

Chemical Analysis Report

CEN-DIST-2022-07-01-01

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

Event Description: **Lakes Alma and Ellen + Blank**
Request ID: **RQ-2022-05-02-30**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 25-JUL-2022 15:08



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: Lake Alma NW of Center

Collection Date/Time: 06/30/2022 12:15

Field ID: G2CE0237

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2338605	DEP SOP: NU-094-1	Color (true)	140		PCU	P416107	
	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P416111	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P416558	
		Sulfate	0.20	U	mg SO4/L	P416563	
	SM 2320 B-2011	Total Alkalinity	20		mg CaCO3/L	P416322	
	SM 2540 C-2011	TDS	91		mg/L	P416410	
	SM 2540 D-2011	TSS	2	I	mg/L	P416412	
2338606	SM 4500-F- C-2011	Fluoride	0.036	I	mg F/L	P416326	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P416347	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P416122	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P416482	
	EPA 365.1 Rev. 2.0	Total-P	0.043		mg P/L	P416186	
2338607	SM 5310 B-2011	Organic Carbon	23		mg C/L	P416317	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P416096	
2338612	EPA 8321B	2,4-D	0.0020	U	ug/L	P416117	
		Acesulfame K	0.10	U	ug/L	P415969	
		2,4,5-T	0.0040	U	ug/L	P416117	
		AMPA	0.67		ug/L	P415969	MS
		Acetaminophen	0.0080	U	ug/L	P416117	
		Acetamiprid	0.0020	U	ug/L	P416117	
		Endothall	0.25	U	ug/L	P415969	
		Glufosinate	0.10	U	ug/L	P415969	MS
		Glyphosate	0.72		ug/L	P415969	MS
		Afidopyropen	0.0020	U	ug/L	P416117	
		Bentazon	8.0E-04	U	ug/L	P416117	
		Sucralose	0.040		ug/L	P415969	
		Benzovindiflupyr	0.0020	U	ug/L	P416117	
		Carbamazepine	8.0E-04	U	ug/L	P416117	
		Clothianidin	0.0020	U	ug/L	P416117	
		Dinotefuran	0.0020	U	ug/L	P416117	
		Diuron	0.0020	U	ug/L	P416117	
		Fenuron	0.032	U	ug/L	P416117	
		Fluridone	0.0024	I	ug/L	P416117	
		Imazapyr	0.011	I	ug/L	P416117	
		Hydrocodone	0.0020	U	ug/L	P416117	
		Ibuprofen	0.080	U	ug/L	P416117	
		Imidacloprid	0.0020	UJ	ug/L	P416117	LCS, MS
		Linuron	0.0040	U	ug/L	P416117	
		Mandestrobin	0.0020	U	ug/L	P416117	
		MCPP	0.0040	U	ug/L	P416117	
		Naproxen	0.0080	U	ug/L	P416117	
		Primidone	0.0040	U	ug/L	P416117	
		Pyraclostrobin	0.0020	U	ug/L	P416117	

Field ID: G2CE0237

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2338612	EPA 8321B	Silvex	0.0040	U	ug/L	P416117	
		Thiamethoxam	0.0020	U	ug/L	P416117	
		Tolfenpyrad	0.0020	U	ug/L	P416117	
		Triclopyr	0.0040	U	ug/L	P416117	
2338613	EPA 200.7 Rev. 4.4	Calcium	8.12		mg/L	P416115	
		Iron	130		ug/L	P416115	
		Magnesium	1.83		mg/L	P416115	
		Potassium	6.2		mg/L	P416115	
		Sodium	7.7		mg/L	P416115	
		Strontium	20.0		ug/L	P416115	
		Tin	3.0	U	ug/L	P416115	
		Titanium	0.75	U	ug/L	P416115	
		Vanadium	2.0	U	ug/L	P416115	
		Zinc	5.0	U	ug/L	P416115	
	EPA 200.8 Rev. 5.4	Aluminum	31		ug/L	P416115	
		Antimony	0.050	U	ug/L	P416115	
		Arsenic	1.21		ug/L	P416115	
		Barium	4.14		ug/L	P416115	
		Beryllium	0.010	U	ug/L	P416115	
		Boron	29.7		ug/L	P416115	
		Cadmium	0.020	U	ug/L	P416115	
		Chromium	0.47	I	ug/L	P416115	
		Cobalt	0.020	I	ug/L	P416115	
		Copper	0.70	I	ug/L	P416115	
		Lead	0.20	U	ug/L	P416115	
		Manganese	18.5		ug/L	P416115	
		Molybdenum	0.15	U	ug/L	P416115	
		Nickel	0.50	U	ug/L	P416115	
		Selenium	0.20	U	ug/L	P416115	
		Silver	0.010	U	ug/L	P416115	
		Thallium	0.10	U	ug/L	P416115	
	SM 2340 B-2011	Hardness	27.8		mg/L	P416115	
2338615	EPA 8270E	Oxybenzone**	10	U	ng/L	P416303	
		Acetochlor	0.26	U	ng/L	P416303	
		Octinoxate**	21	U	ng/L	P416303	
		Alachlor	0.60	I	ng/L	P416303	
		Avobenzone**	100	U	ng/L	P416303	
		Ametryn	0.63	U	ng/L	P416303	
		Atrazine	3.3		ng/L	P416303	
		PBDE-47**	4.2	U	ng/L	P416303	
		Atrazine Desethyl	1.6	U	ng/L	P416303	
		PBDE-99**	5.2	U	ng/L	P416303	
		Azinphos Methyl	2.1	U	ng/L	P416303	
		Tri-o-cresyl Phosphate**	6.3	U	ng/L	P416303	
		Azoxystrobin	0.52	U	ng/L	P416303	

Field ID: G2CE0237

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2338615	EPA 8270E	Bromacil	0.52	U	ng/L	P416303	
		2-Ethylhexyl	13	U	ng/L	P416303	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.42	U	ng/L	P416303	
		Caffeine**	7.9	U	ng/L	P416303	
		Carbophenothion	2.6	U	ng/L	P416303	
		Carfentrazone Ethyl	0.10	U	ng/L	P416303	
		Chlorfenapyr	0.18	U	ng/L	P416303	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P416303	
		Chlorpyrifos Methyl	0.052	U	ng/L	P416303	
		Coumaphos	0.52	U	ng/L	P416303	
		Cyanazine	3.4	U	ng/L	P416303	
		Cyprodinil	0.10	U	ng/L	P416303	
		Demeton	1.6	U	ng/L	P416303	
		Diazinon	0.13	U	ng/L	P416303	
		Difenoconazole	0.63	U	ng/L	P416303	
		Dimethenamid	0.10	U	ng/L	P416303	
		Dimethomorph	0.18	U	ng/L	P416303	RPD
		Disulfoton	0.52	U	ng/L	P416303	
		Dithiopyr	0.36	IV	ng/L	P416303	MS
		EPTC	1.3	U	ng/L	P416303	
		Ethion	0.16	U	ng/L	P416303	
		Ethoprop	0.10	U	ng/L	P416303	
		Etridiazole	0.16	U	ng/L	P416303	
		Fenamiphos	0.52	U	ng/L	P416303	
		Fenbuconazole	0.13	U	ng/L	P416303	
		Fipronil	0.26	U	ng/L	P416303	
		Fipronil Desulfinyl**	0.27	I	ng/L	P416303	
		Fipronil Sulfide	0.16	U	ng/L	P416303	
		Fipronil Sulfone	0.22	I	ng/L	P416303	
		Fluazifop-P-butyl	0.10	U	ng/L	P416303	
		Fludioxonil	0.13	U	ng/L	P416303	
		Flumioxazin	6.5	I	ng/L	P416303	
		Flutolanil	0.10	U	ng/L	P416303	
		Fluxapyroxad	0.10	U	ng/L	P416303	
		Fonofos	0.21	U	ng/L	P416303	
		Hexazinone	0.52	U	ng/L	P416303	
		Imazalil	0.79	U	ng/L	P416303	
		Iprodione	0.63	U	ng/L	P416303	
		Loratadine**	0.10	U	ng/L	P416303	
		Malathion	0.37	U	ng/L	P416303	
		Metaxyl	0.79	U	ng/L	P416303	
		Metolachlor	0.37	U	ng/L	P416303	
		Metribuzin	2.6	U	ng/L	P416303	
		Mevinphos	1.1	U	ng/L	P416303	

