronil Sulfone	91.4	92.6	P/P	16 - 136
2082155	Fonofos	88.0	90.7	P/P	55 - 129
2082155	Hexazinone	109	113	P/P	56 - 141
2082155	Malathion	97.6	103	P/P	56 - 135
2082155	Metalaxyl	102	67.0	P/P	54 - 135
2082155	Metolachlor	98.4	104	P/P	51 - 140
2082155	Metribuzin	140	156	P/P	45 - 254
2082155	Mevinphos	82.9	86.2	P/P	33 - 131
2082155	Molinate	58.3	64.9	P/P	14 - 98.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P363224

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082155	Oxadiazon	97.9	104	P/P	67 - 116
2082155	Parathion Ethyl	97.2	98.1	P/P	66 - 118
2082155	Parathion Methyl	99.7	104	P/P	64 - 136
2082155	Pendimethalin	122	129	P/P	59 - 144
2082155	Phorate	76.4	80.6	P/P	42 - 130
2082155	Prodiamine	130	148	P/P	42 - 148
2082155	Prometon	91.4	94.7	P/P	59 - 134
2082155	Prometryn	95.7	101	P/P	54 - 135
2082155	Simazine	103	112	P/P	53 - 156
2082155	Tebuconazole	63.4	64.3	P/P	10 - 131
2082155	Terbufos	90.3	94.0	P/P	57 - 131
2082155	Terbuthylazine	99.5	106	P/P	68 - 125

Reference Method: EPA 8276

Batch ID: P363430

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082727	Chlordane	101	95.6	P/P	34 - 136
2082727	Toxaphene	94.4	98.3	P/P	22 - 152

Reference Method: EPA 8321B

Batch ID: P363161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2081894	2,4-D	73.2	68.8	P/P	40 - 150
2081894	Acetaminophen	82.9	84.0	P/P	30 - 150
2081894	Bentazon	51.7	50.3	P/P	30 - 150
2081894	Carbamazepine	93.7	88.8	P/P	40 - 150
2081894	Diuron	76.2	68.2	P/P	40 - 150
2081894	Fenuron	105	112	P/P	40 - 150
2081894	Fluridone	139	143	P/P	40 - 150
2081894	Hydrocodone	94.5	91.4	P/P	40 - 150
2081894	Ibuprofen	71.8	72.5	P/P	40 - 150
2081894	Imazapyr	70.7	69.7	P/P	40 - 150
2081894	Imidacloprid	158	152	F/F	40 - 150
2081894	Linuron	101	109	P/P	40 - 150
2081894	MCPP	102	101	P/P	40 - 150
2081894	Naproxen	65.2	51.4	P/P	40 - 150
2081894	Primidone	75.5	68.6	P/P	40 - 150
2081894	Pyraclostrobin	79.6	72.2	P/P	40 - 150
2081894	Triclopyr	62.4	65.8	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P363186

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082151	3-Hydroxycarbofuran	69.3	82.8	P/P	40 - 150
2082151	Aldicarb	69.9	74.4	P/P	30 - 150
2082151	Aldicarb Sulfone	92.9	103	P/P	40 - 150
2082151	Aldicarb Sulfoxide	50.4	58.5	P/P	40 - 150
2082151	Carbaryl	55.9	64.5	P/P	40 - 150
2082151	Carbofuran	56.4	63.6	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P363186

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082151	Methiocarb	56.5	64.9	P/P	40 - 150
2082151	Methomyl	60.9	72.6	P/P	40 - 150
2082151	Oxamyl	77.3	97.6	P/P	40 - 150
2082151	Propoxur	54.1	60.3	P/P	40 - 150
2082381	2,4-D	97.4	124	P/P	40 - 150
2082381	Acetaminophen	90.0	92.9	P/P	30 - 150
2082381	Bentazon	81.8	82.5	P/P	30 - 150
2082381	Carbamazepine	72.4	78.5	P/P	40 - 150
2082381	Diuron	67.6	71.7	P/P	40 - 150
2082381	Fenuron	83.9	85.0	P/P	40 - 150
2082381	Fluridone	91.9	97.2	P/P	40 - 150
2082381	Hydrocodone	86.6	83.6	P/P	40 - 150
2082381	Ibuprofen	73.2	77.2	P/P	40 - 150
2082381	Imazapyr	125	134	P/P	40 - 150
2082381	Imidacloprid	131	133	P/P	40 - 150
2082381	Linuron	57.6	65.5	P/P	40 - 150
2082381	MCCP	126	145	P/P	40 - 150
2082381	Naproxen	78.0	82.2	P/P	40 - 150
2082381	Primidone	90.7	100	P/P	40 - 150
2082381	Pyraclostrobin	89.6	92.1	P/P	40 - 150
2082381	Triclopyr	79.0	94.0	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P363198

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082110	Acesulfame K	77.1	77.2	P/P	40 - 150
2082110	AMPA	52.6	60.5	P/P	40 - 150
2082110	Endothall	63.6	63.9	P/P	40 - 150
2082110	Glufosinate	90.3	98.8	P/P	40 - 150
2082110	Glyphosate	82.7	91.8	P/P	40 - 140
2082110	Sucralose	104	110	P/P	40 - 150

Reference Method: SM 4500 F-C-97

Batch ID: P363761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082695	Fluoride	98.3	98.3	P/P	89 - 106

Reference Method: SM 5310 B-00

Batch ID: P363352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082003	Organic Carbon	95.6	97.0	P/P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P363354

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082331	Organic Carbon	104	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P363183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082251	Turbidity	4.85	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P363184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082338	Turbidity	6.55	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P363403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082842	Barium	1.50	Spike	P	0 - 20
2082842	Calcium	0.449	Spike	P	0 - 20
2082842	Iron	0.704	Spike	P	0 - 20
2082842	Magnesium	0.168	Spike	P	0 - 20
2082842	Potassium	0.583	Spike	P	0 - 20
2082842	Sodium	0.604	Spike	P	0 - 20
2082842	Zinc	1.35	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P363403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082842	Aluminum	1.19	Spike	P	0 - 20
2082842	Antimony	2.09	Spike	P	0 - 20
2082842	Arsenic	1.63	Spike	P	0 - 20
2082842	Boron	0.186	Spike	P	0 - 20
2082842	Cadmium	2.50	Spike	P	0 - 20
2082842	Chromium	2.29	Spike	P	0 - 20
2082842	Copper	2.45	Spike	P	0 - 20
2082842	Lead	1.90	Spike	P	0 - 20
2082842	Nickel	1.71	Spike	P	0 - 20
2082842	Selenium	0.251	Spike	P	0 - 20
2082842	Silver	2.23	Spike	P	0 - 20
2082842	Thallium	1.01	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P363945

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082386	Lead	0.765	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082046	Chloride	0.375	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082046	Sulfate	0.537	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082411	Chloride	0.130	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082411	Sulfate	0.345	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363625

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082397	Ammonia-N	0.187	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363627

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2081828	Ammonia-N	1.05	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P363402

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082279	Kjeldahl Nitrogen	1.88	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082105	NO2NO3-N	0.440	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363309

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082331	NO2NO3-N	0.288	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363348

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082143	Total-P	2.36	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363349

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082342	Total-P	0.394	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363523

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2083112	Total-P	2.23	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085064	Total-P	3.27	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363195

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082123	O-Phosphate-P	0.713	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P363430

