

Chemical Analysis Report

NE-DIST-2019-11-15-01

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

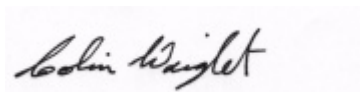
Event Description: **LSJR Downtown**
Request ID: **RQ-2019-11-11-18**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 13-DEC-2019 11:27

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular 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: Blockhouse at Broward Rd.

Collection Date/Time: 11/14/2019 13:00

Field ID: G2NE1180

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2136468	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P374350	
	EPA 300.0	Bromide	28		mg Br/L	P375025	
	SM 2320 B-97	Total Alkalinity	99		mg CaCO3/L	P374662	
	SM 2540 D-97	TSS	5	I	mg/L	P374858	
	SM 4500 F-C-97	Fluoride	0.58		mg F/L	P374664	
2136469	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P374460	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P374616	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.072		mg N/L	P374569	
	EPA 365.1 Rev. 2.0	Total-P	0.095		mg P/L	P374587	
	SM 5310 B-00	Organic Carbon	9.5		mg C/L	P374644	
2136470	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.068		mg P/L	P374380	
2136495	EPA 8321B	Aldicarb	0.020	U	ug/L	P374481	
		Aldicarb Sulfone	0.0020	U	ug/L	P374481	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P374481	
		Carbaryl	0.0020	U	ug/L	P374481	
		Carbofuran	0.0020	U	ug/L	P374481	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P374481	
		Methiocarb	0.0020	U	ug/L	P374481	
		Methomyl	0.0020	U	ug/L	P374481	
		Oxamyl	0.0020	U	ug/L	P374481	
		Propoxur	0.0020	U	ug/L	P374481	
		2,4-D	0.0080	I	ug/L	P374219	
		Acesulfame K**	1.0	U	ug/L	P374431	
		AMPA**	1.0	U	ug/L	P374431	
2136496		Sucralose**	0.20		ug/L	P374431	MS
		Acetaminophen**	0.0080	U	ug/L	P374219	
		Acetamiprid**	0.0020	U	ug/L	P374219	
		Endothal**	2.5	U	ug/L	P374431	
		Glufosinate**	1.0	U	ug/L	P374431	
		Glyphosate**	1.0	U	ug/L	P374431	
		Afidopyropen**	0.0020	UJ	ug/L	P374219	
		Bentazon	0.0043		ug/L	P374219	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374219	
		Carbamazepine**	8.0E-04	U	ug/L	P374219	
		Clothianidin**	0.0020	U	ug/L	P374219	
		Dinotefuran**	0.0020	U	ug/L	P374219	
		Diuron	0.087		ug/L	P374219	
		Fenuron	0.016	U	ug/L	P374219	
		Fluridone**	0.0035		ug/L	P374219	
		Imazapyr**	0.052		ug/L	P374219	
		Hydrocodone**	0.0020	U	ug/L	P374219	
		Ibuprofen**	0.020	U	ug/L	P374219	
		Imidacloprid	0.0048	I	ug/L	P374219	

Field ID: G2NE1180

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2136496	EPA 8321B	Linuron	0.0040	U	ug/L	P374219	
		Mandestrobin**	0.0020	UJ	ug/L	P374219	
		MCP	0.0037	I	ug/L	P374219	
		Naproxen**	0.0080	U	ug/L	P374219	
		Primidone**	0.0040	U	ug/L	P374219	
		Pyraclostrobin**	0.0020	U	ug/L	P374219	
		Thiamethoxam**	0.0020	U	ug/L	P374219	
		Tolfenpyrad**	0.0020	U	ug/L	P374219	
		Triclopyr**	0.0040	U	ug/L	P374219	
2136498	EPA 8270E	Aldrin	4.1	U	ng/L	P374373	
		Alpha-BHC	2.1	U	ng/L	P374373	
		Alpha-Chlordane	1.0	U	ng/L	P374373	
		Beta-BHC	10	U	ng/L	P374373	
		Bifenthrin**	4.1	U	ng/L	P374373	
		Delta-BHC	8.3	U	ng/L	P374373	
		Gamma-BHC	8.3	U	ng/L	P374373	
		Carbophenothion	10	U	ng/L	P374373	
		Chlorothalonil	2.1	U	ng/L	P374373	
		Cis-Nonachlor**	1.0	U	ng/L	P374373	
		Cypermethrin	21	U	ng/L	P374373	
		DDD-p,p'	6.2	U	ng/L	P374373	
		DDE-p,p'	6.2	U	ng/L	P374373	
		DDT-p,p'	7.2	U	ng/L	P374373	
		Dicofol	31	U	ng/L	P374373	
		Dieldrin	4.1	U	ng/L	P374373	
		Endosulfan I	4.1	U	ng/L	P374373	
		Endosulfan II	4.1	U	ng/L	P374373	
		Endosulfan Sulfate	2.1	U	ng/L	P374373	
		Endrin	2.1	U	ng/L	P374373	
		Endrin Aldehyde	2.1	U	ng/L	P374373	
		Endrin Ketone	2.1	U	ng/L	P374373	
		Ethalfuralin**	3.1	U	ng/L	P374373	
		Gamma-Chlordane	1.0	U	ng/L	P374373	
		Heptachlor	1.5	U	ng/L	P374373	
		Heptachlor Epoxide	2.1	U	ng/L	P374373	
		Hexachlorobenzene	2.1	U	ng/L	P374373	
		Methoxychlor	4.1	U	ng/L	P374373	
		Mirex	2.1	U	ng/L	P374373	
		Permethrin	10	U	ng/L	P374373	
		Trans-Nonachlor**	1.0	U	ng/L	P374373	
		Trifluralin	2.6	U	ng/L	P374373	
	EPA 8276	Chlordane	5.9	I	ng/L	P374373	
		Toxaphene	31	U	ng/L	P374373	
2136499	EPA 8270E	Acetochlor	0.24	U	ng/L	P374273	
		Alachlor	0.24	U	ng/L	P374273	

Field ID: G2NE1180

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2136499	EPA 8270E	Ametryn	0.57	U	ng/L	P374273	
		Atrazine	15		ng/L	P374273	
		Atrazine Desethyl	1.4	UJ	ng/L	P374273	RPD
		Azinphos Methyl	4.8	U	ng/L	P374273	
		Bromacil	0.48	U	ng/L	P374273	
		Butylate	0.38	U	ng/L	P374273	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P374273	
		Chlorpyrifos Methyl	0.095	U	ng/L	P374273	
		Cyanazine	3.1	UJ	ng/L	P374273	RPD
		Demeton	6.7	U	ng/L	P374273	
		Diazinon	0.12	U	ng/L	P374273	
		Dimethenamid**	0.095	U	ng/L	P374273	
		Disulfoton	0.48	U	ng/L	P374273	
		Dithiopyr**	0.15	IQ	ng/L	P374719	
		EPTC	1.2	U	ng/L	P374273	
		Ethion	0.14	U	ng/L	P374273	
		Ethoprop	0.095	UJ	ng/L	P374273	RPD
		Fenamiphos	0.48	U	ng/L	P374273	
		Fipronil	0.24	U	ng/L	P374273	
		Fipronil Desulfinyl**	0.18	I	ng/L	P374273	
		Fipronil Sulfide	0.20	I	ng/L	P374273	
		Fipronil Sulfone	0.33	I	ng/L	P374273	
		Fonofos	0.19	U	ng/L	P374273	
		Hexazinone	0.48	U	ng/L	P374273	
		Malathion	0.33	U	ng/L	P374273	RPD
		Metalaxyl	0.29	U	ng/L	P374273	
		Metolachlor	2.3		ng/L	P374273	
		Metribuzin	3.7	J	ng/L	P374273	RPD
		Mevinphos	0.48	UJ	ng/L	P374273	RPD
		Molinate	0.29	U	ng/L	P374273	
		Norflurazon	0.48	U	ng/L	P374273	
		Oxadiazon**	0.83		ng/L	P374273	MS
		Parathion Ethyl	0.24	U	ng/L	P374273	
		Parathion Methyl	0.52	UJ	ng/L	P374273	LCS
		Pendimethalin	0.95	U	ng/L	P374273	
		Phorate	0.24	U	ng/L	P374273	
		Prodiamine**	1.3		ng/L	P374273	
		Prometon	0.86	U	ng/L	P374273	
		Prometryn	0.19	U	ng/L	P374273	
		Simazine	5.8		ng/L	P374273	
		Tebuconazole**	0.48	UJ	ng/L	P374273	RPD
		Terbufos	0.095	U	ng/L	P374273	
		Terbutylazine	0.40	U	ng/L	P374273	
2136500	EPA 200.7 Rev. 4.4	Iron	90	U	ug/L	P374611	
		Manganese	8.6	I	ug/L	P374611	

Field ID: G2NE1180

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2136500	EPA 200.7 Rev. 4.4	Zinc	15	U	ug/L	P374611	
	EPA 200.8 Rev. 5.4	Aluminum	133		ug/L	P374611	
		Antimony	0.20	U	ug/L	P374611	
		Arsenic	1.57		ug/L	P374611	
		Cadmium	0.080	U	ug/L	P374611	
		Chromium	4.0	U	ug/L	P374611	
		Copper	2.9	I	ug/L	P374611	
		Lead	0.80	U	ug/L	P374611	
		Nickel	2.0	U	ug/L	P374611	
		Selenium	0.80	U	ug/L	P374611	
		Silver	0.040	U	ug/L	P374611	
		Thallium	0.40	U	ug/L	P374611	

Ref. Method and Comment:

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

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8321B: MDL elevated due to matrix interference.

EPA 8270E: MS accuracy for some components not assessed due to high content of these parameters in the sample spiked. Sample expired for preparation for dithiopyr due to re-extraction. The re-extraction was needed due to the Method Blank contamination for that analyte in the original extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Blockhouse 100m abv Irma Rd.

Collection Date/Time: 11/14/2019 10:30

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2136477	EPA 180.1 Rev. 2.0	Turbidity	9.7		NTU	P374351	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P374401	
		Sulfate	14		mg SO4/L	P374404	
	SM 2120 B	Color (true)	57		PCU	P374313	
	SM 2320 B-97	Total Alkalinity	62		mg CaCO3/L	P374661	
	SM 2540 C-97	TDS	168	A	mg/L	P374862	
	SM 2540 D-97	TSS	3	IA	mg/L	P374854	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P374663	
2136478	EPA 350.1 Rev. 2.0	Ammonia-N	0.16		mg N/L	P374676	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P374618	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P374476	
	EPA 365.1 Rev. 2.0	Total-P	0.078		mg P/L	P374586	
	SM 5310 B-00	Organic Carbon	8.1		mg C/L	P374428	
2136479	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.036		mg P/L	P374379	
2136497	EPA 8321B	2,4-D	0.043		ug/L	P374219	
		Acesulfame K**	0.51		ug/L	P374431	
		AMPA**	0.10	U	ug/L	P374431	
		Sucralose**	0.26	J	ug/L	P374431	MS
		Acetaminophen**	0.0080	U	ug/L	P374219	
		Acetamiprid**	0.0020	U	ug/L	P374219	
		Endothall**	0.25	U	ug/L	P374431	
		Glufosinate**	0.10	U	ug/L	P374431	
		Glyphosate**	0.10	U	ug/L	P374431	
		Afidopyropen**	0.0020	UJ	ug/L	P374219	
		Bentazon	0.015		ug/L	P374219	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374219	
		Carbamazepine**	0.0028	I	ug/L	P374219	
		Clothianidin**	0.0035	I	ug/L	P374219	
		Dinotefuran**	0.0020	U	ug/L	P374219	
		Diuron	0.0020	U	ug/L	P374219	
		Fenuron	0.016	U	ug/L	P374219	
		Fluridone**	8.0E-04	U	ug/L	P374219	
		Imazapyr**	0.25		ug/L	P374219	
		Hydrocodone**	0.0020	U	ug/L	P374219	
		Ibuprofen**	0.020	U	ug/L	P374219	
		Imidacloprid	0.021		ug/L	P374219	
		Linuron	0.0040	U	ug/L	P374219	
		Mandestrobin**	0.0020	UJ	ug/L	P374219	
		MCP	0.037		ug/L	P374219	
		Naproxen**	0.0080	U	ug/L	P374219	
		Primidone**	0.0040	U	ug/L	P374219	
		Pyraclostrobin**	0.0020	U	ug/L	P374219	
		Thiamethoxam**	0.0020	U	ug/L	P374219	

