

Chemical Analysis Report

CEN-DIST-2023-09-06-02

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Run 22**
Request ID: **RQ-2023-08-21-30**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 28-SEP-2023 13:45



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 LOUISE AT CENTER OF SOUTH LOBE

Collection Date/Time: 09/05/2023 11:16

Field ID: G2CE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2434447	EPA 200.7 Rev. 4.4	Calcium	6.19		mg/L	P434673	
		Iron	30	U	ug/L	P434673	
		Magnesium	4.33		mg/L	P434673	
		Potassium	6.2		mg/L	P434673	
		Sodium	9.5		mg/L	P434673	
		Strontium	31.2		ug/L	P434673	
		Tin	3.0	U	ug/L	P434673	
		Titanium	0.75	U	ug/L	P434673	
		Vanadium	2.0	U	ug/L	P434673	
		Zinc	5.0	U	ug/L	P434673	
	EPA 200.8 Rev. 5.4	Aluminum	15	I	ug/L	P434673	
		Antimony	0.066	I	ug/L	P434673	
		Arsenic	1.28		ug/L	P434673	
		Barium	14.6		ug/L	P434673	
		Beryllium	0.010	U	ug/L	P434673	
		Boron	67.0		ug/L	P434673	
		Cadmium	0.020	U	ug/L	P434673	
		Chromium	0.40	U	ug/L	P434673	
		Cobalt	0.020	U	ug/L	P434673	
		Copper	0.40	U	ug/L	P434673	
		Lead	0.20	U	ug/L	P434673	
		Manganese	12.8		ug/L	P434673	
		Molybdenum	0.15	U	ug/L	P434673	
		Nickel	0.50	U	ug/L	P434673	
		Selenium	0.20	U	ug/L	P434673	
		Silver	0.010	U	ug/L	P434673	
		Thallium	0.10	U	ug/L	P434673	
	SM 2340 B-2011	Hardness	33.3		mg/L	P434673	
2434452	EPA 8270E	Oxybenzone**	11	U	ng/L	P434593	
		Acetochlor	0.22	U	ng/L	P434593	
		Octinoxate**	170	U	ng/L	P434593	
		Alachlor	0.44	U	ng/L	P434593	
		Avobenzone**	110	U	ng/L	P434593	
		Ametryn	1.2	U	ng/L	P434593	
		Atrazine	0.69	I	ng/L	P434593	
		PBDE-47**	4.4	U	ng/L	P434593	
		Atrazine Desethyl	1.4	U	ng/L	P434593	
		PBDE-99**	5.5	U	ng/L	P434593	
		Azinphos Methyl	3.3	U	ng/L	P434593	
		Tri-o-cresyl Phosphate**	6.6	U	ng/L	P434593	
		Azoxystrobin	0.44	U	ng/L	P434593	
		Bromacil	0.66	U	ng/L	P434593	
		2-Ethylhexyl	13	U	ng/L	P434593	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					

Field ID: G2CE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2434452	EPA 8270E	Butylate	0.22	U	ng/L	P434593	
		Dechlorane Plus**	33	U	ng/L	P434593	MS
		Caffeine**	8.3	U	ng/L	P434593	
		Dechlorane 602**	5.5	U	ng/L	P434593	
		Carbophenothion	0.55	U	ng/L	P434593	
		Dechlorane 603**	4.4	U	ng/L	P434593	
		Carfentrazone Ethyl	0.17	U	ng/L	P434593	RPD
		Hexabromobenzene**	6.6	U	ng/L	P434593	
		Chlorfenapyr	0.33	U	ng/L	P434593	
		PBB-153**	8.8	U	ng/L	P434593	
		Chlorpyrifos Ethyl	0.33	U	ng/L	P434593	
		Pentabromotoluene**	3.3	U	ng/L	P434593	
		Chlorpyrifos Methyl	0.11	U	ng/L	P434593	
		Tris(2-chloroethyl) phosphate (TCEP)**	77	U	ng/L	P434593	
		Coumaphos	1.2	U	ng/L	P434593	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	37	IV	ng/L	P434593	
		Cyanazine	5.5	U	ng/L	P434593	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.8	U	ng/L	P434593	
		Cyprodinil	0.22	U	ng/L	P434593	
		Tetradecachloro-m-terphenyl**	8.3	U	ng/L	P434593	
		Demeton	3.9	U	ng/L	P434593	
		Diazinon	0.14	U	ng/L	P434593	
		Difenoconazole	0.66	U	ng/L	P434593	
		Dimethenamid	0.11	U	ng/L	P434593	
		Dimethomorph	0.33	U	ng/L	P434593	
		Disulfoton	0.66	U	ng/L	P434593	
		Dithiopyr	1.1	U	ng/L	P434593	
		EPTC	0.55	U	ng/L	P434593	
		Ethion	0.33	U	ng/L	P434593	
		Ethoprop	0.14	U	ng/L	P434593	
		Etridiazole	0.11	U	ng/L	P434593	
		Fenamiphos	0.50	UJ	ng/L	P434593	LCS
		Fenbuconazole	0.55	U	ng/L	P434593	
		Fipronil	0.22	U	ng/L	P434593	
		Fipronil Desulfinyl**	0.11	U	ng/L	P434593	
		Fipronil Sulfide	0.11	U	ng/L	P434593	
		Fipronil Sulfone	0.11	U	ng/L	P434593	
		Fluazifop-P-butyl	0.11	UJ	ng/L	P434593	CCV
		Fludioxonil	0.11	U	ng/L	P434593	
		Flumioxazin	3.3	U	ng/L	P434593	
		Flutolanil	0.11	U	ng/L	P434593	
		Fluxapyroxad	14		ng/L	P434593	
		Fonofos	0.17	U	ng/L	P434593	
		Hexazinone	0.55	U	ng/L	P434593	

Field ID: G2CE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2434452	EPA 8270E	Imazalil	0.72	U	ng/L	P434593	
		Iprodione	0.55	U	ng/L	P434593	
		Loratadine**	0.33	U	ng/L	P434593	
		Malathion	0.39	UJ	ng/L	P434593	LCS
		Metalaxyl	0.55	U	ng/L	P434593	
		Metolachlor	0.83	U	ng/L	P434593	
		Metribuzin	0.44	U	ng/L	P434593	
		Mevinphos	1.1	U	ng/L	P434593	
		Molinate	0.28	U	ng/L	P434593	
		Myclobutanil	0.39	U	ng/L	P434593	
		Naled	2.8	U	ng/L	P434593	
		Napropamide	0.77	U	ng/L	P434593	
		Norflurazon	1.1	U	ng/L	P434593	
		Oxadiazon	0.39	U	ng/L	P434593	
		Oxyfluorfen	0.22	U	ng/L	P434593	
		Parathion Ethyl	0.17	U	ng/L	P434593	
		Parathion Methyl	0.22	U	ng/L	P434593	
		Pendimethalin	0.83	U	ng/L	P434593	
		Phenytol**	5.8	U	ng/L	P434593	
		Phorate	0.28	U	ng/L	P434593	
		Prodiamine	0.22	UJ	ng/L	P434593	LCS
		Prometon	3.3	U	ng/L	P434593	
		Prometryn	0.39	U	ng/L	P434593	
		Pronamide	0.11	U	ng/L	P434593	
		Propanil	0.11	U	ng/L	P434593	
		Propargite	0.88	U	ng/L	P434593	
		Propiconazole	0.66	U	ng/L	P434593	
		Pyraflufen Ethyl	0.33	U	ng/L	P434593	
		Pyridaben	1.5	U	ng/L	P434593	
		Pyriproxyfen	0.28	U	ng/L	P434593	
		Simazine	0.28	U	ng/L	P434593	
		Stirophos	0.44	UJ	ng/L	P434593	CCV
		Sulfentrazone	1.5	U	ng/L	P434593	
		Tebuconazole	1.5	U	ng/L	P434593	
		Terbufos	0.22	U	ng/L	P434593	
		Terbuthylazine	0.22	U	ng/L	P434593	
		Thiobencarb	0.55	U	ng/L	P434593	
		Triadimefon	0.17	U	ng/L	P434593	

Ref. Method and Comment:

EPA 8270E: V - Due to the presence of TCPP in both the Method Blank and the sample.