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082071	Aldrin	1.33	Spike	P	0 - 30
2082071	Alpha-BHC	7.20	Spike	P	0 - 30
2082071	Alpha-Chlordane	1.95	Spike	P	0 - 30
2082071	Beta-BHC	15.3	Spike	P	0 - 30
2082071	Bifenthrin	2.11	Spike	P	0 - 30
2082071	Carbophenothion	4.33	Spike	P	0 - 30
2082071	Chlorothalonil	7.34	Spike	P	0 - 30
2082071	Cis-Nonachlor	0.883	Spike	P	0 - 30
2082071	Cypermethrin	5.96	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270D

Batch ID: P363430

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082071	DDD-p,p'	1.21	Spike	P	0 - 30
2082071	DDE-p,p'	0.546	Spike	P	0 - 30
2082071	DDT-p,p'	2.75	Spike	P	0 - 30
2082071	Delta-BHC	14.6	Spike	P	0 - 30
2082071	Dicofol	8.47	Spike	P	0 - 30
2082071	Dieldrin	3.71	Spike	P	0 - 30
2082071	Endosulfan I	8.38	Spike	P	0 - 30
2082071	Endosulfan II	12.6	Spike	P	0 - 30
2082071	Endosulfan Sulfate	1.77	Spike	P	0 - 30
2082071	Endrin	5.11	Spike	P	0 - 30
2082071	Endrin Aldehyde	4.60	Spike	P	0 - 30
2082071	Endrin Ketone	0.0691	Spike	P	0 - 30
2082071	Ethalfuralin	0.346	Spike	P	0 - 30
2082071	Gamma-BHC	23.6	Spike	P	0 - 30
2082071	Gamma-Chlordane	2.87	Spike	P	0 - 30
2082071	Heptachlor	3.95	Spike	P	0 - 30
2082071	Heptachlor Epoxide	3.21	Spike	P	0 - 30
2082071	Hexachlorobenzene	13.3	Spike	P	0 - 30
2082071	Methoxychlor	4.01	Spike	P	0 - 30
2082071	Mirex	0.708	Spike	P	0 - 30
2082071	Permethrin	0.555	Spike	P	0 - 30
2082071	Trans-Nonachlor	5.14	Spike	P	0 - 30
2082071	Trifluralin	1.97	Spike	P	0 - 30
LFB	Aldrin	0.144	LCS	P	0 - 30
LFB	Alpha-BHC	4.91	LCS	P	0 - 30
LFB	Alpha-Chlordane	4.43	LCS	P	0 - 30
LFB	Beta-BHC	20.6	LCS	P	0 - 30
LFB	Bifenthrin	1.90	LCS	P	0 - 30
LFB	Carbophenothion	4.00	LCS	P	0 - 30
LFB	Chlorothalonil	9.04	LCS	P	0 - 30
LFB	Cis-Nonachlor	5.46	LCS	P	0 - 30
LFB	Cypermethrin	14.0	LCS	P	0 - 30
LFB	DDD-p,p'	10.9	LCS	P	0 - 30
LFB	DDE-p,p'	7.37	LCS	P	0 - 30
LFB	DDT-p,p'	5.18	LCS	P	0 - 30
LFB	Delta-BHC	11.0	LCS	P	0 - 30
LFB	Dicofol	15.5	LCS	P	0 - 30
LFB	Dieldrin	10.0	LCS	P	0 - 30
LFB	Endosulfan I	0.437	LCS	P	0 - 30
LFB	Endosulfan II	2.01	LCS	P	0 - 30
LFB	Endosulfan Sulfate	1.58	LCS	P	0 - 30
LFB	Endrin	3.65	LCS	P	0 - 30
LFB	Endrin Aldehyde	17.9	LCS	P	0 - 30
LFB	Endrin Ketone	0.392	LCS	P	0 - 30
LFB	Ethalfuralin	1.21	LCS	P	0 - 30
LFB	Gamma-BHC	10.7	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.77	LCS	P	0 - 30
LFB	Heptachlor	1.35	LCS	P	0 - 30
LFB	Heptachlor Epoxide	3.43	LCS	P	0 - 30
LFB	Hexachlorobenzene	9.71	LCS	P	0 - 30
LFB	Methoxychlor	6.47	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P363430

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Mirex	2.27	LCS	P	0 - 30
LFB	Permethrin	5.61	LCS	P	0 - 30
LFB	Trans-Nonachlor	5.03	LCS	P	0 - 30
LFB	Trifluralin	3.96	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P363224

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082155	Acetochlor	4.62	Spike	P	0 - 30
2082155	Alachlor	3.40	Spike	P	0 - 30
2082155	Ametryn	2.43	Spike	P	0 - 30
2082155	Atrazine	13.5	Spike	P	0 - 30
2082155	Atrazine Desethyl	0.607	Spike	P	0 - 30
2082155	Azinphos Methyl	7.83	Spike	P	0 - 30
2082155	Bromacil	0.123	Spike	P	0 - 30
2082155	Butylate	18.4	Spike	P	0 - 30
2082155	Chlorpyrifos Ethyl	0.495	Spike	P	0 - 30
2082155	Chlorpyrifos Methyl	6.72	Spike	P	0 - 30
2082155	Cyanazine	13.2	Spike	P	0 - 30
2082155	Demeton	6.10	Spike	P	0 - 30
2082155	Diazinon	4.11	Spike	P	0 - 30
2082155	Dimethenamid	3.95	Spike	P	0 - 30
2082155	Disulfoton	1.73	Spike	P	0 - 30
2082155	Dithiopyr	5.94	Spike	P	0 - 30
2082155	EPTC	24.7	Spike	P	0 - 30
2082155	Ethion	6.83	Spike	P	0 - 30
2082155	Ethoprop	10.4	Spike	P	0 - 30
2082155	Fenamiphos	5.11	Spike	P	0 - 30
2082155	Fipronil	2.50	Spike	P	0 - 30
2082155	Fipronil Desulfinyl	0.00542	Spike	P	0 - 30
2082155	Fipronil Sulfide	4.27	Spike	P	0 - 30
2082155	Fipronil Sulfone	1.35	Spike	P	0 - 30
2082155	Fonofos	3.11	Spike	P	0 - 30
2082155	Hexazinone	3.71	Spike	P	0 - 30
2082155	Malathion	5.19	Spike	P	0 - 30
2082155	Metalaxyl	40.8	Spike	F	0 - 30
2082155	Metolachlor	5.78	Spike	P	0 - 30
2082155	Metribuzin	10.8	Spike	P	0 - 30
2082155	Mevinphos	3.81	Spike	P	0 - 30
2082155	Molinate	10.7	Spike	P	0 - 30
2082155	Norflurazon	18.1	Spike	P	0 - 30
2082155	Oxadiazon	5.86	Spike	P	0 - 30
2082155	Parathion Ethyl	0.921	Spike	P	0 - 30
2082155	Parathion Methyl	3.90	Spike	P	0 - 30
2082155	Pendimethalin	5.33	Spike	P	0 - 30
2082155	Phorate	5.42	Spike	P	0 - 30
2082155	Prodiamine	12.7	Spike	P	0 - 30
2082155	Prometon	3.59	Spike	P	0 - 30
2082155	Prometryn	5.43	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P363224

