

Chemical Analysis Report

NE-DIST-2020-03-18-01

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

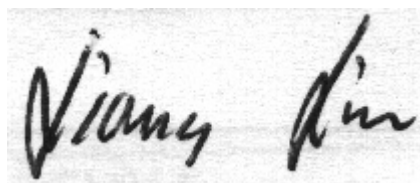
Event Description: **LSJR Southside 2020**
Request ID: **RQ-2020-03-16-16**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 09-APR-2020 13:41

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

Case Narrative

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

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: Miller Creek at Atlantic Blvd.

Collection Date/Time: 03/17/2020 09:25

Field ID: G2NE0005

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2166271	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P380990	
	EPA 300.0 Rev. 2.1	Bromide	14		mg Br/L	P381200	
	SM 2320 B-2011	Total Alkalinity	124		mg CaCO3/L	P381064	
	SM 2540 D-2011	TSS	4	I	mg/L	P381575	
	SM 4500 F-C-2011	Fluoride	0.36		mg F/L	P381351	MS
2166272	EPA 350.1 Rev. 2.0	Ammonia-N	0.25		mg N/L	P381056	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.96		mg N/L	P381164	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P381250	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P381312	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P381024	
2166273	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P380887	
2166309	EPA 8321B	2,4-D	0.0069	I	ug/L	P380867	
		Acesulfame K**	0.10	U	ug/L	P380873	MS
		AMPA**	1.0	U	ug/L	P380873	
		Acetaminophen**	0.0080	U	ug/L	P380867	
		Acetamiprid**	0.0020	U	ug/L	P380867	
		Endothall**	0.25	U	ug/L	P380873	
		Glufosinate**	1.0	U	ug/L	P380873	
		Glyphosate**	1.0	U	ug/L	P380873	
		Afidopyropen**	0.0020	UJ	ug/L	P380867	
		Bentazon	0.0076		ug/L	P380867	
		Sucralose**	0.68		ug/L	P380873	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P380867	
		Carbamazepine**	8.5E-04	I	ug/L	P380867	
		Clothianidin**	0.0020	U	ug/L	P380867	
		Dinotefuran**	0.0020	U	ug/L	P380867	
		Diuron	0.020		ug/L	P380867	
		Fenuron	0.016	U	ug/L	P380867	
		Fluridone**	0.0020	I	ug/L	P380867	
		Imazapyr**	0.048		ug/L	P380867	
		Hydrocodone**	0.0020	U	ug/L	P380867	
		Ibuprofen**	0.020	U	ug/L	P380867	
		Imidacloprid	0.035		ug/L	P380867	
		Linuron	0.0040	U	ug/L	P380867	
		Mandestrobin**	0.0020	UJ	ug/L	P380867	
		MCP	0.0020	U	ug/L	P380867	
		Naproxen**	0.0080	U	ug/L	P380867	
		Primidone**	0.0040	I	ug/L	P380867	
		Pyraclostrobin**	0.0020	U	ug/L	P380867	
		Thiamethoxam**	0.0020	U	ug/L	P380867	
		Tolfenpyrad**	0.0020	U	ug/L	P380867	
		Triclopyr**	0.0040	U	ug/L	P380867	

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment:							
EPA 8321B:	J - second source check standards for some analytes were not available for analysis.						
EPA 8321B:	MDL elevated due to matrix interference.						

Sample Location: Miramar at San Jose

Collection Date/Time: 03/17/2020 10:00

Field ID: G2NE1164

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2166274	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P380993	
	EPA 300.0 Rev. 2.1	Chloride	310		mg Cl/L	P381342	
		Sulfate	110		mg SO4/L	P381344	
		Color (true)	18		PCU	P380932	
	SM 2320 B-2011	Total Alkalinity	78		mg CaCO3/L	P381064	
	SM 2540 C-2011	TDS	740		mg/L	P381481	
	SM 2540 D-2011	TSS	3	I	mg/L	P381570	
	SM 4500 F-C-2011	Fluoride	0.12		mg F/L	P381265	
2166275	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P381056	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P381164	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.1		mg N/L	P381919	
	EPA 365.1 Rev. 2.0	Total-P	0.059		mg P/L	P381312	
	SM 5310 B-2011	Organic Carbon	4.6		mg C/L	P381023	
2166276	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P380887	
2166302	EPA 8270E	Aldrin	4.1	UQ	ng/L	P381379	
		Alpha-BHC	2.0	UQ	ng/L	P381379	
		Alpha-Chlordane	2.2	IQ	ng/L	P381379	
		Beta-BHC	10	UQ	ng/L	P381379	
		Beta-Cyfluthrin**	15	UQ	ng/L	P381379	
		Bifenthrin**	4.1	UQ	ng/L	P381379	
		Delta-BHC	8.2	UQJ	ng/L	P381379	RPD
		Gamma-BHC	8.2	UQ	ng/L	P381379	
		Carbophenothion	10	UQ	ng/L	P381379	
		Chlorothalonil	2.0	UQJ	ng/L	P381379	RPD
		Cis-Nonachlor**	1.0	UQ	ng/L	P381379	
		Cypermethrin	20	UQ	ng/L	P381379	
		Dacthal**	1.0	UQ	ng/L	P381379	
		DDD-p,p'	6.1	UQ	ng/L	P381379	
		DDE-p,p'	6.1	UQ	ng/L	P381379	
		DDT-p,p'	7.2	UQ	ng/L	P381379	
		Dicofol	31	UQJ	ng/L	P381379	MS, RPD
		Dieldrin	14	IQ	ng/L	P381379	
		Endosulfan I	4.1	UQ	ng/L	P381379	
		Endosulfan II	4.1	UQ	ng/L	P381379	
		Endosulfan Sulfate	2.0	UQJ	ng/L	P381379	RPD
		Endrin	2.0	UQ	ng/L	P381379	
		Endrin Aldehyde	2.0	UQ	ng/L	P381379	
		Endrin Ketone	2.0	UQ	ng/L	P381379	
		Ethalfuralin**	3.1	UQ	ng/L	P381379	
		Gamma-Chlordane	1.3	IQ	ng/L	P381379	
		Heptachlor	1.5	UQ	ng/L	P381379	
		Heptachlor Epoxide	6.5	IQ	ng/L	P381379	
		Hexachlorobenzene	2.0	UQ	ng/L	P381379	

Field ID: G2NE1164

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2166302	EPA 8270E	Lambda-Cyhalothrin**	15	UQJ	ng/L	P381379	CCV
		Methoxychlor	4.1	UQ	ng/L	P381379	
		Mirex	2.0	UQ	ng/L	P381379	
		Permethrin	10	UQ	ng/L	P381379	
		Phenothrin**	31	UQ	ng/L	P381379	
		Prallethrin**	31	UQ	ng/L	P381379	
		Trans-Nonachlor**	1.0	UQ	ng/L	P381379	
		Trifluralin	2.6	UQ	ng/L	P381379	
		2,4-D	0.085		ug/L	P380867	
2166310	EPA 8321B	Acesulfame K**	0.15	I	ug/L	P380873	MS
		AMPA**	1.0	U	ug/L	P380873	
		Acetaminophen**	0.0080	U	ug/L	P380867	
		Acetamiprid**	0.0020	U	ug/L	P380867	
		Endothall**	0.25	U	ug/L	P380873	
		Glufosinate**	1.0	U	ug/L	P380873	
		Glyphosate**	1.0	U	ug/L	P380873	
		Afidopyropen**	0.0020	UJ	ug/L	P380867	
		Bentazon	0.13		ug/L	P380867	
		Sucralose**	0.96		ug/L	P380873	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P380867	
		Carbamazepine**	0.026		ug/L	P380867	
		Clothianidin**	0.0020	U	ug/L	P380867	
		Dinotefuran**	0.0020	U	ug/L	P380867	
		Diuron	0.011		ug/L	P380867	
		Fenuron	0.016	U	ug/L	P380867	
		Fluridone**	8.0E-04	U	ug/L	P380867	
		Imazapyr**	0.13		ug/L	P380867	
		Hydrocodone**	0.0020	U	ug/L	P380867	
		Ibuprofen**	0.020	U	ug/L	P380867	
		Imidacloprid	0.019		ug/L	P380867	
		Linuron	0.0040	U	ug/L	P380867	
		Mandestrobin**	0.0020	UJ	ug/L	P380867	
		MCPP	0.0020	U	ug/L	P380867	
		Naproxen**	0.0080	U	ug/L	P380867	
		Primidone**	0.0042	I	ug/L	P380867	
		Pyraclostrobin**	0.0020	U	ug/L	P380867	
		Thiamethoxam**	0.0020	U	ug/L	P380867	
		Tolfenpyrad**	0.0020	U	ug/L	P380867	
		Triclopyr**	0.0040	U	ug/L	P380867	
2166312	EPA 200.7 Rev. 4.4	Barium	57		ug/L	P380962	
		Calcium	50.7		mg/L	P380962	
		Iron	510		ug/L	P380962	
		Magnesium	30.2		mg/L	P380962	
		Potassium	8.1		mg/L	P380962	
		Sodium	171		mg/L	P380962	

Field ID: G2NE1164

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2166312	EPA 200.7 Rev. 4.4	Zinc	15	U	ug/L	P380962	
	EPA 200.8 Rev. 5.4	Aluminum	28	I	ug/L	P380962	
		Antimony	0.50	U	ug/L	P380962	
		Arsenic	0.50	U	ug/L	P380962	
		Boron**	114		ug/L	P380962	
		Cadmium	0.20	U	ug/L	P380962	
		Chromium	1.6	U	ug/L	P380962	
		Copper	7.4		ug/L	P380962	
		Lead	2.0	U	ug/L	P380962	
		Nickel	2.0	U	ug/L	P380962	
		Selenium	2.0	U	ug/L	P380962	
		Silver	0.10	U	ug/L	P380962	
		Thallium	1.0	U	ug/L	P380962	
	SM 2340B	Hardness	251		mg/L	P380962	

Ref. Method and Comment:

SM 2540 C-2011: The reported result is consistent with the laboratory conductivity, 1416 umhos/cm.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes. Sample expired for preparation due to human error.