EPA 8270E: MS accuracy for oxadiazon not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: LAKE TALMADGE S OF CENTER

Collection Date/Time: 09/05/2023 14:45

Field ID: g2ce0267

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2434443	DEP SOP: NU-094-1	Color (true)	83		PCU	P434632	
	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P434626	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P434876	
		Sulfate	6.6		mg SO4/L	P434879	
	SM 2320 B-2011	Total Alkalinity	15		mg CaCO3/L	P434707	
	SM 2540 C-2015	TDS	92		mg/L	P435122	
	SM 2540 D-2015	TSS	2	I	mg/L	P435046	
	SM 4500-F- C-2011	Fluoride	0.034	I	mg F/L	P434710	
2434444	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P434684	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P434827	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P435087	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P435034	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P434775	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: LAKE WINONA AT CENTER OF LAKE

Collection Date/Time: 09/05/2023 12:53

Field ID: G2CE0288

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2434446	EPA 200.7 Rev. 4.4	Calcium	3.30		mg/L	P434673	
		Iron	30	U	ug/L	P434673	
		Magnesium	3.34		mg/L	P434673	
		Potassium	3.6		mg/L	P434673	
		Sodium	8.4		mg/L	P434673	
		Strontium	21.9		ug/L	P434673	
		Tin	3.0	U	ug/L	P434673	
		Titanium	0.75	U	ug/L	P434673	
		Vanadium	2.0	U	ug/L	P434673	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P434673	
		Aluminum	38		ug/L	P434673	
		Antimony	0.13	I	ug/L	P434673	
		Arsenic	0.67		ug/L	P434673	
		Barium	11.2		ug/L	P434673	
		Beryllium	0.010	U	ug/L	P434673	
		Boron	30.0		ug/L	P434673	
		Cadmium	0.132		ug/L	P434673	
		Chromium	0.40	U	ug/L	P434673	
		Cobalt	0.020	U	ug/L	P434673	
		Copper	0.42	I	ug/L	P434673	
		Lead	0.23	I	ug/L	P434673	
		Manganese	9.52		ug/L	P434673	
		Molybdenum	0.15	U	ug/L	P434673	
		Nickel	0.50	U	ug/L	P434673	
		Selenium	0.20	U	ug/L	P434673	
		Silver	0.010	U	ug/L	P434673	
		Thallium	0.10	U	ug/L	P434673	
	SM 2340 B-2011	Hardness	22.0		mg/L	P434673	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: The cadmium result was confirmed in the undigested sample on 09/12/2023.

Sample Location: FB

Collection Date/Time: 09/05/2023 11:33

Field ID: FB_09052023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2434469	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P434632	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P434626	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P434876	
		Sulfate	0.20	U	mg SO4/L	P434879	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P434707	
	SM 2540 C-2015	TDS	15	U	mg/L	P435122	
	SM 2540 D-2015	TSS	2	U	mg/L	P435046	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P434710	
2434470	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P434684	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P434951	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P435087	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P434851	
2434472	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P434673	
		Iron	30	U	ug/L	P434673	
		Magnesium	0.040	U	mg/L	P434673	
		Potassium	0.30	U	mg/L	P434673	
		Sodium	0.50	U	mg/L	P434673	
		Strontium	2.0	U	ug/L	P434673	
		Tin	3.0	U	ug/L	P434673	
		Titanium	0.75	U	ug/L	P434673	
	EPA 200.8 Rev. 5.4	Vanadium	2.0	U	ug/L	P434673	
		Zinc	5.0	U	ug/L	P434673	
		Aluminum	5.0	U	ug/L	P434673	
		Antimony	0.050	U	ug/L	P434673	
		Arsenic	0.050	U	ug/L	P434673	
		Barium	0.20	U	ug/L	P434673	
		Beryllium	0.010	U	ug/L	P434673	
		Boron	2.0	U	ug/L	P434673	
		Cadmium	0.020	U	ug/L	P434673	
		Chromium	0.40	U	ug/L	P434673	
		Cobalt	0.020	U	ug/L	P434673	
		Copper	0.40	U	ug/L	P434673	
		Lead	0.20	U	ug/L	P434673	
		Manganese	0.10	U	ug/L	P434673	
		Molybdenum	0.15	U	ug/L	P434673	
		Nickel	0.50	U	ug/L	P434673	
		Selenium	0.20	U	ug/L	P434673	
		Silver	0.010	U	ug/L	P434673	
		Thallium	0.10	U	ug/L	P434673	
	SM 2340 B-2011	Hardness	0.35	U	mg/L	P434673	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P434632

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434626

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434673

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: P434673

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: P434876

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: P434879

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434684

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434827

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434951

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435087

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434851

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435034

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

Reference Method: EPA 8270E
Batch ID: P434593

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	0.20	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine	0.20	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P434593

Component	Result	Code	Units
Atrazine Desethyl	1.3	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.20	U	ng/L
Butylate	0.20	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Demeton	3.5	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	0.30	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
EPTC	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P434593

Component	Result	Code	Units
Ethion	0.30	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Molinate	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P434593

Component	Result	Code	Units
Myclobutanil	0.35	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Napropamide	0.70	U	ng/L
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	150	U	ng/L
Octinoxate	150	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	8.0	U	ng/L
PBB-153	8.0	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	0.75	U	ng/L
Pendimethalin	0.75	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	5.3	U	ng/L
Phenytoin	5.3	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyridaben	1.4	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P434593

Component	Result	Code	Units
Pyriproxyfen	0.25	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Stirophos	0.40	U	ng/L
Sulfentrazone	1.4	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbufos	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Thiobencarb	0.50	U	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	I	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	19	I	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L

Reference Method: SM 2320 B-2011

Batch ID: P434707

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

Reference Method: SM 2540 C-2015

Batch ID: P435122

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P435046

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P434710

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P434775

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: P434632

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434626

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434673

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	110		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	103		P	85 - 115
Sodium	104		P	85 - 115
Strontium	104		P	85 - 115
Tin	102		P	85 - 115
Titanium	100		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434673

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	100		P	85 - 115
Barium	105		P	85 - 115
Beryllium	93.6		P	85 - 115
Boron	104		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	99.3		P	85 - 115
Cobalt	101		P	85 - 115
Copper	100		P	85 - 115
Lead	102		P	85 - 115
Manganese	102		P	85 - 115
Molybdenum	99.2		P	85 - 115
Nickel	100		P	85 - 115
Selenium	98.7		P	85 - 115
Silver	114		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434876

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	94.6		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434879

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434684

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434827

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434951

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435087

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	96.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435034

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

Reference Method: EPA 8270E
Batch ID: P434593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	74.4		P	42 - 162
Acetochlor	78.4		P	69 - 123
Alachlor	65.5		P	65 - 118
Ametryn	89.2		P	58 - 141
Atrazine	86.4		P	73 - 118
Atrazine Desethyl	80.2		P	32 - 125
Avobenzone	137		P	40 - 203
Azinphos Methyl	121		P	36 - 197
Azoxystrobin	92.7		P	58 - 226
Bromacil	108		P	48 - 120