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082155	Simazine	7.33	Spike	P	0 - 30
2082155	Tebuconazole	1.51	Spike	P	0 - 30
2082155	Terbufos	4.01	Spike	P	0 - 30
2082155	Terbutylazine	6.14	Spike	P	0 - 30
LFB	Acetochlor	6.04	LCS	P	0 - 30
LFB	Alachlor	8.20	LCS	P	0 - 30
LFB	Ametryn	2.56	LCS	P	0 - 30
LFB	Atrazine	7.45	LCS	P	0 - 30
LFB	Atrazine Desethyl	49.3	LCS	F	0 - 30
LFB	Azinphos Methyl	13.7	LCS	P	0 - 30
LFB	Bromacil	65.0	LCS	F	0 - 30
LFB	Butylate	11.3	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	12.9	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	14.3	LCS	P	0 - 30
LFB	Cyanazine	47.3	LCS	F	0 - 30
LFB	Demeton	16.3	LCS	P	0 - 30
LFB	Diazinon	13.1	LCS	P	0 - 30
LFB	Dimethenamid	1.60	LCS	P	0 - 30
LFB	Disulfoton	17.4	LCS	P	0 - 30
LFB	Dithiopyr	7.25	LCS	P	0 - 30
LFB	EPTC	9.08	LCS	P	0 - 30
LFB	Ethion	11.9	LCS	P	0 - 30
LFB	Ethoprop	13.0	LCS	P	0 - 30
LFB	Fenamiphos	99.6	LCS	F	0 - 30
LFB	Fipronil	23.1	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	0.162	LCS	P	0 - 30
LFB	Fipronil Sulfide	5.25	LCS	P	0 - 30
LFB	Fipronil Sulfone	9.04	LCS	P	0 - 30
LFB	Fonofos	18.1	LCS	P	0 - 30
LFB	Hexazinone	58.9	LCS	F	0 - 30
LFB	Malathion	8.73	LCS	P	0 - 30
LFB	Metalaxyl	125	LCS	F	0 - 30
LFB	Metolachlor	4.13	LCS	P	0 - 30
LFB	Metribuzin	9.60	LCS	P	0 - 30
LFB	Mevinphos	38.0	LCS	F	0 - 30
LFB	Molinate	12.6	LCS	P	0 - 30
LFB	Norflurazon	68.9	LCS	F	0 - 30
LFB	Oxadiazon	7.66	LCS	P	0 - 30
LFB	Parathion Ethyl	1.25	LCS	P	0 - 30
LFB	Parathion Methyl	3.84	LCS	P	0 - 30
LFB	Pendimethalin	6.55	LCS	P	0 - 30
LFB	Phorate	18.0	LCS	P	0 - 30
LFB	Prodiamine	0.0981	LCS	P	0 - 30
LFB	Prometon	44.6	LCS	F	0 - 30
LFB	Prometryn	3.80	LCS	P	0 - 30
LFB	Simazine	2.46	LCS	P	0 - 30
LFB	Tebuconazole	90.7	LCS	F	0 - 30
LFB	Terbufos	15.6	LCS	P	0 - 30
LFB	Terbutylazine	5.11	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P363430

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082727	Chlordane	5.84	Spike	P	0 - 30
2082727	Toxaphene	4.10	Spike	P	0 - 30
LFB	Chlordane	13.4	LCS	P	0 - 30
LFB	Toxaphene	2.00	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P363161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2081894	2,4-D	6.21	Spike	P	0 - 30
2081894	Acetaminophen	1.33	Spike	P	0 - 30
2081894	Bentazon	2.86	Spike	P	0 - 30
2081894	Carbamazepine	5.37	Spike	P	0 - 30
2081894	Diuron	11.2	Spike	P	0 - 30
2081894	Fenuron	6.34	Spike	P	0 - 30
2081894	Fluridone	2.53	Spike	P	0 - 30
2081894	Hydrocodone	3.30	Spike	P	0 - 30
2081894	Ibuprofen	0.918	Spike	P	0 - 30
2081894	Imazapyr	1.14	Spike	P	0 - 30
2081894	Imidacloprid	4.27	Spike	P	0 - 30
2081894	Linuron	7.66	Spike	P	0 - 30
2081894	MCP	1.39	Spike	P	0 - 30
2081894	Naproxen	23.7	Spike	P	0 - 30
2081894	Primidone	9.54	Spike	P	0 - 30
2081894	Pyraclostrobin	9.76	Spike	P	0 - 30
2081894	Triclopyr	5.28	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P363186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082151	3-Hydroxycarbofuran	17.8	Spike	P	0 - 30
2082151	Aldicarb	6.24	Spike	P	0 - 30
2082151	Aldicarb Sulfone	10.1	Spike	P	0 - 30
2082151	Aldicarb Sulfoxide	14.7	Spike	P	0 - 30
2082151	Carbaryl	14.3	Spike	P	0 - 30
2082151	Carbofuran	12.0	Spike	P	0 - 30
2082151	Methiocarb	13.9	Spike	P	0 - 30
2082151	Methomyl	17.6	Spike	P	0 - 30
2082151	Oxamyl	23.2	Spike	P	0 - 30
2082151	Propoxur	10.7	Spike	P	0 - 30
2082381	2,4-D	24.1	Spike	P	0 - 30
2082381	Acetaminophen	3.18	Spike	P	0 - 30
2082381	Bentazon	0.905	Spike	P	0 - 30
2082381	Carbamazepine	8.07	Spike	P	0 - 30
2082381	Diuron	5.79	Spike	P	0 - 30
2082381	Fenuron	1.22	Spike	P	0 - 30
2082381	Fluridone	5.61	Spike	P	0 - 30
2082381	Hydrocodone	3.45	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P363186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082381	Ibuprofen	5.30	Spike	P	0 - 30
2082381	Imazapyr	6.41	Spike	P	0 - 30
2082381	Imidacloprid	1.59	Spike	P	0 - 30
2082381	Linuron	12.7	Spike	P	0 - 30
2082381	MCP	13.5	Spike	P	0 - 30
2082381	Naproxen	5.31	Spike	P	0 - 30
2082381	Primidone	10.0	Spike	P	0 - 30
2082381	Pyraclostrobin	2.78	Spike	P	0 - 30
2082381	Triclopyr	17.3	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P363198

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082110	Acesulfame K	0.106	Spike	P	0 - 30
2082110	AMPA	4.37	Spike	P	0 - 30
2082110	Endothall	0.550	Spike	P	0 - 30
2082110	Glufosinate	8.91	Spike	P	0 - 30
2082110	Glyphosate	3.77	Spike	P	0 - 30
2082110	Sucralose	5.30	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P363214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082115	Color (true)	0.668	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P363215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082336	Color (true)	1.81	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P363223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082165	Color (true)	5.24	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P363868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082695	Total Alkalinity	0.0473	Sample	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P363820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082104	TDS	2.60	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P363821

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082142	TDS	2.96	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P363761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082695	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P363352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082003	Organic Carbon	0.923	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P363354

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082331	Organic Carbon	2.53	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: 2082375

Field Sample ID: G3WA0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	58.7	P	30 - 160

Lab Sample ID: 2082376

Field Sample ID: G3WA0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	67.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.3	P	30 - 160
EPA 8321B	Diuron-d6	74.9	P	30 - 160
EPA 8321B	Endothall-d6	86.9	P	30 - 160
EPA 8321B	Endothall-d6	86.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.6	P	30 - 160
EPA 8321B	Primidone-d5	79.0	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Lab Sample ID: 2082377

Field Sample ID: G3WA0005

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	70.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	89.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.7	P	30 - 160
EPA 8321B	Diuron-d6	72.2	P	30 - 160
EPA 8321B	Endothall-d6	76.2	P	30 - 160
EPA 8321B	Endothall-d6	76.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	76.8	P	30 - 160
EPA 8321B	Primidone-d5	78.0	P	30 - 160
EPA 8321B	Sucralose-d6	118	P	30 - 160
EPA 8321B	Sucralose-d6	118	P	30 - 160

Lab Sample ID: 2082378

Field Sample ID: G3WA0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	69.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.0	P	30 - 160
EPA 8321B	Diuron-d6	65.9	P	30 - 160
EPA 8321B	Endothall-d6	92.0	P	30 - 160
EPA 8321B	Endothall-d6	92.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	67.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	67.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	77.7	P	30 - 160
EPA 8321B	Primidone-d5	69.6	P	30 - 160
EPA 8321B	Sucralose-d6	121	P	30 - 160
EPA 8321B	Sucralose-d6	121	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2082379