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

EPA 8321B: MDL elevated due to matrix interference.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for sodium are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: The copper result was confirmed in the undigested sample on 03/27/2020.

Sample Location: Goodbys CR @ SR-13

Collection Date/Time: 03/17/2020 10:35

Field ID: 20030518

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2166268	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P380990	
	EPA 300.0 Rev. 2.1	Bromide	6.3		mg Br/L	P381200	
	SM 2320 B-2011	Total Alkalinity	93		mg CaCO3/L	P381412	
	SM 2540 D-2011	TSS	6	I	mg/L	P381574	
	SM 4500 F-C-2011	Fluoride	0.21		mg F/L	P381455	
2166269	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P381056	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P381164	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P381310	
	EPA 365.1 Rev. 2.0	Total-P	0.064		mg P/L	P381277	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P381023	
2166270	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.025		mg P/L	P380887	
2166301	EPA 8276	Chlordane	8.4	I	ng/L	P381159	MS, RPD
		Toxaphene	31	U	ng/L	P381159	
2166308	EPA 8321B	2,4-D	0.10		ug/L	P380867	
		Acesulfame K**	0.10	U	ug/L	P380873	MS
		AMPA**	1.0	U	ug/L	P380873	
		Acetaminophen**	0.0080	U	ug/L	P380867	
		Acetamiprid**	0.0020	U	ug/L	P380867	
		Endothall**	0.25	U	ug/L	P380873	
		Glufosinate**	1.0	U	ug/L	P380873	
		Glyphosate**	1.0	U	ug/L	P380873	
		Afidopyropen**	0.0020	UJ	ug/L	P380867	
		Bentazon	0.023		ug/L	P380867	
		Sucralose**	0.41		ug/L	P380873	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P380867	
		Carbamazepine**	1.0E-03	I	ug/L	P380867	
		Clothianidin**	0.0048	I	ug/L	P380867	
		Dinotefuran**	0.0026	I	ug/L	P380867	
		Diuron	0.015		ug/L	P380867	
		Fenuron	0.016	U	ug/L	P380867	
		Fluridone**	0.010		ug/L	P380867	
		Imazapyr**	0.43		ug/L	P380867	
		Hydrocodone**	0.0020	U	ug/L	P380867	
		Ibuprofen**	0.020	U	ug/L	P380867	
		Imidacloprid	0.031		ug/L	P380867	
		Linuron	0.0040	U	ug/L	P380867	
		Mandestrobin**	0.0020	UJ	ug/L	P380867	
		MCPP	0.0020	U	ug/L	P380867	
		Naproxen**	0.0080	U	ug/L	P380867	
		Primidone**	0.0040	U	ug/L	P380867	
		Pyraclostrobin**	0.0020	U	ug/L	P380867	
		Thiamethoxam**	0.0020	I	ug/L	P380867	
		Tolfenpyrad**	0.0020	U	ug/L	P380867	

Field ID: 20030518

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2166308	EPA 8321B	Triclopyr**	0.0040	U	ug/L	P380867	
2166311	EPA 200.7 Rev. 4.4	Iron	443		ug/L	P381134	
		Manganese	28.6		ug/L	P381134	
		Zinc	5.00	U	ug/L	P381134	
	EPA 200.8 Rev. 5.4	Aluminum	79		ug/L	P381526	
		Antimony	0.11	I	ug/L	P381526	
		Arsenic	1.95		ug/L	P381526	
		Cadmium	0.020	U	ug/L	P381526	
		Chromium	0.40	U	ug/L	P381526	
		Copper	1.71		ug/L	P381526	
		Lead	0.49		ug/L	P381526	
		Nickel	0.50	U	ug/L	P381526	
		Selenium	0.20	U	ug/L	P381526	
		Silver	0.010	U	ug/L	P381526	
		Thallium	0.10	U	ug/L	P381526	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

EPA 8321B: MDL elevated due to matrix interference.

Sample Location: Deep Bottom Creek at Scott Mill Rd.

Collection Date/Time: 03/17/2020 11:15

Field ID: 20030595

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2166280	EPA 180.1 Rev. 2.0	Turbidity	6.1		NTU	P380993	
	EPA 300.0 Rev. 2.1	Chloride	170		mg Cl/L	P381342	
		Sulfate	39		mg SO4/L	P381344	
		Color (true)	44		PCU	P380932	
	SM 2320 B-2011	Total Alkalinity	99		mg CaCO3/L	P381412	
	SM 2540 C-2011	TDS	410		mg/L	P381481	
	SM 2540 D-2011	TSS	4	I	mg/L	P381570	
	SM 4500 F-C-2011	Fluoride	0.10		mg F/L	P381455	
2166281	EPA 350.1 Rev. 2.0	Ammonia-N	0.047		mg N/L	P381235	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P381178	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.076		mg N/L	P381542	
	EPA 365.1 Rev. 2.0	Total-P	0.096		mg P/L	P381280	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P381023	
2166282	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.015		mg P/L	P380890	

Ref. Method and Comment:

SM 2540 C-2011: The reported result is consistent with the laboratory conductivity, 860 umhos/cm.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: Cormorant Branch @ Marbon Rd.

Collection Date/Time: 03/17/2020 11:50

Field ID: 20030852

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2166277	EPA 180.1 Rev. 2.0	Turbidity	6.8		NTU	P380993	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P381008	
		Sulfate	23		mg SO4/L	P381012	
		Color (true)	55		PCU	P380932	
	SM 2320 B-2011	Total Alkalinity	85		mg CaCO3/L	P381412	
	SM 2540 C-2011	TDS	178	A	mg/L	P381482	
	SM 2540 D-2011	TSS	3	IA	mg/L	P381571	
2166278	SM 4500 F-C-2011	Fluoride	0.096	I	mg F/L	P381455	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.047		mg N/L	P381235	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36		mg N/L	P381178	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P381542	
	EPA 365.1 Rev. 2.0	Total-P	0.073		mg P/L	P381280	
2166279	SM 5310 B-2011	Organic Carbon	6.4		mg C/L	P381023	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P380890	
2166313	EPA 200.7 Rev. 4.4	Barium	46.8		ug/L	P381134	
		Calcium	35.5		mg/L	P381134	
		Iron	1.52E+03		ug/L	P381134	
		Magnesium	6.71		mg/L	P381134	
		Potassium	2.06		mg/L	P381134	
		Sodium	17.2		mg/L	P381134	
		Zinc	5.00	U	ug/L	P381134	
	EPA 200.8 Rev. 5.4	Aluminum	16	I	ug/L	P381526	
		Antimony	0.056	I	ug/L	P381526	
		Arsenic	1.04		ug/L	P381526	
		Boron**	28.0		ug/L	P381526	
		Cadmium	0.020	U	ug/L	P381526	
		Chromium	0.40	U	ug/L	P381526	
		Copper	0.80	I	ug/L	P381526	
		Lead	0.20	U	ug/L	P381526	
		Nickel	0.50	U	ug/L	P381526	
		Selenium	0.20	U	ug/L	P381526	
		Silver	0.010	U	ug/L	P381526	
		Thallium	0.10	U	ug/L	P381526	
		Hardness	116		mg/L	P381134	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380990

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380993

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380962

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 200.7 Rev. 4.4
Batch ID: P381134

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
Manganese	1.0	U	ug/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: P380962

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381526

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381008

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381012

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381200

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381342

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381344

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381056

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381235

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381164

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381178

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381250

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381310

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381542

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381919

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381277

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381280

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: P381312

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380887

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380890

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

Reference Method: EPA 8270E
Batch ID: P381379

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
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Carbophenothion	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	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	8.0	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
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P381379

Component	Result	Code	Units
Prallethrin	30	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276
Batch ID: P381159

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

Reference Method: EPA 8321B
Batch ID: P380867

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	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
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P380873

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P380932

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P381064

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

Reference Method: SM 2320 B-2011
Batch ID: P381412

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

Reference Method: SM 2540 C-2011
Batch ID: P381481

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P381482

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P381570

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P381571

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P381574

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P381575

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P381265

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P381351

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P381455

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P381023

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

Reference Method: SM 5310 B-2011
Batch ID: P381024

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: P380962

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	98.0		P	85 - 115
Iron	98.6		P	85 - 115
Magnesium	95.8		P	85 - 115
Potassium	94.3		P	85 - 115
Sodium	96.2		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P381134