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P434593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Butylate	69.0		P	27 - 85.0
Caffeine	132		P	40 - 137
Carbophenothion	82.3		P	54 - 132
Carfentrazone Ethyl	80.9		P	60 - 142
Chlorfenapyr	83.6		P	53 - 117
Chlorpyrifos Ethyl	101		P	59 - 116
Chlorpyrifos Methyl	87.4		P	66 - 119
Coumaphos	81.5		P	11 - 234
Cyanazine	110		P	61 - 248
Cyprodinil	80.1		P	50 - 147
Dechlorane 602	64.0		P	50 - 150
Dechlorane 603	94.9		P	50 - 150
Dechlorane Plus	77.7		P	47 - 182
Demeton	62.4		P	30 - 138
Diazinon	89.3		P	67 - 126
Difenoconazole	113		P	38 - 205
Dimethenamid	71.2		P	57 - 111
Dimethomorph	195		P	16 - 212
Disulfoton	102		P	46 - 126
Dithiopyr	79.2		P	62 - 115
EPTC	55.6		P	28 - 80.0
Ethion	47.4		P	24 - 122
Ethoprop	79.8		P	62 - 113
Etridiazole	60.3		P	28 - 92.0
Fenamiphos	56.4		F	57 - 128
Fenbuconazole	71.5		P	52 - 155
Fipronil	87.8		P	63 - 130
Fipronil Desulfinyl	94.2		P	61 - 130
Fipronil Sulfide	74.0		P	56 - 117
Fipronil Sulfone	73.1		P	52 - 118
Fluazifop-P-butyl	68.0		P	61 - 128
Fludioxonil	64.0		P	59 - 129
Flumioxazin	138		P	30 - 250
Flutolanil	62.0		P	53 - 127
Fluxapyroxad	63.1		P	42 - 132
Fonofos	87.8		P	61 - 110
Hexabromobenzene	89.8		P	50 - 150
Hexazinone	78.5		P	46 - 139
Imazalil	131		P	40 - 139
Iprodione	80.2		P	40 - 146
Loratadine	92.5		P	10 - 224
Malathion	55.1		F	61 - 135
Metalaxyl	69.5		P	58 - 121
Metolachlor	75.0		P	64 - 118
Metribuzin	50.4		P	45 - 245
Mevinphos	86.4		P	49 - 118
Molinate	60.4		P	42 - 92.0
Myclobutanil	75.7		P	55 - 127
Naled	51.1		P	10 - 114
Napropamide	72.1		P	39 - 121
Norflurazon	58.7		P	55 - 129
Octinoxate	93.7		P	26 - 166

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P434593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxadiazon	67.0		P	54 - 115
Oxybenzone	104		P	49 - 135
Oxyfluorfen	85.0		P	64 - 139
Parathion Ethyl	87.2		P	70 - 111
Parathion Methyl	99.5		P	76 - 136
PBB-153	88.2		P	50 - 150
PBDE-47	73.0		P	41 - 148
PBDE-99	58.2		P	38 - 147
Pendimethalin	62.5		P	52 - 118
Pentabromotoluene	90.7		P	50 - 150
Phenytoin	48.3		P	10 - 162
Phorate	83.3		P	40 - 122
Prodiamine	24.6		F	26 - 141
Prometon	111		P	54 - 122
Prometryn	86.6		P	61 - 128
Pronamide	92.7		P	72 - 121
Propanil	114		P	45 - 144
Propargite	56.0		P	10 - 199
Propiconazole	67.9		P	56 - 127
Pyraflufen Ethyl	81.8		P	56 - 140
Pyridaben	96.6		P	26 - 211
Pyriproxyfen	75.2		P	33 - 194
Simazine	99.0		P	67 - 121
Stiophos	28.5		P	20 - 142
Sulfentrazone	77.4		P	21 - 144
Tebuconazole	42.2		P	10 - 122
Terbufos	106		P	60 - 129
Terbutylazine	72.3		P	69 - 113
Tetradecachloro-m-terphenyl	105		P	70 - 200
Thiobencarb	80.4		P	51 - 120
Tri-o-cresyl Phosphate	106		P	49 - 150
Triadimefon	72.1		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	105		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	97.8		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	92.0		P	70 - 180

Reference Method: SM 2320 B-2011

Batch ID: P434707

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.8		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P435122

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	99.4		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P435046

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

Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P435046

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	98.9		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P434710

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P434775

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P434673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434133	Calcium	105	105	P/P	80 - 120
2434133	Iron	105	107	P/P	80 - 120
2434133	Magnesium	105	107	P/P	80 - 120
2434133	Potassium	102	102	P/P	80 - 120
2434133	Sodium	102	103	P/P	80 - 120
2434133	Strontium	103	103	P/P	80 - 120
2434133	Tin	99.4	102	P/P	80 - 120
2434133	Titanium	99.5	102	P/P	80 - 120
2434133	Vanadium	102	104	P/P	80 - 120
2434133	Zinc	102	105	P/P	80 - 120
2434446	Calcium	105		P	80 - 120
2434446	Iron	106		P	80 - 120
2434446	Magnesium	106		P	80 - 120
2434446	Potassium	106		P	80 - 120
2434446	Sodium	101		P	80 - 120
2434446	Strontium	105		P	80 - 120
2434446	Tin	101		P	80 - 120
2434446	Titanium	100		P	80 - 120
2434446	Vanadium	103		P	80 - 120
2434446	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P434673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434133	Aluminum	102	105	P/P	80 - 120
2434133	Antimony	103	103	P/P	80 - 120
2434133	Arsenic	99.7	100	P/P	80 - 120
2434133	Barium	104	104	P/P	80 - 120
2434133	Beryllium	90.8	92.7	P/P	80 - 120
2434133	Boron	104	106	P/P	80 - 120
2434133	Cadmium	101	102	P/P	80 - 120
2434133	Chromium	97.7	99.0	P/P	80 - 120
2434133	Cobalt	99.2	101	P/P	80 - 120
2434133	Copper	99.8	100	P/P	80 - 120
2434133	Lead	101	103	P/P	80 - 120
2434133	Manganese	97.9	105	P/P	80 - 120
2434133	Molybdenum	98.0	100	P/P	80 - 120
2434133	Nickel	99.4	101	P/P	80 - 120
2434133	Selenium	99.9	99.0	P/P	80 - 120
2434133	Silver	110	113	P/P	80 - 120
2434133	Thallium	105	106	P/P	80 - 120
2434446	Aluminum	101		P	80 - 120
2434446	Antimony	105		P	80 - 120
2434446	Arsenic	98.8		P	80 - 120
2434446	Barium	105		P	80 - 120
2434446	Beryllium	93.6		P	80 - 120
2434446	Boron	101		P	80 - 120
2434446	Cadmium	101		P	80 - 120
2434446	Chromium	96.5		P	80 - 120
2434446	Cobalt	96.8		P	80 - 120
2434446	Copper	97.5		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434446	Lead	101		P	80 - 120
2434446	Manganese	98.9		P	80 - 120
2434446	Molybdenum	99.5		P	80 - 120
2434446	Nickel	96.8		P	80 - 120
2434446	Selenium	97.6		P	80 - 120
2434446	Silver	112		P	80 - 120
2434446	Thallium	104		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434257	Chloride	97.4		P	90 - 110
2434511	Chloride	95.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434879