Field ID: G2CE0237

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2338615	EPA 8270E	Molinate	0.31	U	ng/L	P416303	
		Myclobutanil	0.26	U	ng/L	P416303	
		Naled	1.6	U	ng/L	P416303	
		Napropamide	0.42	U	ng/L	P416303	
		Norflurazon	0.52	U	ng/L	P416303	
		Oxadiazon	0.31	U	ng/L	P416303	
		Oxyfluorfen	0.16	U	ng/L	P416303	
		Parathion Ethyl	0.26	U	ng/L	P416303	
		Parathion Methyl	0.58	U	ng/L	P416303	
		Pendimethalin	1.0	U	ng/L	P416303	
		Phenytol**	3.7	U	ng/L	P416303	MS
		Phorate	0.55	U	ng/L	P416303	
		Prodiamine	0.31	U	ng/L	P416303	
		Prometon	0.94	U	ng/L	P416303	
		Prometryn	0.21	U	ng/L	P416303	
		Pronamide	0.16	U	ng/L	P416303	
		Propanil	0.13	U	ng/L	P416303	
		Propargite	1.6	U	ng/L	P416303	
		Propiconazole	0.52	U	ng/L	P416303	
		Pyraflufen Ethyl	0.26	U	ng/L	P416303	
		Pyridaben	0.47	U	ng/L	P416303	
		Pyriproxyfen	0.13	U	ng/L	P416303	
		Simazine	0.52	U	ng/L	P416303	
		Stirophos	0.13	U	ng/L	P416303	MS
		Sulfentrazone	0.52	U	ng/L	P416303	
		Tebuconazole	0.52	U	ng/L	P416303	
		Terbufos	0.10	U	ng/L	P416303	
		Terbutylazine	0.45	U	ng/L	P416303	
		Thiobencarb	0.63	U	ng/L	P416303	
		Triadimefon	0.26	U	ng/L	P416303	

Ref. Method and Comment:

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

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

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

EPA 8270E: MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked. V - Due to the presence of dithiopyr in both the Method Blank and the sample.

Sample Location: Lake Ellen @ Center

Collection Date/Time: 06/30/2022 13:46

Field ID: G2CE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2338608	DEP SOP: NU-094-1	Color (true)	20	A	PCU	P416107	
	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P416111	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P416558	
		Sulfate	11		mg SO4/L	P416563	
	SM 2320 B-2011	Total Alkalinity	6.0		mg CaCO3/L	P416387	
	SM 2540 C-2011	TDS	62		mg/L	P416410	
	SM 2540 D-2011	TSS	3	I	mg/L	P416412	
2338609	SM 4500-F- C-2011	Fluoride	0.056	I	mg F/L	P416404	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P416347	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P416122	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P416482	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P416186	
2338614	SM 5310 B-2011	Organic Carbon	7.5		mg C/L	P416317	
	EPA 200.7 Rev. 4.4	Calcium	3.52		mg/L	P416115	
		Iron	30	U	ug/L	P416115	
		Magnesium	2.08		mg/L	P416115	
		Potassium	2.8		mg/L	P416115	
		Sodium	8.6		mg/L	P416115	
		Strontium	20.2		ug/L	P416115	
		Tin	3.0	U	ug/L	P416115	
		Titanium	0.75	U	ug/L	P416115	
		Vanadium	2.0	U	ug/L	P416115	
		Zinc	7.8	I	ug/L	P416115	
	EPA 200.8 Rev. 5.4	Aluminum	31		ug/L	P416115	
		Antimony	0.11	I	ug/L	P416115	
		Arsenic	1.79		ug/L	P416115	
		Barium	8.60		ug/L	P416115	
		Beryllium	0.010	U	ug/L	P416115	
		Boron	42.7		ug/L	P416115	
		Cadmium	0.020	U	ug/L	P416115	
		Chromium	0.40	U	ug/L	P416115	
		Cobalt	0.028	I	ug/L	P416115	
		Copper	0.63	I	ug/L	P416115	
		Lead	0.23	I	ug/L	P416115	
		Manganese	3.54		ug/L	P416115	
		Molybdenum	0.15	U	ug/L	P416115	
		Nickel	0.50	U	ug/L	P416115	
		Selenium	0.20	U	ug/L	P416115	
		Silver	0.010	U	ug/L	P416115	
		Thallium	0.10	U	ug/L	P416115	
	SM 2340 B-2011	Hardness	17.4		mg/L	P416115	

Ref. Method and Comment:

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

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P416107

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P416111

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P416115

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P416115

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416558

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416563

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416347

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416122

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416482

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416186

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P416096

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

Reference Method: EPA 8270E
Batch ID: P416303

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P416303

Component	Result	Code	Units
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	2.5	U	ng/L
Carbophenothion	2.5	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.54	I	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P416303

Component	Result	Code	Units
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P416303

Component	Result	Code	Units
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiatone	0.30	U	ng/L
Prodiatone	0.30	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronatone	0.15	U	ng/L
Pronatone	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P416303

Component	Result	Code	Units
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B

Batch ID: P415969

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: P416117

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	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	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P416322

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P416387

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

Reference Method: SM 2540 C-2011
Batch ID: P416410

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P416412

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P416326

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P416404

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P416317

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P416107

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.3		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P416111

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P416115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	92.2		P	85 - 115
Magnesium	94.4		P	85 - 115
Potassium	105		P	85 - 115
Sodium	97.6		P	85 - 115
Strontium	103		P	85 - 115
Tin	106		P	85 - 115
Titanium	106		P	85 - 115
Vanadium	104		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P416115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.6		P	85 - 115
Antimony	99.1		P	85 - 115
Arsenic	98.3		P	85 - 115
Barium	101		P	85 - 115
Beryllium	91.8		P	85 - 115
Boron	99.4		P	85 - 115
Cadmium	95.5		P	85 - 115
Chromium	93.8		P	85 - 115
Cobalt	94.8		P	85 - 115
Copper	94.4		P	85 - 115
Lead	94.8		P	85 - 115
Manganese	94.1		P	85 - 115
Molybdenum	97.9		P	85 - 115
Nickel	96.1		P	85 - 115
Selenium	94.1		P	85 - 115
Silver	97.2		P	85 - 115
Thallium	95.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416558

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P416563

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P416347

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P416122

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P416482

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416186

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P416096

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

Reference Method: EPA 8270E

Batch ID: P416303

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	93.4		P	50 - 150
Acetochlor	92.9		P	70 - 121
Alachlor	81.1		P	68 - 119
Ametryn	84.2		P	64 - 139
Atrazine	91.7		P	76 - 120
Atrazine Desethyl	94.1		P	44 - 126
Avobenzone	95.5		P	76 - 212
Azinphos Methyl	129		P	43 - 192
Azoxystrobin	113		P	36 - 224
Bromacil	81.4		P	52 - 121
Butylate	49.0		P	28 - 91.0
Caffeine	78.7		P	50 - 134
Carbophenothion	82.4		P	56 - 129
Carfentrazone Ethyl	95.7		P	60 - 141
Chlorfenapyr	75.6		P	56 - 115
Chlorpyrifos Ethyl	77.5		P	60 - 118

