

Chemical Analysis Report

NE-DIST-2023-05-11-01

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

Event Description: **Lake LVI Little lake Johnson**
Request ID: **RQ-2023-05-08-69**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 31-MAY-2023 09:16

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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: LITTLE LAKE JOHNSON CENTER

Collection Date/Time: 05/10/2023 11:30

Field ID: G2NE1201

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408813	DEP SOP: NU-094-1	Color (true)	20		PCU	P429777	
	EPA 180.1 Rev. 2.0	Turbidity	0.95	I	NTU	P429780	
	EPA 300.0 Rev. 2.1	Chloride	4.5		mg Cl/L	P430017	
		Sulfate	1.4		mg SO4/L	P430020	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P430117	
	SM 2540 C-2015	TDS	17	I	mg/L	P430193	
	SM 2540 D-2015	TSS	2	U	mg/L	P429882	
2408814	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P430285	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P430074	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.43		mg N/L	P430086	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P429986	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P429858	
2408815	SM 5310 B-2011	Organic Carbon	5.7		mg C/L	P429896	
2408815	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P429769	
2408817	EPA 200.7 Rev. 4.4	Calcium	0.46		mg/L	P429828	
		Iron	30	U	ug/L	P429828	
		Magnesium	0.44		mg/L	P429828	
		Potassium	0.30	U	mg/L	P429828	
		Sodium	2.3		mg/L	P429828	
		Strontium	2.3	I	ug/L	P429828	
		Tin	3.0	U	ug/L	P429828	
	EPA 200.8 Rev. 5.4	Titanium	0.75	U	ug/L	P429828	
		Vanadium	2.0	U	ug/L	P429828	
		Zinc	5.0	U	ug/L	P429828	
		Aluminum	39		ug/L	P429828	
		Antimony	0.050	U	ug/L	P429828	
		Arsenic	0.050	U	ug/L	P429828	
		Barium	2.33		ug/L	P429828	
		Beryllium	0.010	U	ug/L	P429828	
		Boron	10.2		ug/L	P429828	
		Cadmium	0.020	U	ug/L	P429828	
		Chromium	0.40	U	ug/L	P429828	
		Cobalt	0.025	I	ug/L	P429828	
		Copper	0.40	U	ug/L	P430037	
		Lead	0.20	U	ug/L	P429828	
		Manganese	3.56		ug/L	P429828	
		Molybdenum	0.15	U	ug/L	P429828	
		Nickel	0.50	U	ug/L	P429828	
		Selenium	0.20	U	ug/L	P429828	
		Silver	0.010	U	ug/L	P429828	
		Thallium	0.10	U	ug/L	P429828	
	SM 2340 B-2011	Hardness	2.96		mg/L	P429828	
2408818	EPA 8270E	Oxybenzone**	10	U	ng/L	P429600	