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	108		P	85 - 115
Calcium	102		P	85 - 115
Iron	106		P	85 - 115
Magnesium	101		P	85 - 115
Manganese	110		P	85 - 115
Potassium	104		P	85 - 115
Sodium	104		P	85 - 115
Zinc	110		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P380962

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	97.3		P	85 - 115
Arsenic	99.4		P	85 - 115
Boron	102		P	85 - 115
Cadmium	106		P	85 - 115
Chromium	101		P	85 - 115
Copper	93.3		P	85 - 115
Lead	103		P	85 - 115
Nickel	98.3		P	85 - 115
Selenium	93.5		P	85 - 115
Silver	98.2		P	85 - 115
Thallium	107		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P381526

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	88.8		P	85 - 115
Antimony	90.0		P	85 - 115
Arsenic	92.5		P	85 - 115
Boron	92.0		P	85 - 115
Cadmium	91.0		P	85 - 115
Chromium	92.8		P	85 - 115
Copper	91.9		P	85 - 115
Lead	86.5		P	85 - 115
Nickel	90.5		P	85 - 115
Selenium	100		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381526

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	92.5		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381008

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381012

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381200

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381342

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381344

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381056

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381235

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381164

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381178

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381250

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381310

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	97.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381919

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381277

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381280

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381312

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380887

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380890

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.0		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P381379

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	59.7	66.0	P/P	20 - 87.0
Alpha-BHC	74.2	83.0	P/P	65 - 142
Alpha-Chlordane	79.9	86.0	P/P	58 - 106
Beta-BHC	85.1	92.4	P/P	65 - 179
Beta-Cyfluthrin	82.1	79.7	P/P	50 - 150
Bifenthrin	91.2	90.5	P/P	38 - 128
Carbophenothion	95.3	94.1	P/P	20 - 144
Chlorothalonil	47.1	49.6	P/P	20 - 214
Cis-Nonachlor	79.3	87.6	P/P	56 - 113
Cypermethrin	92.4	93.7	P/P	37 - 130
Dacthal	84.7	89.3	P/P	50 - 150
DDD-p,p'	84.1	92.0	P/P	66 - 119
DDE-p,p'	84.3	91.4	P/P	53 - 108
DDT-p,p'	77.7	81.7	P/P	57 - 133
Delta-BHC	78.0	80.0	P/P	68 - 187
Dicofol	76.0	79.5	P/P	66 - 123
Dieldrin	87.2	92.8	P/P	65 - 111
Endosulfan I	88.9	96.6	P/P	65 - 115
Endosulfan II	84.1	87.1	P/P	68 - 133
Endosulfan Sulfate	70.4	73.6	P/P	62 - 127
Endrin	88.7	97.0	P/P	64 - 122
Endrin Aldehyde	93.0	102	P/P	61 - 132
Endrin Ketone	83.5	87.5	P/P	66 - 120
Ethalfuralin	71.2	78.3	P/P	57 - 127
Gamma-BHC	89.0	91.1	P/P	71 - 158
Gamma-Chlordane	76.0	81.8	P/P	53 - 106
Heptachlor	63.4	71.0	P/P	45 - 96.0
Heptachlor Epoxide	83.3	89.6	P/P	64 - 109
Hexachlorobenzene	65.2	72.3	P/P	46 - 103
Lambda-Cyhalothrin	83.5	79.7	P/P	50 - 150
Methoxychlor	86.2	89.4	P/P	69 - 149
Mirex	65.3	68.1	P/P	31 - 90.0
Permethrin	80.4	86.5	P/P	41 - 108
Phenothrin	76.3	80.6	P/P	50 - 150
Prallethrin	64.4	71.9	P/P	40 - 140
Trans-Nonachlor	76.1	82.9	P/P	50 - 107
Trifluralin	72.4	77.9	P/P	58 - 119

Reference Method: EPA 8276
Batch ID: P381159

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	91.5	92.4	P/P	47 - 119
Toxaphene	93.1	98.8	P/P	41 - 112

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P380867

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	133		P	30 - 160
Acetaminophen	89.8		P	30 - 160
Acetamiprid	90.8		P	30 - 160
Afidopyropen	92.0		P	30 - 160
Bentazon	94.0		P	30 - 160
Benzovindiflupyr	78.5		P	30 - 160
Carbamazepine	107		P	30 - 160
Clothianidin	88.1		P	30 - 160
Dinotefuran	91.8		P	30 - 160
Diuron	64.2		P	30 - 160
Fenuron	94.6		P	30 - 160
Fluridone	97.0		P	30 - 160
Hydrocodone	98.8		P	30 - 160
Ibuprofen	86.4		P	30 - 160
Imazapyr	92.4		P	30 - 160
Imidacloprid	114		P	30 - 160
Linuron	80.9		P	30 - 160
Mandestrobin	91.9		P	30 - 160
MCPP	145		P	30 - 160
Naproxen	65.4		P	30 - 160
Primidone	91.8		P	30 - 160
Pyraclostrobin	85.9		P	30 - 160
Thiamethoxam	106		P	30 - 160
Tolfenpyrad	54.1		P	30 - 160
Triclopyr	96.4		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P380873

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	88.7		P	40 - 150
AMPA	126		P	40 - 150
Endothall	124		P	40 - 150
Glufosinate	127		P	40 - 150
Glyphosate	110		P	40 - 140
Sucralose	110		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P380932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P381064

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P381412

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Reference Method: SM 4500 F-C-2011
Batch ID: P381265

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.3		P	92 - 103

Reference Method: SM 4500 F-C-2011
Batch ID: P381351

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.7		P	92 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P381455

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	92 - 104

Reference Method: SM 5310 B-2011
Batch ID: P381023

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

Reference Method: SM 5310 B-2011
Batch ID: P381024

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166312	Barium	101	101	P/P	70 - 130
2166312	Calcium	97.9		P	70 - 130
2166312	Iron	99.9	101	P/P	70 - 130
2166312	Magnesium	97.1		P	70 - 130
2166312	Potassium	93.0		P	70 - 130
2166312	Zinc	104	103	P/P	70 - 130

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P381134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166236	Barium	108		P	75 - 125
2166236	Iron	105		P	75 - 125
2166236	Magnesium	104		P	75 - 125
2166236	Manganese	110		P	75 - 125
2166236	Potassium	107		P	75 - 125
2166236	Sodium	108		P	75 - 125
2166236	Zinc	110		P	75 - 125
2166313	Barium	108	108	P/P	80 - 120
2166313	Calcium	105		P	80 - 120
2166313	Iron	107	106	P/P	80 - 120
2166313	Magnesium	105		P	80 - 120
2166313	Manganese	112	108	P/P	80 - 120
2166313	Potassium	103	101	P/P	80 - 120
2166313	Sodium	105		P	80 - 120
2166313	Zinc	111	111	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166312	Aluminum	97.1	98.9	P/P	70 - 130
2166312	Antimony	99.5	105	P/P	70 - 130
2166312	Arsenic	103	105	P/P	70 - 130
2166312	Boron	102	97.2	P/P	70 - 130
2166312	Cadmium	93.1	111	P/P	70 - 130
2166312	Chromium	101	102	P/P	70 - 130
2166312	Copper	88.9	89.3	P/P	70 - 130
2166312	Lead	103	103	P/P	70 - 130
2166312	Nickel	98.5	99.1	P/P	70 - 130
2166312	Selenium	95.5	101	P/P	70 - 130
2166312	Silver	98.5	98.8	P/P	70 - 130
2166312	Thallium	105	106	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381526

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166079	Aluminum	84.2	85.4	P/P	80 - 120
2166079	Antimony	88.1	88.3	P/P	80 - 120
2166079	Arsenic	91.7	92.0	P/P	80 - 120
2166079	Boron	86.1	88.8	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381526

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166079	Cadmium	87.7	88.2	P/P	80 - 120
2166079	Chromium	90.7	90.9	P/P	80 - 120
2166079	Copper	89.3	89.1	P/P	80 - 120
2166079	Lead	86.4	87.1	P/P	80 - 120
2166079	Nickel	88.7	89.2	P/P	80 - 120
2166079	Selenium	97.0	98.5	P/P	80 - 120
2166079	Silver	87.5	89.5	P/P	80 - 120
2166079	Thallium	110	109	P/P	80 - 120
2166238	Aluminum	86.8		P	75 - 125
2166238	Antimony	89.9		P	75 - 125
2166238	Arsenic	93.7		P	75 - 125
2166238	Boron	93.4		P	75 - 125
2166238	Cadmium	89.7		P	75 - 125
2166238	Chromium	93.9		P	75 - 125
2166238	Copper	90.7		P	75 - 125
2166238	Lead	88.0		P	75 - 125
2166238	Nickel	91.7		P	75 - 125
2166238	Selenium	102		P	75 - 125
2166238	Silver	90.4		P	75 - 125
2166238	Thallium	109		P	75 - 125