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2136497	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P374219	
		Triclopyr**	0.0040	U	ug/L	P374219	
2136503	EPA 200.7 Rev. 4.4	Barium	49.2		ug/L	P374364	
		Calcium	23.9		mg/L	P374364	
		Iron	1.58E+03		ug/L	P374364	
		Magnesium	5.39		mg/L	P374364	
		Potassium	2.3		mg/L	P374364	
		Sodium	23.7		mg/L	P374364	
		Zinc	5.0	U	ug/L	P374364	
	EPA 200.8 Rev. 5.4	Aluminum	102		ug/L	P374364	
		Antimony	0.051	I	ug/L	P374364	
		Arsenic	0.60		ug/L	P374364	
		Boron**	38.0		ug/L	P374364	
		Cadmium	0.020	U	ug/L	P374364	
		Chromium	0.47	I	ug/L	P374364	
		Copper	0.40	U	ug/L	P374364	
		Lead	0.20	U	ug/L	P374364	
		Nickel	0.50	U	ug/L	P374364	
		Selenium	0.20	U	ug/L	P374364	
		Silver	0.010	U	ug/L	P374364	
		Thallium	0.10	U	ug/L	P374364	

Ref. Method and Comment:

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

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Long Br at Evergreen Ave.

Collection Date/Time: 11/14/2019 13:55

Field ID: G2NE0735

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2136480	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P374350	
	EPA 300.0	Bromide	1.7		mg Br/L	P375025	
	SM 2320 B-97	Total Alkalinity	120		mg CaCO3/L	P374662	
	SM 2540 D-97	TSS	4	I	mg/L	P374858	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P374904	
2136481	EPA 350.1 Rev. 2.0	Ammonia-N	0.083		mg N/L	P374461	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33	I	mg N/L	P374616	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P374569	
	EPA 365.1 Rev. 2.0	Total-P	0.081		mg P/L	P374587	
	SM 5310 B-00	Organic Carbon	6.3		mg C/L	P374644	
2136482	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P374380	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The sample was processed according to the field conductivity. The laboratory conductivity is 2110 umhos/cm.

EPA 351.2 Rev. 2.0: PQL elevated because of sample being processed according to the field conductivity. The laboratory conductivity is 2110 umhos/cm.

Sample Location: Trout River at Garden St.

Collection Date/Time: 11/14/2019 09:45

Field ID: 20030751

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2136471	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P374351	
	EPA 300.0 Rev. 2.1	Chloride	20	A	mg Cl/L	P374401	
		Sulfate	12	A	mg SO4/L	P374404	
	SM 2120 B	Color (true)	69		PCU	P374313	
	SM 2320 B-97	Total Alkalinity	18		mg CaCO3/L	P374661	
	SM 2540 C-97	TDS	91		mg/L	P374862	
	SM 2540 D-97	TSS	2	I	mg/L	P374854	
	SM 4500 F-C-97	Fluoride	0.040	I	mg F/L	P374663	
2136473	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P374465	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31		mg N/L	P374618	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.060		mg N/L	P374475	
	EPA 365.1 Rev. 2.0	Total-P	0.032		mg P/L	P374586	
	SM 5310 B-00	Organic Carbon	8.6		mg C/L	P374428	
2136475	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.021		mg P/L	P374378	
2136501	EPA 200.7 Rev. 4.4	Barium	34.9		ug/L	P374364	
		Calcium	9.54		mg/L	P374364	
		Iron	340		ug/L	P374364	
		Magnesium	3.10		mg/L	P374364	
		Potassium	1.5		mg/L	P374364	
		Sodium	12.4		mg/L	P374364	
		Zinc	5.0	U	ug/L	P374364	
	EPA 200.8 Rev. 5.4	Aluminum	164		ug/L	P374364	
		Antimony	0.050	U	ug/L	P374364	
		Arsenic	0.25		ug/L	P374364	
		Boron**	26.6		ug/L	P374364	
		Cadmium	0.020	U	ug/L	P374364	
		Chromium	0.40	U	ug/L	P374364	
		Copper	0.40	U	ug/L	P374364	
		Lead	0.20	U	ug/L	P374364	
		Nickel	0.50	U	ug/L	P374364	
		Selenium	0.20	U	ug/L	P374364	
		Silver	0.010	U	ug/L	P374364	
		Thallium	0.10	U	ug/L	P374364	

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: McGirts Creek at Old Plank Road

Collection Date/Time: 11/14/2019 09:00

Field ID: 20030346

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2136472	EPA 180.1 Rev. 2.0	Turbidity	5.5		NTU	P374351	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P374401	
		Sulfate	17		mg SO4/L	P374404	
	SM 2120 B	Color (true)	6.4	A	PCU	P374313	
	SM 2320 B-97	Total Alkalinity	2.1	I	mg CaCO3/L	P374661	
	SM 2540 C-97	TDS	68		mg/L	P374862	
	SM 2540 D-97	TSS	4	I	mg/L	P374854	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P374663	
2136474	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P374465	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P374618	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.021		mg N/L	P374475	
	EPA 365.1 Rev. 2.0	Total-P	0.01		mg P/L	P374586	
	SM 5310 B-00	Organic Carbon	4.7		mg C/L	P374428	
2136476	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P374378	
2136502	EPA 200.7 Rev. 4.4	Barium	32.9		ug/L	P374364	
		Calcium	6.76		mg/L	P374364	
		Iron	310		ug/L	P374364	
		Magnesium	1.76		mg/L	P374364	
		Potassium	0.56	I	mg/L	P374364	
		Sodium	10.2		mg/L	P374364	
		Zinc	5.0	U	ug/L	P374364	
		Aluminum	462		ug/L	P374364	
		Antimony	0.050	U	ug/L	P374364	
		Arsenic	0.29		ug/L	P374364	
	EPA 200.8 Rev. 5.4	Boron**	15.8		ug/L	P374364	
		Cadmium	0.045	I	ug/L	P374364	
		Chromium	0.40	U	ug/L	P374364	
		Copper	0.40	U	ug/L	P374364	
		Lead	0.20	U	ug/L	P374364	
		Nickel	2.2		ug/L	P374364	
		Selenium	0.20	U	ug/L	P374364	
		Silver	0.010	U	ug/L	P374364	
		Thallium	0.10	U	ug/L	P374364	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374350

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374351

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374364

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: P374611

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374364

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: P374611

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374611

Component	Result	Code	Units
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0
Batch ID: P375025

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374401

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374404

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374460

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374461

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374465

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374676

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374616

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374618

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374475

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374476

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374569

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P374586

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P374587

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374378

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374379

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374380

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

Reference Method: EPA 8270E
Batch ID: P374273

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
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
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P374373

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	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	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
Methoxychlor	4.0	U	ng/L
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: P374719

Component	Result	Code	Units
Dithiopyr	0.10	U	ng/L

Reference Method: EPA 8276
Batch ID: P374373

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

Reference Method: EPA 8321B
Batch ID: P374219

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P374219

Component	Result	Code	Units
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: P374431

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: EPA 8321B
Batch ID: P374481

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P374313

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P374661

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

Reference Method: SM 2320 B-97
Batch ID: P374662

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

Reference Method: SM 2540 C-97
Batch ID: P374862

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P374854

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P374858

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P374663

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P374664

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P374904

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P374428

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

Reference Method: SM 5310 B-00
Batch ID: P374644

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: P374364

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	99.4		P	85 - 115
Calcium	102		P	85 - 115
Iron	101		P	85 - 115
Magnesium	110		P	85 - 115
Potassium	103		P	85 - 115
Sodium	101		P	85 - 115
Zinc	96.5		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374611

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	105		P	85 - 115
Manganese	101		P	85 - 115
Zinc	99.2		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374364

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	94.6		P	85 - 115
Antimony	100		P	85 - 115
Arsenic	96.1		P	85 - 115
Boron	101		P	85 - 115
Cadmium	91.4		P	85 - 115
Chromium	94.0		P	85 - 115
Copper	100		P	85 - 115
Lead	93.0		P	85 - 115
Nickel	98.2		P	85 - 115
Selenium	87.8		P	85 - 115
Silver	97.8		P	85 - 115
Thallium	97.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374611

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	100		P	85 - 115
Cadmium	98.1		P	85 - 115
Chromium	91.9		P	85 - 115
Copper	99.2		P	85 - 115
Lead	103		P	85 - 115
Nickel	99.9		P	85 - 115
Selenium	89.4		P	85 - 115
Silver	104		P	85 - 115
Thallium	108		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0
Batch ID: P375025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	96.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374401

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374404

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374461

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374465

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374676

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.3		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374616

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374618

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 353.2 Rev. 2.0
Batch ID: P374475

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374476

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374569

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: P374586

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P374587

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: P374378

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374379

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374380

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

Reference Method: EPA 8270E
Batch ID: P374273

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	101	97.3	P/P	69 - 122
Alachlor	104	102	P/P	71 - 120
Ametryn	101	93.0	P/P	47 - 138
Atrazine	101	118	P/P	74 - 124

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P374273

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Atrazine Desethyl	76.8	116	P/P	38 - 138
Azinphos Methyl	102	102	P/P	69 - 154
Bromacil	89.3	89.3	P/P	39 - 121
Butylate	52.6	65.7	P/P	27 - 87.0
Chlorpyrifos Ethyl	97.2	103	P/P	69 - 118
Chlorpyrifos Methyl	95.5	110	P/P	70 - 120
Cyanazine	92.7	178	P/P	20 - 250
Demeton	81.4	102	P/P	39 - 118
Diazinon	98.8	110	P/P	68 - 127
Dimethenamid	98.9	92.1	P/P	66 - 125
Disulfoton	95.6	121	P/P	52 - 126
EPTC	54.0	69.1	P/P	24 - 88.0
Ethion	105	103	P/P	51 - 132
Ethoprop	81.1	115	P/P	58 - 117
Fenamiphos	109	85.4	P/P	38 - 139
Fipronil	106	93.6	P/P	61 - 124
Fipronil Desulfinyl	110	110	P/P	47 - 120
Fipronil Sulfide	95.9	95.6	P/P	56 - 119
Fipronil Sulfone	92.8	82.6	P/P	50 - 117
Fonofos	85.5	113	P/P	60 - 121
Hexazinone	111	112	P/P	55 - 137
Malathion	106	101	P/P	66 - 126
Metalaxyl	101	98.6	P/P	33 - 140
Metolachlor	102	97.5	P/P	69 - 119
Metribuzin	98.6	228	P/P	31 - 238
Mevinphos	53.7	78.3	P/P	42 - 113
Molinate	59.9	81.1	P/P	32 - 96.0
Norflurazon	112	102	P/P	54 - 123
Oxadiazon	97.2	92.3	P/P	63 - 128
Parathion Ethyl	95.8	110	P/P	72 - 111
Parathion Methyl	104	129	P/F	74 - 126
Pendimethalin	102	105	P/P	61 - 131
Phorate	85.3	110	P/P	51 - 115
Prodiamine	108	98.3	P/P	38 - 144
Prometon	104	92.5	P/P	54 - 119
Prometryn	106	102	P/P	63 - 120
Simazine	101	126	P/P	75 - 126
Tebuconazole	75.7	28.7	P/P	20 - 119
Terbufos	88.9	116	P/P	64 - 116
Terbuthylazine	98.1	107	P/P	73 - 117