Field ID: G2NE1201

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408818	EPA 8270E	Acetochlor	0.21	U	ng/L	P429600	
		Octinoxate**	21	U	ng/L	P429600	
		Alachlor	0.42	U	ng/L	P429600	
		Avobenzone**	100	U	ng/L	P429600	
		Ametryn	1.2	U	ng/L	P429600	
		Atrazine	1.3		ng/L	P429600	
		PBDE-47**	4.2	U	ng/L	P429600	
		Atrazine Desethyl	1.4	U	ng/L	P429600	
		PBDE-99**	5.2	U	ng/L	P429600	
		Azinphos Methyl	3.1	U	ng/L	P429600	
		Tri-o-cresyl Phosphate**	6.3	U	ng/L	P429600	
		Azoxystrobin	0.42	U	ng/L	P429600	
		Bromacil	0.63	U	ng/L	P429600	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	13	U	ng/L	P429600	
		Butylate	0.21	U	ng/L	P429600	
		Dechlorane Plus**	31	U	ng/L	P429600	
		Caffeine**	74		ng/L	P429600	
		Dechlorane 602**	5.2	U	ng/L	P429600	
		Carbophenothion	0.52	U	ng/L	P429600	
		Dechlorane 603**	4.2	U	ng/L	P429600	
		Carfentrazone Ethyl	0.16	U	ng/L	P429600	
		Hexabromobenzene**	6.3	U	ng/L	P429600	
		Chlorfenapyr	0.31	U	ng/L	P429600	
		PBB-153**	8.4	U	ng/L	P429600	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P429600	
		Pentabromotoluene**	3.1	U	ng/L	P429600	
		Chlorpyrifos Methyl	0.10	U	ng/L	P429600	
		Tris(2-chloroethyl) phosphate (TCEP)**	73	U	ng/L	P429600	
		Coumaphos	1.1	U	ng/L	P429600	
		Tris(1-chloro-2-propyl) phosphate (TDCPP)**	16	U	ng/L	P429600	
		Cyanazine	5.2	UJ	ng/L	P429600	CCV
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	5.5	I	ng/L	P429600	
		Cyprodinil	0.21	U	ng/L	P429600	
		Tetradecachloro-m-terphenyl**	7.8	U	ng/L	P429600	
		Demeton	3.7	U	ng/L	P429600	
		Diazinon	0.13	U	ng/L	P429600	
		Difenoconazole	0.63	U	ng/L	P429600	RPD
		Dimethenamid	0.10	U	ng/L	P429600	
		Dimethomorph	0.31	U	ng/L	P429600	
		Disulfoton	0.63	U	ng/L	P429600	
		Dithiopyr	1.0	U	ng/L	P429600	
		EPTC	0.52	U	ng/L	P429600	
		Ethion	0.31	U	ng/L	P429600	
		Ethoprop	0.13	U	ng/L	P429600	

Field ID: G2NE1201

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408818	EPA 8270E	Etridiazole	0.10	U	ng/L	P429600	
		Fenamiphos	0.47	U	ng/L	P429600	
		Fenbuconazole	0.52	U	ng/L	P429600	
		Fipronil	0.21	U	ng/L	P429600	
		Fipronil Desulfinyl**	0.20	I	ng/L	P429600	
		Fipronil Sulfide	0.10	U	ng/L	P429600	
		Fipronil Sulfone	0.10	U	ng/L	P429600	
		Fluazifop-P-butyl	0.10	U	ng/L	P429600	
		Fludioxonil	0.10	U	ng/L	P429600	
		Flumioxazin	3.1	U	ng/L	P429600	
		Flutolanil	0.10	U	ng/L	P429600	
		Fluxapyroxad	0.26	U	ng/L	P429600	
		Fonofos	0.16	U	ng/L	P429600	
		Hexazinone	0.52	U	ng/L	P429600	
		Imazalil	0.68	U	ng/L	P429600	
		Iprodione	0.52	U	ng/L	P429600	
		Loratadine**	0.31	U	ng/L	P429600	
		Malathion	0.37	U	ng/L	P429600	
		Metalaxyl	0.52	U	ng/L	P429600	
		Metolachlor	0.78	U	ng/L	P429600	
		Metribuzin	0.42	U	ng/L	P429600	
		Mevinphos	1.0	U	ng/L	P429600	
		Molinate	0.26	U	ng/L	P429600	
		Myclobutanil	0.37	U	ng/L	P429600	
		Naled	2.6	U	ng/L	P429600	
		Napropamide	0.73	U	ng/L	P429600	
		Norflurazon	1.0	U	ng/L	P429600	
		Oxadiazon	0.37	U	ng/L	P429600	
		Oxyfluorfen	0.21	U	ng/L	P429600	
		Parathion Ethyl	0.16	U	ng/L	P429600	
		Parathion Methyl	0.21	U	ng/L	P429600	
		Pendimethalin	0.78	U	ng/L	P429600	
		Phenytion**	5.5	U	ng/L	P429600	
		Phorate	0.26	U	ng/L	P429600	
		Prodiamine	0.21	U	ng/L	P429600	
		Prometon	3.1	U	ng/L	P429600	
		Prometryn	0.37	U	ng/L	P429600	
		Pronamide	0.10	U	ng/L	P429600	
		Propanil	0.10	U	ng/L	P429600	
		Propargite	0.84	U	ng/L	P429600	
		Propiconazole	0.63	U	ng/L	P429600	
		Pyraflufen Ethyl	0.31	U	ng/L	P429600	
		Pyridaben	1.5	U	ng/L	P429600	
		Pyriproxyfen	0.26	U	ng/L	P429600	
		Simazine	0.26	U	ng/L	P429600	