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381008

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166253	Chloride	102		P	90 - 110
2166265	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381012

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166253	Sulfate	102		P	90 - 110
2166265	Sulfate	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381200

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166022	Bromide	100	101	P/P	90 - 110
2166911	Bromide	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381342

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166375	Chloride	103		P	90 - 110
2166393	Chloride	101		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381344

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166375	Sulfate	103		P	90 - 110
2166393	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381056

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2165959	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166278	Ammonia-N	98.9	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166275	Kjeldahl Nitrogen	95.8	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381178

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166266	Kjeldahl Nitrogen	97.8	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381250

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166017	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2163548	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381542

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166260	NO2NO3-N	97.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381919

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166275	NO2NO3-N	97.5	97.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2165803	Total-P	105	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166272	Total-P	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2165939	O-Phosphate-P	98.4	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380890

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166262	O-Phosphate-P	93.3	95.4	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P381379

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166302	Aldrin	63.2	68.9	P/P	32 - 82.0
2166302	Alpha-BHC	98.4	109	P/P	68 - 157
2166302	Alpha-Chlordane	82.5	86.5	P/P	54 - 108
2166302	Beta-BHC	91.5	101	P/P	54 - 200
2166302	Beta-Cyfluthrin	111	113	P/P	50 - 150
2166302	Bifenthrin	98.4	113	P/P	49 - 124
2166302	Carbophenothion	111	132	P/P	42 - 173
2166302	Chlorothalonil	44.3	91.0	P/P	10 - 289
2166302	Cis-Nonachlor	86.7	92.7	P/P	53 - 112
2166302	Cypermethrin	102	129	P/P	43 - 141
2166302	Dacthal	91.0	95.2	P/P	50 - 150
2166302	DDD-p,p'	93.7	101	P/P	58 - 125
2166302	DDE-p,p'	82.4	89.8	P/P	50 - 108
2166302	DDT-p,p'	81.6	81.9	P/P	52 - 140
2166302	Delta-BHC	129	182	P/P	61 - 228
2166302	Dicofol	85.6	140	P/F	59 - 130
2166302	Dieldrin	89.9	82.8	P/P	57 - 121
2166302	Endosulfan I	104	103	P/P	62 - 123
2166302	Endosulfan II	96.1	101	P/P	48 - 163
2166302	Endosulfan Sulfate	81.5	128	P/P	63 - 132
2166302	Endrin	95.8	94.9	P/P	58 - 128
2166302	Endrin Aldehyde	72.8	61.6	P/P	44 - 126
2166302	Endrin Ketone	99.7	114	P/P	68 - 127
2166302	Ethalfuralin	77.2	84.5	P/P	55 - 131
2166302	Gamma-BHC	132	145	P/P	54 - 206
2166302	Gamma-Chlordane	77.5	82.1	P/P	52 - 105
2166302	Heptachlor	67.0	74.0	P/P	47 - 94.0
2166302	Heptachlor Epoxide	88.5	87.0	P/P	61 - 113

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P381379

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166302	Hexachlorobenzene	69.7	77.2	P/P	45 - 100
2166302	Lambda-Cyhalothrin	105	124	P/P	50 - 150
2166302	Methoxychlor	85.7	84.3	P/P	63 - 153
2166302	Mirex	69.9	82.5	P/P	38 - 90.0
2166302	Permethrin	88.8	102	P/P	45 - 112
2166302	Phenothrin	96.4	102	P/P	50 - 150
2166302	Prallethrin	85.4	81.9	P/P	40 - 140
2166302	Trans-Nonachlor	79.7	85.4	P/P	50 - 103
2166302	Trifluralin	78.3	84.0	P/P	57 - 122

Reference Method: EPA 8276

Batch ID: P381159

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166074	Chlordane	148	89.9	F/P	34 - 129
2166074	Toxaphene	103	103	P/P	26 - 123

Reference Method: EPA 8321B

Batch ID: P380867

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2165908	2,4-D	121	91.7	P/P	30 - 160
2165908	Acetaminophen	92.2	76.3	P/P	30 - 160
2165908	Acetamiprid	75.6	84.8	P/P	30 - 160
2165908	Afidopyropen	98.3	92.5	P/P	30 - 160
2165908	Bentazon	48.7	46.5	P/P	30 - 160
2165908	Benzovindiflupyr	69.0	63.8	P/P	30 - 160
2165908	Carbamazepine	85.6	75.2	P/P	30 - 160
2165908	Clothianidin	97.2	81.1	P/P	30 - 160
2165908	Dinotefuran	104	96.5	P/P	30 - 160
2165908	Diuron	64.8	60.3	P/P	30 - 160
2165908	Fenuron	74.1	73.8	P/P	30 - 160
2165908	Fluridone	87.8	82.5	P/P	30 - 160
2165908	Hydrocodone	97.1	87.1	P/P	30 - 160
2165908	Ibuprofen	72.7	72.1	P/P	30 - 160
2165908	Imazapyr	106	88.9	P/P	30 - 160
2165908	Imidacloprid	154	141	P/P	30 - 160
2165908	Linuron	55.6	48.7	P/P	30 - 160
2165908	Mandestrobin	74.8	77.9	P/P	30 - 160
2165908	MCPP	140	146	P/P	30 - 160
2165908	Naproxen	81.4	78.6	P/P	30 - 160
2165908	Primidone	81.3	84.0	P/P	30 - 160
2165908	Pyraclostrobin	78.5	73.8	P/P	30 - 160
2165908	Thiamethoxam	110	122	P/P	30 - 160
2165908	Tolfenpyrad	53.4	51.2	P/P	30 - 160
2165908	Triclopyr	135	137	P/P	30 - 160

Reference Method: EPA 8321B

Batch ID: P380873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2165999	Acesulfame K	16.2	17.0	F/F	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P380873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2165999	AMPA	98.1	101	P/P	40 - 150
2165999	Endothall	130	128	P/P	40 - 150
2165999	Glufosinate	100	115	P/P	40 - 150
2165999	Glyphosate	112	120	P/P	40 - 140
2165999	Sucralose	95.9	94.3	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P381351

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166025	Fluoride	102	105	P/F	91 - 105

Reference Method: SM 4500 F-C-2011
Batch ID: P381455

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2165984	Fluoride	103	103	P/P	91 - 105

Reference Method: SM 5310 B-2011
Batch ID: P381023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166033	Organic Carbon	98.5	99.6	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P381024

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2166017	Organic Carbon	95.7	96.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165984	Turbidity	4.96	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166257	Turbidity	1.97	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166312	Barium	0.647	Spike	P	0 - 20
2166312	Calcium	0.153	Spike	P	0 - 20
2166312	Iron	0.659	Spike	P	0 - 20
2166312	Magnesium	0.299	Spike	P	0 - 20
2166312	Potassium	0.256	Spike	P	0 - 20
2166312	Sodium	0.909	Spike	P	0 - 20
2166312	Zinc	0.657	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P381134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166313	Barium	0.248	Spike	P	0 - 20
2166313	Calcium	2.74	Spike	P	0 - 20
2166313	Iron	1.26	Spike	P	0 - 20
2166313	Magnesium	1.40	Spike	P	0 - 20
2166313	Manganese	2.18	Spike	P	0 - 20
2166313	Potassium	1.57	Spike	P	0 - 20
2166313	Sodium	2.74	Spike	P	0 - 20
2166313	Zinc	0.126	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166312	Aluminum	1.73	Spike	P	0 - 20
2166312	Antimony	4.93	Spike	P	0 - 20
2166312	Arsenic	2.21	Spike	P	0 - 20
2166312	Boron	3.30	Spike	P	0 - 20
2166312	Cadmium	17.4	Spike	P	0 - 20
2166312	Chromium	1.37	Spike	P	0 - 20
2166312	Copper	0.410	Spike	P	0 - 20
2166312	Lead	0.0818	Spike	P	0 - 20
2166312	Nickel	0.664	Spike	P	0 - 20
2166312	Selenium	5.26	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166312	Silver	0.275	Spike	P	0 - 20
2166312	Thallium	0.878	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P381526

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166079	Aluminum	1.14	Spike	P	0 - 20
2166079	Antimony	0.260	Spike	P	0 - 20
2166079	Arsenic	0.322	Spike	P	0 - 20
2166079	Boron	2.09	Spike	P	0 - 20
2166079	Cadmium	0.583	Spike	P	0 - 20
2166079	Chromium	0.185	Spike	P	0 - 20
2166079	Copper	0.280	Spike	P	0 - 20
2166079	Lead	0.822	Spike	P	0 - 20
2166079	Nickel	0.592	Spike	P	0 - 20
2166079	Selenium	1.62	Spike	P	0 - 20
2166079	Silver	2.19	Spike	P	0 - 20
2166079	Thallium	0.777	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381008

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166265	Chloride	0.842	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166265	Sulfate	1.38	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381200

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166022	Bromide	0.551	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166375	Chloride	2.32	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P381344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166375	Sulfate	1.77	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381056

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165959	Ammonia-N	0.811	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381235