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P416303

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	93.7		P	68 - 119
Coumaphos	86.7		P	18 - 250
Cyanazine	97.3		P	61 - 250
Cyprodinil	90.7		P	55 - 145
Demeton	96.3		P	30 - 159
Diazinon	90.8		P	70 - 123
Difenoconazole	110		P	49 - 204
Dimethenamid	76.7		P	64 - 115
Dimethomorph	112		P	12 - 219
Disulfoton	79.3		P	44 - 125
Dithiopyr	84.9		P	64 - 115
EPTC	46.8		P	28 - 86.0
Ethion	66.6		P	33 - 125
Ethoprop	88.2		P	64 - 116
Etridiazole	50.9		P	34 - 91.0
Fenamiphos	80.0		P	12 - 127
Fenbuconazole	83.1		P	59 - 151
Fipronil	88.3		P	67 - 129
Fipronil Desulfinyl	92.8		P	65 - 127
Fipronil Sulfide	84.9		P	61 - 116
Fipronil Sulfone	71.1		P	55 - 117
Fluazifop-P-butyl	97.8		P	62 - 127
Fludioxonil	87.4		P	62 - 128
Flumioxazin	112		P	33 - 250
Flutolanil	111		P	56 - 127
Fluxapyroxad	92.0		P	45 - 128
Fonofos	80.3		P	62 - 111
Hexazinone	89.6		P	46 - 139
Imazalil	64.8		P	38 - 142
Iprodione	88.6		P	47 - 135
Loratadine	115		P	10 - 244
Malathion	81.8		P	61 - 139
Metaxyl	85.8		P	10 - 119
Metolachlor	93.0		P	65 - 118
Metribuzin	101		P	51 - 250
Mevinphos	93.4		P	53 - 121
Molinate	64.2		P	42 - 96.0
Myclobutanil	86.6		P	55 - 128
Naled	75.6		P	10 - 98.0
Napropamide	75.9		P	49 - 121
Norflurazon	99.4		P	61 - 126
Octinoxate	83.5		P	30 - 159
Oxadiazon	83.7		P	59 - 116
Oxybenzone	80.0		P	61 - 139
Oxyfluorfen	103		P	64 - 137
Parathion Ethyl	89.1		P	70 - 112
Parathion Methyl	129		P	76 - 133
PBDE-47	85.4		P	50 - 150
PBDE-99	85.8		P	50 - 150
Pendimethalin	90.1		P	52 - 117
Phenytoin	40.8		P	10 - 199
Phorate	69.0		P	48 - 121

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P416303

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Prodiamine	33.7		P	26 - 142
Prometon	75.8		P	43 - 123
Prometryn	90.3		P	66 - 127
Pronamide	96.0		P	75 - 121
Propanil	126		P	45 - 150
Propargite	73.2		P	42 - 208
Propiconazole	103		P	60 - 125
Pyraflufen Ethyl	81.0		P	70 - 138
Pyridaben	79.6		P	35 - 245
Pyriproxyfen	88.6		P	30 - 149
Simazine	99.5		P	72 - 125
Stiophos	71.3		P	29 - 164
Sulfentrazone	101		P	21 - 139
Tebuconazole	73.0		P	10 - 115
Terbufos	98.0		P	60 - 123
Terbuthylazine	85.5		P	72 - 115
Thiobencarb	81.6		P	31 - 139
Tri-o-cresyl Phosphate	89.2		P	50 - 150
Triadimefon	81.4		P	65 - 116

Reference Method: EPA 8321B

Batch ID: P415969

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	90.0		P	40 - 150
AMPA	91.3		P	40 - 150
Endothall	96.3		P	40 - 150
Glufosinate	82.5		P	40 - 150
Glyphosate	91.0		P	40 - 150
Sucralose	90.3		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P416117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	82.6		P	40 - 150
2,4,5-T	50.0		P	40 - 150
Acetaminophen	93.8		P	30 - 150
Acetamiprid	109		P	40 - 150
Afidopyropen	59.1		P	30 - 150
Bentazon	54.3		P	30 - 150
Benzovindiflupyr	87.6		P	40 - 150
Carbamazepine	84.8		P	40 - 150
Clothianidin	90.4		P	40 - 150
Dinotefuran	108		P	40 - 150
Diuron	63.5		P	40 - 150
Fenuron	99.0		P	40 - 150
Fluridone	82.0		P	40 - 150
Hydrocodone	94.8		P	40 - 150
Ibuprofen	66.9		P	40 - 150
Imazapyr	114		P	40 - 150
Imidacloprid	158		F	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P416117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Linuron	63.0		P	40 - 150
Mandestrobin	82.6		P	40 - 150
MCPP	80.4		P	40 - 150
Naproxen	59.7		P	40 - 150
Primidone	99.8		P	40 - 150
Pyraclostrobin	83.5		P	40 - 150
Silvex	58.2		P	40 - 150
Thiamethoxam	106		P	40 - 150
Tolfenpyrad	39.0		P	30 - 150
Triclopyr	60.5		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P416322

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 2320 B-2011

Batch ID: P416387

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P416326

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 4500-F- C-2011

Batch ID: P416404

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P416317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P416115

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338497	Calcium	101		P	80 - 120
2338497	Iron	99.8		P	80 - 120
2338497	Magnesium	101		P	80 - 120
2338497	Potassium	103		P	80 - 120
2338497	Sodium	104		P	80 - 120
2338497	Strontium	105		P	80 - 120
2338497	Tin	108		P	80 - 120
2338497	Titanium	96.3		P	80 - 120
2338497	Vanadium	107		P	80 - 120
2338497	Zinc	107		P	80 - 120
2338614	Calcium	100	101	P/P	80 - 120
2338614	Iron	102	102	P/P	80 - 120
2338614	Magnesium	102	101	P/P	80 - 120
2338614	Potassium	103	103	P/P	80 - 120
2338614	Sodium	98.7		P	80 - 120
2338614	Strontium	105	105	P/P	80 - 120
2338614	Tin	107	104	P/P	80 - 120
2338614	Titanium	107	107	P/P	80 - 120
2338614	Vanadium	106	106	P/P	80 - 120
2338614	Zinc	106	103	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P416115

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338497	Aluminum	99.7		P	80 - 120
2338497	Antimony	99.9		P	80 - 120
2338497	Arsenic	99.6		P	80 - 120
2338497	Barium	104		P	80 - 120
2338497	Beryllium	87.9		P	80 - 120
2338497	Boron	106		P	80 - 120
2338497	Cadmium	99.6		P	80 - 120
2338497	Chromium	96.7		P	80 - 120
2338497	Cobalt	96.4		P	80 - 120
2338497	Copper	97.5		P	80 - 120
2338497	Lead	96.3		P	80 - 120
2338497	Manganese	97.2		P	80 - 120
2338497	Molybdenum	97.9		P	80 - 120
2338497	Nickel	97.2		P	80 - 120
2338497	Selenium	93.3		P	80 - 120
2338497	Silver	96.2		P	80 - 120
2338497	Thallium	98.7		P	80 - 120
2338614	Aluminum	99.3	99.2	P/P	80 - 120
2338614	Antimony	101	101	P/P	80 - 120
2338614	Arsenic	99.0	99.7	P/P	80 - 120
2338614	Barium	103	102	P/P	80 - 120
2338614	Beryllium	94.3	95.2	P/P	80 - 120
2338614	Boron	101	98.2	P/P	80 - 120
2338614	Cadmium	96.8	97.3	P/P	80 - 120
2338614	Chromium	96.9	96.1	P/P	80 - 120
2338614	Cobalt	96.4	96.1	P/P	80 - 120
2338614	Copper	96.6	96.1	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P416115

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338614	Lead	95.9	96.3	P/P	80 - 120
2338614	Manganese	96.1	95.1	P/P	80 - 120
2338614	Molybdenum	98.5	99.1	P/P	80 - 120
2338614	Nickel	97.0	95.4	P/P	80 - 120
2338614	Selenium	95.8	95.5	P/P	80 - 120
2338614	Silver	95.8	95.6	P/P	80 - 120
2338614	Thallium	97.1	99.5	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P416558

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338500	Chloride	97.2		P	90 - 110
2338854	Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P416563

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338500	Sulfate	95.4		P	90 - 110
2338854	Sulfate	95.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P416347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338596	Ammonia-N	96.4	96.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P416482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338606	NO2NO3-N	98.0	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416186

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338565	Total-P	106	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P416096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338575	O-Phosphate-P	97.7	96.6	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P416303

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338663	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	87.2	89.1	P/P	50 - 150
2338663	Acetochlor	89.5	86.8	P/P	65 - 124