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434257	Sulfate	94.0		P	90 - 110
2434511	Sulfate	91.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434214	Ammonia-N	97.2	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434600	Kjeldahl Nitrogen	111	104	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434951

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434449	Kjeldahl Nitrogen	93.0	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435087

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434444	NO2NO3-N	94.5	95.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435504	Total-P	102	102	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P435034

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2436351	Total-P	108	110	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P434593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434550	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	81.5	74.6	P/P	26 - 165
2434550	Acetochlor	88.2	86.8	P/P	67 - 124
2434550	Alachlor	104	86.0	P/P	60 - 120
2434550	Ametryn	85.9	93.8	P/P	54 - 216
2434550	Atrazine	102	96.5	P/P	66 - 128
2434550	Atrazine Desethyl	58.2	62.6	P/P	15 - 122
2434550	Avobenzone	120	128	P/P	37 - 178
2434550	Azinphos Methyl	190	165	P/P	40 - 292
2434550	Azoxystrobin	88.9	86.1	P/P	35 - 220
2434550	Bromacil	76.9	65.1	P/P	45 - 127
2434550	Butylate	64.2	54.8	P/P	20 - 83.0
2434550	Caffeine	99.7	106	P/P	10 - 194
2434550	Carbophenothion	94.5	85.2	P/P	57 - 127
2434550	Carfentrazone Ethyl	105	74.2	P/P	51 - 141
2434550	Chlorfenapyr	86.6	72.4	P/P	46 - 111
2434550	Chlorpyrifos Ethyl	112	96.5	P/P	52 - 120
2434550	Chlorpyrifos Methyl	116	95.8	P/P	63 - 119
2434550	Coumaphos	166	129	P/P	10 - 228
2434550	Cyanazine	123	103	P/P	59 - 241
2434550	Cyprodinil	79.0	68.6	P/P	47 - 146
2434550	Dechlorane 602	57.9	57.1	P/P	50 - 150
2434550	Dechlorane 603	80.9	68.0	P/P	50 - 150
2434550	Dechlorane Plus	56.5	45.6	P/F	50 - 150
2434550	Demeton	123	113	P/P	40 - 136
2434550	Diazinon	91.2	82.8	P/P	69 - 132
2434550	Difenoconazole	83.5	62.9	P/P	57 - 258
2434550	Dimethenamid	89.8	81.3	P/P	54 - 110
2434550	Dimethomorph	93.6	97.7	P/P	28 - 210
2434550	Disulfoton	88.0	80.4	P/P	43 - 133
2434550	Dithiopyr	77.1	64.9	P/P	39 - 116
2434550	EPTC	58.0	53.3	P/P	20 - 78.0
2434550	Ethion	70.1	72.5	P/P	17 - 119
2434550	Ethoprop	88.4	87.7	P/P	66 - 120
2434550	Etridiazole	52.9	47.0	P/P	28 - 96.0
2434550	Fenamiphos	75.1	71.7	P/P	41 - 126
2434550	Fenbuconazole	111	79.8	P/P	42 - 169
2434550	Fipronil	95.3	74.1	P/P	61 - 132
2434550	Fipronil Desulfinyl	84.9	60.5	P/P	56 - 132
2434550	Fipronil Sulfide	79.7	66.6	P/P	48 - 119
2434550	Fipronil Sulfone	99.4	86.6	P/P	42 - 131
2434550	Fluazifop-P-butyl	93.3	71.3	P/P	53 - 131
2434550	Fludioxonil	84.1	63.9	P/P	56 - 127
2434550	Flumioxazin	170	137	P/P	19 - 300
2434550	Flutolanil	61.1	51.8	P/P	41 - 127
2434550	Fluxapyroxad	126	114	P/P	42 - 172
2434550	Fonofos	90.1	83.2	P/P	59 - 113

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P434593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434550	Hexabromobenzene	87.6	89.7	P/P	50 - 150
2434550	Hexazinone	98.2	84.8	P/P	66 - 122
2434550	Imazalil	92.0	81.7	P/P	21 - 283
2434550	Iprodione	91.4	72.9	P/P	43 - 150
2434550	Loratadine	161	165	P/P	23 - 201
2434550	Malathion	134	118	P/P	58 - 136
2434550	Metalaxyl	77.6	83.7	P/P	55 - 120
2434550	Metolachlor	82.6	75.3	P/P	57 - 121
2434550	Metribuzin	58.1	65.6	P/P	58 - 294
2434550	Mevinphos	88.4	94.5	P/P	50 - 126
2434550	Molinate	87.7	65.6	P/P	42 - 93.0
2434550	Myclobutanil	85.0	80.4	P/P	55 - 125
2434550	Naled	56.1	57.8	P/P	18 - 200
2434550	Napropamide	81.1	60.0	P/P	39 - 110
2434550	Norflurazon	65.1	48.5	P/P	48 - 128
2434550	Octinoxate	90.5	88.5	P/P	21 - 159
2434550	Oxybenzone	104	97.8	P/P	41 - 142
2434550	Oxyfluorfen	108	102	P/P	64 - 153
2434550	Parathion Ethyl	89.7	81.8	P/P	69 - 114
2434550	Parathion Methyl	130	101	P/P	79 - 139
2434550	PBB-153	88.5	77.7	P/P	50 - 150
2434550	PBDE-47	71.6	74.6	P/P	27 - 144
2434550	PBDE-99	58.0	55.9	P/P	18 - 150
2434550	Pendimethalin	71.3	76.3	P/P	50 - 139
2434550	Pentabromotoluene	89.8	90.0	P/P	50 - 150
2434550	Phenytoin	53.6	50.0	P/P	10 - 146
2434550	Phorate	97.2	115	P/P	54 - 161
2434550	Prodiamine	52.4	52.0	P/P	30 - 161
2434550	Prometon	88.2	76.8	P/P	45 - 134
2434550	Prometryn	72.1	74.2	P/P	45 - 137
2434550	Pronamide	98.5	95.6	P/P	65 - 133
2434550	Propanil	72.0	73.1	P/P	49 - 142
2434550	Propargite	101	84.3	P/P	10 - 203
2434550	Propiconazole	123	108	P/P	38 - 146
2434550	Pyraflufen Ethyl	126	100	P/P	34 - 153
2434550	Pyridaben	152	144	P/P	12 - 192
2434550	Pyriproxyfen	94.5	88.9	P/P	33 - 180
2434550	Simazine	96.7	102	P/P	51 - 157
2434550	Stirophos	83.7	57.4	P/P	10 - 128
2434550	Sulfentrazone	88.9	77.4	P/P	53 - 186
2434550	Tebuconazole	109	76.4	P/P	10 - 133
2434550	Terbufos	86.9	82.5	P/P	65 - 139
2434550	Terbutylazine	85.8	78.5	P/P	66 - 117
2434550	Tetradecachloro-m-terphenyl	80.7	78.8	P/P	70 - 200
2434550	Thiobencarb	71.9	73.7	P/P	51 - 119
2434550	Tri-o-cresyl Phosphate	105	102	P/P	31 - 144
2434550	Triadimefon	82.4	69.7	P/P	48 - 119
2434550	Tris(1-chloro-2-propyl) phosphate (TCPP)	105	97.1	P/P	50 - 150
2434550	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	102	93.9	P/P	50 - 150
2434550	Tris(2-chloroethyl) phosphate (TCEP)	103	98.7	P/P	70 - 180

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P434710

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434064	Fluoride	99.2	99.8	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P434775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434444	Organic Carbon	93.5	96.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P434632

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434183	Color (true)	5.81	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434626