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166278	Ammonia-N	0.768	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166275	Kjeldahl Nitrogen	5.62	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P381178

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166266	Kjeldahl Nitrogen	5.59	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381250

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166017	NO2NO3-N	0.489	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2163548	NO2NO3-N	0.411	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166260	NO2NO3-N	0.360	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381919

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166275	NO2NO3-N	0.163	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165803	Total-P	1.48	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166077	Total-P	0.530	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381312

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166272	Total-P	0.0193	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165939	O-Phosphate-P	0.189	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380890

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166262	O-Phosphate-P	2.14	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P381379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166302	Aldrin	8.70	Spike	P	0 - 30
2166302	Alpha-BHC	10.3	Spike	P	0 - 30
2166302	Alpha-Chlordane	4.43	Spike	P	0 - 30
2166302	Beta-BHC	10.1	Spike	P	0 - 30
2166302	Beta-Cyfluthrin	2.21	Spike	P	0 - 30
2166302	Bifenthrin	13.7	Spike	P	0 - 30
2166302	Carbophenothion	17.0	Spike	P	0 - 30
2166302	Chlorothalonil	69.0	Spike	F	0 - 30
2166302	Cis-Nonachlor	6.72	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P381379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166302	Cypermethrin	23.0	Spike	P	0 - 30
2166302	Dacthal	4.50	Spike	P	0 - 30
2166302	DDD-p,p'	7.25	Spike	P	0 - 30
2166302	DDE-p,p'	8.51	Spike	P	0 - 30
2166302	DDT-p,p'	0.352	Spike	P	0 - 30
2166302	Delta-BHC	33.9	Spike	F	0 - 30
2166302	Dicofol	48.1	Spike	F	0 - 30
2166302	Dieldrin	5.41	Spike	P	0 - 30
2166302	Endosulfan I	0.596	Spike	P	0 - 30
2166302	Endosulfan II	4.80	Spike	P	0 - 30
2166302	Endosulfan Sulfate	44.7	Spike	F	0 - 30
2166302	Endrin	0.900	Spike	P	0 - 30
2166302	Endrin Aldehyde	16.6	Spike	P	0 - 30
2166302	Endrin Ketone	13.7	Spike	P	0 - 30
2166302	Ethalfuralin	9.03	Spike	P	0 - 30
2166302	Gamma-BHC	9.52	Spike	P	0 - 30
2166302	Gamma-Chlordane	5.46	Spike	P	0 - 30
2166302	Heptachlor	9.87	Spike	P	0 - 30
2166302	Heptachlor Epoxide	1.40	Spike	P	0 - 30
2166302	Hexachlorobenzene	10.3	Spike	P	0 - 30
2166302	Lambda-Cyhalothrin	16.3	Spike	P	0 - 30
2166302	Methoxychlor	1.72	Spike	P	0 - 30
2166302	Mirex	16.6	Spike	P	0 - 30
2166302	Permethrin	13.8	Spike	P	0 - 30
2166302	Phenothrin	5.74	Spike	P	0 - 30
2166302	Prallethrin	4.22	Spike	P	0 - 30
2166302	Trans-Nonachlor	6.98	Spike	P	0 - 30
2166302	Trifluralin	6.98	Spike	P	0 - 30
LFB	Aldrin	10.1	LCS	P	0 - 30
LFB	Alpha-BHC	11.2	LCS	P	0 - 30
LFB	Alpha-Chlordane	7.32	LCS	P	0 - 30
LFB	Beta-BHC	8.24	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	2.93	LCS	P	0 - 30
LFB	Bifenthrin	0.748	LCS	P	0 - 30
LFB	Carbophenothion	1.26	LCS	P	0 - 30
LFB	Chlorothalonil	5.17	LCS	P	0 - 30
LFB	Cis-Nonachlor	9.95	LCS	P	0 - 30
LFB	Cypermethrin	1.36	LCS	P	0 - 30
LFB	Dacthal	5.30	LCS	P	0 - 30
LFB	DDD-p,p'	8.91	LCS	P	0 - 30
LFB	DDE-p,p'	8.08	LCS	P	0 - 30
LFB	DDT-p,p'	4.97	LCS	P	0 - 30
LFB	Delta-BHC	2.50	LCS	P	0 - 30
LFB	Dicofol	4.53	LCS	P	0 - 30
LFB	Dieldrin	6.21	LCS	P	0 - 30
LFB	Endosulfan I	8.35	LCS	P	0 - 30
LFB	Endosulfan II	3.61	LCS	P	0 - 30
LFB	Endosulfan Sulfate	4.39	LCS	P	0 - 30
LFB	Endrin	8.91	LCS	P	0 - 30
LFB	Endrin Aldehyde	9.66	LCS	P	0 - 30
LFB	Endrin Ketone	4.65	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P381379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Ethalfuralin	9.56	LCS	P	0 - 30
LFB	Gamma-BHC	2.34	LCS	P	0 - 30
LFB	Gamma-Chlordane	7.36	LCS	P	0 - 30
LFB	Heptachlor	11.4	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.32	LCS	P	0 - 30
LFB	Hexachlorobenzene	10.4	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	4.70	LCS	P	0 - 30
LFB	Methoxychlor	3.58	LCS	P	0 - 30
LFB	Mirex	4.18	LCS	P	0 - 30
LFB	Permethrin	7.32	LCS	P	0 - 30
LFB	Phenothrin	5.44	LCS	P	0 - 30
LFB	Prallethrin	11.0	LCS	P	0 - 30
LFB	Trans-Nonachlor	8.53	LCS	P	0 - 30
LFB	Trifluralin	7.37	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P381159

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166074	Chlordane	48.6	Spike	F	0 - 30
2166074	Toxaphene	0.214	Spike	P	0 - 30
LFB	Chlordane	1.00	LCS	P	0 - 30
LFB	Toxaphene	5.85	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P380867

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165908	2,4-D	26.2	Spike	P	0 - 30
2165908	Acetaminophen	18.8	Spike	P	0 - 30
2165908	Acetamiprid	11.6	Spike	P	0 - 30
2165908	Afidopyropen	6.13	Spike	P	0 - 30
2165908	Bentazon	4.66	Spike	P	0 - 30
2165908	Benzovindiflupyr	7.50	Spike	P	0 - 30
2165908	Carbamazepine	13.0	Spike	P	0 - 30
2165908	Clothianidin	18.0	Spike	P	0 - 30
2165908	Dinotefuran	7.10	Spike	P	0 - 30
2165908	Diuron	7.21	Spike	P	0 - 30
2165908	Fenuron	0.257	Spike	P	0 - 30
2165908	Fluridone	6.18	Spike	P	0 - 30
2165908	Hydrocodone	10.8	Spike	P	0 - 30
2165908	Ibuprofen	0.811	Spike	P	0 - 30
2165908	Imazapyr	17.3	Spike	P	0 - 30
2165908	Imidacloprid	8.49	Spike	P	0 - 30
2165908	Linuron	13.3	Spike	P	0 - 30
2165908	Mandestrobin	4.07	Spike	P	0 - 30
2165908	MCP	4.33	Spike	P	0 - 30
2165908	Naproxen	3.49	Spike	P	0 - 30
2165908	Primidone	3.33	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P380867

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165908	Pyraclostrobin	6.20	Spike	P	0 - 30
2165908	Thiamethoxam	9.96	Spike	P	0 - 30
2165908	Tolfenpyrad	4.25	Spike	P	0 - 30
2165908	Triclopyr	1.22	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P380873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165999	Acesulfame K	4.94	Spike	P	0 - 30
2165999	AMPA	2.70	Spike	P	0 - 30
2165999	Endothall	1.59	Spike	P	0 - 30
2165999	Glufosinate	13.6	Spike	P	0 - 30
2165999	Glyphosate	7.14	Spike	P	0 - 30
2165999	Sucralose	1.77	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P380932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166379	Color (true)	0.0998	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P381064

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166025	Total Alkalinity	0.535	Sample	P	0 - 2.8

Reference Method: SM 2320 B-2011
Batch ID: P381412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166472	Total Alkalinity	0.575	Sample	P	0 - 3.3

Reference Method: SM 2540 C-2011
Batch ID: P381481

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166265	TDS	8.25	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P381482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166277	TDS	3.92	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 D-2011
 Batch ID: P381575

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165726	TSS	5.71	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P381265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165344	Fluoride	1.41	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-2011
 Batch ID: P381351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166025	Fluoride	1.92	Spike	P	0 - 2.0

Reference Method: SM 4500 F-C-2011
 Batch ID: P381455

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2165984	Fluoride	0.477	Spike	P	0 - 2.0

Reference Method: SM 5310 B-2011
 Batch ID: P381023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166033	Organic Carbon	0.698	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
 Batch ID: P381024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2166017	Organic Carbon	0.638	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Surrogates

Lab Sample ID: 2166301
Field Sample ID: 20030518

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	73.3	P	26 - 97.0
EPA 8276	PCNB	108	P	38 - 141

Lab Sample ID: 2166302
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	86.4	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	63.9	P	34 - 106