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P416303

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338663	Alachlor	76.6	71.2	P/P	61 - 121
2338663	Ametryn	63.6	70.1	P/P	52 - 216
2338663	Atrazine Desethyl	78.2	76.9	P/P	15 - 160
2338663	Avobenzone	91.7	100	P/P	59 - 206
2338663	Azinphos Methyl	111	113	P/P	40 - 292
2338663	Bromacil	80.9	75.5	P/P	54 - 167
2338663	Butylate	41.2	57.2	P/P	14 - 94.0
2338663	Caffeine	93.8	85.7	P/P	10 - 226
2338663	Carbophenothion	72.4	68.8	P/P	49 - 122
2338663	Carfentrazone Ethyl	82.0	73.4	P/P	53 - 138
2338663	Chlorfenapyr	62.7	66.9	P/P	50 - 150
2338663	Chlorpyrifos Ethyl	67.6	67.4	P/P	52 - 122
2338663	Chlorpyrifos Methyl	86.1	84.6	P/P	66 - 117
2338663	Coumaphos	69.0	66.6	P/P	50 - 220
2338663	Cyanazine	80.6	83.2	P/P	43 - 245
2338663	Cyprodinil	86.4	83.1	P/P	50 - 150
2338663	Demeton	98.7	99.4	P/P	43 - 188
2338663	Diazinon	92.5	93.6	P/P	69 - 131
2338663	Difenoconazole	117	106	P/P	34 - 231
2338663	Dimethomorph	97.8	137	P/P	50 - 150
2338663	Disulfoton	92.9	80.8	P/P	38 - 141
2338663	Dithiopyr	41.4	44.3	F/P	42 - 116
2338663	EPTC	68.0	84.1	P/P	18 - 85.0
2338663	Ethion	64.9	51.8	P/P	10 - 131
2338663	Ethoprop	102	99.9	P/P	65 - 129
2338663	Etridiazole	51.4	52.5	P/P	50 - 150
2338663	Fenamiphos	63.4	70.9	P/P	31 - 137
2338663	Fenbuconazole	73.2	71.0	P/P	57 - 160
2338663	Fipronil	84.0	83.9	P/P	62 - 132
2338663	Fipronil Desulfinyl	75.9	80.4	P/P	57 - 131
2338663	Fipronil Sulfide	87.9	88.6	P/P	15 - 138
2338663	Fipronil Sulfone	62.3	58.7	P/P	21 - 134
2338663	Fluazifop-P-butyl	84.0	88.8	P/P	54 - 133
2338663	Fludioxonil	78.0	77.0	P/P	58 - 127
2338663	Flumioxazin	121	112	P/P	33 - 300
2338663	Fonofos	91.3	86.0	P/P	58 - 119
2338663	Hexazinone	102	86.7	P/P	68 - 172
2338663	Imazalil	144	152	P/P	48 - 283
2338663	Iprodione	79.4	75.5	P/P	38 - 140
2338663	Loratadine	115	109	P/P	50 - 150
2338663	Malathion	74.7	73.9	P/P	40 - 137
2338663	Metalaxyl	65.9	67.5	P/P	21 - 129
2338663	Metribuzin	109	113	P/P	38 - 187
2338663	Mevinphos	103	106	P/P	54 - 134
2338663	Molinate	60.7	67.3	P/P	41 - 97.0
2338663	Myclobutanil	82.7	79.7	P/P	56 - 125
2338663	Naled	69.1	77.9	P/P	10 - 108
2338663	Napropamide	70.7	61.9	P/P	50 - 150
2338663	Norflurazon	83.3	86.9	P/P	32 - 122
2338663	Octinoxate	79.6	83.6	P/P	25 - 150
2338663	Oxybenzone	70.6	79.8	P/P	59 - 147
2338663	Oxyfluorfen	99.5	94.5	P/P	61 - 153

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P416303

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338663	Parathion Ethyl	80.7	83.3	P/P	59 - 130
2338663	Parathion Methyl	136	125	P/P	65 - 155
2338663	PBDE-47	81.4	83.5	P/P	50 - 150
2338663	PBDE-99	77.3	79.2	P/P	50 - 150
2338663	Pendimethalin	113	110	P/P	49 - 138
2338663	Phenytoin	38.4	30.0	F/F	50 - 200
2338663	Phorate	79.8	74.7	P/P	54 - 161
2338663	Prodiamine	50.4	49.0	P/P	33 - 161
2338663	Prometon	74.4	73.7	P/P	48 - 140
2338663	Prometryn	55.4	58.7	P/P	55 - 134
2338663	Pronamide	85.8	83.6	P/P	66 - 137
2338663	Propanil	121	139	P/P	50 - 150
2338663	Propargite	72.9	63.9	P/P	50 - 200
2338663	Pyraflufen Ethyl	72.6	71.7	P/P	50 - 150
2338663	Pyridaben	92.2	71.9	P/P	50 - 200
2338663	Pyriproxyfen	85.3	66.6	P/P	10 - 165
2338663	Simazine	83.9	91.7	P/P	57 - 145
2338663	Stirophos	21.4	20.5	F/F	50 - 150
2338663	Sulfentrazone	89.6	76.7	P/P	34 - 140
2338663	Tebuconazole	70.9	57.6	P/P	10 - 127
2338663	Terbufos	102	104	P/P	59 - 138
2338663	Terbutylazine	80.4	82.8	P/P	68 - 119
2338663	Thiobencarb	66.5	68.9	P/P	50 - 150
2338663	Tri-o-cresyl Phosphate	76.5	80.2	P/P	50 - 150
2338663	Triadimefon	74.2	71.0	P/P	50 - 150

Reference Method: EPA 8321B

Batch ID: P415969

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337995	Acesulfame K	70.7	74.9	P/P	40 - 150
2337995	AMPA	37.3	43.6	F/P	40 - 150
2337995	Endothall	117	121	P/P	40 - 150
2337995	Glufosinate	25.5	20.7	F/F	40 - 150
2337995	Glyphosate	39.8	45.5	F/P	40 - 150
2337995	Sucralose	81.6	90.6	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P416117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338388	2,4-D	79.1	96.3	P/P	40 - 150
2338388	2,4,5-T	56.8	58.6	P/P	40 - 150
2338388	Acetaminophen	92.5	92.6	P/P	30 - 150
2338388	Acetamiprid	92.7	100	P/P	40 - 150
2338388	Afidopyrophen	65.7	68.2	P/P	30 - 150
2338388	Bentazon	51.8	55.5	P/P	30 - 150
2338388	Benzovindiflupyr	89.5	102	P/P	40 - 150
2338388	Carbamazepine	82.7	88.4	P/P	40 - 150
2338388	Clothianidin	99.9	111	P/P	40 - 150
2338388	Dinotefuran	128	132	P/P	40 - 150
2338388	Diuron	66.7	65.1	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P416117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338388	Fenuron	97.3	105	P/P	40 - 150
2338388	Fluridone	81.8	90.2	P/P	40 - 150
2338388	Hydrocodone	101	107	P/P	40 - 150
2338388	Ibuprofen	71.8	87.8	P/P	40 - 150
2338388	Imazapyr	95.0	112	P/P	40 - 150
2338388	Imidacloprid	164	175	F/F	40 - 150
2338388	Linuron	76.4	76.2	P/P	40 - 150
2338388	Mandestrobin	87.0	95.0	P/P	40 - 150
2338388	MCPP	86.1	91.6	P/P	40 - 150
2338388	Naproxen	74.4	67.9	P/P	40 - 150
2338388	Primidone	121	111	P/P	40 - 150
2338388	Pyraclostrobin	91.0	95.4	P/P	40 - 150
2338388	Silvex	51.0	63.0	P/P	40 - 150
2338388	Thiamethoxam	116	126	P/P	40 - 150
2338388	Tolfenpyrad	50.8	55.3	P/P	30 - 150
2338388	Triclopyr	65.0	68.0	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P416326

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338595	Fluoride	102	102	P/P	94 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P416404

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2339553	Fluoride	104	103	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P416317

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338564	Organic Carbon	97.6	98.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P416107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338608	Color (true)	2.14	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P416111

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338562	Turbidity	6.20	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P416115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338614	Calcium	0.454	Spike	P	0 - 20
2338614	Iron	0.339	Spike	P	0 - 20
2338614	Magnesium	0.815	Spike	P	0 - 20
2338614	Potassium	0.0395	Spike	P	0 - 20
2338614	Sodium	1.88	Spike	P	0 - 20
2338614	Strontium	0.207	Spike	P	0 - 20
2338614	Tin	3.39	Spike	P	0 - 20
2338614	Titanium	0.261	Spike	P	0 - 20
2338614	Vanadium	0.225	Spike	P	0 - 20
2338614	Zinc	2.95	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P416115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338614	Aluminum	0.114	Spike	P	0 - 20
2338614	Antimony	0.366	Spike	P	0 - 20
2338614	Arsenic	0.718	Spike	P	0 - 20
2338614	Barium	0.658	Spike	P	0 - 20
2338614	Beryllium	0.870	Spike	P	0 - 20
2338614	Boron	1.63	Spike	P	0 - 20
2338614	Cadmium	0.483	Spike	P	0 - 20
2338614	Chromium	0.796	Spike	P	0 - 20
2338614	Cobalt	0.345	Spike	P	0 - 20
2338614	Copper	0.533	Spike	P	0 - 20
2338614	Lead	0.348	Spike	P	0 - 20
2338614	Manganese	0.919	Spike	P	0 - 20
2338614	Molybdenum	0.532	Spike	P	0 - 20
2338614	Nickel	1.61	Spike	P	0 - 20
2338614	Selenium	0.316	Spike	P	0 - 20
2338614	Silver	0.236	Spike	P	0 - 20
2338614	Thallium	2.45	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338500	Chloride	0.309	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416563