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434379	Turbidity	8.28	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434133	Calcium	0.465	Spike	P	0 - 20
2434133	Iron	1.22	Spike	P	0 - 20
2434133	Magnesium	1.52	Spike	P	0 - 20
2434133	Potassium	0.0772	Spike	P	0 - 20
2434133	Sodium	0.238	Spike	P	0 - 20
2434133	Strontium	0.421	Spike	P	0 - 20
2434133	Tin	2.23	Spike	P	0 - 20
2434133	Titanium	2.15	Spike	P	0 - 20
2434133	Vanadium	2.16	Spike	P	0 - 20
2434133	Zinc	2.90	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434133	Aluminum	1.53	Spike	P	0 - 20
2434133	Antimony	0.704	Spike	P	0 - 20
2434133	Arsenic	0.231	Spike	P	0 - 20
2434133	Barium	0.293	Spike	P	0 - 20
2434133	Beryllium	1.73	Spike	P	0 - 20
2434133	Boron	2.07	Spike	P	0 - 20
2434133	Cadmium	0.536	Spike	P	0 - 20
2434133	Chromium	1.28	Spike	P	0 - 20
2434133	Cobalt	1.37	Spike	P	0 - 20
2434133	Copper	0.506	Spike	P	0 - 20
2434133	Lead	1.33	Spike	P	0 - 20
2434133	Manganese	1.77	Spike	P	0 - 20
2434133	Molybdenum	2.19	Spike	P	0 - 20
2434133	Nickel	1.36	Spike	P	0 - 20
2434133	Selenium	0.908	Spike	P	0 - 20
2434133	Silver	1.98	Spike	P	0 - 20
2434133	Thallium	1.52	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434257	Chloride	1.43	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434879

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434257	Sulfate	1.55	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434214	Ammonia-N	1.26	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434600	Kjeldahl Nitrogen	3.80	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434951

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434449	Kjeldahl Nitrogen	5.51	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434444	NO2NO3-N	1.05	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435504	Total-P	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435034

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2436351	Total-P	1.37	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P434593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434550	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	8.88	Spike	P	0 - 37
2434550	Acetochlor	1.56	Spike	P	0 - 28
2434550	Alachlor	18.6	Spike	P	0 - 30
2434550	Ametryn	8.85	Spike	P	0 - 32
2434550	Atrazine	1.84	Spike	P	0 - 41
2434550	Atrazine Desethyl	6.29	Spike	P	0 - 36
2434550	Avobenzone	6.69	Spike	P	0 - 36
2434550	Azinphos Methyl	14.2	Spike	P	0 - 75
2434550	Azoxystrobin	3.23	Spike	P	0 - 39
2434550	Bromacil	16.7	Spike	P	0 - 33
2434550	Butylate	15.7	Spike	P	0 - 44
2434550	Caffeine	4.81	Spike	P	0 - 74
2434550	Carbophenothion	10.3	Spike	P	0 - 25
2434550	Carfentrazone Ethyl	34.5	Spike	F	0 - 27
2434550	Chlorfenapyr	17.9	Spike	P	0 - 24
2434550	Chlorpyrifos Ethyl	15.1	Spike	P	0 - 26
2434550	Chlorpyrifos Methyl	19.5	Spike	P	0 - 26
2434550	Coumaphos	24.6	Spike	P	0 - 28
2434550	Cyanazine	17.1	Spike	P	0 - 48
2434550	Cyprodinil	14.1	Spike	P	0 - 29
2434550	Dechlorane 602	1.34	Spike	P	0 - 30
2434550	Dechlorane 603	17.4	Spike	P	0 - 30
2434550	Dechlorane Plus	21.4	Spike	P	0 - 30
2434550	Demeton	8.67	Spike	P	0 - 33
2434550	Diazinon	9.74	Spike	P	0 - 29
2434550	Difenoconazole	28.1	Spike	P	0 - 34
2434550	Dimethenamid	9.90	Spike	P	0 - 39
2434550	Dimethomorph	4.23	Spike	P	0 - 51
2434550	Disulfoton	9.05	Spike	P	0 - 30
2434550	Dithiopyr	17.2	Spike	P	0 - 26
2434550	EPTC	8.40	Spike	P	0 - 43
2434550	Ethion	3.45	Spike	P	0 - 79
2434550	Ethoprop	0.870	Spike	P	0 - 29
2434550	Etridiazole	11.8	Spike	P	0 - 33
2434550	Fenamiphos	4.66	Spike	P	0 - 40
2434550	Fenbuconazole	32.8	Spike	P	0 - 74
2434550	Fipronil	22.2	Spike	P	0 - 29
2434550	Fipronil Desulfinyl	30.3	Spike	P	0 - 32
2434550	Fipronil Sulfide	15.7	Spike	P	0 - 30
2434550	Fipronil Sulfone	10.8	Spike	P	0 - 33
2434550	Fluazifop-P-butyl	26.8	Spike	P	0 - 38
2434550	Fludioxonil	27.3	Spike	P	0 - 29
2434550	Flumioxazin	21.3	Spike	P	0 - 51
2434550	Flutolanil	16.6	Spike	P	0 - 25
2434550	Fluxapyroxad	10.1	Spike	P	0 - 45
2434550	Fonofos	7.97	Spike	P	0 - 27
2434550	Hexabromobenzene	2.34	Spike	P	0 - 30
2434550	Hexazinone	14.7	Spike	P	0 - 30
2434550	Imazalil	11.9	Spike	P	0 - 100
2434550	Iprodione	22.5	Spike	P	0 - 33
2434550	Loratadine	2.29	Spike	P	0 - 56

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P434593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434550	Malathion	13.2	Spike	P	0 - 37
2434550	Metalaxyl	7.54	Spike	P	0 - 40
2434550	Metolachlor	9.18	Spike	P	0 - 29
2434550	Metribuzin	12.0	Spike	P	0 - 45
2434550	Mevinphos	6.69	Spike	P	0 - 29
2434550	Molinate	28.8	Spike	P	0 - 33
2434550	Myclobutanil	5.49	Spike	P	0 - 26
2434550	Naled	2.99	Spike	P	0 - 37
2434550	Napropamide	29.9	Spike	P	0 - 44
2434550	Norflurazon	29.3	Spike	P	0 - 30
2434550	Octinoxate	2.29	Spike	P	0 - 45
2434550	Oxadiazon	11.0	Spike	P	0 - 28
2434550	Oxybenzone	5.88	Spike	P	0 - 46
2434550	Oxyfluorfen	5.69	Spike	P	0 - 28
2434550	Parathion Ethyl	9.29	Spike	P	0 - 31
2434550	Parathion Methyl	25.0	Spike	P	0 - 29
2434550	PBB-153	13.0	Spike	P	0 - 30
2434550	PBDE-47	4.12	Spike	P	0 - 36
2434550	PBDE-99	3.56	Spike	P	0 - 40
2434550	Pendimethalin	6.84	Spike	P	0 - 33
2434550	Pentabromotoluene	0.249	Spike	P	0 - 30
2434550	Phenytol	6.97	Spike	P	0 - 100
2434550	Phorate	17.0	Spike	P	0 - 36
2434550	Prodiamine	0.772	Spike	P	0 - 71
2434550	Prometon	13.7	Spike	P	0 - 36
2434550	Prometryn	2.81	Spike	P	0 - 28
2434550	Pronamide	2.98	Spike	P	0 - 24
2434550	Propanil	1.58	Spike	P	0 - 28
2434550	Propargite	17.8	Spike	P	0 - 43
2434550	Propiconazole	13.1	Spike	P	0 - 33
2434550	Pyraflufen Ethyl	23.2	Spike	P	0 - 29
2434550	Pyridaben	5.57	Spike	P	0 - 30
2434550	Pyriproxyfen	6.11	Spike	P	0 - 79
2434550	Simazine	4.87	Spike	P	0 - 29
2434550	Stirophos	37.3	Spike	P	0 - 61
2434550	Sulfentrazone	13.8	Spike	P	0 - 33
2434550	Tebuconazole	34.7	Spike	P	0 - 69
2434550	Terbufos	5.19	Spike	P	0 - 29
2434550	Terbuthylazine	8.94	Spike	P	0 - 32
2434550	Tetradecachloro-m-terphenyl	2.33	Spike	P	0 - 30
2434550	Thiobencarb	2.56	Spike	P	0 - 26
2434550	Tri-o-cresyl Phosphate	2.00	Spike	P	0 - 33
2434550	Triadimefon	16.7	Spike	P	0 - 28
2434550	Tris(1-chloro-2-propyl) phosphate (TCPP)	6.15	Spike	P	0 - 30
2434550	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	7.72	Spike	P	0 - 30
2434550	Tris(2-chloroethyl) phosphate (TCEP)	4.62	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P434707