Lab Sample ID: 2166308
Field Sample ID: 20030518

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	112	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.8	P	30 - 160
EPA 8321B	Diuron-d6	86.4	P	30 - 160
EPA 8321B	Endothall-d6	79.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	43.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.0	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	80.4	P	30 - 160

Lab Sample ID: 2166309
Field Sample ID: G2NE0005

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	115	P	30 - 160
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.9	P	30 - 160
EPA 8321B	Diuron-d6	88.9	P	30 - 160
EPA 8321B	Endothall-d6	87.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	50.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	82.6	P	30 - 160
EPA 8321B	Primidone-d5	93.9	P	30 - 160
EPA 8321B	Sucralose-d6	84.1	P	30 - 160

Lab Sample ID: 2166310
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	88.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.8	P	30 - 160
EPA 8321B	Diuron-d6	80.9	P	30 - 160
EPA 8321B	Endothall-d6	89.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	42.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.0	P	30 - 160
EPA 8321B	Primidone-d5	93.9	P	30 - 160
EPA 8321B	Sucralose-d6	82.5	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A98259

Included Lab Sample IDs: 2166277

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A98278

Included Lab Sample IDs: 2166270, 2166273, 2166276, 2166279, 2166282

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.0	97.6	P/P	90 - 110
O-Phosphate-P	97.4	97.0	P/P	90 - 110
O-Phosphate-P	97.6	97.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A98286

Included Lab Sample IDs: 2166308, 2166309, 2166310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	105	95.7	P/P	60 - 160
Sucralose	95.7	101	P/P	60 - 160

Reference Method: SM 2120 B-2011

Run ID: A98294

Included Lab Sample IDs: 2166274, 2166277, 2166280

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A98314

Included Lab Sample IDs: 2166268, 2166271, 2166274, 2166277, 2166280

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.0	P/P	95 - 105
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: SM 5310 B-2011

Run ID: A98330

Included Lab Sample IDs: 2166269, 2166272, 2166275, 2166278, 2166281

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	101	P/P	90 - 110
Organic Carbon	91.4	97.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A98342

Included Lab Sample IDs: 2166269, 2166272, 2166275

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A98350

Included Lab Sample IDs: 2166271, 2166274

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

Reference Method: EPA 8321B

Run ID: A98352

Included Lab Sample IDs: 2166308, 2166309, 2166310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	125	109	P/P	60 - 160
Endothall	106	102	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98353

Included Lab Sample IDs: 2166312

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	102	P/P	90 - 110
Antimony	97.2	103	P/P	90 - 110
Arsenic	100	101	P/P	90 - 110
Boron	105	99.0	P/P	90 - 110
Cadmium	102	106	P/P	90 - 110
Chromium	100	101	P/P	90 - 110
Copper	94.5	90.6	P/P	90 - 110
Lead	102	102	P/P	90 - 110
Nickel	100	100	P/P	90 - 110
Selenium	100	100	P/P	90 - 110
Silver	96.1	96.8	P/P	90 - 110
Thallium	98.6	98.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A98362

Included Lab Sample IDs: 2166308, 2166309, 2166310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	105	115	P/P	40 - 200
Glufosinate	120	126	P/P	40 - 200
Glyphosate	135	122	P/P	40 - 200

Reference Method: EPA 8321B

Run ID: A98394

Included Lab Sample IDs: 2166308, 2166309, 2166310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.6	90.0	P/P	50 - 150
Acetaminophen	102	97.5	P/P	60 - 160
Acetamiprid	90.7	78.5	P/P	50 - 150
Afidopyrophen	106	89.2	P/P	50 - 150
Bentazon	114	110	P/P	50 - 160
Benzovindiflupyr	101	105	P/P	50 - 150
Carbamazepine	105	115	P/P	60 - 150
Clothianidin	110	98.0	P/P	60 - 150
Dinotefuran	89.5	92.2	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A98394

Included Lab Sample IDs: 2166308, 2166309, 2166310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	103	106	P/P	60 - 150
Fenuron	101	92.9	P/P	60 - 150
Fluridone	110	102	P/P	60 - 160
Hydrocodone	97.0	94.0	P/P	60 - 150
Ibuprofen	104	106	P/P	50 - 160
Imazapyr	92.0	81.0	P/P	50 - 150
Imidacloprid	94.3	97.8	P/P	60 - 150
Linuron	99.4	107	P/P	60 - 150
Mandestrobin	107	106	P/P	50 - 150
MCPP	91.7	87.2	P/P	50 - 150
Naproxen	103	57.9	P/P	50 - 160
Primidone	92.6	102	P/P	60 - 150
Pyraclostrobin	111	105	P/P	60 - 150
Thiamethoxam	90.5	93.7	P/P	50 - 150
Tolfenpyrad	107	106	P/P	60 - 150
Triclopyr	89.5	81.4	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A98406

Included Lab Sample IDs: 2166268, 2166271

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A98413

Included Lab Sample IDs: 2166278, 2166281

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A98422

Included Lab Sample IDs: 2166269, 2166272, 2166275, 2166278, 2166281

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	100	P/P	90 - 110
Kjeldahl Nitrogen	104	99.3	P/P	90 - 110
Kjeldahl Nitrogen	104	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A98425

Included Lab Sample IDs: 2166272

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

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A98428

Included Lab Sample IDs: 2166274

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	96.7	95.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A98444

Included Lab Sample IDs: 2166269

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A98458

Included Lab Sample IDs: 2166274, 2166280

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.4	101	P/P	90 - 110
Sulfate	100	102	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A98463

Included Lab Sample IDs: 2166271

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A98467

Included Lab Sample IDs: 2166312

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	96.0	96.3	P/P	90 - 110
Calcium	98.4	95.5	P/P	90 - 110
Iron	95.8	94.8	P/P	90 - 110
Magnesium	96.2	94.7	P/P	90 - 110
Potassium	96.3	94.3	P/P	90 - 110
Sodium	98.2	96.7	P/P	90 - 110
Zinc	94.9	95.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98480

Included Lab Sample IDs: 2166275

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

Reference Method: SM 2320 B-2011

Run ID: A98490

Included Lab Sample IDs: 2166268, 2166277, 2166280

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110
Total Alkalinity	105	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A98495

Included Lab Sample IDs: 2166268, 2166277, 2166280

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A98501

Included Lab Sample IDs: 2166311, 2166313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	105	P/P	90 - 110
Calcium	101	105	P/P	90 - 110
Iron	101	104	P/P	90 - 110
Magnesium	100	103	P/P	90 - 110
Manganese	103	104	P/P	90 - 110
Potassium	99.2	103	P/P	90 - 110
Sodium	100	103	P/P	90 - 110
Zinc	102	105	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A98509

Included Lab Sample IDs: 2166301

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.4		P	80 - 120
Toxaphene	94.9		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A98517

Included Lab Sample IDs: 2166278, 2166281

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

Reference Method: EPA 8321B

Run ID: A98518

Included Lab Sample IDs: 2166310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	133	123	P/P	50 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98525

Included Lab Sample IDs: 2166272

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98544

Included Lab Sample IDs: 2166269

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98559

Included Lab Sample IDs: 2166278, 2166281

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	106	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A98633

Included Lab Sample IDs: 2166302

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	100		P	80 - 120
Alpha-BHC	92.5		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	104		P	80 - 120
Beta-Cyfluthrin	85.7		P	80 - 120
Bifenthrin	96.4		P	80 - 120
Carbophenothion	97.4		P	80 - 120
Chlorothalonil	86.2		P	80 - 120
Cis-Nonachlor	99.5		P	80 - 120
Cypermethrin	87.7		P	80 - 120
Dacthal	100		P	80 - 120
DDD-p,p'	99.0		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	90.1		P	80 - 120
Dicofol	95.7		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	92.5		P	80 - 120
Endosulfan II	90.8		P	80 - 120
Endosulfan Sulfate	91.3		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	108		P	80 - 120
Endrin Ketone	94.3		P	80 - 120
Ethalfuralin	99.8		P	80 - 120
Gamma-BHC	96.8		P	80 - 120
Gamma-Chlordane	98.8		P	80 - 120
Heptachlor	100		P	80 - 120
Heptachlor Epoxide	101		P	80 - 120
Hexachlorobenzene	99.6		P	80 - 120
Lambda-Cyhalothrin	79.6*		F	80 - 120
Methoxychlor	101		P	80 - 120
Mirex	98.0		P	80 - 120
Permethrin	92.3		P	80 - 120
Phenothrin	93.4		P	80 - 120
Prallethrin	93.2		P	80 - 120
Trans-Nonachlor	100		P	80 - 120
Trifluralin	98.7		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98671

Included Lab Sample IDs: 2166311, 2166313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	91.0	92.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98671

Included Lab Sample IDs: 2166311, 2166313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	91.5	92.5	P/P	90 - 110
Arsenic	95.2	95.7	P/P	90 - 110
Boron	95.6	96.4	P/P	90 - 110
Cadmium	92.2	93.9	P/P	90 - 110
Chromium	90.6	93.5	P/P	90 - 110
Copper	91.0	94.0	P/P	90 - 110
Lead	91.2	90.6	P/P	90 - 110
Nickel	91.4	95.2	P/P	90 - 110
Silver	92.8	95.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98679