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338500	Sulfate	0.291	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338596	Ammonia-N	0.399	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338606	Kjeldahl Nitrogen	0.821	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338606	NO2NO3-N	2.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338565	Total-P	1.58	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P416096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338575	O-Phosphate-P	1.13	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P416303

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338663	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	2.15	Spike	P	0 - 30
2338663	Acetochlor	3.11	Spike	P	0 - 27

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P416303

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338663	Alachlor	7.27	Spike	P	0 - 27
2338663	Ametryn	4.28	Spike	P	0 - 34
2338663	Atrazine	2.98	Spike	P	0 - 41
2338663	Atrazine Desethyl	0.941	Spike	P	0 - 38
2338663	Avobenzone	8.94	Spike	P	0 - 30
2338663	Azinphos Methyl	1.40	Spike	P	0 - 62
2338663	Azoxystrobin	9.77	Spike	P	0 - 32
2338663	Bromacil	6.96	Spike	P	0 - 30
2338663	Butylate	26.0	Spike	P	0 - 59
2338663	Caffeine	8.78	Spike	P	0 - 60
2338663	Carbophenothion	5.12	Spike	P	0 - 25
2338663	Carfentrazone Ethyl	11.1	Spike	P	0 - 26
2338663	Chlorfenapyr	6.45	Spike	P	0 - 30
2338663	Chlorpyrifos Ethyl	0.302	Spike	P	0 - 27
2338663	Chlorpyrifos Methyl	1.71	Spike	P	0 - 26
2338663	Coumaphos	3.50	Spike	P	0 - 30
2338663	Cyanazine	3.19	Spike	P	0 - 58
2338663	Cyprodinil	3.13	Spike	P	0 - 30
2338663	Demeton	0.768	Spike	P	0 - 25
2338663	Diazinon	1.17	Spike	P	0 - 29
2338663	Difenoconazole	10.2	Spike	P	0 - 25
2338663	Dimethenamid	7.59	Spike	P	0 - 30
2338663	Dimethomorph	31.8	Spike	F	0 - 30
2338663	Disulfoton	13.9	Spike	P	0 - 33
2338663	Dithiopyr	5.11	Spike	P	0 - 22
2338663	EPTC	21.2	Spike	P	0 - 38
2338663	Ethion	22.5	Spike	P	0 - 79
2338663	Ethoprop	2.31	Spike	P	0 - 23
2338663	Etridiazole	2.14	Spike	P	0 - 30
2338663	Fenamiphos	11.2	Spike	P	0 - 58
2338663	Fenbuconazole	3.15	Spike	P	0 - 37
2338663	Fipronil	0.0365	Spike	P	0 - 33
2338663	Fipronil Desulfinyl	5.07	Spike	P	0 - 26
2338663	Fipronil Sulfide	0.891	Spike	P	0 - 37
2338663	Fipronil Sulfone	4.38	Spike	P	0 - 50
2338663	Fluazifop-P-butyl	5.62	Spike	P	0 - 24
2338663	Fludioxonil	1.04	Spike	P	0 - 26
2338663	Flumioxazin	7.83	Spike	P	0 - 37
2338663	Flutolanil	1.43	Spike	P	0 - 26
2338663	Fluxapyroxad	4.99	Spike	P	0 - 34
2338663	Fonofos	5.91	Spike	P	0 - 27
2338663	Hexazinone	8.96	Spike	P	0 - 36
2338663	Imazalil	5.75	Spike	P	0 - 65
2338663	Iprodione	4.92	Spike	P	0 - 33
2338663	Loratadine	5.04	Spike	P	0 - 30
2338663	Malathion	1.15	Spike	P	0 - 44
2338663	Metalaxyl	2.08	Spike	P	0 - 38
2338663	Metolachlor	0.759	Spike	P	0 - 36
2338663	Metribuzin	3.37	Spike	P	0 - 63
2338663	Mevinphos	2.91	Spike	P	0 - 26
2338663	Molinate	10.3	Spike	P	0 - 40

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P416303

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338663	Myclobutanil	2.99	Spike	P	0 - 21
2338663	Naled	12.0	Spike	P	0 - 26
2338663	Napropamide	11.1	Spike	P	0 - 30
2338663	Norflurazon	4.23	Spike	P	0 - 24
2338663	Octinoxate	4.85	Spike	P	0 - 30
2338663	Oxadiazon	0.201	Spike	P	0 - 27
2338663	Oxybenzone	12.1	Spike	P	0 - 30
2338663	Oxyfluorfen	5.20	Spike	P	0 - 24
2338663	Parathion Ethyl	3.26	Spike	P	0 - 28
2338663	Parathion Methyl	8.32	Spike	P	0 - 27
2338663	PBDE-47	2.59	Spike	P	0 - 30
2338663	PBDE-99	2.43	Spike	P	0 - 30
2338663	Pendimethalin	2.58	Spike	P	0 - 31
2338663	Phenytoin	24.5	Spike	P	0 - 30
2338663	Phorate	6.61	Spike	P	0 - 27
2338663	Prodiamine	2.81	Spike	P	0 - 52
2338663	Prometon	1.04	Spike	P	0 - 31
2338663	Prometryn	5.65	Spike	P	0 - 28
2338663	Pronamide	2.58	Spike	P	0 - 26
2338663	Propanil	14.4	Spike	P	0 - 30
2338663	Propargite	13.1	Spike	P	0 - 30
2338663	Propiconazole	1.56	Spike	P	0 - 31
2338663	Pyraflufen Ethyl	1.15	Spike	P	0 - 30
2338663	Pyridaben	24.7	Spike	P	0 - 30
2338663	Pyriproxyfen	24.6	Spike	P	0 - 50
2338663	Simazine	8.85	Spike	P	0 - 29
2338663	Stirophos	4.21	Spike	P	0 - 30
2338663	Sulfentrazone	9.01	Spike	P	0 - 33
2338663	Tebuconazole	17.2	Spike	P	0 - 44
2338663	Terbufos	1.47	Spike	P	0 - 29
2338663	Terbuthylazine	3.00	Spike	P	0 - 27
2338663	Thiobencarb	3.51	Spike	P	0 - 30
2338663	Tri-o-cresyl Phosphate	4.74	Spike	P	0 - 30
2338663	Triadimefon	4.49	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P415969

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337995	Acesulfame K	5.65	Spike	P	0 - 30
2337995	AMPA	6.52	Spike	P	0 - 30
2337995	Endothall	3.24	Spike	P	0 - 30
2337995	Glufosinate	20.7	Spike	P	0 - 30
2337995	Glyphosate	4.33	Spike	P	0 - 30
2337995	Sucralose	9.99	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P416117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338388	2,4-D	19.6	Spike	P	0 - 30
2338388	2,4,5-T	3.02	Spike	P	0 - 30
2338388	Acetaminophen	0.113	Spike	P	0 - 30
2338388	Acetamiprid	7.82	Spike	P	0 - 30
2338388	Afidopyropen	3.78	Spike	P	0 - 30
2338388	Bentazon	6.96	Spike	P	0 - 30
2338388	Benzovindiflupyr	13.1	Spike	P	0 - 30
2338388	Carbamazepine	6.64	Spike	P	0 - 30
2338388	Clothianidin	10.1	Spike	P	0 - 30
2338388	Dinotefuran	3.21	Spike	P	0 - 30
2338388	Diuron	2.48	Spike	P	0 - 30
2338388	Fenuron	7.92	Spike	P	0 - 30
2338388	Fluridone	9.84	Spike	P	0 - 30
2338388	Hydrocodone	5.86	Spike	P	0 - 30
2338388	Ibuprofen	20.0	Spike	P	0 - 30
2338388	Imazapyr	16.9	Spike	P	0 - 30
2338388	Imidacloprid	6.43	Spike	P	0 - 30
2338388	Linuron	0.160	Spike	P	0 - 30
2338388	Mandestrobin	8.76	Spike	P	0 - 30
2338388	MCPP	6.21	Spike	P	0 - 30
2338388	Naproxen	9.06	Spike	P	0 - 30
2338388	Primidone	8.28	Spike	P	0 - 30
2338388	Pyraclostrobin	4.72	Spike	P	0 - 30
2338388	Silvex	21.1	Spike	P	0 - 30
2338388	Thiamethoxam	7.56	Spike	P	0 - 30
2338388	Tolfenpyrad	8.52	Spike	P	0 - 30
2338388	Triclopyr	4.57	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P416322