Reference Method: EPA 8270E
Batch ID: P374373

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	50.6	48.7	P/P	20 - 93.0
Alpha-BHC	86.1	88.6	P/P	55 - 133
Alpha-Chlordane	77.5	78.5	P/P	58 - 112
Beta-BHC	91.6	90.9	P/P	54 - 168
Bifenthrin	84.5	83.9	P/P	30 - 134
Carbophenothion	83.9	84.9	P/P	26 - 147
Chlorothalonil	65.6	64.6	P/P	20 - 155

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P374373

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cis-Nonachlor	79.8	79.8	P/P	54 - 115
Cypermethrin	89.3	87.5	P/P	40 - 137
DDD-p,p'	79.3	81.5	P/P	65 - 129
DDE-p,p'	84.1	81.4	P/P	57 - 116
DDT-p,p'	81.6	82.7	P/P	53 - 133
Delta-BHC	98.1	101	P/P	59 - 178
Dicofol	101	100	P/P	24 - 138
Dieldrin	83.3	82.2	P/P	60 - 120
Endosulfan I	79.1	82.3	P/P	64 - 118
Endosulfan II	81.4	82.0	P/P	58 - 142
Endosulfan Sulfate	83.2	81.7	P/P	60 - 127
Endrin	82.4	82.1	P/P	59 - 122
Endrin Aldehyde	83.6	84.4	P/P	49 - 132
Endrin Ketone	85.9	85.8	P/P	64 - 121
Ethalfuralin	86.9	90.9	P/P	60 - 126
Gamma-BHC	91.6	90.2	P/P	57 - 154
Gamma-Chlordane	74.8	75.2	P/P	56 - 110
Heptachlor	74.2	72.9	P/P	46 - 96.0
Heptachlor Epoxide	79.4	78.9	P/P	61 - 112
Hexachlorobenzene	85.2	84.2	P/P	44 - 98.0
Methoxychlor	91.8	91.6	P/P	63 - 134
Mirex	79.9	78.6	P/P	45 - 100
Permethrin	82.5	81.5	P/P	53 - 115
Trans-Nonachlor	79.1	78.9	P/P	47 - 110
Trifluralin	87.7	87.8	P/P	39 - 142

Reference Method: EPA 8270E
Batch ID: P374719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dithiopyr	80.7	83.9	P/P	67 - 127

Reference Method: EPA 8276
Batch ID: P374373

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	96.0	97.3	P/P	43 - 128
Toxaphene	81.1	80.8	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P374219

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	111		P	40 - 160
Acetaminophen	84.7		P	30 - 160
Acetamiprid	100		P	40 - 160
Afidopyropen	89.8		P	40 - 160
Bentazon	82.3		P	30 - 160
Benzovindiflupyr	83.2		P	40 - 160
Carbamazepine	112		P	40 - 160
Clothianidin	83.9		P	40 - 160
Dinotefuran	83.6		P	40 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P374219

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diuron	85.9		P	40 - 160
Fenuron	110		P	40 - 160
Fluridone	97.7		P	40 - 160
Hydrocodone	102		P	40 - 160
Ibuprofen	75.0		P	30 - 160
Imazapyr	77.4		P	40 - 160
Imidacloprid	111		P	40 - 160
Linuron	71.3		P	40 - 160
Mandestrobin	91.9		P	40 - 160
MCPP	106		P	40 - 160
Naproxen	99.8		P	40 - 160
Primidone	84.8		P	40 - 160
Pyraclostrobin	80.0		P	30 - 160
Thiamethoxam	103		P	40 - 160
Tolfenpyrad	51.7		P	40 - 160
Triclopyr	88.1		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P374431

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.8		P	40 - 150
AMPA	144		P	40 - 150
Endothall	97.7		P	40 - 150
Glufosinate	98.8		P	40 - 150
Glyphosate	117		P	40 - 140
Sucralose	123		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P374481

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	84.3		P	40 - 160
Aldicarb	64.4		P	30 - 160
Aldicarb Sulfone	87.2		P	40 - 160
Aldicarb Sulfoxide	85.0		P	40 - 160
Carbaryl	82.6		P	40 - 160
Carbofuran	81.0		P	40 - 160
Methiocarb	76.9		P	40 - 160
Methomyl	81.1		P	40 - 160
Oxamyl	91.8		P	40 - 160
Propoxur	76.9		P	40 - 160

Reference Method: SM 2120 B
Batch ID: P374313

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.0		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P374661

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 106

Reference Method: SM 2320 B-97
Batch ID: P374662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P374663

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P374664

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P374904

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P374428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	103		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P374644

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	106		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136241	Barium	98.5		P	80 - 120
2136241	Calcium	98.2		P	80 - 120
2136241	Iron	105		P	80 - 120
2136241	Magnesium	111		P	80 - 120
2136241	Potassium	112		P	80 - 120
2136241	Sodium	105		P	80 - 120
2136241	Zinc	95.5		P	80 - 120
2136502	Barium	96.9	96.2	P/P	80 - 120
2136502	Calcium	102		P	80 - 120
2136502	Iron	105	104	P/P	80 - 120
2136502	Magnesium	111	108	P/P	80 - 120
2136502	Potassium	101	100	P/P	80 - 120
2136502	Sodium	99.7		P	80 - 120
2136502	Zinc	96.3	95.2	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374611

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137699	Iron	101	102	P/P	70 - 130
2137699	Manganese	97.0	97.1	P/P	70 - 130
2137699	Zinc	104	104	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136241	Aluminum	94.2		P	80 - 120
2136241	Antimony	102		P	80 - 120
2136241	Arsenic	93.7		P	80 - 120
2136241	Boron	99.1		P	80 - 120
2136241	Cadmium	92.8		P	80 - 120
2136241	Chromium	92.0		P	80 - 120
2136241	Copper	97.5		P	80 - 120
2136241	Lead	90.9		P	80 - 120
2136241	Nickel	96.3		P	80 - 120
2136241	Selenium	84.8		P	80 - 120
2136241	Silver	99.5		P	80 - 120
2136241	Thallium	98.0		P	80 - 120
2136502	Aluminum	97.5	97.2	P/P	80 - 120
2136502	Antimony	103	101	P/P	80 - 120
2136502	Arsenic	97.1	95.3	P/P	80 - 120
2136502	Boron	105	104	P/P	80 - 120
2136502	Cadmium	95.6	95.2	P/P	80 - 120
2136502	Chromium	97.0	95.5	P/P	80 - 120
2136502	Copper	101	102	P/P	80 - 120
2136502	Lead	95.8	94.2	P/P	80 - 120
2136502	Nickel	97.8	99.3	P/P	80 - 120
2136502	Selenium	84.3	86.4	P/P	80 - 120
2136502	Silver	99.8	100	P/P	80 - 120
2136502	Thallium	101	103	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374611

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137699	Aluminum	121	124	P/P	70 - 130
2137699	Antimony	102	102	P/P	70 - 130
2137699	Arsenic	109	110	P/P	70 - 130
2137699	Cadmium	90.6	91.8	P/P	70 - 130
2137699	Chromium	88.1	89.2	P/P	70 - 130
2137699	Copper	94.3	97.1	P/P	70 - 130
2137699	Lead	107	107	P/P	70 - 130
2137699	Nickel	92.5	94.6	P/P	70 - 130
2137699	Selenium	91.8	92.1	P/P	70 - 130
2137699	Silver	94.7	95.3	P/P	70 - 130
2137699	Thallium	111	112	P/P	70 - 130

Reference Method: EPA 300.0
Batch ID: P375025

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136213	Bromide	92.6	93.5	P/P	90 - 110
2136214	Bromide	92.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374401

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136471	Chloride	99.8		P	90 - 110
2136626	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374404

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136471	Sulfate	100		P	90 - 110
2136626	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136144	Ammonia-N	104	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374461

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136609	Ammonia-N	102	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374465

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136452	Ammonia-N	99.8	95.3	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374676

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136430	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374616

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136481	Kjeldahl Nitrogen	93.2	98.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136474	Kjeldahl Nitrogen	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374475

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136430	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374476

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136478	NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374569

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136469	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P374586

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136455	Total-P	102	99.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P374587

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136469	Total-P	100	96.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374378

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136434	O-Phosphate-P	96.1	98.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374379

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136479	O-Phosphate-P	95.2	96.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136613	O-Phosphate-P	93.6	96.0	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P374273

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2135974	Acetochlor	97.4	92.8	P/P	63 - 129
2135974	Alachlor	104	94.3	P/P	65 - 127
2135974	Ametryn	98.3	89.7	P/P	40 - 164
2135974	Atrazine	107	110	P/P	66 - 135
2135974	Atrazine Desethyl	61.3	83.8	P/P	14 - 157
2135974	Azinphos Methyl	89.1	75.3	P/P	49 - 180
2135974	Butylate	54.2	64.5	P/P	10 - 94.0
2135974	Chlorpyrifos Ethyl	88.9	93.6	P/P	58 - 123
2135974	Chlorpyrifos Methyl	95.8	103	P/P	58 - 125
2135974	Cyanazine	80.3	132	P/P	24 - 253
2135974	Demeton	82.6	95.6	P/P	25 - 149
2135974	Diazinon	103	102	P/P	59 - 144
2135974	Dimethenamid	97.0	87.5	P/P	46 - 139
2135974	Disulfoton	96.0	110	P/P	54 - 132
2135974	EPTC	52.4	65.6	P/P	10 - 92.0
2135974	Ethion	101	92.8	P/P	30 - 148
2135974	Ethoprop	89.6	107	P/P	50 - 130
2135974	Fenamiphos	86.0	74.4	P/P	49 - 142
2135974	Fipronil	75.1	77.3	P/P	46 - 140
2135974	Fipronil Desulfinyl	80.6	93.9	P/P	30 - 121
2135974	Fipronil Sulfide	71.7	82.7	P/P	31 - 136
2135974	Fipronil Sulfone	49.2	65.3	P/P	16 - 136
2135974	Fonofos	86.8	108	P/P	55 - 129
2135974	Hexazinone	103	107	P/P	56 - 141
2135974	Malathion	102	70.1	P/P	56 - 135
2135974	Metalaxyl	132	106	P/P	54 - 135
2135974	Metribuzin	130	206	P/P	45 - 254
2135974	Mevinphos	68.3	72.9	P/P	33 - 131
2135974	Molinate	67.4	83.5	P/P	14 - 98.0
2135974	Oxadiazon	152	121	F/F	67 - 116
2135974	Parathion Ethyl	95.5	97.5	P/P	66 - 118
2135974	Parathion Methyl	106	114	P/P	64 - 136
2135974	Pendimethalin	101	101	P/P	59 - 144
2135974	Phorate	89.9	96.0	P/P	42 - 130
2135974	Prodiamine	106	94.9	P/P	42 - 148
2135974	Prometon	93.9	85.2	P/P	59 - 134
2135974	Prometryn	100	93.1	P/P	54 - 135
2135974	Simazine	110	115	P/P	53 - 156
2135974	Tebuconazole	72.1	32.6	P/P	10 - 131
2135974	Terbufos	92.3	107	P/P	57 - 131