Included Lab Sample IDs: 2166311, 2166313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	97.1	97.1	P/P	90 - 110
Thallium	93.1	93.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A98693

Included Lab Sample IDs: 2166275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	99.0	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						4.96	
	Turbidity						1.97	
EPA 200.7 Rev. 4.4	Barium	102	101	101				0.647
	Barium	108	108	108	108			0.248
	Calcium	98.0	97.9					0.153
	Calcium	102	105					2.74
	Iron	98.6	99.9	101				0.659
	Iron	106	107	106	105			1.26
	Magnesium	95.8	97.1					0.299
	Magnesium	101	105	104				1.40
	Manganese	110	112	108	110			2.18
	Potassium	94.3	93.0					0.256
	Potassium	104	103	101	107			1.57
	Sodium	96.2						0.909
	Sodium	104	105	108				2.74
	Zinc	104	104	103				0.657
	Zinc	110	111	111	110			0.126
EPA 200.8 Rev. 5.4	Aluminum	100	97.1	98.9				1.73
	Aluminum	88.8	84.2	85.4	86.8			1.14
	Antimony	97.3	99.5	105				4.93
	Antimony	90.0	88.1	88.3	89.9			0.260
	Arsenic	99.4	103	105				2.21
	Arsenic	92.5	91.7	92.0	93.7			0.322
	Boron	102	102	97.2				3.30
	Boron	92.0	86.1	88.8	93.4			2.09
	Cadmium	106	93.1	111				17.4
	Cadmium	91.0	87.7	88.2	89.7			0.583
	Chromium	101	101	102				1.37
	Chromium	92.8	90.7	90.9	93.9			0.185
	Copper	93.3	88.9	89.3				0.410
	Copper	91.9	89.3	89.1	90.7			0.280
	Lead	103	103	103				0.0818
	Lead	86.5	86.4	87.1	88.0			0.822
	Nickel	98.3	98.5	99.1				0.664
	Nickel	90.5	88.7	89.2	91.7			0.592
	Selenium	93.5	95.5	101				5.26
	Selenium	100	97.0	98.5	102			1.62
	Silver	98.2	98.5	98.8				0.275
	Silver	92.5	87.5	89.5	90.4			2.19
	Thallium	107	105	106				0.878
	Thallium	104	110	109	109			0.777
EPA 300.0 Rev. 2.1	Bromide	104	100	101	100			0.551
	Chloride	102	100	102			0.842	
	Chloride	102	103	101			2.32	
	Sulfate	102	100	102			1.38	
	Sulfate	101	103	101			1.77	
EPA 350.1 Rev. 2.0	Ammonia-N	100	103	104				0.811
	Ammonia-N	98.9	98.9	100				0.768
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	95.8	103				5.62
	Kjeldahl Nitrogen	99.7	97.8	105				5.59
EPA 353.2 Rev. 2.0	NO2NO3-N	100	102	102				0.489
	NO2NO3-N	100	100	101				0.411
	NO2NO3-N	97.5	97.2					0.360
	NO2NO3-N	100	97.5	97.2				0.163

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 365.1 Rev. 2.0	Total-P	106		105	103			1.48
	Total-P	101						0.530
	Total-P	101		106	106			0.0193
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.9		98.4	98.6			0.189
	O-Phosphate-P	98.0		93.3	95.4			2.14
EPA 8270E	Aldrin	59.7	66.0	63.2	68.9	10.1		8.70
	Alpha-BHC	74.2	83.0	98.4	109	11.2		10.3
	Alpha-Chlordane	79.9	86.0	82.5	86.5	7.32		4.43
	Beta-BHC	85.1	92.4	91.5	101	8.24		10.1
	Beta-Cyfluthrin	82.1	79.7	111	113	2.93		2.21
	Bifenthrin	91.2	90.5	98.4	113	0.748		13.7
	Carbophenothion	95.3	94.1	111	132	1.26		17.0
	Chlorothalonil	47.1	49.6	44.3	91.0	5.17		69.0
	Cis-Nonachlor	79.3	87.6	86.7	92.7	9.95		6.72
	Cypermethrin	92.4	93.7	102	129	1.36		23.0
	Dacthal	84.7	89.3	91.0	95.2	5.30		4.50
	DDD-p,p'	84.1	92.0	93.7	101	8.91		7.25
	DDE-p,p'	84.3	91.4	82.4	89.8	8.08		8.51
	DDT-p,p'	77.7	81.7	81.6	81.9	4.97		0.352
	Delta-BHC	78.0	80.0	129	182	2.50		33.9
	Dicofol	76.0	79.5	85.6	140	4.53		48.1
	Dieldrin	87.2	92.8	89.9	82.8	6.21		5.41
	Endosulfan I	88.9	96.6	104	103	8.35		0.596
	Endosulfan II	84.1	87.1	96.1	101	3.61		4.80
	Endosulfan Sulfate	70.4	73.6	81.5	128	4.39		44.7
	Endrin	88.7	97.0	95.8	94.9	8.91		0.900
	Endrin Aldehyde	93.0	102	72.8	61.6	9.66		16.6
	Endrin Ketone	83.5	87.5	99.7	114	4.65		13.7
	Ethalfuralin	71.2	78.3	77.2	84.5	9.56		9.03
	Gamma-BHC	89.0	91.1	132	145	2.34		9.52
	Gamma-Chlordane	76.0	81.8	77.5	82.1	7.36		5.46
	Heptachlor	63.4	71.0	67.0	74.0	11.4		9.87
	Heptachlor Epoxide	83.3	89.6	88.5	87.0	7.32		1.40
	Hexachlorobenzene	65.2	72.3	69.7	77.2	10.4		10.3
	Lambda-Cyhalothrin	83.5	79.7	105	124	4.70		16.3
	Methoxychlor	86.2	89.4	85.7	84.3	3.58		1.72
	Mirex	65.3	68.1	69.9	82.5	4.18		16.6
	Permethrin	80.4	86.5	88.8	102	7.32		13.8
	Phenothrin	76.3	80.6	96.4	102	5.44		5.74
	Prallethrin	64.4	71.9	85.4	81.9	11.0		4.22
	Trans-Nonachlor	76.1	82.9	79.7	85.4	8.53		6.98
	Trifluralin	72.4	77.9	78.3	84.0	7.37		6.98
EPA 8276	Chlordane	91.5	92.4	148	89.9	1.00		48.6
	Toxaphene	93.1	98.8	103	103	5.85		0.214
EPA 8321B	2,4-D	133		91.7	121			26.2
	Acesulfame K	88.7		16.2	17.0			4.94
	Acetaminophen	89.8		92.2	76.3			18.8
	Acetamiprid	90.8		84.8	75.6			11.6
	Afidopyropen	92.0		92.5	98.3			6.13
	AMPA	126		98.1	101			2.70
	Bentazon	94.0		46.5	48.7			4.66
	Benzovindiflupyr	78.5		63.8	69.0			7.50
	Carbamazepine	107		75.2	85.6			13.0
	Clothianidin	88.1		81.1	97.2			18.0

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Dinotefuran	91.8	104	96.5		7.10
	Diuron	64.2	60.3	64.8		7.21
	Endothall	124	130	128		1.59
	Fenuron	94.6	73.8	74.1		0.257
	Fluridone	97.0	82.5	87.8		6.18
	Glufosinate	127	100	115		13.6
	Glyphosate	110	112	120		7.14
	Hydrocodone	98.8	97.1	87.1		10.8
	Ibuprofen	86.4	72.1	72.7		0.811
	Imazapyr	92.4	88.9	106		17.3
	Imidacloprid	114	141	154		8.49
	Linuron	80.9	48.7	55.6		13.3
	Mandestrobin	91.9	77.9	74.8		4.07
	MCPP	145	146	140		4.33
	Naproxen	65.4	78.6	81.4		3.49
	Primidone	91.8	81.3	84.0		3.33
	Pyraclostrobin	85.9	73.8	78.5		6.20
	Sucralose	110	95.9	94.3		1.77
	Thiamethoxam	106	110	122		9.96
	Tolfenpyrad	54.1	51.2	53.4		4.25
	Triclopyr	96.4	137	135		1.22
SM 2120 B-2011	Color (true)	103			0.0998	
SM 2320 B-2011	Total Alkalinity	102			0.535	
	Total Alkalinity	103			0.575	
SM 2540 C-2011	TDS				8.25	
	TDS				3.92	
SM 2540 D-2011	TSS				5.71	
SM 4500 F-C-2011	Fluoride	94.3				1.41
	Fluoride	96.7	102	105		1.92
	Fluoride	98.8	103	103		0.477
SM 5310 B-2011	Organic Carbon	102	98.5	99.6		0.698
	Organic Carbon	98.8	95.7	96.4		0.638

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2166268, 2166271, 2166274, 2166277, 2166280
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2166311, 2166312, 2166313
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2166311, 2166312, 2166313
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2166268, 2166271
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2166274, 2166277, 2166280
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2166274, 2166277, 2166280
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2166269, 2166272, 2166275, 2166278, 2166281
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2166269, 2166272, 2166275, 2166278, 2166281
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2166269, 2166272, 2166275, 2166278, 2166281
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2166269, 2166272, 2166275, 2166278, 2166281
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2166270, 2166273, 2166276, 2166279, 2166282