Field ID: G2NE1201

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408818	EPA 8270E	Stirophos	0.42	U	ng/L	P429600	
		Sulfentrazone	1.5	U	ng/L	P429600	
		Tebuconazole	1.5	U	ng/L	P429600	
		Terbufos	0.21	U	ng/L	P429600	
		Terbutylazine	0.21	U	ng/L	P429600	
		Thiobencarb	0.52	U	ng/L	P429600	
		Triadimefon	0.16	U	ng/L	P429600	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P429777

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429780

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429828

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: P429828

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
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 200.8 Rev. 5.4
Batch ID: P430037

Component	Result	Code	Units
Copper	0.40	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430017

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430020

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430074

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430086

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429986

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429858

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429769

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

Reference Method: EPA 8270E
Batch ID: P429600

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P429600

Component	Result	Code	Units
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.20	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	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
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	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
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P429600

Component	Result	Code	Units
Molinate	0.25	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	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
Parathion Ethyl	0.15	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
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytol	5.3	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbutylazine	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
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P430117

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

Reference Method: SM 2540 C-2015
Batch ID: P430193

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P429882

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P430285

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P429896

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: P429777

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.9		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429780

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429828

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	100		P	85 - 115
Iron	101		P	85 - 115
Magnesium	99.1		P	85 - 115
Potassium	99.7		P	85 - 115
Sodium	94.4		P	85 - 115
Strontium	98.0		P	85 - 115
Tin	99.4		P	85 - 115
Titanium	99.6		P	85 - 115
Vanadium	98.7		P	85 - 115
Zinc	98.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429828

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	100		P	85 - 115
Barium	105		P	85 - 115
Beryllium	93.5		P	85 - 115
Boron	105		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	96.7		P	85 - 115
Cobalt	102		P	85 - 115
Lead	103		P	85 - 115
Manganese	97.7		P	85 - 115
Molybdenum	100		P	85 - 115
Nickel	98.1		P	85 - 115
Selenium	100		P	85 - 115
Silver	106		P	85 - 115
Thallium	98.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430037

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	99.5		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430017

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430020

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430074

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430086

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429986

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429858

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429769

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

Reference Method: EPA 8270E
Batch ID: P429600

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	103		P	42 - 162
Acetochlor	77.4		P	69 - 123
Alachlor	92.1		P	65 - 118
Ametryn	139		P	58 - 141
Atrazine	96.1		P	73 - 118
Atrazine Desethyl	108		P	32 - 125
Avobenzone	152		P	40 - 203
Azinphos Methyl	94.8		P	36 - 197
Azoxystrobin	109		P	58 - 226
Bromacil	108		P	48 - 120