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
 Batch ID: P374273

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2135974	Terbutylazine	98.0	96.3	P/P	68 - 125

Reference Method: EPA 8270E
 Batch ID: P374373

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136204	Aldrin	48.1	46.4	P/P	25 - 92.0
2136204	Alpha-BHC	92.4	92.9	P/P	48 - 150
2136204	Alpha-Chlordane	75.7	73.9	P/P	50 - 115
2136204	Beta-BHC	96.7	101	P/P	39 - 184
2136204	Bifenthrin	87.6	87.6	P/P	46 - 116
2136204	Carbophenothion	83.8	80.5	P/P	27 - 180
2136204	Chlorothalonil	106	92.5	P/P	10 - 216
2136204	Cis-Nonachlor	77.4	76.1	P/P	55 - 112
2136204	Cypermethrin	90.4	89.5	P/P	40 - 153
2136204	DDD-p,p'	80.2	79.2	P/P	53 - 128
2136204	DDE-p,p'	71.8	70.8	P/P	48 - 116
2136204	DDT-p,p'	67.6	68.2	P/P	47 - 128
2136204	Delta-BHC	116	103	P/P	48 - 221
2136204	Dicofol	94.2	91.8	P/P	10 - 147
2136204	Dieldrin	80.8	76.6	P/P	48 - 128
2136204	Endosulfan I	81.5	80.0	P/P	58 - 126
2136204	Endosulfan II	85.5	81.8	P/P	50 - 150
2136204	Endosulfan Sulfate	94.4	94.5	P/P	56 - 130
2136204	Endrin	77.8	77.9	P/P	50 - 126
2136204	Endrin Aldehyde	79.4	74.5	P/P	12 - 145
2136204	Endrin Ketone	89.5	86.9	P/P	59 - 132
2136204	Ethalfuralin	88.6	88.6	P/P	65 - 122
2136204	Gamma-BHC	98.9	107	P/P	40 - 190
2136204	Gamma-Chlordane	73.0	72.0	P/P	50 - 112
2136204	Heptachlor	74.3	72.1	P/P	41 - 98.0
2136204	Heptachlor Epoxide	78.0	76.7	P/P	55 - 117
2136204	Hexachlorobenzene	84.9	82.2	P/P	47 - 91.0
2136204	Methoxychlor	74.9	75.5	P/P	55 - 133
2136204	Mirex	78.2	77.9	P/P	44 - 101
2136204	Permethrin	81.4	80.5	P/P	52 - 124
2136204	Trans-Nonachlor	77.0	75.4	P/P	53 - 99.0
2136204	Trifluralin	88.4	88.4	P/P	10 - 201

Reference Method: EPA 8270E
 Batch ID: P374719

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137172	Dithiopyr	77.8	80.1	P/P	64 - 130

Reference Method: EPA 8276
 Batch ID: P374373

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136259	Chlordane	99.8	99.5	P/P	34 - 136
2136259	Toxaphene	92.1	88.9	P/P	22 - 152

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P374219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136201	2,4-D	93.1	68.8	P/P	40 - 160
2136201	Acetaminophen	93.7	77.5	P/P	30 - 160
2136201	Acetamiprid	107	98.5	P/P	40 - 160
2136201	Afidopyropen	92.8	85.9	P/P	40 - 160
2136201	Bentazon	47.4	40.4	P/P	30 - 160
2136201	Benzovindiflupyr	86.8	77.6	P/P	40 - 160
2136201	Carbamazepine	98.5	88.7	P/P	40 - 160
2136201	Clothianidin	91.4	76.6	P/P	40 - 160
2136201	Dinotefuran	112	96.9	P/P	40 - 160
2136201	Diuron	73.3	63.5	P/P	40 - 160
2136201	Fenuron	93.7	81.8	P/P	40 - 160
2136201	Fluridone	99.5	88.4	P/P	40 - 160
2136201	Hydrocodone	110	90.2	P/P	40 - 160
2136201	Ibuprofen	68.9	56.5	P/P	30 - 160
2136201	Imazapyr	64.6	50.9	P/P	40 - 160
2136201	Linuron	75.9	69.6	P/P	40 - 160
2136201	Mandestrobin	102	89.4	P/P	40 - 160
2136201	MCP	100	80.2	P/P	40 - 160
2136201	Naproxen	102	87.1	P/P	40 - 160
2136201	Primidone	95.0	74.9	P/P	40 - 160
2136201	Pyraclostrobin	91.4	80.1	P/P	30 - 160
2136201	Thiamethoxam	130	114	P/P	40 - 160
2136201	Tolfenpyrad	68.4	57.9	P/P	40 - 160
2136201	Triclopyr	94.2	77.6	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P374431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136497	Acesulfame K	104	109	P/P	40 - 150
2136497	AMPA	121	120	P/P	40 - 150
2136497	Endothall	90.7	83.8	P/P	40 - 150
2136497	Glufosinate	103	111	P/P	40 - 150
2136497	Glyphosate	101	94.1	P/P	40 - 140
2136497	Sucralose	38.7	48.3	F/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P374481

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136495	3-Hydroxycarbofuran	83.5	78.3	P/P	40 - 160
2136495	Aldicarb	53.2	57.2	P/P	30 - 160
2136495	Aldicarb Sulfone	97.4	96.3	P/P	40 - 160
2136495	Aldicarb Sulfoxide	50.3	47.8	P/P	40 - 160
2136495	Carbaryl	67.7	70.4	P/P	40 - 160
2136495	Carbofuran	69.9	70.0	P/P	40 - 160
2136495	Methiocarb	64.8	65.7	P/P	40 - 160
2136495	Methomyl	65.6	63.8	P/P	40 - 160
2136495	Oxamyl	85.6	84.1	P/P	40 - 160
2136495	Propoxur	67.7	66.0	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P374663

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136533	Fluoride	97.9	98.8	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P374664

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136607	Fluoride	95.1	95.8	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P374904

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137524	Fluoride	98.2	99.5	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P374428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136271	Organic Carbon	103		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P374644

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136609	Organic Carbon	106	103	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P374350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136605	Turbidity	10.5	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P374351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136428	Turbidity	3.76	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P374364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136502	Barium	0.684	Spike	P	0 - 20
2136502	Calcium	0.160	Spike	P	0 - 20
2136502	Iron	1.24	Spike	P	0 - 20
2136502	Magnesium	1.50	Spike	P	0 - 20
2136502	Potassium	0.768	Spike	P	0 - 20
2136502	Sodium	0.639	Spike	P	0 - 20
2136502	Zinc	1.09	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P374611

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137699	Iron	0.849	Spike	P	0 - 20
2137699	Manganese	0.129	Spike	P	0 - 20
2137699	Zinc	0.285	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P374364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136502	Aluminum	0.163	Spike	P	0 - 20
2136502	Antimony	1.67	Spike	P	0 - 20
2136502	Arsenic	1.81	Spike	P	0 - 20
2136502	Boron	0.853	Spike	P	0 - 20
2136502	Cadmium	0.339	Spike	P	0 - 20
2136502	Chromium	1.57	Spike	P	0 - 20
2136502	Copper	1.13	Spike	P	0 - 20
2136502	Lead	1.61	Spike	P	0 - 20
2136502	Nickel	1.33	Spike	P	0 - 20
2136502	Selenium	2.51	Spike	P	0 - 20
2136502	Silver	0.447	Spike	P	0 - 20
2136502	Thallium	1.81	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374611

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137699	Aluminum	2.75	Spike	P	0 - 20
2137699	Antimony	0.439	Spike	P	0 - 20
2137699	Arsenic	1.36	Spike	P	0 - 20
2137699	Cadmium	1.39	Spike	P	0 - 20
2137699	Chromium	1.28	Spike	P	0 - 20
2137699	Copper	3.02	Spike	P	0 - 20
2137699	Lead	0.771	Spike	P	0 - 20
2137699	Nickel	2.22	Spike	P	0 - 20
2137699	Selenium	0.301	Spike	P	0 - 20
2137699	Silver	0.670	Spike	P	0 - 20
2137699	Thallium	0.715	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P375025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136213	Bromide	0.791	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374401

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136471	Chloride	0.0552	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P374404

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136471	Sulfate	0.271	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136144	Ammonia-N	1.44	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374461

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136609	Ammonia-N	0.931	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374465

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136452	Ammonia-N	4.36	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374676

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136430	Ammonia-N	0.981	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136481	Kjeldahl Nitrogen	4.67	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136474	Kjeldahl Nitrogen	1.24	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374475

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136430	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374476

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136478	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136469	NO2NO3-N	0.367	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P374586

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136455	Total-P	2.55	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P374587

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136469	Total-P	3.41	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374378