Field Sample ID: G3WA0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	74.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.0	P	30 - 160
EPA 8321B	Diuron-d6	78.4	P	30 - 160
EPA 8321B	Endothall-d6	77.5	P	30 - 160
EPA 8321B	Endothall-d6	77.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	70.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	70.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	77.4	P	30 - 160
EPA 8321B	Primidone-d5	77.0	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	30 - 160

Lab Sample ID: 2082380

Field Sample ID: G3WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	78.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.4	P	30 - 160
EPA 8321B	Diuron-d6	75.8	P	30 - 160
EPA 8321B	Endothall-d6	84.9	P	30 - 160
EPA 8321B	Endothall-d6	84.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	73.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	73.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.4	P	30 - 160
EPA 8321B	Primidone-d5	95.7	P	30 - 160
EPA 8321B	Sucralose-d6	124	P	30 - 160
EPA 8321B	Sucralose-d6	124	P	30 - 160

Lab Sample ID: 2082381

Field Sample ID: G3WA0006

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	134	P	30 - 160
EPA 8321B	Acetaminophen-d4	97.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.6	P	30 - 160
EPA 8321B	Diuron-d6	68.2	P	30 - 160
EPA 8321B	Endothall-d6	76.0	P	30 - 160
EPA 8321B	Endothall-d6	76.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	73.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	73.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	83.6	P	30 - 160
EPA 8321B	Primidone-d5	99.2	P	30 - 160
EPA 8321B	Sucralose-d6	127	P	30 - 160
EPA 8321B	Sucralose-d6	127	P	30 - 160

Lab Sample ID: 2082382

Field Sample ID: G3WA0013

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2082382

Field Sample ID: G3WA0013

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	91.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.8	P	30 - 160
EPA 8321B	Diuron-d6	58.8	P	30 - 160
EPA 8321B	Endothall-d6	86.3	P	30 - 160
EPA 8321B	Endothall-d6	86.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	75.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	75.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.1	P	30 - 160
EPA 8321B	Primidone-d5	83.7	P	30 - 160
EPA 8321B	Sucralose-d6	124	P	30 - 160
EPA 8321B	Sucralose-d6	124	P	30 - 160

Lab Sample ID: 2082383

Field Sample ID: G3WA0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	110	P	30 - 160
EPA 8321B	Acetaminophen-d4	86.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	62.8	P	30 - 160
EPA 8321B	Diuron-d6	56.9	P	30 - 160
EPA 8321B	Endothall-d6	78.0	P	30 - 160
EPA 8321B	Endothall-d6	78.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.0	P	30 - 160
EPA 8321B	Primidone-d5	80.4	P	30 - 160
EPA 8321B	Sucralose-d6	123	P	30 - 160
EPA 8321B	Sucralose-d6	123	P	30 - 160

Lab Sample ID: 2082384

Field Sample ID: G3WA0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	67.5	P	39 - 109
EPA 8270D	Tetrachloro-m-xylene	48.9	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	36.2	P	30 - 103
EPA 8276	PCNB	92.0	P	37 - 143

Lab Sample ID: 2082385

Field Sample ID: G3WA0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	119	P	68 - 130
EPA 8270E	Terbufos-d10	97.4	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A91137

Included Lab Sample IDs: 2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A91138

Included Lab Sample IDs: 2082329, 2082332, 2082345, 2082346, 2082347, 2082348, 2082349, 2082350

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.4	97.7	P/P	90 - 110
O-Phosphate-P	98.4	97.4	P/P	90 - 110
O-Phosphate-P	98.5	98.4	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A91149

Included Lab Sample IDs: 2082334, 2082337

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	100	P/P	90 - 115

Reference Method: SM 2120 B

Run ID: A91150

Included Lab Sample IDs: 2082327, 2082330, 2082333, 2082335, 2082336, 2082338

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115
Color (true)	102	102	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A91184

Included Lab Sample IDs: 2082328, 2082331, 2082339, 2082340, 2082341, 2082342, 2082343, 2082344

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

Reference Method: SM 5310 B-00

Run ID: A91203

Included Lab Sample IDs: 2082328, 2082331, 2082339, 2082340, 2082341, 2082342, 2082343, 2082344

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	101	P/P	90 - 110
Organic Carbon	101	99.8	P/P	90 - 110
Organic Carbon	99.8	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91222

Included Lab Sample IDs: 2082331, 2082339, 2082343, 2082344

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

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E

Run ID: A91226

Included Lab Sample IDs: 2082385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	106		P	80 - 120
Ametryn	108		P	80 - 120
Atrazine	94.3		P	80 - 120
Atrazine Desethyl	87.3		P	80 - 120
Azinphos Methyl	96.3		P	80 - 120
Bromacil	98.8		P	80 - 120
Butylate	96.7		P	80 - 120
Chlorpyrifos Ethyl	97.3		P	80 - 120
Chlorpyrifos Methyl	99.2		P	80 - 120
Cyanazine	84.1		P	80 - 120
Demeton	99.2		P	80 - 120
Diazinon	104		P	80 - 120
Dimethenamid	104		P	80 - 120
Disulfoton	95.6		P	80 - 120
Dithiopyr	102		P	80 - 120
EPTC	99.7		P	80 - 120
Ethion	95.3		P	80 - 120
Ethoprop	95.9		P	80 - 120
Fenamiphos	94.6		P	80 - 120
Fipronil	99.4		P	80 - 120
Fipronil Desulfinyl	99.8		P	80 - 120
Fipronil Sulfide	94.8		P	80 - 120
Fipronil Sulfone	96.0		P	80 - 120
Fonofos	98.7		P	80 - 120
Hexazinone	96.2		P	80 - 120
Malathion	94.3		P	80 - 120
Metaxyl	104		P	80 - 120
Metolachlor	107		P	80 - 120
Metribuzin	78.2*		F	80 - 120
Mevinphos	98.9		P	80 - 120
Molinate	96.7		P	80 - 120
Norflurazon	102		P	80 - 120
Oxadiazon	105		P	80 - 120
Parathion Ethyl	98.0		P	80 - 120
Parathion Methyl	96.5		P	80 - 120
Pendimethalin	97.4		P	80 - 120
Phorate	96.4		P	80 - 120
Prodiamine	98.2		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	103		P	80 - 120
Simazine	101		P	80 - 120
Tebuconazole	100		P	80 - 120
Terbufos	93.5		P	80 - 120
Terbutylazine	99.4		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A91228

Included Lab Sample IDs: 2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A91228

Included Lab Sample IDs: 2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	97.4	P/P	90 - 110
Chloride	98.6	101	P/P	90 - 110
Chloride	100	100	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	101	98.0	P/P	90 - 110
Sulfate	99.8	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91255

Included Lab Sample IDs: 2082328

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	99.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A91263

Included Lab Sample IDs: 2082386, 2082387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	99.6	98.9	P/P	90 - 110
Calcium	98.9	100	P/P	90 - 110
Iron	100	102	P/P	90 - 110
Magnesium	100	102	P/P	90 - 110
Potassium	99.0	100	P/P	90 - 110
Sodium	97.9	98.7	P/P	90 - 110
Zinc	101	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A91264

Included Lab Sample IDs: 2082376, 2082377, 2082378, 2082379, 2082380, 2082381, 2082382, 2082383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	88.7	91.3	P/P	60 - 160
Acesulfame K	90.1	88.7	P/P	60 - 160
Endothall	67.4	69.3	P/P	60 - 160
Endothall	68.8	67.4	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A91267