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434064	Total Alkalinity	1.79	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P435122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434183	TDS	1.94	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P434710

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434064	Fluoride	0.480	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P434775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434444	Organic Carbon	1.47	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2434452
Field Sample ID: G2CE0065

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	63.1	P	20 - 200
EPA 8270E	Simazine-d10	74.5	P	62 - 142
EPA 8270E	Terbufos-d10	67.0	P	58 - 132
EPA 8270E	Terphenyl-d14	75.0	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A121379

Included Lab Sample IDs: 2434443, 2434469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	97.5	97.5	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1

Run ID: A121382

Included Lab Sample IDs: 2434443, 2434469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121407

Included Lab Sample IDs: 2434444, 2434470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	101	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121417

Included Lab Sample IDs: 2434443, 2434469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.9	99.2	P/P	90 - 110
Total Alkalinity	98.5	94.9	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A121417

Included Lab Sample IDs: 2434443, 2434469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	101	P/P	90 - 110
Fluoride	99.5	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A121436

Included Lab Sample IDs: 2434446, 2434447, 2434472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	97.8	P/P	90 - 110
Aluminum	101	100	P/P	90 - 110
Antimony	97.8	97.9	P/P	90 - 110
Antimony	99.2	97.8	P/P	90 - 110
Arsenic	96.6	96.0	P/P	90 - 110
Arsenic	99.4	96.6	P/P	90 - 110
Barium	101	98.8	P/P	90 - 110
Barium	98.8	98.7	P/P	90 - 110
Beryllium	93.4	91.9	P/P	90 - 110
Beryllium	93.6	93.4	P/P	90 - 110
Boron	97.0	95.1	P/P	90 - 110
Boron	98.5	97.0	P/P	90 - 110
Cadmium	97.7	97.8	P/P	90 - 110
Cadmium	99.8	97.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A121436

Included Lab Sample IDs: 2434446, 2434447, 2434472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	95.8	94.7	P/P	90 - 110
Chromium	96.7	95.8	P/P	90 - 110
Cobalt	96.4	94.7	P/P	90 - 110
Cobalt	99.4	96.4	P/P	90 - 110
Copper	95.3	93.4	P/P	90 - 110
Copper	97.3	95.3	P/P	90 - 110
Lead	97.4	96.4	P/P	90 - 110
Lead	99.7	97.4	P/P	90 - 110
Manganese	97.9	96.3	P/P	90 - 110
Manganese	98.5	97.9	P/P	90 - 110
Molybdenum	95.2	95.4	P/P	90 - 110
Molybdenum	98.1	95.2	P/P	90 - 110
Nickel	95.2	93.4	P/P	90 - 110
Nickel	97.1	95.2	P/P	90 - 110
Selenium	96.7	96.6	P/P	90 - 110
Selenium	99.2	96.7	P/P	90 - 110
Silver	101	97.8	P/P	90 - 110
Silver	97.8	96.6	P/P	90 - 110
Thallium	97.5	95.3	P/P	90 - 110
Thallium	98.7	97.5	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A121443

Included Lab Sample IDs: 2434444

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	96.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121485

Included Lab Sample IDs: 2434443, 2434469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	101	P/P	90 - 110
Sulfate	104	103	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A121499

Included Lab Sample IDs: 2434446, 2434447, 2434472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.0	101	P/P	90 - 110
Calcium	99.5	100	P/P	95 - 105
Iron	98.7	102	P/P	90 - 110
Iron	99.9	100	P/P	95 - 105
Magnesium	98.6	102	P/P	90 - 110
Magnesium	99.8	99.6	P/P	95 - 105
Potassium	97.8	100	P/P	90 - 110
Potassium	98.5	98.6	P/P	95 - 105
Sodium	97.6	100	P/P	90 - 110
Sodium	98.6	98.8	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A121499

Included Lab Sample IDs: 2434446, 2434447, 2434472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Strontium	98.9	100	P/P	90 - 110
Strontium	99.2	98.2	P/P	95 - 105
Tin	97.3	98.2	P/P	90 - 110
Tin	98.2	96.7	P/P	95 - 105
Titanium	97.1	97.6	P/P	90 - 110
Titanium	97.5	96.5	P/P	95 - 105
Vanadium	97.5	98.2	P/P	90 - 110
Vanadium	97.8	96.8	P/P	95 - 105
Zinc	96.5	98.0	P/P	90 - 110
Zinc	98.3	96.7	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121508

Included Lab Sample IDs: 2434470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	94.8	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A121510

Included Lab Sample IDs: 2434444

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A121570

Included Lab Sample IDs: 2434444, 2434470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.0	95.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A121605

Included Lab Sample IDs: 2434470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.0	102	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A121609

Included Lab Sample IDs: 2434452

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	90.7		P	80 - 120
Avobenzene	104		P	80 - 120
Dechlorane 602	97.4		P	80 - 120
Dechlorane 603	94.2		P	80 - 120
Dechlorane Plus	91.6		P	80 - 120
Hexabromobenzene	95.7		P	80 - 120
Octinoxate	92.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A121609
Included Lab Sample IDs: 2434452

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxybenzone	99.7		P	80 - 120
PBB-153	92.7		P	80 - 120
PBDE-47	95.0		P	80 - 120
PBDE-99	91.6		P	80 - 120
Pentabromotoluene	103		P	80 - 120
Tetradecachloro-m-terphenyl	98.1		P	80 - 120
Tri-o-cresyl Phosphate	98.4		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	95.5		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	100		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	96.9		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A121626
Included Lab Sample IDs: 2434444

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

Reference Method: EPA 8270E
Run ID: A121685
Included Lab Sample IDs: 2434452

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.2		P	80 - 120
Alachlor	84.3		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine	89.8		P	80 - 120
Atrazine Desethyl	106		P	80 - 120
Azinphos Methyl	96.8		P	80 - 120
Azoxystrobin	103		P	80 - 120
Bromacil	96.9		P	80 - 120
Butylate	104		P	80 - 120
Caffeine	92.5		P	80 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	105		P	80 - 120
Chlorfenapyr	84.0		P	80 - 120
Chlorpyrifos Ethyl	89.2		P	80 - 120
Chlorpyrifos Methyl	99.5		P	80 - 120
Coumaphos	88.7		P	80 - 120
Cyanazine	103		P	80 - 120
Cyprodinil	99.3		P	80 - 120
Demeton	96.9		P	80 - 120
Diazinon	94.7		P	80 - 120
Difenoconazole	90.7		P	80 - 120
Dimethenamid	99.3		P	80 - 120
Dimethomorph	83.0		P	80 - 120
Disulfoton	103		P	80 - 120
Dithiopyr	98.1		P	80 - 120
EPTC	98.3		P	80 - 120
Ethion	99.5		P	80 - 120
Ethoprop	85.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A121685
Included Lab Sample IDs: 2434452