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136434	O-Phosphate-P	2.37	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136479	O-Phosphate-P	1.06	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136613	O-Phosphate-P	2.53	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P374273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2135974	Acetochlor	4.84	Spike	P	0 - 30
2135974	Alachlor	9.91	Spike	P	0 - 30
2135974	Ametryn	9.16	Spike	P	0 - 30
2135974	Atrazine	2.17	Spike	P	0 - 30
2135974	Atrazine Desethyl	31.1	Spike	F	0 - 30
2135974	Azinphos Methyl	16.8	Spike	P	0 - 30
2135974	Bromacil	5.00	Spike	P	0 - 30
2135974	Butylate	17.3	Spike	P	0 - 30
2135974	Chlorpyrifos Ethyl	5.09	Spike	P	0 - 30
2135974	Chlorpyrifos Methyl	7.27	Spike	P	0 - 30
2135974	Cyanazine	48.5	Spike	F	0 - 30
2135974	Demeton	14.7	Spike	P	0 - 30
2135974	Diazinon	1.06	Spike	P	0 - 30
2135974	Dimethenamid	10.4	Spike	P	0 - 30
2135974	Disulfoton	13.6	Spike	P	0 - 30
2135974	EPTC	22.4	Spike	P	0 - 30
2135974	Ethion	8.49	Spike	P	0 - 30
2135974	Ethoprop	18.0	Spike	P	0 - 30
2135974	Fenamiphos	14.4	Spike	P	0 - 30
2135974	Fipronil	2.83	Spike	P	0 - 30
2135974	Fipronil Desulfinyl	15.2	Spike	P	0 - 30
2135974	Fipronil Sulfide	14.3	Spike	P	0 - 30
2135974	Fipronil Sulfone	28.1	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P374273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2135974	Fonofos	21.7	Spike	P	0 - 30
2135974	Hexazinone	3.89	Spike	P	0 - 30
2135974	Malathion	36.9	Spike	F	0 - 30
2135974	Metalaxyl	11.8	Spike	P	0 - 30
2135974	Metolachlor	8.43	Spike	P	0 - 30
2135974	Metribuzin	45.0	Spike	F	0 - 30
2135974	Mevinphos	6.53	Spike	P	0 - 30
2135974	Molinate	21.4	Spike	P	0 - 30
2135974	Norflurazon	3.87	Spike	P	0 - 30
2135974	Oxadiazon	9.55	Spike	P	0 - 30
2135974	Parathion Ethyl	2.12	Spike	P	0 - 30
2135974	Parathion Methyl	7.24	Spike	P	0 - 30
2135974	Pendimethalin	0.887	Spike	P	0 - 30
2135974	Phorate	6.55	Spike	P	0 - 30
2135974	Prodiamine	11.3	Spike	P	0 - 30
2135974	Prometon	9.68	Spike	P	0 - 30
2135974	Prometryn	7.12	Spike	P	0 - 30
2135974	Simazine	4.93	Spike	P	0 - 30
2135974	Tebuconazole	75.5	Spike	F	0 - 30
2135974	Terbufos	14.7	Spike	P	0 - 30
2135974	Terbutylazine	1.74	Spike	P	0 - 30
LFB	Acetochlor	3.84	LCS	P	0 - 30
LFB	Alachlor	1.52	LCS	P	0 - 30
LFB	Ametryn	8.75	LCS	P	0 - 30
LFB	Atrazine	15.4	LCS	P	0 - 30
LFB	Atrazine Desethyl	40.7	LCS	F	0 - 30
LFB	Azinphos Methyl	0.208	LCS	P	0 - 30
LFB	Bromacil	0.0130	LCS	P	0 - 30
LFB	Butylate	22.1	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	5.83	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	14.4	LCS	P	0 - 30
LFB	Cyanazine	62.9	LCS	F	0 - 30
LFB	Demeton	22.5	LCS	P	0 - 30
LFB	Diazinon	11.0	LCS	P	0 - 30
LFB	Dimethenamid	7.09	LCS	P	0 - 30
LFB	Disulfoton	23.8	LCS	P	0 - 30
LFB	EPTC	24.5	LCS	P	0 - 30
LFB	Ethion	2.47	LCS	P	0 - 30
LFB	Ethoprop	34.4	LCS	F	0 - 30
LFB	Fenamiphos	24.5	LCS	P	0 - 30
LFB	Fipronil	12.8	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	0.399	LCS	P	0 - 30
LFB	Fipronil Sulfide	0.265	LCS	P	0 - 30
LFB	Fipronil Sulfone	11.6	LCS	P	0 - 30
LFB	Fonofos	28.0	LCS	P	0 - 30
LFB	Hexazinone	1.38	LCS	P	0 - 30
LFB	Malathion	5.34	LCS	P	0 - 30
LFB	Metalaxyl	2.44	LCS	P	0 - 30
LFB	Metolachlor	4.78	LCS	P	0 - 30
LFB	Metribuzin	79.3	LCS	F	0 - 30
LFB	Mevinphos	37.2	LCS	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P374273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Molinate	30.0	LCS	P	0 - 30
LFB	Norflurazon	9.67	LCS	P	0 - 30
LFB	Oxadiazon	5.26	LCS	P	0 - 30
LFB	Parathion Ethyl	14.0	LCS	P	0 - 30
LFB	Parathion Methyl	21.6	LCS	P	0 - 30
LFB	Pendimethalin	3.05	LCS	P	0 - 30
LFB	Phorate	25.1	LCS	P	0 - 30
LFB	Prodiamine	9.22	LCS	P	0 - 30
LFB	Prometon	11.9	LCS	P	0 - 30
LFB	Prometryn	3.95	LCS	P	0 - 30
LFB	Simazine	22.3	LCS	P	0 - 30
LFB	Tebuconazole	90.0	LCS	F	0 - 30
LFB	Terbufos	26.4	LCS	P	0 - 30
LFB	Terbutylazine	9.15	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P374373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136204	Aldrin	3.64	Spike	P	0 - 30
2136204	Alpha-BHC	0.533	Spike	P	0 - 30
2136204	Alpha-Chlordane	2.40	Spike	P	0 - 30
2136204	Beta-BHC	4.02	Spike	P	0 - 30
2136204	Bifenthrin	0.0145	Spike	P	0 - 30
2136204	Carbophenothion	4.00	Spike	P	0 - 30
2136204	Chlorothalonil	13.4	Spike	P	0 - 30
2136204	Cis-Nonachlor	1.63	Spike	P	0 - 30
2136204	Cypermethrin	1.01	Spike	P	0 - 30
2136204	DDD-p,p'	1.25	Spike	P	0 - 30
2136204	DDE-p,p'	1.40	Spike	P	0 - 30
2136204	DDT-p,p'	0.830	Spike	P	0 - 30
2136204	Delta-BHC	11.8	Spike	P	0 - 30
2136204	Dicofol	2.60	Spike	P	0 - 30
2136204	Dieldrin	5.32	Spike	P	0 - 30
2136204	Endosulfan I	1.90	Spike	P	0 - 30
2136204	Endosulfan II	4.41	Spike	P	0 - 30
2136204	Endosulfan Sulfate	0.165	Spike	P	0 - 30
2136204	Endrin	0.137	Spike	P	0 - 30
2136204	Endrin Aldehyde	6.37	Spike	P	0 - 30
2136204	Endrin Ketone	2.96	Spike	P	0 - 30
2136204	Ethalfuralin	0.0192	Spike	P	0 - 30
2136204	Gamma-BHC	7.74	Spike	P	0 - 30
2136204	Gamma-Chlordane	1.33	Spike	P	0 - 30
2136204	Heptachlor	2.96	Spike	P	0 - 30
2136204	Heptachlor Epoxide	1.67	Spike	P	0 - 30
2136204	Hexachlorobenzene	3.16	Spike	P	0 - 30
2136204	Methoxychlor	0.679	Spike	P	0 - 30
2136204	Mirex	0.444	Spike	P	0 - 30
2136204	Permethrin	1.16	Spike	P	0 - 30
2136204	Trans-Nonachlor	2.17	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P374373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136204	Trifluralin	0.0343	Spike	P	0 - 30
LFB	Aldrin	3.82	LCS	P	0 - 30
LFB	Alpha-BHC	2.80	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.28	LCS	P	0 - 30
LFB	Beta-BHC	0.818	LCS	P	0 - 30
LFB	Bifenthrin	0.772	LCS	P	0 - 30
LFB	Carbophenothion	1.20	LCS	P	0 - 30
LFB	Chlorothalonil	1.53	LCS	P	0 - 30
LFB	Cis-Nonachlor	0.0585	LCS	P	0 - 30
LFB	Cypermethrin	2.04	LCS	P	0 - 30
LFB	DDD-p,p'	2.72	LCS	P	0 - 30
LFB	DDE-p,p'	3.16	LCS	P	0 - 30
LFB	DDT-p,p'	1.38	LCS	P	0 - 30
LFB	Delta-BHC	2.92	LCS	P	0 - 30
LFB	Dicofol	0.966	LCS	P	0 - 30
LFB	Dieldrin	1.32	LCS	P	0 - 30
LFB	Endosulfan I	3.96	LCS	P	0 - 30
LFB	Endosulfan II	0.774	LCS	P	0 - 30
LFB	Endosulfan Sulfate	1.81	LCS	P	0 - 30
LFB	Endrin	0.276	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.971	LCS	P	0 - 30
LFB	Endrin Ketone	0.0980	LCS	P	0 - 30
LFB	Ethalfuralin	4.48	LCS	P	0 - 30
LFB	Gamma-BHC	1.48	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.552	LCS	P	0 - 30
LFB	Heptachlor	1.73	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.684	LCS	P	0 - 30
LFB	Hexachlorobenzene	1.17	LCS	P	0 - 30
LFB	Methoxychlor	0.229	LCS	P	0 - 30
LFB	Mirex	1.64	LCS	P	0 - 30
LFB	Permethrin	1.14	LCS	P	0 - 30
LFB	Trans-Nonachlor	0.234	LCS	P	0 - 30
LFB	Trifluralin	0.0289	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P374719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137172	Dithiopyr	2.77	Spike	P	0 - 30
LFB	Dithiopyr	3.92	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P374373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136259	Chlordane	0.332	Spike	P	0 - 30
2136259	Toxaphene	3.57	Spike	P	0 - 30
LFB	Chlordane	1.32	LCS	P	0 - 30
LFB	Toxaphene	0.306	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P374219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136201	2,4-D	19.2	Spike	P	0 - 30
2136201	Acetaminophen	18.9	Spike	P	0 - 30
2136201	Acetamiprid	8.41	Spike	P	0 - 30
2136201	Afidopyropen	7.68	Spike	P	0 - 30
2136201	Bentazon	15.9	Spike	P	0 - 30
2136201	Benzovindiflupyr	11.2	Spike	P	0 - 30
2136201	Carbamazepine	10.5	Spike	P	0 - 30
2136201	Clothianidin	11.0	Spike	P	0 - 30
2136201	Dinotefuran	14.8	Spike	P	0 - 30
2136201	Diuron	8.64	Spike	P	0 - 30
2136201	Fenuron	13.6	Spike	P	0 - 30
2136201	Fluridone	11.8	Spike	P	0 - 30
2136201	Hydrocodone	19.6	Spike	P	0 - 30
2136201	Ibuprofen	19.7	Spike	P	0 - 30
2136201	Imazapyr	18.6	Spike	P	0 - 30
2136201	Imidacloprid	6.98	Spike	P	0 - 30
2136201	Linuron	8.71	Spike	P	0 - 30
2136201	Mandestrobin	13.1	Spike	P	0 - 30
2136201	MCPP	22.3	Spike	P	0 - 30
2136201	Naproxen	15.8	Spike	P	0 - 30
2136201	Primidone	23.7	Spike	P	0 - 30
2136201	Pyraclostrobin	13.1	Spike	P	0 - 30
2136201	Thiamethoxam	8.45	Spike	P	0 - 30
2136201	Tolfenpyrad	16.7	Spike	P	0 - 30
2136201	Triclopyr	19.3	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P374431

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136497	Acesulfame K	3.73	Spike	P	0 - 30
2136497	AMPA	1.14	Spike	P	0 - 30
2136497	Endothall	7.91	Spike	P	0 - 30
2136497	Glufosinate	6.89	Spike	P	0 - 30
2136497	Glyphosate	6.75	Spike	P	0 - 30
2136497	Sucralose	17.7	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P374481

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136495	3-Hydroxycarbofuran	6.41	Spike	P	0 - 30
2136495	Aldicarb	7.24	Spike	P	0 - 30
2136495	Aldicarb Sulfone	1.12	Spike	P	0 - 30
2136495	Aldicarb Sulfoxide	5.18	Spike	P	0 - 30
2136495	Carbaryl	3.89	Spike	P	0 - 30
2136495	Carbofuran	0.231	Spike	P	0 - 30
2136495	Methiocarb	1.36	Spike	P	0 - 30
2136495	Methomyl	2.73	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P374481

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136495	Oxamyl	1.68	Spike	P	0 - 30
2136495	Propoxur	2.61	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P374313

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136472	Color (true)	2.27	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P374661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136533	Total Alkalinity	0.443	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P374662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136607	Total Alkalinity	0.607	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P374862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136477	TDS	4.18	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P374663

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136533	Fluoride	0.473	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
Batch ID: P374664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136607	Fluoride	0.473	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
Batch ID: P374904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137524	Fluoride	0.946	Spike	P	0 - 2.5

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P374428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136271	Organic Carbon	0.565	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P374644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136609	Organic Carbon	2.50	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2136495
Field Sample ID: G2NE1180

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	71.9	P	30 - 160

Lab Sample ID: 2136496
Field Sample ID: G2NE1180

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	99.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.5	P	30 - 160
EPA 8321B	Diuron-d6	68.8	P	30 - 160
EPA 8321B	Endothall-d6	134	P	30 - 160
EPA 8321B	Endothall-d6	134	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	140	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	140	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.2	P	30 - 160
EPA 8321B	Primidone-d5	79.1	P	30 - 160
EPA 8321B	Sucralose-d6	36.4	P	30 - 160
EPA 8321B	Sucralose-d6	36.4	P	30 - 160

Lab Sample ID: 2136497
Field Sample ID: G2NE1159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	119	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.2	P	30 - 160
EPA 8321B	Diuron-d6	69.5	P	30 - 160
EPA 8321B	Endothall-d6	87.5	P	30 - 160
EPA 8321B	Endothall-d6	87.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	45.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	45.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.9	P	30 - 160
EPA 8321B	Primidone-d5	89.8	P	30 - 160
EPA 8321B	Sucralose-d6	54.3	P	30 - 160
EPA 8321B	Sucralose-d6	54.3	P	30 - 160