Included Lab Sample IDs: 2082376, 2082377, 2082378, 2082379, 2082380, 2082381, 2082382, 2082383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	108	P/P	60 - 160
AMPA	108	109	P/P	60 - 160
Glufosinate	101	108	P/P	60 - 160
Glufosinate	103	101	P/P	60 - 160
Glyphosate	108	110	P/P	60 - 160
Glyphosate	109	108	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A91280

Included Lab Sample IDs: 2082328, 2082331, 2082339, 2082340, 2082341, 2082342, 2082343, 2082344

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	105	P/P	90 - 110
Kjeldahl Nitrogen	108	106	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A91289

Included Lab Sample IDs: 2082376, 2082377, 2082378, 2082379, 2082380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	80.6	79.6	P/P	50 - 150
Acetaminophen	110	109	P/P	60 - 160
Bentazon	110	101	P/P	50 - 160
Carbamazepine	110	110	P/P	60 - 150
Diuron	92.1	113	P/P	60 - 150
Fenuron	106	116	P/P	60 - 150
Fluridone	102	94.2	P/P	60 - 160
Hydrocodone	104	105	P/P	60 - 150
Ibuprofen	107	107	P/P	50 - 160
Imazapyr	90.8	90.5	P/P	50 - 150
Imidacloprid	83.5	101	P/P	60 - 150
Linuron	127	144	P/P	60 - 150
MCPP	99.7	98.3	P/P	50 - 150
Naproxen	100	73.0	P/P	50 - 160
Primidone	93.2	107	P/P	60 - 150
Pyraclostrobin	108	109	P/P	60 - 150
Triclopyr	106	111	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A91293

Included Lab Sample IDs: 2082376, 2082377, 2082378, 2082379, 2082380, 2082381, 2082382, 2082383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	105	107	P/P	60 - 160
Sucralose	107	104	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A91300

Included Lab Sample IDs: 2082328, 2082331, 2082339, 2082340, 2082341, 2082342, 2082343, 2082344

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

Reference Method: EPA 8270D

Run ID: A91309

Included Lab Sample IDs: 2082384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.7		P	80 - 120
Alpha-BHC	91.8		P	80 - 120
Alpha-Chlordane	91.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A91309

Included Lab Sample IDs: 2082384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-BHC	73.6*		F	80 - 120
Bifenthrin	93.1		P	80 - 120
Carbophenothion	91.7		P	80 - 120
Chlorothalonil	72.0*		F	80 - 120
Cis-Nonachlor	94.1		P	80 - 120
Cypermethrin	82.1		P	80 - 120
DDD-p,p'	98.8		P	80 - 120
DDE-p,p'	100		P	80 - 120
DDT-p,p'	99.0		P	80 - 120
Delta-BHC	64.1*		F	80 - 120
Dicofol	98.5		P	80 - 120
Dieldrin	88.2		P	80 - 120
Endosulfan I	88.3		P	80 - 120
Endosulfan II	88.1		P	80 - 120
Endosulfan Sulfate	92.9		P	80 - 120
Endrin	92.7		P	80 - 120
Endrin Aldehyde	88.6		P	80 - 120
Endrin Ketone	92.4		P	80 - 120
Ethalfuralin	89.4		P	80 - 120
Gamma-BHC	78.2*		F	80 - 120
Gamma-Chlordane	91.5		P	80 - 120
Heptachlor	94.4		P	80 - 120
Heptachlor Epoxide	92.3		P	80 - 120
Hexachlorobenzene	95.7		P	80 - 120
Methoxychlor	98.2		P	80 - 120
Mirex	93.8		P	80 - 120
Permethrin	88.7		P	80 - 120
Trans-Nonachlor	91.6		P	80 - 120
Trifluralin	98.5		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91339

Included Lab Sample IDs: 2082341, 2082342

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	99.2	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A91346

Included Lab Sample IDs: 2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	99.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A91369

Included Lab Sample IDs: 2082386, 2082387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.2	97.0	P/P	90 - 110
Antimony	93.4	94.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A91369

Included Lab Sample IDs: 2082386, 2082387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	97.7	98.2	P/P	90 - 110
Boron	105	104	P/P	90 - 110
Cadmium	96.7	97.6	P/P	90 - 110
Chromium	97.5	99.6	P/P	90 - 110
Copper	98.1	99.1	P/P	90 - 110
Lead	97.2	96.9	P/P	90 - 110
Nickel	96.9	98.3	P/P	90 - 110
Silver	97.7	98.2	P/P	90 - 110
Thallium	99.0	97.9	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A91393

Included Lab Sample IDs: 2082386, 2082387

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

Reference Method: SM 2320 B-97

Run ID: A91397

Included Lab Sample IDs: 2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A91463

Included Lab Sample IDs: 2082386

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	95.1	94.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A91464

Included Lab Sample IDs: 2082381, 2082382, 2082383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	88.2	100	P/P	50 - 150
3-Hydroxycarbofuran	111	111	P/P	60 - 150
Acetaminophen	115	115	P/P	60 - 160
Aldicarb	96.8	119	P/P	60 - 150
Aldicarb Sulfone	104	106	P/P	50 - 150
Aldicarb Sulfoxide	106	101	P/P	50 - 150
Bentazon	99.8	106	P/P	50 - 160
Carbamazepine	103	102	P/P	60 - 150
Carbaryl	107	99.8	P/P	60 - 150
Carbofuran	102	100	P/P	50 - 150
Diuron	102	106	P/P	60 - 150
Fenuron	102	103	P/P	60 - 150
Fluridone	103	102	P/P	60 - 160
Hydrocodone	105	103	P/P	60 - 150
Ibuprofen	114	119	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A91464

Included Lab Sample IDs: 2082381, 2082382, 2082383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	101	98.4	P/P	50 - 150
Imidacloprid	97.6	102	P/P	60 - 150
Linuron	96.8	98.0	P/P	60 - 150
MCPP	100	93.2	P/P	50 - 150
Methiocarb	97.1	96.6	P/P	50 - 150
Methomyl	99.8	100	P/P	50 - 150
Naproxen	94.3	102	P/P	50 - 160
Oxamyl	101	96.5	P/P	50 - 150
Primidone	109	104	P/P	60 - 150
Propoxur	101	99.8	P/P	50 - 150
Pyraclostrobin	104	104	P/P	60 - 150
Triclopyr	99.1	99.8	P/P	50 - 150

Reference Method: EPA 8276

Run ID: A91493

Included Lab Sample IDs: 2082384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.8		P	80 - 120
Toxaphene	104		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91541