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Etridiazole	108		P	80 - 120
Fenamiphos	93.0		P	80 - 120
Fenbuconazole	93.0		P	80 - 120
Fipronil	96.6		P	80 - 120
Fipronil Desulfinyl	87.8		P	80 - 120
Fipronil Sulfide	90.3		P	80 - 120
Fipronil Sulfone	91.9		P	80 - 120
Fluazifop-P-butyl	73.4*		F	80 - 120
Fludioxonil	97.0		P	80 - 120
Flumioxazin	97.6		P	80 - 120
Flutolanil	98.4		P	80 - 120
Fluxapyroxad	98.6		P	80 - 120
Fonofos	98.2		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	107		P	80 - 120
Iprodione	91.0		P	80 - 120
Loratadine	90.7		P	80 - 120
Malathion	96.9		P	80 - 120
Metalaxyl	88.9		P	80 - 120
Metolachlor	97.3		P	80 - 120
Metribuzin	107		P	80 - 120
Mevinphos	90.0		P	80 - 120
Molinate	87.9		P	80 - 120
Myclobutanil	89.3		P	80 - 120
Naled	111		P	80 - 120
Napropamide	98.4		P	80 - 120
Norflurazon	96.3		P	80 - 120
Oxadiazon	110		P	80 - 120
Oxyfluorfen	99.1		P	80 - 120
Parathion Ethyl	91.8		P	80 - 120
Parathion Methyl	97.8		P	80 - 120
Pendimethalin	94.8		P	80 - 120
Phenytoin	94.0		P	80 - 120
Phorate	89.7		P	80 - 120
Prodiamine	94.4		P	80 - 120
Prometon	93.5		P	80 - 120
Prometryn	96.4		P	80 - 120
Pronamide	111		P	80 - 120
Propanil	115		P	80 - 120
Propargite	101		P	80 - 120
Propiconazole	80.7		P	80 - 120
Pyraflufen Ethyl	103		P	80 - 120
Pyridaben	98.8		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	120		P	80 - 120
Stirophos	76.5*		F	80 - 120
Sulfentrazone	114		P	80 - 120
Tebuconazole	102		P	80 - 120
Terbufos	96.7		P	80 - 120
Terbuthylazine	92.2		P	80 - 120
Thiobencarb	102		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E
Run ID: A121685
Included Lab Sample IDs: 2434452

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Triadimefon	104		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)	101					5.81	
EPA 180.1 Rev. 2.0	Turbidity	101					8.28	
EPA 200.7 Rev. 4.4	Calcium	105	105	105	105			0.465
	Iron	110	105	107	106			1.22
	Magnesium	105	105	107	106			1.52
	Potassium	103	102	102	106			0.0772
	Sodium	104	102	103	101			0.238
	Strontium	104	103	103	105			0.421
	Tin	102	99.4	102	101			2.23
	Titanium	100	99.5	102	100			2.15
	Vanadium	102	102	104	103			2.16
	Zinc	102	102	105	102			2.90
EPA 200.8 Rev. 5.4	Aluminum	103	102	105	101			1.53
	Antimony	104	103	103	105			0.704
	Arsenic	100	99.7	100	98.8			0.231
	Barium	105	104	104	105			0.293
	Beryllium	93.6	90.8	92.7	93.6			1.73
	Boron	104	104	106	101			2.07
	Cadmium	101	101	102	101			0.536
	Chromium	99.3	97.7	99.0	96.5			1.28
	Cobalt	101	99.2	101	96.8			1.37
	Copper	100	99.8	100	97.5			0.506
	Lead	102	101	103	101			1.33
	Manganese	102	97.9	105	98.9			1.77
	Molybdenum	99.2	98.0	100	99.5			2.19
	Nickel	100	99.4	101	96.8			1.36
	Selenium	98.7	99.9	99.0	97.6			0.908
	Silver	114	110	113	112			1.98
	Thallium	104	105	106	104			1.52
EPA 300.0 Rev. 2.1	Chloride	94.6	97.4	95.8			1.43	
	Sulfate	91.0	94.0	91.8			1.55	
EPA 350.1 Rev. 2.0	Ammonia-N	96.8	97.2	99.2				1.26
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	111	104				3.80
	Kjeldahl Nitrogen	105	93.0	103				5.51
EPA 353.2 Rev. 2.0	NO2NO3-N	96.5	94.5	95.5				1.05
EPA 365.1 Rev. 2.0	Total-P	108	102	102				0.0
	Total-P	105	108	110				1.37
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	74.4	81.5	74.6				8.88
	Acetochlor	78.4	88.2	86.8				1.56
	Alachlor	65.5	104	86.0				18.6
	Ametryn	89.2	85.9	93.8				8.85
	Atrazine	86.4	102	96.5				1.84
	Atrazine Desethyl	80.2	58.2	62.6				6.29
	Avobenzone	137	120	128				6.69
	Azinphos Methyl	121	190	165				14.2
	Azoxystrobin	92.7	88.9	86.1				3.23
	Bromacil	108	76.9	65.1				16.7
	Butylate	69.0	64.2	54.8				15.7
	Caffeine	132	99.7	106				4.81
	Carbophenothion	82.3	94.5	85.2				10.3
	Carfentrazone Ethyl	80.9	105	74.2				34.5
	Chlorfenapyr	83.6	86.6	72.4				17.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Chlorpyrifos Ethyl	101	112	96.5			15.1
	Chlorpyrifos Methyl	87.4	116	95.8			19.5
	Coumaphos	81.5	166	129			24.6
	Cyanazine	110	123	103			17.1
	Cyprodinil	80.1	79.0	68.6			14.1
	Dechlorane 602	64.0	57.9	57.1			1.34
	Dechlorane 603	94.9	80.9	68.0			17.4
	Dechlorane Plus	77.7	56.5	45.6			21.4
	Demeton	62.4	123	113			8.67
	Diazinon	89.3	91.2	82.8			9.74
	Difenoconazole	113	83.5	62.9			28.1
	Dimethenamid	71.2	89.8	81.3			9.90
	Dimethomorph	195	93.6	97.7			4.23
	Disulfoton	102	88.0	80.4			9.05
	Dithiopyr	79.2	77.1	64.9			17.2
	EPTC	55.6	58.0	53.3			8.40
	Ethion	47.4	70.1	72.5			3.45
	Ethoprop	79.8	88.4	87.7			0.870
	Etridiazole	60.3	52.9	47.0			11.8
	Fenamiphos	56.4	75.1	71.7			4.66
	Fenbuconazole	71.5	111	79.8			32.8
	Fipronil	87.8	95.3	74.1			22.2
	Fipronil Desulfinyl	94.2	84.9	60.5			30.3
	Fipronil Sulfide	74.0	79.7	66.6			15.7
	Fipronil Sulfone	73.1	99.4	86.6			10.8
	Fluazifop-P-butyl	68.0	93.3	71.3			26.8
	Fludioxonil	64.0	84.1	63.9			27.3
	Flumioxazin	138	170	137			21.3
	Flutolanil	62.0	61.1	51.8			16.6
	Fluxapyroxad	63.1	126	114			10.1
	Fonofos	87.8	90.1	83.2			7.97
	Hexabromobenzene	89.8	87.6	89.7			2.34
	Hexazinone	78.5	98.2	84.8			14.7
	Imazalil	131	92.0	81.7			11.9
	Iprodione	80.2	91.4	72.9			22.5
	Loratadine	92.5	161	165			2.29
	Malathion	55.1	134	118			13.2
	Metalaxyl	69.5	77.6	83.7			7.54
	Metolachlor	75.0	82.6	75.3			9.18
	Metribuzin	50.4	58.1	65.6			12.0
	Mevinphos	86.4	88.4	94.5			6.69
	Molinate	60.4	87.7	65.6			28.8
	Myclobutanil	75.7	85.0	80.4			5.49
	Naled	51.1	56.1	57.8			2.99
	Napropamide	72.1	81.1	60.0			29.9
	Norflurazon	58.7	65.1	48.5			29.3
	Octinoxate	93.7	90.5	88.5			2.29
	Oxadiazon	67.0					11.0
	Oxybenzone	104	104	97.8			5.88
	Oxyfluorfen	85.0	108	102			5.69
	Parathion Ethyl	87.2	89.7	81.8			9.29
	Parathion Methyl	99.5	130	101			25.0
	PBB-153	88.2	88.5	77.7			13.0
	PBDE-47	73.0	71.6	74.6			4.12