Lab Sample ID: 2136498
Field Sample ID: G2NE1180

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	80.3	P	43 - 111
EPA 8270E	Tetrachloro-m-xylene	46.0	P	35 - 106
EPA 8276	Decachlorobiphenyl	67.1	P	30 - 103
EPA 8276	PCNB	93.6	P	37 - 143

Lab Sample ID: 2136499
Field Sample ID: G2NE1180

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	117	P	68 - 130
EPA 8270E	Simazine-d10	108	P	68 - 130
EPA 8270E	Terbufos-d10	106	P	61 - 136

Quality Assurance Report Surrogates

Lab Sample ID: 2136499
Field Sample ID: G2NE1180

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Terbufos-d10	116	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A95765

Included Lab Sample IDs: 2136471, 2136472, 2136477

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	102	P/P	90 - 110
Sulfate	99.8	102	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A95771

Included Lab Sample IDs: 2136471, 2136472, 2136477

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A95786

Included Lab Sample IDs: 2136468, 2136471, 2136472, 2136477, 2136480

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A95799

Included Lab Sample IDs: 2136470, 2136475, 2136476, 2136479, 2136482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.4	98.1	P/P	90 - 110
O-Phosphate-P	97.9	96.7	P/P	90 - 110
O-Phosphate-P	98.1	97.8	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A95823

Included Lab Sample IDs: 2136473, 2136474, 2136478

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A95833

Included Lab Sample IDs: 2136501, 2136502, 2136503

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	97.3	97.4	P/P	90 - 110
Barium	98.9	97.3	P/P	90 - 110
Calcium	99.5	100	P/P	90 - 110
Calcium	99.6	99.5	P/P	90 - 110
Iron	100	102	P/P	90 - 110
Iron	102	102	P/P	90 - 110
Magnesium	103	104	P/P	90 - 110
Magnesium	104	104	P/P	90 - 110
Potassium	96.3	96.5	P/P	90 - 110
Potassium	96.5	96.2	P/P	90 - 110
Sodium	100	102	P/P	90 - 110
Sodium	102	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A95833

Included Lab Sample IDs: 2136501, 2136502, 2136503

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Zinc	97.0	97.5	P/P	90 - 110
Zinc	99.3	97.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95834

Included Lab Sample IDs: 2136469, 2136473, 2136474, 2136481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	102	P/P	90 - 110
Ammonia-N	99.8	100	P/P	90 - 110
Ammonia-N	99.9	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95835

Included Lab Sample IDs: 2136473, 2136474, 2136478

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

Reference Method: EPA 8270E

Run ID: A95871

Included Lab Sample IDs: 2136498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	88.3		P	80 - 120
Beta-BHC	96.8		P	80 - 120
Bifenthrin	96.9		P	80 - 120
Carbophenothion	83.7		P	80 - 120
Chlorothalonil	81.7		P	80 - 120
Cis-Nonachlor	85.6		P	80 - 120
Cypermethrin	89.0		P	80 - 120
DDD-p,p'	83.5		P	80 - 120
DDE-p,p'	87.6		P	80 - 120
DDT-p,p'	97.8		P	80 - 120
Delta-BHC	96.0		P	80 - 120
Dicofol	100		P	80 - 120
Dieldrin	91.0		P	80 - 120
Endosulfan I	83.5		P	80 - 120
Endosulfan II	82.4		P	80 - 120
Endosulfan Sulfate	97.7		P	80 - 120
Endrin	88.1		P	80 - 120
Endrin Aldehyde	86.3		P	80 - 120
Endrin Ketone	97.5		P	80 - 120
Ethalfuralin	100		P	80 - 120
Gamma-BHC	97.8		P	80 - 120
Gamma-Chlordane	88.7		P	80 - 120
Heptachlor	105		P	80 - 120
Heptachlor Epoxide	90.0		P	80 - 120
Hexachlorobenzene	104		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A95871
Included Lab Sample IDs: 2136498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Methoxychlor	99.2		P	80 - 120
Mirex	104		P	80 - 120
Permethrin	94.4		P	80 - 120
Trans-Nonachlor	87.4		P	80 - 120
Trifluralin	100		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A95875
Included Lab Sample IDs: 2136469, 2136481

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

Reference Method: EPA 8276
Run ID: A95878
Included Lab Sample IDs: 2136498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.7		P	80 - 120
Toxaphene	100		P	80 - 120

Reference Method: SM 5310 B-00
Run ID: A95899
Included Lab Sample IDs: 2136469, 2136481

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

Reference Method: SM 2320 B-97
Run ID: A95901
Included Lab Sample IDs: 2136468, 2136471, 2136472, 2136477, 2136480

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	98.6	P/P	90 - 110
Total Alkalinity	97.8	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A95901
Included Lab Sample IDs: 2136468, 2136471, 2136472, 2136477

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	98.5	P/P	90 - 110
Fluoride	99.0	98.5	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A95903
Included Lab Sample IDs: 2136499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	110		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A95903
Included Lab Sample IDs: 2136499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ametryn	103		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	90.7		P	80 - 120
Azinphos Methyl	95.6		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	115		P	80 - 120
Chlorpyrifos Ethyl	95.8		P	80 - 120
Chlorpyrifos Methyl	98.0		P	80 - 120
Cyanazine	80.7		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	104		P	80 - 120
Dimethenamid	107		P	80 - 120
Disulfoton	104		P	80 - 120
EPTC	99.4		P	80 - 120
Ethion	93.4		P	80 - 120
Ethoprop	103		P	80 - 120
Fenamiphos	94.0		P	80 - 120
Fipronil	104		P	80 - 120
Fipronil Desulfinyl	108		P	80 - 120
Fipronil Sulfide	97.8		P	80 - 120
Fipronil Sulfone	99.0		P	80 - 120
Fonofos	102		P	80 - 120
Hexazinone	104		P	80 - 120
Malathion	96.7		P	80 - 120
Metalaxyl	105		P	80 - 120
Metolachlor	108		P	80 - 120
Metribuzin	85.0		P	80 - 120
Mevinphos	83.2		P	80 - 120
Molinate	104		P	80 - 120
Norflurazon	104		P	80 - 120
Oxadiazon	106		P	80 - 120
Parathion Ethyl	98.7		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	97.2		P	80 - 120
Phorate	92.8		P	80 - 120
Prodiamine	94.2		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	106		P	80 - 120
Simazine	98.5		P	80 - 120
Tebuconazole	103		P	80 - 120
Terbufos	95.5		P	80 - 120
Terbutylazine	99.6		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A95904
Included Lab Sample IDs: 2136478

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	98.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A95908

Included Lab Sample IDs: 2136469, 2136473, 2136474, 2136478, 2136481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	98.6	P/P	90 - 110
Kjeldahl Nitrogen	97.2	104	P/P	90 - 110
Kjeldahl Nitrogen	98.7	97.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A95917

Included Lab Sample IDs: 2136496, 2136497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	154	93.6	P/P	60 - 160
Endothall	87.3	96.9	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95918

Included Lab Sample IDs: 2136496, 2136497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	138	126	P/P	60 - 160
Glufosinate	99.5	118	P/P	60 - 160
Glyphosate	88.4	97.1	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A95922

Included Lab Sample IDs: 2136500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	104	101	P/P	95 - 105
Manganese	105	104	P/P	95 - 105
Zinc	101	100	P/P	95 - 105

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95926

Included Lab Sample IDs: 2136502

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	94.2	93.2	P/P	90 - 110
Antimony	99.0	99.0	P/P	90 - 110
Arsenic	99.9	98.0	P/P	90 - 110
Chromium	96.9	98.7	P/P	90 - 110
Lead	93.0	92.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A95927

Included Lab Sample IDs: 2136496, 2136497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	104	84.3	P/P	50 - 150
2,4-D	84.3	79.5	P/P	50 - 150
3-Hydroxycarbofuran	96.4	96.3	P/P	60 - 150
Acetaminophen	95.1	94.6	P/P	60 - 160
Acetaminophen	98.5	95.1	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A95927

Included Lab Sample IDs: 2136496, 2136497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetamiprid	108	101	P/P	50 - 150
Acetamiprid	109	108	P/P	50 - 150
Afidopyropen	106	98.0	P/P	50 - 150
Afidopyropen	98.0	96.9	P/P	50 - 150
Aldicarb	77.5	87.8	P/P	60 - 150
Aldicarb Sulfone	92.8	93.7	P/P	50 - 150
Aldicarb Sulfoxide	87.1	88.4	P/P	50 - 150
Bentazon	77.6	75.3	P/P	50 - 160
Bentazon	89.6	77.6	P/P	50 - 160
Benzovindiflupyr	105	109	P/P	50 - 150
Benzovindiflupyr	109	105	P/P	50 - 150
Carbamazepine	106	107	P/P	60 - 150
Carbamazepine	113	106	P/P	60 - 150
Carbaryl	103	98.4	P/P	60 - 150
Carbofuran	104	104	P/P	50 - 150
Clothianidin	102	89.4	P/P	60 - 150
Clothianidin	89.4	91.3	P/P	60 - 150
Dinotefuran	90.4	88.2	P/P	50 - 150
Dinotefuran	99.1	90.4	P/P	50 - 150
Diuron	103	98.0	P/P	60 - 150
Diuron	98.0	99.1	P/P	60 - 150
Fenuron	105	104	P/P	60 - 150
Fenuron	107	105	P/P	60 - 150
Fluridone	107	109	P/P	60 - 160
Fluridone	111	107	P/P	60 - 160
Hydrocodone	105	112	P/P	60 - 150
Hydrocodone	106	105	P/P	60 - 150
Ibuprofen	111	95.0	P/P	50 - 160
Ibuprofen	95.0	87.2	P/P	50 - 160
Imazapyr	117	91.8	P/P	50 - 150
Imazapyr	91.8	90.9	P/P	50 - 150
Imidacloprid	105	98.9	P/P	60 - 150
Imidacloprid	112	105	P/P	60 - 150
Linuron	89.7	91.7	P/P	60 - 150
Linuron	98.1	89.7	P/P	60 - 150
Mandestrobin	109	109	P/P	50 - 150
Mandestrobin	110	109	P/P	50 - 150
MCPP	83.8	78.1	P/P	50 - 150
MCPP	98.6	83.8	P/P	50 - 150
Methiocarb	110	107	P/P	50 - 150
Methomyl	99.0	96.0	P/P	50 - 150
Naproxen	115	114	P/P	50 - 160
Naproxen	125	115	P/P	50 - 160
Oxamyl	96.0	97.2	P/P	50 - 150
Primidone	88.4	85.5	P/P	60 - 150
Primidone	94.1	88.4	P/P	60 - 150
Propoxur	108	108	P/P	50 - 150
Pyraclostrobin	102	102	P/P	60 - 150
Pyraclostrobin	102	100	P/P	60 - 150
Thiamethoxam	102	102	P/P	50 - 150
Thiamethoxam	110	102	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A95927

Included Lab Sample IDs: 2136496, 2136497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tolfenpyrad	77.1	75.1	P/P	60 - 150
Tolfenpyrad	82.1	77.1	P/P	60 - 150
Triclopyr	112	95.8	P/P	50 - 150
Triclopyr	95.8	91.8	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95943