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338595	Total Alkalinity	1.22	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011

Batch ID: P416387

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339553	Total Alkalinity	0.0629	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011

Batch ID: P416410

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338595	TDS	5.85	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P416326

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338595	Fluoride	0.500	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P416404

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2339553	Fluoride	0.480	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P416317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338564	Organic Carbon	0.518	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2338612
Field Sample ID: G2CE0237

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	78.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	67.4	P	30 - 160
EPA 8321B	Diuron-d6	56.4	P	30 - 160
EPA 8321B	Endothall-d6	141	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.7	P	30 - 160
EPA 8321B	Primidone-d5	105	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2338615
Field Sample ID: G2CE0237

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	54.1	P	20 - 200
EPA 8270E	Simazine-d10	98.0	P	71 - 140
EPA 8270E	Terbufos-d10	82.3	P	62 - 131
EPA 8270E	Terphenyl-d14	75.6	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A113240

Included Lab Sample IDs: 2338607

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

Reference Method: DEP SOP: NU-094-1

Run ID: A113245

Included Lab Sample IDs: 2338605, 2338608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	93.8	96.9	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A113246

Included Lab Sample IDs: 2338605, 2338608

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

Reference Method: EPA 8321B

Run ID: A113263

Included Lab Sample IDs: 2338612

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	102	P/P	60 - 160
Sucralose	98.3	96.4	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A113269

Included Lab Sample IDs: 2338612

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	97.4	94.6	P/P	60 - 160
Endothall	85.7	85.8	P/P	60 - 160
Glufosinate	67.9	63.8	P/P	60 - 160
Glyphosate	83.8	88.0	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A113284

Included Lab Sample IDs: 2338613, 2338614

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	96.9	98.0	P/P	90 - 110
Iron	93.9	96.4	P/P	90 - 110
Magnesium	94.3	96.8	P/P	90 - 110
Potassium	99.7	101	P/P	90 - 110
Sodium	95.4	96.7	P/P	90 - 110
Strontium	103	103	P/P	90 - 110
Tin	104	105	P/P	90 - 110
Titanium	101	104	P/P	90 - 110
Vanadium	103	104	P/P	90 - 110
Zinc	102	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A113301
Included Lab Sample IDs: 2338612

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	106	P/P	50 - 150
2,4,5-T	110	115	P/P	50 - 150
Acetaminophen	106	105	P/P	60 - 160
Acetamiprid	109	114	P/P	50 - 150
Afidopyropen	107	108	P/P	50 - 150
Bentazon	109	100	P/P	50 - 160
Benzovindiflupyr	106	99.5	P/P	50 - 150
Carbamazepine	108	108	P/P	60 - 150
Clothianidin	111	94.5	P/P	60 - 150
Dinotefuran	105	113	P/P	50 - 150
Diuron	112	122	P/P	60 - 160
Fenuron	105	106	P/P	60 - 150
Fluridone	110	113	P/P	60 - 160
Hydrocodone	103	104	P/P	60 - 150
Ibuprofen	96.5	127	P/P	50 - 160
Imazapyr	110	99.1	P/P	50 - 150
Imidacloprid	99.1	94.7	P/P	60 - 150
Linuron	109	95.1	P/P	60 - 150
Mandestrobin	108	109	P/P	50 - 150
MCPP	112	111	P/P	50 - 150
Naproxen	124	109	P/P	50 - 160
Primidone	106	99.9	P/P	60 - 150
Pyraclostrobin	108	109	P/P	60 - 150
Silvex	87.2	100	P/P	50 - 150
Thiamethoxam	104	109	P/P	50 - 150
Tolfenpyrad	91.5	92.2	P/P	60 - 150
Triclopyr	99.6	97.9	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A113322
Included Lab Sample IDs: 2338613, 2338614

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.7	99.9	P/P	90 - 110
Aluminum	98.2	98.2	P/P	90 - 110
Antimony	102	101	P/P	90 - 110
Antimony	97.0	99.2	P/P	90 - 110
Arsenic	100	101	P/P	90 - 110
Arsenic	99.4	101	P/P	90 - 110
Barium	101	101	P/P	90 - 110
Barium	96.5	98.9	P/P	90 - 110
Beryllium	92.7	94.1	P/P	90 - 110
Beryllium	96.4	95.6	P/P	90 - 110
Boron	100	99.2	P/P	90 - 110
Boron	97.5	99.4	P/P	90 - 110
Cadmium	102	100	P/P	90 - 110
Cadmium	98.3	99.7	P/P	90 - 110
Chromium	93.5	96.8	P/P	90 - 110
Chromium	96.9	99.5	P/P	90 - 110
Cobalt	95.7	97.5	P/P	90 - 110
Cobalt	98.0	99.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113322

Included Lab Sample IDs: 2338613, 2338614

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	96.4	97.8	P/P	90 - 110
Copper	98.1	101	P/P	90 - 110
Lead	94.4	95.0	P/P	90 - 110
Lead	96.0	95.5	P/P	90 - 110
Manganese	92.9	96.6	P/P	90 - 110
Manganese	98.1	101	P/P	90 - 110
Molybdenum	98.5	98.0	P/P	90 - 110
Molybdenum	99.3	99.5	P/P	90 - 110
Nickel	95.7	97.2	P/P	90 - 110
Nickel	98.2	100	P/P	90 - 110
Selenium	96.3	97.9	P/P	90 - 110
Selenium	98.6	99.7	P/P	90 - 110
Silver	98.4	98.5	P/P	90 - 110
Silver	99.0	98.0	P/P	90 - 110
Thallium	95.4	96.5	P/P	90 - 110
Thallium	96.4	93.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A113336

Included Lab Sample IDs: 2338606, 2338609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	106	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A113363

Included Lab Sample IDs: 2338606, 2338609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.7	98.6	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A113365

Included Lab Sample IDs: 2338605

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A113365

Included Lab Sample IDs: 2338605

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A113377

Included Lab Sample IDs: 2338606, 2338609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.3	99.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A113406

Included Lab Sample IDs: 2338608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.1	98.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A113406

Included Lab Sample IDs: 2338608

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A113416

Included Lab Sample IDs: 2338606, 2338609

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A113433

Included Lab Sample IDs: 2338606, 2338609

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A113462

Included Lab Sample IDs: 2338605, 2338608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.3	97.3	P/P	90 - 110
Sulfate	97.0	97.0	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A113483

Included Lab Sample IDs: 2338615

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.5		P	80 - 120
Alachlor	88.7		P	80 - 120
Ametryn	99.8		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	88.6		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Bromacil	92.6		P	80 - 120
Butylate	94.4		P	80 - 120
Caffeine	112		P	80 - 120
Carbophenothion	103		P	80 - 120
Carfentrazone Ethyl	92.7		P	80 - 120
Chlorfenapyr	102		P	80 - 120
Chlorpyrifos Ethyl	106		P	80 - 120
Chlorpyrifos Methyl	109		P	80 - 120
Coumaphos	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A113483
Included Lab Sample IDs: 2338615