Included Lab Sample IDs: 2082340

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

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision	MS
								SMP	
EPA 180.1 Rev. 2.0	Turbidity							4.85	
	Turbidity							6.55	
EPA 200.7 Rev. 4.4	Barium	96.6		98.7	99.5	101			1.50
	Calcium	101		105	104				0.449
	Iron	101		101	108	107			0.704
	Magnesium	99.9		103	103				0.168
	Potassium	99.2		98.0	101				0.583
	Sodium	100		103	104				0.604
	Zinc	95.7		100	100	102			1.35
EPA 200.8 Rev. 5.4	Aluminum	97.1		95.3	99.8	98.6			1.19
	Antimony	98.1		96.1	101	99.0			2.09
	Arsenic	99.4		98.9	104	103			1.63
	Boron	105		105	110	110			0.186
	Cadmium	99.2		98.2	102	99.7			2.50
	Chromium	98.8		99.2	103	100			2.29
	Copper	97.3		98.1	102	99.1			2.45
	Lead	96.6		96.6	101	99.0			1.90
	Lead	98.6		96.9	97.6				0.765
	Nickel	98.6		99.6	102	101			1.71
	Selenium	105		106	108	108			0.251
	Silver	99.4		99.1	103	100			2.23
	Thallium	103		104	108	107			1.01
EPA 300.0 Rev. 2.1	Chloride	98.4		96.6	99.3			0.375	
	Chloride	99.0		94.8	99.4			0.130	
	Sulfate	99.2		97.8	99.5			0.537	
	Sulfate	98.4		96.3	99.4			0.345	
EPA 350.1 Rev. 2.0	Ammonia-N	99.9		103	103				0.187
	Ammonia-N	101		102	100				1.05
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		109	111				1.88
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102		101	100				0.440
	NO ₂ NO ₃ -N	102		102	101				0.288
EPA 365.1 Rev. 2.0	Total-P	104		101	96.5				2.36
	Total-P	98.2		102	102				0.394
	Total-P	103		98.5	102				2.23
	Total-P	97.5		99.5	95.4				3.27
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.6		97.8	98.5				0.713
EPA 8270D	Aldrin	38.3	38.2	59.3	58.6	0.144			1.33
	Alpha-BHC	116	110	110	118	4.91			7.20
	Alpha-Chlordane	76.2	72.9	81.0	82.6	4.43			1.95
	Beta-BHC	130	106	101	117	20.6			15.3
	Bifenthrin	56.8	57.9	73.4	71.9	1.90			2.11
	Carbophenothion	67.9	65.2	94.4	98.6	4.00			4.33
	Chlorothalonil	123	135	185	172	9.04			7.34
	Cis-Nonachlor	80.1	75.8	86.3	87.1	5.46			0.883
	Cypermethrin	53.2	61.1	80.8	85.7	14.0			5.96
	DDD-p,p'	94.4	84.6	92.0	93.1	10.9			1.21
	DDE-p,p'	74.1	68.8	75.1	75.5	7.37			0.546
	DDT-p,p'	87.3	82.8	94.0	91.5	5.18			2.75
	Delta-BHC	111	99.1	115	133	11.0			14.6
	Dicofol	92.5	108	93.0	101	15.5			8.47
	Dieldrin	86.2	78.0	83.1	86.2	10.0			3.71
	Endosulfan I	91.5	91.9	99.0	108	0.437			8.38
	Endosulfan II	108	106	101	115	2.01			12.6
	Endosulfan Sulfate	101	102	110	112	1.58			1.77

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Endrin	91.1	87.8	92.1	97.0	3.65	5.11
	Endrin Aldehyde	96.3	80.5	52.3	50.0	17.9	4.60
	Endrin Ketone	99.5	99.9	108	108	0.392	0.0691
	Ethalfuralin	79.8	80.8	93.1	92.7	1.21	0.346
	Gamma-BHC	99.3	111	95.8	121	10.7	23.6
	Gamma-Chlordane	72.1	69.4	77.7	80.0	3.77	2.87
	Heptachlor	65.6	64.8	73.3	70.5	1.35	3.95
	Heptachlor Epoxide	87.4	84.5	84.9	87.7	3.43	3.21
	Hexachlorobenzene	62.2	56.5	56.0	49.0	9.71	13.3
	Methoxychlor	107	100	108	103	6.47	4.01
	Mirex	50.6	49.4	63.9	63.4	2.27	0.708
	Permethrin	55.0	58.2	68.1	68.5	5.61	0.555
	Trans-Nonachlor	70.0	66.6	72.3	76.1	5.03	5.14
	Trifluralin	86.0	89.5	87.8	89.5	3.96	1.97
	Acetochlor	121	113	98.4	103	6.04	4.62
EPA 8270E	Alachlor	119	110	98.5	102	8.20	3.40
	Ametryn	107	104	101	99.0	2.56	2.43
	Atrazine	113	105	120	105	7.45	13.5
	Atrazine Desethyl	32.3	53.5	70.2	69.8	49.3	0.607
	Azinphos Methyl	95.1	109	112	104	13.7	7.83
	Bromacil	40.2	78.9			65.0	0.123
	Butylate	84.2	75.2	47.4	39.4	11.3	18.4
	Chlorpyrifos Ethyl	123	108	111	112	12.9	0.495
	Chlorpyrifos Methyl	113	98.0	93.6	100	14.3	6.72
	Cyanazine	52.1	84.4	112	128	47.3	13.2
	Demeton	85.0	72.2	70.3	74.7	16.3	6.10
	Diazinon	117	103	96.7	101	13.1	4.11
	Dimethenamid	115	113	97.6	102	1.60	3.95
	Disulfoton	87.9	73.8	88.4	86.9	17.4	1.73
	Dithiopyr	122	113	100	106	7.25	5.94
	EPTC	87.0	79.4	40.8	52.4	9.08	24.7
	Ethion	128	114	105	113	11.9	6.83
	Ethoprop	115	101	83.9	93.0	13.0	10.4
	Fenamiphos	12.3	36.7	93.0	97.9	99.6	5.11
	Fipronil	84.5	107	98.1	101	23.1	2.50
	Fipronil Desulfinyl	103	103	92.2	92.2	0.162	0.0054
	Fipronil Sulfide	110	105	95.9	100	5.25	4.27
	Fipronil Sulfone	93.8	103	91.4	92.6	9.04	1.35
	Fonofos	109	90.8	88.0	90.7	18.1	3.11
	Hexazinone	45.6	83.8	113	109	58.9	3.71
	Malathion	116	107	103	97.6	8.73	5.19
	Metalaxyl	8.60	37.4	67.0	102	125	40.8
	Metolachlor	120	115	104	98.4	4.13	5.78
	Metribuzin	76.7	84.4	156	140	9.60	10.8
	Mevinphos	49.8	73.3	86.2	82.9	38.0	3.81
	Molinate	98.4	86.7	64.9	58.3	12.6	10.7
	Norflurazon	47.4	97.2			68.9	18.1
	Oxadiazon	130	121	104	97.9	7.66	5.86
	Parathion Ethyl	103	102	98.1	97.2	1.25	0.921
	Parathion Methyl	103	99.3	104	99.7	3.84	3.90
	Pendimethalin	126	118	129	122	6.55	5.33
	Phorate	96.1	80.2	80.6	76.4	18.0	5.42
	Prodiamine	132	133	148	130	0.0981	12.7
	Prometon	63.6	100	94.7	91.4	44.6	3.59