Included Lab Sample IDs: 2136478

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95945

Included Lab Sample IDs: 2136469, 2136473, 2136474, 2136481

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

Reference Method: SM 4500 F-C-97

Run ID: A95978

Included Lab Sample IDs: 2136480

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95998

Included Lab Sample IDs: 2136501, 2136502, 2136503

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.8	97.5	P/P	90 - 110
Aluminum	100	97.8	P/P	90 - 110
Antimony	94.8	97.0	P/P	90 - 110
Antimony	95.2	94.8	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110
Arsenic	102	101	P/P	90 - 110
Boron	104	102	P/P	90 - 110
Boron	109	104	P/P	90 - 110
Cadmium	97.4	99.4	P/P	90 - 110
Cadmium	98.6	97.4	P/P	90 - 110
Chromium	98.6	101	P/P	90 - 110
Chromium	100	98.6	P/P	90 - 110
Copper	105	105	P/P	90 - 110
Copper	106	105	P/P	90 - 110
Lead	97.3	98.7	P/P	90 - 110
Lead	98.6	97.3	P/P	90 - 110
Nickel	101	103	P/P	90 - 110
Nickel	104	101	P/P	90 - 110
Selenium	93.3	94.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95998

Included Lab Sample IDs: 2136501, 2136502, 2136503

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	94.3	93.3	P/P	90 - 110
Silver	101	103	P/P	90 - 110
Silver	101	101	P/P	90 - 110
Thallium	94.0	94.4	P/P	90 - 110
Thallium	95.4	94.0	P/P	90 - 110

Reference Method: EPA 300.0

Run ID: A96041

Included Lab Sample IDs: 2136468, 2136480

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

Reference Method: EPA 8321B

Run ID: A96055

Included Lab Sample IDs: 2136496, 2136497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	119	130	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A96067

Included Lab Sample IDs: 2136500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	95.5	93.4	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A96144

Included Lab Sample IDs: 2136499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dithiopyr	100		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A96204

Included Lab Sample IDs: 2136500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	107	110	P/P	90 - 110
Antimony	100	101	P/P	90 - 110
Arsenic	106	107	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Lead	104	104	P/P	90 - 110
Nickel	106	105	P/P	90 - 110
Silver	109	108	P/P	90 - 110
Thallium	100	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A96240

Included Lab Sample IDs: 2136500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	92.9	94.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A96267

Included Lab Sample IDs: 2136500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	97.8	96.9	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								10.5	
	Turbidity								3.76	
EPA 200.7 Rev. 4.4	Barium	99.4			98.5	96.9	96.2			0.684
	Calcium	102			98.2	102				0.160
	Iron	101			105	105	104			1.24
	Iron	105			101	102				0.849
	Magnesium	110			111	111	108			1.50
	Manganese	101			97.0	97.1				0.129
	Potassium	103			112	101	100			0.768
	Sodium	101			105	99.7				0.639
	Zinc	96.5			95.5	96.3	95.2			1.09
	Zinc	99.2			104	104				0.285
EPA 200.8 Rev. 5.4	Aluminum	94.6			94.2	97.5	97.2			0.163
	Aluminum	101			121	124				2.75
	Antimony	100			103	101	102			1.67
	Antimony	101			102	102				0.439
	Arsenic	96.1			97.1	95.3	93.7			1.81
	Arsenic	100			109	110				1.36
	Boron	101			99.1	105	104			0.853
	Cadmium	91.4			92.8	95.6	95.2			0.339
	Cadmium	98.1			90.6	91.8				1.39
	Chromium	94.0			97.0	95.5	92.0			1.57
	Chromium	91.9			88.1	89.2				1.28
	Copper	100			97.5	101	102			1.13
	Copper	99.2			94.3	97.1				3.02
	Lead	93.0			95.8	94.2	90.9			1.61
	Lead	103			107	107				0.771
	Nickel	98.2			96.3	97.8	99.3			1.33
	Nickel	99.9			92.5	94.6				2.22
	Selenium	87.8			84.8	84.3	86.4			2.51
	Selenium	89.4			91.8	92.1				0.301
	Silver	97.8			99.5	99.8	100			0.447
	Silver	104			94.7	95.3				0.670
	Thallium	97.9			98.0	101	103			1.81
	Thallium	108			111	112				0.715
EPA 300.0	Bromide	96.3			92.6	93.5	92.7			0.791
EPA 300.0 Rev. 2.1	Chloride	98.9			99.8	102			0.0552	
	Sulfate	98.7			100	101			0.271	
EPA 350.1 Rev. 2.0	Ammonia-N	98.3			104	106				1.44
	Ammonia-N	99.5			102	103				0.931
	Ammonia-N	97.5			99.8	95.3				4.36
	Ammonia-N	97.3			103	104				0.981
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.7			93.2	98.3				4.67
	Kjeldahl Nitrogen	101			102	101				1.24
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5			100	100				0.0
	NO2NO3-N	101			98.5	98.5				0.0
	NO2NO3-N	100			100	101				0.367
EPA 365.1 Rev. 2.0	Total-P	103			102	99.7				2.55
	Total-P	101			100	96.7				3.41
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.4			96.1	98.4				2.37
	O-Phosphate-P	99.8			95.2	96.6				1.06
	O-Phosphate-P	97.5			93.6	96.0				2.53
EPA 8270E	Acetochlor	101	97.3		97.4	92.8		3.84		4.84
	Alachlor	104	102		104	94.3		1.52		9.91

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Aldrin	50.6	48.7	48.1	46.4	3.82		3.64
	Alpha-BHC	86.1	88.6	92.4	92.9	2.80		0.533
	Alpha-Chlordane	77.5	78.5	75.7	73.9	1.28		2.40
	Ametryn	101	93.0	98.3	89.7	8.75		9.16
	Atrazine	101	118	107	110	15.4		2.17
	Atrazine Desethyl	76.8	116	61.3	83.8	40.7		31.1
	Azinphos Methyl	102	102	89.1	75.3	0.208		16.8
	Beta-BHC	91.6	90.9	96.7	101	0.818		4.02
	Bifenthrin	84.5	83.9	87.6	87.6	0.772		0.0145
	Bromacil	89.3	89.3			0.0130		5.00
	Butylate	52.6	65.7	54.2	64.5	22.1		17.3
	Carbophenothion	83.9	84.9	83.8	80.5	1.20		4.00
	Chlorothalonil	65.6	64.6	106	92.5	1.53		13.4
	Chlorpyrifos Ethyl	97.2	103	88.9	93.6	5.83		5.09
	Chlorpyrifos Methyl	95.5	110	95.8	103	14.4		7.27
	Cis-Nonachlor	79.8	79.8	77.4	76.1	0.0585		1.63
	Cyanazine	92.7	178	80.3	132	62.9		48.5
	Cypermethrin	89.3	87.5	90.4	89.5	2.04		1.01
	DDD-p,p'	79.3	81.5	80.2	79.2	2.72		1.25
	DDE-p,p'	84.1	81.4	71.8	70.8	3.16		1.40
	DDT-p,p'	81.6	82.7	67.6	68.2	1.38		0.830
	Delta-BHC	98.1	101	116	103	2.92		11.8
	Demeton	81.4	102	82.6	95.6	22.5		14.7
	Diazinon	98.8	110	103	102	11.0		1.06
	Dicofol	101	100	94.2	91.8	0.966		2.60
	Dieldrin	83.3	82.2	80.8	76.6	1.32		5.32
	Dimethenamid	98.9	92.1	97.0	87.5	7.09		10.4
	Disulfoton	95.6	121	96.0	110	23.8		13.6
	Dithiopyr	80.7	83.9	77.8	80.1	3.92		2.77
	Endosulfan I	79.1	82.3	81.5	80.0	3.96		1.90
	Endosulfan II	81.4	82.0	85.5	81.8	0.774		4.41
	Endosulfan Sulfate	83.2	81.7	94.4	94.5	1.81		0.165
	Endrin	82.4	82.1	77.8	77.9	0.276		0.137
	Endrin Aldehyde	83.6	84.4	79.4	74.5	0.971		6.37
	Endrin Ketone	85.9	85.8	89.5	86.9	0.0980		2.96
	EPTC	54.0	69.1	52.4	65.6	24.5		22.4
	Ethalfuralin	86.9	90.9	88.6	88.6	4.48		0.0192
	Ethion	105	103	101	92.8	2.47		8.49
	Ethoprop	81.1	115	89.6	107	34.4		18.0
	Fenamiphos	109	85.4	86.0	74.4	24.5		14.4
	Fipronil	106	93.6	75.1	77.3	12.8		2.83
	Fipronil Desulfinyl	110	110	80.6	93.9	0.399		15.2
	Fipronil Sulfide	95.9	95.6	71.7	82.7	0.265		14.3
	Fipronil Sulfone	92.8	82.6	49.2	65.3	11.6		28.1
	Fonofos	85.5	113	86.8	108	28.0		21.7
	Gamma-BHC	91.6	90.2	98.9	107	1.48		7.74
	Gamma-Chlordane	74.8	75.2	73.0	72.0	0.552		1.33
	Heptachlor	74.2	72.9	74.3	72.1	1.73		2.96
	Heptachlor Epoxide	79.4	78.9	78.0	76.7	0.684		1.67
	Hexachlorobenzene	85.2	84.2	84.9	82.2	1.17		3.16
	Hexazinone	111	112	103	107	1.38		3.89
	Malathion	106	101	102	70.1	5.34		36.9
	Metalaxyl	101	98.6	132	106	2.44		11.8
	Methoxychlor	91.8	91.6	74.9	75.5	0.229		0.679

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Metolachlor	102	97.5			4.78		8.43
	Metribuzin	98.6	228	130	206	79.3		45.0
	Mevinphos	53.7	78.3	68.3	72.9	37.2		6.53
	Mirex	79.9	78.6	78.2	77.9	1.64		0.444
	Molinate	59.9	81.1	67.4	83.5	30.0		21.4
	Norflurazon	112	102			9.67		3.87
	Oxadiazon	97.2	92.3	152	121	5.26		9.55
	Parathion Ethyl	95.8	110	95.5	97.5	14.0		2.12
	Parathion Methyl	104	129	106	114	21.6		7.24
	Pendimethalin	102	105	101	101	3.05		0.887
	Permethrin	82.5	81.5	81.4	80.5	1.14		1.16
	Phorate	85.3	110	89.9	96.0	25.1		6.55
	Prodiamine	108	98.3	106	94.9	9.22		11.3
	Prometon	104	92.5	93.9	85.2	11.9		9.68
	Prometryn	106	102	100	93.1	3.95		7.12
	Simazine	101	126	110	115	22.3		4.93
	Tebuconazole	75.7	28.7	72.1	32.6	90.0		75.5
	Terbufos	88.9	116	92.3	107	26.4		14.7
	Terbuthylazine	98.1	107	98.0	96.3	9.15		1.74
	Trans-Nonachlor	79.1	78.9	77.0	75.4	0.234		2.17
EPA 8276	Trifluralin	87.7	87.8	88.4	88.4	0.0289		0.0343
	Chlordane	96.0	97.3	99.8	99.5	1.32		0.332
	Toxaphene	81.1	80.8	92.1	88.9	0.306		3.57
EPA 8321B	2,4-D	111		93.1	68.8			19.2
	3-Hydroxycarbofuran	84.3		83.5	78.3			6.41
	Acesulfame K	95.8		104	109			3.73
	Acetaminophen	84.7		93.7	77.5			18.9
	Acetamiprid	100		107	98.5			8.41
	Afidopyropen	89.8		92.8	85.9			7.68
	Aldicarb	64.4		53.2	57.2			7.24
	Aldicarb Sulfone	87.2		97.4	96.3			1.12
	Aldicarb Sulfoxide	85.0		50.3	47.8			5.18
	AMPA	144		121	120			1.14
	Bentazon	82.3		47.4	40.4			15.9
	Benzovindiflupyr	83.2		86.8	77.6			11.2
	Carbamazepine	112		98.5	88.7			10.5
	Carbaryl	82.6		67.7	70.4			3.89
	Carbofuran	81.0		69.9	70.0			0.231
	Clothianidin	83.9		91.4	76.6			11.0
	Dinotefuran	83.6		112	96.9			14.8
	Diuron	85.9		73.3	63.5			8.64
	Endothall	97.7		90.7	83.8			7.91
	Fenuron	110		93.7	81.8			13.6
	Fluridone	97.7		99.5	88.4			11.8
	Glufosinate	98.8		103	111			6.89
	Glyphosate	117		101	94.1			6.75
	Hydrocodone	102		110	90.2			19.6
	Ibuprofen	75.0		68.9	56.5			19.7
	Imazapyr	77.4		64.6	50.9			18.6
	Imidacloprid	111						6.98
	Linuron	71.3		75.9	69.6			8.71
	Mandestrobin	91.9		102	89.4			13.1
	MCPP	106		100	80.2			22.3
	Methiocarb	76.9		64.8	65.7			1.36