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cyanazine	89.3		P	80 - 120
Cyprodinil	94.6		P	80 - 120
Demeton	99.9		P	80 - 120
Diazinon	92.5		P	80 - 120
Difenoconazole	90.5		P	80 - 120
Dimethenamid	98.0		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	94.8		P	80 - 120
EPTC	98.1		P	80 - 120
Ethion	106		P	80 - 120
Ethoprop	104		P	80 - 120
Etridiazole	89.6		P	80 - 120
Fenamiphos	105		P	80 - 120
Fenbuconazole	91.1		P	80 - 120
Fipronil	94.3		P	80 - 120
Fipronil Desulfinyl	91.0		P	80 - 120
Fipronil Sulfide	81.5		P	80 - 120
Fipronil Sulfone	93.9		P	80 - 120
Fluazifop-P-butyl	101		P	80 - 120
Fludioxonil	99.7		P	80 - 120
Flumioxazin	85.6		P	80 - 120
Flutolanil	103		P	80 - 120
Fluxapyroxad	96.6		P	80 - 120
Fonofos	105		P	80 - 120
Hexazinone	107		P	80 - 120
Imazalil	91.6		P	80 - 120
Iprodione	92.9		P	80 - 120
Loratadine	91.3		P	80 - 120
Malathion	104		P	80 - 120
Metaxyl	96.3		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	106		P	80 - 120
Mevinphos	106		P	80 - 120
Molinate	97.6		P	80 - 120
Myclobutanil	99.0		P	80 - 120
Naled	99.6		P	80 - 120
Napropamide	95.2		P	80 - 120
Norflurazon	98.3		P	80 - 120
Oxadiazon	100		P	80 - 120
Oxyfluorfen	91.0		P	80 - 120
Parathion Ethyl	101		P	80 - 120
Parathion Methyl	107		P	80 - 120
Pendimethalin	105		P	80 - 120
Phenytoin	92.4		P	80 - 120
Phorate	106		P	80 - 120
Prodiamine	92.8		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	93.3		P	80 - 120
Pronamide	101		P	80 - 120
Propanil	111		P	80 - 120
Propargite	92.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A113483
Included Lab Sample IDs: 2338615

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Propiconazole	101		P	80 - 120
Pyraflufen Ethyl	91.5		P	80 - 120
Pyridaben	98.0		P	80 - 120
Pyriproxyfen	94.3		P	80 - 120
Simazine	105		P	80 - 120
Stirophos	106		P	80 - 120
Sulfentrazone	96.0		P	80 - 120
Tebuconazole	100		P	80 - 120
Terbufos	106		P	80 - 120
Terbuthylazine	100		P	80 - 120
Thiobencarb	95.0		P	80 - 120
Triadimefon	93.4		P	80 - 120

Reference Method: EPA 8270E
Run ID: A113506
Included Lab Sample IDs: 2338615

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	96.2		P	80 - 120
Avobenzone	101		P	80 - 120
Octinoxate	96.6		P	80 - 120
Oxybenzone	101		P	80 - 120
PBDE-47	98.9		P	80 - 120
PBDE-99	101		P	80 - 120
Tri-o-cresyl Phosphate	99.7		P	80 - 120

Reference Method: EPA 8270E
Run ID: A113543
Included Lab Sample IDs: 2338615

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Azoxystrobin	100		P	80 - 120
Dimethomorph	95.9		P	80 - 120

* 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
DEP SOP: NU-094-1	Color (true)	96.3					2.14	
EPA 180.1 Rev. 2.0	Turbidity	95.2					6.20	
EPA 200.7 Rev. 4.4	Calcium	102	101	100	101			0.454
	Iron	92.2	99.8	102	102			0.339
	Magnesium	94.4	101	102	101			0.815
	Potassium	105	103	103	103			0.0395
	Sodium	97.6	104	98.7				1.88
	Strontium	103	105	105	105			0.207
	Tin	106	108	107	104			3.39
	Titanium	106	96.3	107	107			0.261
	Vanadium	104	107	106	106			0.225
	Zinc	103	107	106	103			2.95
EPA 200.8 Rev. 5.4	Aluminum	97.6	99.3	99.2	99.7			0.114
	Antimony	99.1	101	101	99.9			0.366
	Arsenic	98.3	99.0	99.7	99.6			0.718
	Barium	101	103	102	104			0.658
	Beryllium	91.8	94.3	87.9	95.2			0.870
	Boron	99.4	101	98.2	106			1.63
	Cadmium	95.5	96.8	97.3	99.6			0.483
	Chromium	93.8	96.9	96.1	96.7			0.796
	Cobalt	94.8	96.4	96.1	96.4			0.345
	Copper	94.4	96.6	96.1	97.5			0.533
	Lead	94.8	95.9	96.3	96.3			0.348
	Manganese	94.1	96.1	95.1	97.2			0.919
	Molybdenum	97.9	98.5	99.1	97.9			0.532
	Nickel	96.1	97.0	95.4	97.2			1.61
	Selenium	94.1	95.8	95.5	93.3			0.316
	Silver	97.2	95.8	95.6	96.2			0.236
	Thallium	95.0	97.1	99.5	98.7			2.45
EPA 300.0 Rev. 2.1	Chloride	98.1	97.2	97.6			0.309	
	Sulfate	97.3	95.4	95.7			0.291	
EPA 350.1 Rev. 2.0	Ammonia-N	95.2	96.4	96.0				0.399
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103						0.821
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	98.0	100				2.02
EPA 365.1 Rev. 2.0	Total-P	102	106	104				1.58
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	97.7	96.6				1.13
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	93.4	89.1	87.2				2.15
	Acetochlor	92.9	89.5	86.8				3.11
	Alachlor	81.1	76.6	71.2				7.27
	Ametryn	84.2	63.6	70.1				4.28
	Atrazine	91.7						2.98
	Atrazine Desethyl	94.1	78.2	76.9				0.941
	Avobenzone	95.5	91.7	100				8.94
	Azinphos Methyl	129	111	113				1.40
	Azoxystrobin	113						9.77
	Bromacil	81.4	80.9	75.5				6.96
	Butylate	49.0	41.2	57.2				26.0
	Caffeine	78.7	93.8	85.7				8.78
	Carbophenothion	82.4	72.4	68.8				5.12
	Carfentrazone Ethyl	95.7	82.0	73.4				11.1
	Chlorfenapyr	75.6	62.7	66.9				6.45
	Chlorpyrifos Ethyl	77.5	67.6	67.4				0.302

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Methyl	93.7	86.1	84.6		1.71
	Coumaphos	86.7	69.0	66.6		3.50
	Cyanazine	97.3	80.6	83.2		3.19
	Cyprodinil	90.7	86.4	83.1		3.13
	Demeton	96.3	98.7	99.4		0.768
	Diazinon	90.8	92.5	93.6		1.17
	Difenoconazole	110	117	106		10.2
	Dimethenamid	76.7				7.59
	Dimethomorph	112	97.8	137		31.8
	Disulfoton	79.3	92.9	80.8		13.9
	Dithiopyr	84.9	41.4	44.3		5.11
	EPTC	46.8	68.0	84.1		21.2
	Ethion	66.6	64.9	51.8		22.5
	Ethoprop	88.2	102	99.9		2.31
	Etridiazole	50.9	51.4	52.5		2.14
	Fenamiphos	80.0	63.4	70.9		11.2
	Fenbuconazole	83.1	73.2	71.0		3.15
	Fipronil	88.3	84.0	83.9		0.0365
	Fipronil Desulfinyl	92.8	75.9	80.4		5.07
	Fipronil Sulfide	84.9	87.9	88.6		0.891
	Fipronil Sulfone	71.1	62.3	58.7		4.38
	Fluazifop-P-butyl	97.8	84.0	88.8		5.62
	Fludioxonil	87.4	78.0	77.0		1.04
	Flumioxazin	112	121	112		7.83
	Flutolanil	111				1.43
	Fluxapyroxad	92.0				4.99
	Fonofos	80.3	91.3	86.0		5.91
	Hexazinone	89.6	102	86.7		8.96
	Imazalil	64.8	144	152		5.75
	Iprodione	88.6	79.4	75.5		4.92
	Loratadine	115	115	109		5.04
	Malathion	81.8	74.7	73.9		1.15
	Metalaxyl	85.8	65.9	67.5		2.08
	Metolachlor	93.0				0.759
	Metribuzin	101	109	113		3.37
	Mevinphos	93.4	103	106		2.91
	Molinate	64.2	60.7	67.3		10.3
	Myclobutanil	86.6	82.7	79.7		2.99
	Naled	75.6	69.1	77.9		12.0
	Napropamide	75.9	70.7	61.9		11.1
	Norflurazon	99.4	83.3	86.9		4.23
	Octinoxate	83.5	79.6	83.6		4.85
	Oxadiazon	83.7				0.201
	Oxybenzone	80.0	70.6	79.8		12.1
	Oxyfluorfen	103	99.5	94.5		5.20
	Parathion Ethyl	89.1	80.7	83.3		3.26
	Parathion Methyl	129	136	125		8.32
	PBDE-47	85.4	81.4	83.5		2.59
	PBDE-99	85.8	79.2	77.3		2.43
	Pendimethalin	90.1	113	110		2.58
	Phenytoin	40.8	38.4	30.0		24.5
	Phorate	69.0	79.8	74.7		6.61
	Prodiamine	33.7	50.4	49.0		2.81
	Prometon	75.8	74.4	73.7		1.04