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2166302
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2166301
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2166308, 2166309, 2166310
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2166274, 2166277, 2166280
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2166268, 2166271, 2166274, 2166277, 2166280
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2166312, 2166313
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2166274, 2166277, 2166280
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2166268, 2166271, 2166274, 2166277, 2166280
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2166268, 2166271, 2166274, 2166277, 2166280
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2166269, 2166272, 2166275, 2166278, 2166281

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	03/18/2020			03/18/2020 16:33	Yen Ta	2166268, 2166271, 2166274, 2166277, 2166280
EPA 200.7 Rev. 4.4	03/18/2020	03/19/2020 15:20	Elliott D. Healy	03/26/2020 22:21	Vijayalakshmi Reddy	2166312
	03/18/2020	03/23/2020 14:25	Elliott D. Healy	03/27/2020 14:45	Vijayalakshmi Reddy	2166311
	03/18/2020	03/23/2020 14:25	Elliott D. Healy	03/27/2020 15:01	Vijayalakshmi Reddy	2166313
EPA 200.8 Rev. 5.4	03/18/2020	03/19/2020 15:20	Elliott D. Healy	03/20/2020 17:00	Alexander Thompson	2166312
	03/18/2020	03/19/2020 15:20	Elliott D. Healy	03/20/2020 17:29	Alexander Thompson	2166312
	03/18/2020	03/30/2020 16:05	Elliott D. Healy	04/03/2020 19:17	Justin Cutchin	2166311
	03/18/2020	03/30/2020 16:05	Elliott D. Healy	04/03/2020 19:24	Justin Cutchin	2166313
	03/18/2020	03/30/2020 16:05	Elliott D. Healy	04/07/2020 03:12	Alexander Thompson	2166311
	03/18/2020	03/30/2020 16:05	Elliott D. Healy	04/07/2020 03:21	Alexander Thompson	2166313
EPA 300.0 Rev. 2.1	03/18/2020			03/20/2020 07:29	Lipi Saha	2166277
	03/18/2020			03/24/2020 04:01	Elliott Rodriguez	2166268
	03/18/2020			03/24/2020 04:19	Elliott Rodriguez	2166271
	03/18/2020			03/24/2020 19:42	Elliott Rodriguez	2166274
	03/18/2020			03/24/2020 19:54	Elliott Rodriguez	2166280
EPA 350.1 Rev. 2.0	03/18/2020			03/21/2020 16:00	Ping Hua	2166269
	03/18/2020			03/21/2020 16:40	Ping Hua	2166272
	03/18/2020			03/21/2020 16:42	Ping Hua	2166275
	03/18/2020			03/24/2020 16:43	Ping Hua	2166278
	03/18/2020			03/24/2020 16:49	Ping Hua	2166281
EPA 351.2 Rev. 2.0	03/18/2020	03/24/2020 08:00	Sima Feizi	03/25/2020 08:02	Jhamieka S. Greenwood	2166275
	03/18/2020	03/24/2020 08:00	Sima Feizi	03/25/2020 08:10	Jhamieka S. Greenwood	2166269
	03/18/2020	03/24/2020 08:00	Sima Feizi	03/25/2020 08:15	Jhamieka S. Greenwood	2166272
	03/18/2020	03/24/2020 08:00	Sima Feizi	03/25/2020 09:12	Jhamieka S. Greenwood	2166278
	03/18/2020	03/24/2020 08:00	Sima Feizi	03/25/2020 09:14	Jhamieka S. Greenwood	2166281
EPA 353.2 Rev. 2.0	03/18/2020			03/25/2020 10:55	Beverly Y. Sanders	2166272
	03/18/2020			03/26/2020 08:18	Beverly Y. Sanders	2166269
	03/18/2020			03/30/2020 15:51	Lauren Lees	2166278
	03/18/2020			03/30/2020 15:52	Lauren Lees	2166281
	03/18/2020			04/07/2020 16:11	Virginia P. Brown	2166275
EPA 365.1 Rev. 2.0	03/18/2020	03/25/2020 14:20	Lipi Saha	03/30/2020 17:40	Benjamin T. Nordmann	2166269
	03/18/2020	03/25/2020 14:20	Lipi Saha	03/31/2020 17:51	Benjamin T. Nordmann	2166278, 2166281
	03/18/2020	03/26/2020 12:10	Lipi Saha	03/27/2020 08:20	Lipi Saha	2166272
	03/18/2020	03/26/2020 12:10	Lipi Saha	03/27/2020 10:04	Lipi Saha	2166275
EPA 365.1 Rev. 2.0 dissolved	03/18/2020			03/18/2020 14:42	Carlos Miranda	2166270
	03/18/2020			03/18/2020 14:48	Carlos Miranda	2166273, 2166276
	03/18/2020			03/18/2020 15:02	Carlos Miranda	2166279
	03/18/2020			03/18/2020 15:03	Carlos Miranda	2166282
EPA 8270E	03/18/2020	03/27/2020 08:00	Fe-Val Siddell	04/02/2020 21:03	Arthur Maknenko	2166302

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8276	03/18/2020	03/23/2020 08:00	Fe-Val Siddell	03/27/2020 10:21	Arthur Maknenko	2166301
EPA 8321B	03/18/2020	03/18/2020 14:00	Mohammad Ghaffari	03/18/2020 19:35	Mohammad Ghaffari	2166308
	03/18/2020	03/18/2020 14:00	Mohammad Ghaffari	03/18/2020 19:46	Mohammad Ghaffari	2166309
	03/18/2020	03/18/2020 14:00	Mohammad Ghaffari	03/18/2020 20:10	Mohammad Ghaffari	2166310
	03/18/2020	03/18/2020 14:00	Mohammad Ghaffari	03/20/2020 21:28	Mohammad Ghaffari	2166308
	03/18/2020	03/18/2020 14:00	Mohammad Ghaffari	03/20/2020 21:39	Mohammad Ghaffari	2166309
	03/18/2020	03/18/2020 14:00	Mohammad Ghaffari	03/20/2020 21:50	Mohammad Ghaffari	2166310
	03/18/2020	03/18/2020 14:00	Mohammad Ghaffari	03/22/2020 21:07	Mohammad Ghaffari	2166308
	03/18/2020	03/18/2020 14:00	Mohammad Ghaffari	03/22/2020 21:22	Mohammad Ghaffari	2166309
	03/18/2020	03/18/2020 14:00	Mohammad Ghaffari	03/22/2020 21:37	Mohammad Ghaffari	2166310
	03/18/2020	03/19/2020 10:00	Hoor Shaik	03/21/2020 19:02	Juyoung Kim	2166308
	03/18/2020	03/19/2020 10:00	Hoor Shaik	03/21/2020 19:36	Juyoung Kim	2166309
	03/18/2020	03/19/2020 10:00	Hoor Shaik	03/21/2020 20:11	Juyoung Kim	2166310
	03/18/2020	03/19/2020 10:00	Hoor Shaik	03/25/2020 22:14	Mohammad Ghaffari	2166310
SM 2120 B-2011	03/18/2020			03/18/2020 18:01	Madeline Gruver	2166274, 2166277
	03/18/2020			03/18/2020 18:02	Madeline Gruver	2166280
SM 2320 B-2011	03/18/2020			03/20/2020 14:44	Dale L. Simmons	2166271
	03/18/2020			03/20/2020 14:54	Dale L. Simmons	2166274
	03/18/2020			03/27/2020 07:54	Dale L. Simmons	2166280
	03/18/2020			03/27/2020 08:14	Dale L. Simmons	2166268
	03/18/2020			03/27/2020 09:35	Dale L. Simmons	2166277
SM 2340B	03/18/2020			03/26/2020 22:21	Vijayalakshmi Reddy	2166312
	03/18/2020			03/27/2020 15:01	Vijayalakshmi Reddy	2166313
SM 2540 C-2011	03/18/2020			03/20/2020 15:21	Yijie Li	2166274, 2166277, 2166280
SM 2540 D-2011	03/18/2020			03/20/2020 15:21	Yijie Li	2166268, 2166271, 2166274, 2166277, 2166280
SM 4500 F-C-2011	03/18/2020			03/25/2020 03:40	Dale L. Simmons	2166274
	03/18/2020			03/25/2020 14:36	Dale L. Simmons	2166271
	03/18/2020			03/28/2020 00:07	Dale L. Simmons	2166277
	03/18/2020			03/28/2020 00:28	Dale L. Simmons	2166280
	03/18/2020			03/28/2020 00:38	Dale L. Simmons	2166268
SM 5310 B-2011	03/18/2020			03/20/2020 00:29	Lauren Lees	2166269
	03/18/2020			03/20/2020 00:41	Lauren Lees	2166275
	03/18/2020			03/20/2020 00:56	Lauren Lees	2166278
	03/18/2020			03/20/2020 01:10	Lauren Lees	2166281
	03/18/2020			03/20/2020 06:29	Lauren Lees	2166272