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Methomyl	81.1	65.6	63.8		2.73
	Naproxen	99.8	102	87.1		15.8
	Oxamyl	91.8	85.6	84.1		1.68
	Primidone	84.8	95.0	74.9		23.7
	Propoxur	76.9	67.7	66.0		2.61
	Pyraclostrobin	80.0	91.4	80.1		13.1
	Sucralose	123	38.7	48.3		17.7
	Thiamethoxam	103	130	114		8.45
	Tolfenpyrad	51.7	68.4	57.9		16.7
	Triclopyr	88.1	94.2	77.6		19.3
	Color (true)	99.0			2.27	
SM 2120 B	Total Alkalinity	101			0.443	
SM 2320 B-97	Total Alkalinity	101			0.607	
SM 2540 C-97	TDS				4.18	
SM 4500 F-C-97	Fluoride	95.9	97.9	98.8		0.473
	Fluoride	95.9	95.1	95.8		0.473
	Fluoride	97.8	98.2	99.5		0.946
SM 5310 B-00	Organic Carbon	103	103			0.565
	Organic Carbon	106	106	103		2.50

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2136468, 2136471, 2136472, 2136477, 2136480
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2136500, 2136501, 2136502, 2136503
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2136500, 2136501, 2136502, 2136503
EPA 300.0 / E31780	Bromide in aqueous matrices	2136468, 2136480
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2136471, 2136472, 2136477
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2136471, 2136472, 2136477
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2136469, 2136473, 2136474, 2136478, 2136481
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2136469, 2136473, 2136474, 2136478, 2136481
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2136469, 2136473, 2136474, 2136478, 2136481
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2136469, 2136473, 2136474, 2136478, 2136481
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2136470, 2136475, 2136476, 2136479, 2136482
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2136498
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2136499
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2136498
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2136495
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2136496, 2136497
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2136496, 2136497
SM 2120 B / E31780	True Color measured at 450 nm	2136471, 2136472, 2136477
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2136468, 2136471, 2136472, 2136477, 2136480
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2136471, 2136472, 2136477

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2136468, 2136471, 2136472, 2136477, 2136480
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2136468, 2136471, 2136472, 2136477, 2136480
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2136469, 2136473, 2136474, 2136478, 2136481

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	11/15/2019			11/15/2019 17:09	Samantha Davila	2136468, 2136471, 2136472, 2136477, 2136480
EPA 200.7 Rev. 4.4	11/15/2019	11/18/2019 14:25	Elliott D. Healy	11/19/2019 13:33	Betina Topolski	2136501
	11/15/2019	11/18/2019 14:25	Elliott D. Healy	11/19/2019 13:58	Betina Topolski	2136502
	11/15/2019	11/18/2019 14:25	Elliott D. Healy	11/19/2019 14:18	Betina Topolski	2136503
	11/15/2019	11/21/2019 15:55	Elliott D. Healy	11/22/2019 14:03	Vijayalakshmi Reddy	2136500
EPA 200.8 Rev. 5.4	11/15/2019	11/18/2019 14:25	Elliott D. Healy	11/22/2019 16:21	Justin Cutchin	2136502
	11/15/2019	11/18/2019 14:25	Elliott D. Healy	11/27/2019 06:30	Robert K Palmer	2136501
	11/15/2019	11/18/2019 14:25	Elliott D. Healy	11/27/2019 06:40	Robert K Palmer	2136502
	11/15/2019	11/18/2019 14:25	Elliott D. Healy	11/27/2019 07:39	Robert K Palmer	2136503
	11/15/2019	11/21/2019 15:55	Elliott D. Healy	12/03/2019 00:13	Robert K Palmer	2136500
	11/15/2019	11/21/2019 15:55	Elliott D. Healy	12/10/2019 00:04	Alexander Thompson	2136500
	11/15/2019	11/21/2019 15:55	Elliott D. Healy	12/11/2019 03:03	Alexander Thompson	2136500
	11/15/2019	11/21/2019 15:55	Elliott D. Healy	12/11/2019 17:51	Martin Acosta	2136500
	11/15/2019			11/27/2019 11:34	Julia Storbeck	2136468
EPA 300.0 Rev. 2.1	11/15/2019			11/27/2019 11:51	Julia Storbeck	2136480
	11/15/2019			11/19/2019 04:03	Lipi Saha	2136471
	11/15/2019			11/19/2019 05:04	Lipi Saha	2136472
	11/15/2019			11/19/2019 05:16	Lipi Saha	2136477
EPA 350.1 Rev. 2.0	11/15/2019			11/19/2019 11:28	Ping Hua	2136469
	11/15/2019			11/19/2019 12:00	Ping Hua	2136481
	11/15/2019			11/19/2019 14:00	Ping Hua	2136473
	11/15/2019			11/19/2019 14:02	Ping Hua	2136474
	11/15/2019			11/21/2019 14:28	Ping Hua	2136478
EPA 351.2 Rev. 2.0	11/15/2019	11/21/2019 12:25	Sima Feizi	11/22/2019 12:59	Jhamieka S. Greenwood	2136481
	11/15/2019	11/21/2019 12:25	Sima Feizi	11/22/2019 13:03	Jhamieka S. Greenwood	2136469
	11/15/2019	11/21/2019 12:36	Sima Feizi	11/22/2019 14:20	Jhamieka S. Greenwood	2136474
	11/15/2019	11/21/2019 12:36	Sima Feizi	11/22/2019 14:31	Jhamieka S. Greenwood	2136473
	11/15/2019	11/21/2019 12:36	Sima Feizi	11/22/2019 14:32	Jhamieka S. Greenwood	2136478
EPA 353.2 Rev. 2.0	11/15/2019			11/19/2019 09:41	Beverly Y. Sanders	2136473
	11/15/2019			11/19/2019 09:43	Beverly Y. Sanders	2136474
	11/15/2019			11/19/2019 09:50	Beverly Y. Sanders	2136478
	11/15/2019			11/21/2019 10:11	Beverly Y. Sanders	2136469
	11/15/2019			11/21/2019 10:17	Beverly Y. Sanders	2136481
EPA 365.1 Rev. 2.0	11/15/2019	11/21/2019 13:00	Yen Ta	11/22/2019 15:33	Benjamin T. Nordmann	2136478
	11/15/2019	11/21/2019 13:00	Yen Ta	11/25/2019 14:47	Benjamin T. Nordmann	2136473
	11/15/2019	11/21/2019 13:00	Yen Ta	11/25/2019 14:48	Benjamin T. Nordmann	2136474
	11/15/2019	11/21/2019 13:00	Yen Ta	11/25/2019 14:59	Benjamin T. Nordmann	2136469
	11/15/2019	11/21/2019 13:00	Yen Ta	11/25/2019 15:00	Benjamin T. Nordmann	2136481
EPA 365.1 Rev. 2.0 dissolved	11/15/2019			11/15/2019 14:31	Ping Hua	2136479

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0 dissolved	11/15/2019			11/15/2019 15:05	Ping Hua	2136475
	11/15/2019			11/15/2019 15:06	Ping Hua	2136476
	11/15/2019			11/15/2019 15:19	Ping Hua	2136470, 2136482
EPA 8270E	11/15/2019	11/18/2019 08:00	Fe-Val Siddell	11/19/2019 15:26	Vandana T. Nagar	2136499
	11/15/2019	11/18/2019 09:00	Rasheda Ghaffari	11/21/2019 01:32	Arthur Maknenko	2136498
	11/15/2019	11/23/2019 11:30	Rasheda Ghaffari	11/26/2019 18:04	Vandana T. Nagar	2136499
EPA 8276	11/15/2019	11/18/2019 09:00	Rasheda Ghaffari	11/21/2019 08:04	Julie Wi	2136498
EPA 8321B	11/15/2019	11/20/2019 09:00	Hoor Shaik	11/24/2019 00:18	Juyoung Kim	2136496
	11/15/2019	11/20/2019 09:00	Hoor Shaik	11/24/2019 01:28	Juyoung Kim	2136497
	11/15/2019	11/20/2019 10:00	Rebecca Ware	11/20/2019 12:27	Rebecca Ware	2136497
	11/15/2019	11/20/2019 10:00	Rebecca Ware	11/20/2019 13:09	Rebecca Ware	2136496
	11/15/2019	11/20/2019 10:00	Rebecca Ware	11/20/2019 15:22	Rebecca Ware	2136497
	11/15/2019	11/20/2019 10:00	Rebecca Ware	11/20/2019 15:54	Rebecca Ware	2136496
	11/15/2019	11/20/2019 10:00	Rebecca Ware	11/26/2019 05:52	Rebecca Ware	2136497
	11/15/2019	11/20/2019 10:00	Rebecca Ware	11/26/2019 06:04	Rebecca Ware	2136496
	11/15/2019	11/21/2019 09:00	Hoor Shaik	11/24/2019 14:09	Juyoung Kim	2136495
SM 2120 B	11/15/2019			11/15/2019 17:14	Madeline Funaro	2136471
	11/15/2019			11/15/2019 17:16	Madeline Funaro	2136472, 2136477
SM 2320 B-97	11/15/2019			11/20/2019 20:39	Dale L. Simmons	2136471
	11/15/2019			11/20/2019 20:50	Dale L. Simmons	2136472
	11/15/2019			11/20/2019 21:02	Dale L. Simmons	2136477
	11/15/2019			11/21/2019 05:03	Dale L. Simmons	2136468
	11/15/2019			11/21/2019 05:15	Dale L. Simmons	2136480
SM 2540 C-97	11/15/2019			11/19/2019 15:21	Yijie Li	2136471, 2136472, 2136477
SM 2540 D-97	11/15/2019			11/19/2019 15:21	Yijie Li	2136468, 2136471, 2136472, 2136477, 2136480
SM 4500 F-C-97	11/15/2019			11/20/2019 20:39	Dale L. Simmons	2136471
	11/15/2019			11/20/2019 20:50	Dale L. Simmons	2136472
	11/15/2019			11/20/2019 21:02	Dale L. Simmons	2136477
	11/15/2019			11/21/2019 01:31	Dale L. Simmons	2136468
	11/15/2019			11/26/2019 10:19	Dale L. Simmons	2136480
SM 5310 B-00	11/15/2019			11/18/2019 20:49	Lauren Lees	2136473
	11/15/2019			11/18/2019 21:02	Lauren Lees	2136474
	11/15/2019			11/18/2019 21:16	Lauren Lees	2136478
	11/15/2019			11/22/2019 05:38	Lauren Lees	2136469
	11/15/2019			11/22/2019 05:54	Lauren Lees	2136481