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Prometryn	90.3	55.4	58.7			5.65
	Pronamide	96.0	85.8	83.6			2.58
	Propanil	126	121	139			14.4
	Propargite	73.2	72.9	63.9			13.1
	Propiconazole	103					1.56
	Pyraflufen Ethyl	81.0	72.6	71.7			1.15
	Pyridaben	79.6	92.2	71.9			24.7
	Pyriproxyfen	88.6	85.3	66.6			24.6
	Simazine	99.5	83.9	91.7			8.85
	Stirophos	71.3	21.4	20.5			4.21
	Sulfentrazone	101	89.6	76.7			9.01
	Tebuconazole	73.0	70.9	57.6			17.2
	Terbufos	98.0	102	104			1.47
	Terbuthylazine	85.5	80.4	82.8			3.00
	Thiobencarb	81.6	66.5	68.9			3.51
	Tri-o-cresyl Phosphate	89.2	80.2	76.5			4.74
	Triadimefon	81.4	74.2	71.0			4.49
EPA 8321B	2,4-D	82.6	79.1	96.3			19.6
	2,4,5-T	50.0	56.8	58.6			3.02
	Acesulfame K	90.0	70.7	74.9			5.65
	Acetaminophen	93.8	92.5	92.6			0.113
	Acetamiprid	109	92.7	100			7.82
	Afidopyropen	59.1	65.7	68.2			3.78
	AMPA	91.3	37.3	43.6			6.52
	Bentazon	54.3	51.8	55.5			6.96
	Benzovindiflupyr	87.6	89.5	102			13.1
	Carbamazepine	84.8	82.7	88.4			6.64
	Clothianidin	90.4	99.9	111			10.1
	Dinotefuran	108	128	132			3.21
	Diuron	63.5	66.7	65.1			2.48
	Endothall	96.3	117	121			3.24
	Fenuron	99.0	97.3	105			7.92
	Fluridone	82.0	81.8	90.2			9.84
	Glufosinate	82.5	25.5	20.7			20.7
	Glyphosate	91.0	39.8	45.5			4.33
	Hydrocodone	94.8	101	107			5.86
	Ibuprofen	66.9	71.8	87.8			20.0
	Imazapyr	114	95.0	112			16.9
	Imidacloprid	158	164	175			6.43
	Linuron	63.0	76.4	76.2			0.160
	Mandestrobin	82.6	87.0	95.0			8.76
	MCPP	80.4	86.1	91.6			6.21
	Naproxen	59.7	74.4	67.9			9.06
	Primidone	99.8	121	111			8.28
	Pyraclostrobin	83.5	91.0	95.4			4.72
	Silvex	58.2	51.0	63.0			21.1
	Sucralose	90.3	81.6	90.6			9.99
	Thiamethoxam	106	116	126			7.56
	Tolfenpyrad	39.0	50.8	55.3			8.52
	Triclopyr	60.5	65.0	68.0			4.57
SM 2320 B-2011	Total Alkalinity	101				1.22	
	Total Alkalinity	101				0.0629	
SM 2540 C-2011	TDS					5.85	
SM 4500-F- C-2011	Fluoride	101	102	102			0.500

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
SM 4500-F- C-2011	Fluoride	102	104	103			0.480
SM 5310 B-2011	Organic Carbon	95.1	97.6	98.4			0.518

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2338605, 2338608
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2338605, 2338608
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2338613, 2338614
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2338613, 2338614
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2338605, 2338608
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2338605, 2338608
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2338606, 2338609
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2338606, 2338609
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2338606, 2338609
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2338606, 2338609
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2338607
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2338615
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2338615
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2338612
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2338605, 2338608
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2338613, 2338614
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2338605, 2338608
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2338605, 2338608
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2338605, 2338608
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2338606, 2338609

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	07/01/2022			07/01/2022 14:38	Samantha L Bates	2338605
	07/01/2022			07/01/2022 14:39	Samantha L Bates	2338608
EPA 180.1 Rev. 2.0	07/01/2022			07/01/2022 14:44	Khloe J Berg	2338605
	07/01/2022			07/01/2022 14:45	Khloe J Berg	2338608
EPA 200.7 Rev. 4.4	07/01/2022	07/05/2022 09:16	Mackenzie Hunt	07/05/2022 19:13	McKinley C Carter	2338613
	07/01/2022	07/05/2022 09:16	Mackenzie Hunt	07/05/2022 19:21	McKinley C Carter	2338614
EPA 200.8 Rev. 5.4	07/01/2022	07/05/2022 09:16	Mackenzie Hunt	07/06/2022 18:10	Emily M Philpot	2338614
	07/01/2022	07/05/2022 09:16	Mackenzie Hunt	07/06/2022 21:28	Emily M Philpot	2338613
EPA 300.0 Rev. 2.1	07/01/2022			07/12/2022 04:10	Anna M. Plaviak	2338605
	07/01/2022			07/12/2022 04:22	Anna M. Plaviak	2338608
EPA 350.1 Rev. 2.0	07/01/2022			07/08/2022 11:12	Ping Hua	2338606
	07/01/2022			07/08/2022 11:13	Ping Hua	2338609
EPA 351.2 Rev. 2.0	07/01/2022	07/06/2022 09:21	Simonne.V. Calhoun	07/07/2022 14:00	Alexandra J Mattheus	2338606
	07/01/2022	07/06/2022 09:21	Simonne.V. Calhoun	07/07/2022 14:05	Alexandra J Mattheus	2338609
EPA 353.2 Rev. 2.0	07/01/2022			07/12/2022 11:06	Judith K. Clark	2338606
	07/01/2022			07/12/2022 11:07	Judith K. Clark	2338609
EPA 365.1 Rev. 2.0	07/01/2022	07/07/2022 16:00	Simonne.V. Calhoun	07/11/2022 11:56	Simonne.V. Calhoun	2338606
	07/01/2022	07/07/2022 16:00	Simonne.V. Calhoun	07/11/2022 11:57	Simonne.V. Calhoun	2338609
EPA 365.1 Rev. 2.0 dissolved	07/01/2022			07/01/2022 13:22	Chandler E Cox	2338607
EPA 8270E	07/01/2022	07/07/2022 08:00	Rasheda Ghaffari	07/09/2022 20:36	Michael Poppell	2338615
	07/01/2022	07/07/2022 08:00	Rasheda Ghaffari	07/12/2022 17:17	Lipi Saha	2338615
	07/01/2022	07/07/2022 08:00	Rasheda Ghaffari	07/15/2022 17:42	Michael Poppell	2338615
EPA 8321B	07/01/2022	07/01/2022 13:00	Umesh Chilual	07/01/2022 14:29	Umesh Chilual	2338612
	07/01/2022	07/01/2022 13:00	Umesh Chilual	07/01/2022 22:58	Umesh Chilual	2338612
	07/01/2022	07/05/2022 09:00	June Rhew	07/05/2022 21:18	Juyoung Kim	2338612
SM 2320 B-2011	07/01/2022			07/07/2022 04:29	Dale L. Simmons	2338605
	07/01/2022			07/09/2022 08:21	Dale L. Simmons	2338608
SM 2340 B-2011	07/01/2022			07/05/2022 19:13	McKinley C Carter	2338613
	07/01/2022			07/05/2022 19:21	McKinley C Carter	2338614
SM 2540 C-2011	07/01/2022			07/05/2022 16:02	Yijie Li	2338605, 2338608
SM 2540 D-2011	07/01/2022			07/05/2022 16:02	Yijie Li	2338605, 2338608
SM 4500-F- C-2011	07/01/2022			07/07/2022 04:29	Dale L. Simmons	2338605
	07/01/2022			07/09/2022 08:21	Dale L. Simmons	2338608
SM 5310 B-2011	07/01/2022			07/07/2022 18:17	Khloe J Berg	2338606
	07/01/2022			07/07/2022 18:31	Khloe J Berg	2338609