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Prometryn	110	106	101	95.7	3.80	5.43
	Simazine	111	109	112	103	2.46	7.33
	Tebuconazole	21.0	56.0	64.3	63.4	90.7	1.51
	Terbufos	108	92.6	94.0	90.3	15.6	4.01
	Terbuthylazine	115	109	106	99.5	5.11	6.14
EPA 8276	Chlordane	69.6	79.5	101	95.6	13.4	5.84
	Toxaphene	92.6	94.4	94.4	98.3	2.00	4.10
EPA 8321B	2,4-D	70.7		73.2	68.8		6.21
	2,4-D	89.4		97.4	124		24.1
	3-Hydroxycarbofuran	83.4		69.3	82.8		17.8
	Acesulfame K	71.4		77.1	77.2		0.106
	Acetaminophen	91.0		82.9	84.0		1.33
	Acetaminophen	94.5		90.0	92.9		3.18
	Aldicarb	77.6		69.9	74.4		6.24
	Aldicarb Sulfone	99.5		92.9	103		10.1
	Aldicarb Sulfoxide	102		50.4	58.5		14.7
	AMPA	105		52.6	60.5		4.37
	Bentazon	95.4		51.7	50.3		2.86
	Bentazon	110		81.8	82.5		0.905
	Carbamazepine	83.3		93.7	88.8		5.37
	Carbamazepine	97.6		72.4	78.5		8.07
	Carbaryl	84.1		55.9	64.5		14.3
	Carbofuran	82.9		56.4	63.6		12.0
	Diuron	89.7		76.2	68.2		11.2
	Diuron	91.0		67.6	71.7		5.79
	Endothall	69.4		63.6	63.9		0.550
	Fenuron	112		105	112		6.34
	Fenuron	112		83.9	85.0		1.22
	Fluridone	141		139	143		2.53
	Fluridone	97.1		91.9	97.2		5.61
	Glufosinate	100		90.3	98.8		8.91
	Glyphosate	92.4		82.7	91.8		3.77
	Hydrocodone	97.4		94.5	91.4		3.30
	Hydrocodone	96.5		86.6	83.6		3.45
	Ibuprofen	74.6		71.8	72.5		0.918
	Ibuprofen	77.1		73.2	77.2		5.30
	Imazapyr	97.2		70.7	69.7		1.14
	Imazapyr	98.6		125	134		6.41
	Imidacloprid	97.3		158	152		4.27
	Imidacloprid	105		131	133		1.59
	Linuron	106		101	109		7.66
	Linuron	73.3		57.6	65.5		12.7
	MCPP	74.5		102	101		1.39
	MCPP	104		126	145		13.5
	Methiocarb	76.2		56.5	64.9		13.9
	Methomyl	75.8		60.9	72.6		17.6
	Naproxen	58.3		65.2	51.4		23.7
	Naproxen	83.9		78.0	82.2		5.31
	Oxamyl	97.8		77.3	97.6		23.2
	Primidone	75.8		75.5	68.6		9.54
	Primidone	93.3		90.7	100		10.0
	Propoxur	78.2		54.1	60.3		10.7
	Pyraclostrobin	72.7		79.6	72.2		9.76
	Pyraclostrobin	74.0		89.6	92.1		2.78

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Sucralose	104	104	110		5.30
	Triclopyr	42.2	62.4	65.8		5.28
	Triclopyr	64.6	79.0	94.0		17.3
SM 2120 B	Color (true)	101			0.668	
	Color (true)	102			1.81	
	Color (true)	99.5			5.24	
SM 2320 B-97	Total Alkalinity	102			0.0473	
SM 2540 C-97	TDS				2.60	
	TDS				2.96	
SM 4500 F-C-97	Fluoride	97.5	98.3	98.3		0.0
SM 5310 B-00	Organic Carbon	98.4	95.6	97.0		0.923
	Organic Carbon	100	104	100		2.53

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2082386, 2082387
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2082386, 2082387
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2082328, 2082331, 2082339, 2082340, 2082341, 2082342, 2082343, 2082344
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2082328, 2082331, 2082339, 2082340, 2082341, 2082342, 2082343, 2082344
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2082328, 2082331, 2082339, 2082340, 2082341, 2082342, 2082343, 2082344
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2082328, 2082331, 2082339, 2082340, 2082341, 2082342, 2082343, 2082344
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2082329, 2082332, 2082345, 2082346, 2082347, 2082348, 2082349, 2082350
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2082384
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2082385
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2082384
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2082375
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2082376, 2082377, 2082378, 2082379, 2082380, 2082381, 2082382, 2082383
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
SM 2120 B / E31780	True Color measured at 450 nm	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2082328, 2082331, 2082339, 2082340, 2082341, 2082342, 2082343, 2082344

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	05/01/2019			05/01/2019 16:13	Adrian Shelby	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
EPA 200.7 Rev. 4.4	05/01/2019	05/06/2019 13:35	Elliott D. Healy	05/07/2019 14:08	Betina Topolski	2082386
	05/01/2019	05/06/2019 13:35	Elliott D. Healy	05/07/2019 14:15	Betina Topolski	2082387
EPA 200.8 Rev. 5.4	05/01/2019	05/06/2019 13:35	Elliott D. Healy	05/10/2019 21:54	Robert K Palmer	2082386
	05/01/2019	05/06/2019 13:35	Elliott D. Healy	05/10/2019 22:04	Robert K Palmer	2082387
	05/01/2019	05/06/2019 13:35	Elliott D. Healy	05/14/2019 00:56	Robert K Palmer	2082386
	05/01/2019	05/06/2019 13:35	Elliott D. Healy	05/14/2019 01:04	Robert K Palmer	2082387
	05/01/2019	05/14/2019 18:00	Elliott D. Healy	05/15/2019 20:49	Martin Acosta	2082386
EPA 300.0 Rev. 2.1	05/01/2019			05/07/2019 00:40	Lipi Saha	2082327
	05/01/2019			05/09/2019 15:04	Lipi Saha	2082330
	05/01/2019			05/09/2019 15:29	Lipi Saha	2082333
	05/01/2019			05/09/2019 15:41	Lipi Saha	2082334
	05/01/2019			05/09/2019 15:53	Lipi Saha	2082335
	05/01/2019			05/09/2019 16:05	Lipi Saha	2082336
	05/01/2019			05/09/2019 16:17	Lipi Saha	2082337
	05/01/2019			05/09/2019 16:54	Lipi Saha	2082338
EPA 350.1 Rev. 2.0	05/01/2019			05/07/2019 12:09	Ping Hua	2082342
	05/01/2019			05/07/2019 12:18	Ping Hua	2082343
	05/01/2019			05/07/2019 12:19	Ping Hua	2082344
	05/01/2019			05/07/2019 13:28	Ping Hua	2082328
	05/01/2019			05/07/2019 13:30	Ping Hua	2082331
	05/01/2019			05/07/2019 14:09	Ping Hua	2082339
	05/01/2019			05/07/2019 14:10	Ping Hua	2082340
	05/01/2019			05/07/2019 14:12	Ping Hua	2082341
EPA 351.2 Rev. 2.0	05/01/2019	05/06/2019 12:50	Jhamieka S. Greenwood	05/08/2019 11:24	Joseph Suarez	2082328
	05/01/2019	05/06/2019 12:50	Jhamieka S. Greenwood	05/08/2019 11:26	Joseph Suarez	2082331
	05/01/2019	05/06/2019 12:50	Jhamieka S. Greenwood	05/08/2019 11:27	Joseph Suarez	2082339
	05/01/2019	05/06/2019 12:50	Jhamieka S. Greenwood	05/08/2019 11:29	Joseph Suarez	2082340
	05/01/2019	05/06/2019 12:50	Jhamieka S. Greenwood	05/08/2019 11:34	Joseph Suarez	2082341
	05/01/2019	05/06/2019 12:50	Jhamieka S. Greenwood	05/08/2019 11:35	Joseph Suarez	2082342
	05/01/2019	05/06/2019 12:50	Jhamieka S. Greenwood	05/08/2019 11:37	Joseph Suarez	2082343
	05/01/2019	05/06/2019 12:50	Jhamieka S. Greenwood	05/08/2019 11:38	Joseph Suarez	2082344
EPA 353.2 Rev. 2.0	05/01/2019			05/03/2019 09:54	Beverly Y. Sanders	2082328
	05/01/2019			05/03/2019 10:01	Beverly Y. Sanders	2082331
	05/01/2019			05/03/2019 10:07	Beverly Y. Sanders	2082339
	05/01/2019			05/03/2019 10:08	Beverly Y. Sanders	2082340
	05/01/2019			05/03/2019 10:10	Beverly Y. Sanders	2082341
	05/01/2019			05/03/2019 10:11	Beverly Y. Sanders	2082342
	05/01/2019			05/03/2019 10:12	Beverly Y. Sanders	2082343