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
			LCS	SMP	MS	
EPA 8270E	PBDE-99	58.2	58.0	55.9		3.56
	Pendimethalin	62.5	71.3	76.3		6.84
	Pentabromotoluene	90.7	89.8	90.0		0.249
	Phenytol	48.3	53.6	50.0		6.97
	Phorate	83.3	97.2	115		17.0
	Prodiamine	24.6	52.4	52.0		0.772
	Prometon	111	88.2	76.8		13.7
	Prometryn	86.6	72.1	74.2		2.81
	Pronamide	92.7	98.5	95.6		2.98
	Propanil	114	72.0	73.1		1.58
	Propargite	56.0	101	84.3		17.8
	Propiconazole	67.9	123	108		13.1
	Pyraflufen Ethyl	81.8	126	100		23.2
	Pyridaben	96.6	152	144		5.57
	Pyriproxyfen	75.2	94.5	88.9		6.11
	Simazine	99.0	96.7	102		4.87
	Stirophos	28.5	83.7	57.4		37.3
	Sulfentrazone	77.4	88.9	77.4		13.8
	Tebuconazole	42.2	109	76.4		34.7
	Terbufos	106	86.9	82.5		5.19
	Terbuthylazine	72.3	85.8	78.5		8.94
	Tetradecachloro-m-terphenyl	105	80.7	78.8		2.33
	Thiobencarb	80.4	71.9	73.7		2.56
	Tri-o-cresyl Phosphate	106	105	102		2.00
	Triadimefon	72.1	82.4	69.7		16.7
	Tris(1-chloro-2-propyl) phosphate (TCPP)	105	105	97.1		6.15
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	97.8	102	93.9		7.72
	Tris(2-chloroethyl) phosphate (TCEP)	92.0	103	98.7		4.62
SM 2320 B-2011	Total Alkalinity	95.8			1.79	
SM 2540 C-2015	TDS	99.4			1.94	
SM 2540 D-2015	TSS	98.9				
SM 4500-F- C-2011	Fluoride	98.3	99.2	99.8		0.480
SM 5310 B-2011	Organic Carbon	93.6	93.5	96.1		1.47

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2434443, 2434469
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2434443, 2434469
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2434446, 2434447, 2434472
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2434446, 2434447, 2434472
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2434443, 2434469
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2434443, 2434469
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2434444, 2434470
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2434444, 2434470
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2434444, 2434470
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2434444, 2434470
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2434452
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2434452

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2434443, 2434469
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2434446, 2434447, 2434472
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2434443, 2434469
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2434443, 2434469
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2434443, 2434469
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2434444

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	09/06/2023			09/06/2023 16:01	Chandler E Cox	2434443
	09/06/2023			09/06/2023 16:02	Chandler E Cox	2434469
EPA 180.1 Rev. 2.0	09/06/2023			09/06/2023 15:36	Khloe J Berg	2434443
	09/06/2023			09/06/2023 15:39	Khloe J Berg	2434469
EPA 200.7 Rev. 4.4	09/06/2023	09/07/2023 12:50	George D Taylor	09/12/2023 18:44	McKinley C Carter	2434472
	09/06/2023	09/07/2023 12:50	George D Taylor	09/12/2023 21:42	McKinley C Carter	2434446
	09/06/2023	09/07/2023 12:50	George D Taylor	09/12/2023 22:06	McKinley C Carter	2434447
EPA 200.8 Rev. 5.4	09/06/2023	09/07/2023 12:50	George D Taylor	09/08/2023 13:54	Conrad Hartmann	2434472
	09/06/2023	09/07/2023 12:50	George D Taylor	09/08/2023 16:34	Conrad Hartmann	2434447
	09/06/2023	09/07/2023 12:50	George D Taylor	09/08/2023 16:43	Conrad Hartmann	2434446
	09/06/2023			09/12/2023 00:04	James L Waggeberby	2434443
EPA 300.0 Rev. 2.1	09/06/2023			09/12/2023 00:19	James L Waggeberby	2434469
	09/06/2023			09/07/2023 12:51	Khloe J Berg	2434444
EPA 350.1 Rev. 2.0	09/06/2023			09/07/2023 12:55	Khloe J Berg	2434470
	09/06/2023	09/12/2023 13:48	Simonne.V. Calhoun	09/13/2023 15:41	Samantha L Bates	2434444
EPA 351.2 Rev. 2.0	09/06/2023	09/14/2023 15:31	Simonne.V. Calhoun	09/18/2023 15:51	Samantha L Bates	2434470
	09/06/2023			09/13/2023 14:35	Anna M. Plaviak	2434444
EPA 353.2 Rev. 2.0	09/06/2023			09/13/2023 14:43	Anna M. Plaviak	2434470
	09/06/2023	09/12/2023 17:58	Adam P Silver	09/13/2023 15:24	Simonne.V. Calhoun	2434470
EPA 365.1 Rev. 2.0	09/06/2023	09/15/2023 14:15	Adam P Silver	09/19/2023 13:44	James L Waggeberby	2434444
	09/06/2023	09/07/2023 08:00	Fe-Val Siddell	09/12/2023 17:56	Vandana T. Nagar	2434452
EPA 8270E	09/06/2023	09/07/2023 08:00	Fe-Val Siddell	09/18/2023 19:46	Arthur Maknenko	2434452
	09/06/2023			09/07/2023 22:05	Dale L. Simmons	2434443
SM 2320 B-2011	09/06/2023			09/07/2023 23:10	Dale L. Simmons	2434469
	09/06/2023			09/12/2023 18:44	McKinley C Carter	2434472
SM 2340 B-2011	09/06/2023			09/12/2023 21:42	McKinley C Carter	2434446
	09/06/2023			09/12/2023 22:06	McKinley C Carter	2434447
	09/06/2023			09/11/2023 15:46	Yijie Li	2434443, 2434469
SM 2540 C-2015	09/06/2023			09/11/2023 15:46	Yijie Li	2434443, 2434469
SM 2540 D-2015	09/06/2023			09/07/2023 22:05	Dale L. Simmons	2434443
SM 4500-F- C-2011	09/06/2023			09/07/2023 23:10	Dale L. Simmons	2434469
SM 5310 B-2011	09/06/2023			09/07/2023 13:37	Elise M. Gillis	2434444