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 353.2 Rev. 2.0	05/01/2019			05/03/2019 10:13	Beverly Y. Sanders	2082344
EPA 365.1 Rev. 2.0	05/01/2019	05/03/2019 12:30	Sima Feizi	05/06/2019 14:01	Beverly Y. Sanders	2082331
	05/01/2019	05/03/2019 12:30	Sima Feizi	05/06/2019 14:02	Beverly Y. Sanders	2082339
	05/01/2019	05/03/2019 12:30	Sima Feizi	05/06/2019 14:13	Beverly Y. Sanders	2082343
	05/01/2019	05/03/2019 12:30	Sima Feizi	05/06/2019 14:14	Beverly Y. Sanders	2082344
	05/01/2019	05/03/2019 12:30	Sima Feizi	05/07/2019 14:07	Beverly Y. Sanders	2082328
	05/01/2019	05/07/2019 14:35	Sima Feizi	05/09/2019 18:11	Rosalyn Ballman	2082341
	05/01/2019	05/07/2019 14:35	Sima Feizi	05/09/2019 18:12	Rosalyn Ballman	2082342
	05/01/2019	05/16/2019 14:45	Adrian Shelby	05/20/2019 12:26	Rosalyn Ballman	2082340
EPA 365.1 Rev. 2.0 dissolved	05/01/2019			05/01/2019 16:07	Jhamieka S. Greenwood	2082329
	05/01/2019			05/01/2019 16:08	Jhamieka S. Greenwood	2082332
	05/01/2019			05/01/2019 16:20	Jhamieka S. Greenwood	2082345, 2082346
	05/01/2019			05/01/2019 16:26	Jhamieka S. Greenwood	2082347, 2082348
	05/01/2019			05/01/2019 16:27	Jhamieka S. Greenwood	2082349
	05/01/2019			05/01/2019 16:28	Jhamieka S. Greenwood	2082350
EPA 8270D	05/01/2019	05/03/2019 08:30	Rasheda Ghaffari	05/09/2019 04:39	Arthur Maknenko	2082384
EPA 8270E	05/01/2019	05/03/2019 09:00	Fe-Val Siddell	05/06/2019 20:40	Vandana T. Nagar	2082385
EPA 8276	05/01/2019	05/03/2019 08:30	Rasheda Ghaffari	05/17/2019 04:00	Dinesh Mishra	2082384
EPA 8321B	05/01/2019	05/02/2019 10:00	Hoor Shaik	05/04/2019 19:07	Juyoung Kim	2082376
	05/01/2019	05/02/2019 10:00	Hoor Shaik	05/04/2019 19:42	Juyoung Kim	2082377
	05/01/2019	05/02/2019 10:00	Hoor Shaik	05/04/2019 20:17	Juyoung Kim	2082378
	05/01/2019	05/02/2019 10:00	Hoor Shaik	05/04/2019 20:51	Juyoung Kim	2082379
	05/01/2019	05/02/2019 10:00	Hoor Shaik	05/04/2019 21:26	Juyoung Kim	2082380
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 13:18	Rebecca Ware	2082376
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 13:26	Rebecca Ware	2082377
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 14:04	Rebecca Ware	2082378
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 14:12	Rebecca Ware	2082379
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 14:20	Rebecca Ware	2082380
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 14:29	Rebecca Ware	2082381
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 14:37	Rebecca Ware	2082382
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 14:45	Rebecca Ware	2082383
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 22:10	Rebecca Ware	2082376
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 22:24	Rebecca Ware	2082377
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 22:38	Rebecca Ware	2082378
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 22:52	Rebecca Ware	2082379
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 23:34	Rebecca Ware	2082380
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/06/2019 23:47	Rebecca Ware	2082381
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/07/2019 00:01	Rebecca Ware	2082382
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/07/2019 00:15	Rebecca Ware	2082383
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/07/2019 16:53	Rebecca Ware	2082376

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/07/2019 17:05	Rebecca Ware	2082377
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/07/2019 17:17	Rebecca Ware	2082378
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/07/2019 17:29	Rebecca Ware	2082379
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/07/2019 18:04	Rebecca Ware	2082380
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/07/2019 18:16	Rebecca Ware	2082381
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/07/2019 18:27	Rebecca Ware	2082382
	05/01/2019	05/02/2019 10:00	Rebecca Ware	05/07/2019 18:39	Rebecca Ware	2082383
	05/01/2019	05/06/2019 12:00	Hoor Shaik	05/16/2019 06:44	Juyoung Kim	2082375
	05/01/2019	05/06/2019 12:00	Hoor Shaik	05/16/2019 09:03	Juyoung Kim	2082381
	05/01/2019	05/06/2019 12:00	Hoor Shaik	05/16/2019 09:37	Juyoung Kim	2082382
SM 2120 B	05/01/2019	05/06/2019 12:00	Hoor Shaik	05/16/2019 10:12	Juyoung Kim	2082383
	05/01/2019			05/01/2019 16:21	Mariam Hanna	2082327
	05/01/2019			05/01/2019 16:22	Mariam Hanna	2082330
	05/01/2019			05/01/2019 16:24	Mariam Hanna	2082335
	05/01/2019			05/01/2019 16:25	Mariam Hanna	2082338
	05/01/2019			05/01/2019 16:30	Mariam Hanna	2082336
	05/01/2019			05/01/2019 16:36	Mariam Hanna	2082333
	05/01/2019			05/01/2019 17:39	Mariam Hanna	2082334
SM 2320 B-97	05/01/2019			05/01/2019 17:40	Mariam Hanna	2082337
	05/01/2019			05/13/2019 22:45	Dale L. Simmons	2082327
	05/01/2019			05/13/2019 22:53	Dale L. Simmons	2082330
	05/01/2019			05/13/2019 23:02	Dale L. Simmons	2082333
	05/01/2019			05/13/2019 23:11	Dale L. Simmons	2082334
	05/01/2019			05/13/2019 23:21	Dale L. Simmons	2082335
	05/01/2019			05/13/2019 23:30	Dale L. Simmons	2082336
	05/01/2019			05/13/2019 23:39	Dale L. Simmons	2082337
SM 2540 C-97	05/01/2019			05/13/2019 23:48	Dale L. Simmons	2082338
	05/01/2019			05/03/2019 15:19	Yijie Li	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
SM 2540 D-97	05/01/2019			05/03/2019 15:19	Yijie Li	2082327, 2082330, 2082333, 2082334, 2082335, 2082336, 2082337, 2082338
SM 4500 F-C-97	05/01/2019			05/09/2019 10:24	Dale L. Simmons	2082327
	05/01/2019			05/09/2019 10:35	Dale L. Simmons	2082330
	05/01/2019			05/09/2019 10:46	Dale L. Simmons	2082333
	05/01/2019			05/09/2019 10:59	Dale L. Simmons	2082334
	05/01/2019			05/09/2019 11:10	Dale L. Simmons	2082335
	05/01/2019			05/09/2019 11:22	Dale L. Simmons	2082336
	05/01/2019			05/09/2019 11:34	Dale L. Simmons	2082337
	05/01/2019			05/09/2019 11:47	Dale L. Simmons	2082338
SM 5310 B-00	05/01/2019			05/03/2019 20:25	Lauren Lees	2082328

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	05/01/2019			05/03/2019 23:00	Lauren Lees	2082331
	05/01/2019			05/03/2019 23:49	Lauren Lees	2082339
	05/01/2019			05/04/2019 00:28	Lauren Lees	2082340
	05/01/2019			05/04/2019 00:40	Lauren Lees	2082341
	05/01/2019			05/04/2019 00:52	Lauren Lees	2082342
	05/01/2019			05/04/2019 01:07	Lauren Lees	2082343
	05/01/2019			05/04/2019 01:19	Lauren Lees	2082344