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P429600

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Butylate	71.4		P	27 - 85.0
Caffeine	85.8		P	40 - 137
Carbophenothion	115		P	54 - 132
Carfentrazone Ethyl	130		P	60 - 142
Chlorfenapyr	87.6		P	53 - 117
Chlorpyrifos Ethyl	101		P	59 - 116
Chlorpyrifos Methyl	88.8		P	66 - 119
Coumaphos	118		P	11 - 234
Cyanazine	177		P	61 - 248
Cyprodinil	77.4		P	50 - 147
Dechlorane 602	88.0		P	50 - 150
Dechlorane 603	143		P	50 - 150
Dechlorane Plus	103		P	47 - 182
Demeton	80.6		P	30 - 138
Diazinon	121		P	67 - 126
Difenoconazole	72.8		P	38 - 205
Dimethenamid	108		P	57 - 111
Dimethomorph	183		P	16 - 212
Disulfoton	122		P	46 - 126
Dithiopyr	115		P	62 - 115
EPTC	64.5		P	28 - 80.0
Ethion	83.4		P	24 - 122
Ethoprop	103		P	62 - 113
Etridiazole	82.0		P	28 - 92.0
Fenamiphos	86.0		P	57 - 128
Fenbuconazole	65.1		P	52 - 155
Fipronil	109		P	63 - 130
Fipronil Desulfinyl	102		P	61 - 130
Fipronil Sulfide	115		P	56 - 117
Fipronil Sulfone	109		P	52 - 118
Fluazifop-P-butyl	74.3		P	61 - 128
Fludioxonil	98.4		P	59 - 129
Flumioxazin	90.0		P	30 - 250
Flutolanil	84.7		P	53 - 127
Fluxapyroxad	91.9		P	42 - 132
Fonofos	98.5		P	61 - 110
Hexabromobenzene	129		P	50 - 150
Hexazinone	93.8		P	46 - 139
Imazalil	86.6		P	40 - 139
Iprodione	96.3		P	40 - 146
Loratadine	134		P	10 - 224
Malathion	103		P	61 - 135
Metalaxyl	95.1		P	58 - 121
Metolachlor	95.9		P	64 - 118
Metribuzin	104		P	45 - 245
Mevinphos	97.7		P	49 - 118
Molinate	66.4		P	42 - 92.0
Myclobutanil	115		P	55 - 127
Naled	39.1		P	10 - 114
Napropamide	78.7		P	39 - 121
Norflurazon	102		P	55 - 129
Octinoxate	117		P	26 - 166

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P429600

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxadiazon	107		P	54 - 115
Oxybenzone	131		P	49 - 135
Oxyfluorfen	124		P	64 - 139
Parathion Ethyl	101		P	70 - 111
Parathion Methyl	101		P	76 - 136
PBB-153	135		P	50 - 150
PBDE-47	113		P	41 - 148
PBDE-99	99.0		P	38 - 147
Pendimethalin	103		P	52 - 118
Pentabromotoluene	117		P	50 - 150
Phenytoin	60.4		P	10 - 162
Phorate	117		P	40 - 122
Prodiamine	71.3		P	26 - 141
Prometon	67.7		P	54 - 122
Prometryn	110		P	61 - 128
Pronamide	121		P	72 - 121
Propanil	130		P	45 - 144
Propargite	81.0		P	10 - 199
Propiconazole	96.6		P	56 - 127
Pyraflufen Ethyl	64.6		P	56 - 140
Pyridaben	99.8		P	26 - 211
Pyriproxyfen	90.5		P	33 - 194
Simazine	85.1		P	67 - 121
Stiophos	84.8		P	20 - 142
Sulfentrazone	93.4		P	21 - 144
Tebuconazole	65.3		P	10 - 122
Terbufos	124		P	60 - 129
Terbutylazine	94.6		P	69 - 113
Tetradecachloro-m-terphenyl	185		P	70 - 200
Thiobencarb	109		P	51 - 120
Tri-o-cresyl Phosphate	121		P	49 - 150
Triadimefon	103		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	102		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	106		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	117		P	70 - 180

Reference Method: SM 2320 B-2011

Batch ID: P430117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P430193

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.1		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P429882

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: P429882

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	94.3		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P430285

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P429896

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P429828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2407927	Calcium	100		P	80 - 120
2407927	Iron	96.2	97.9	P/P	80 - 120
2407927	Magnesium	96.5	97.3	P/P	80 - 120
2407927	Potassium	98.8	98.8	P/P	80 - 120
2407927	Sodium	94.9		P	80 - 120
2407927	Strontium	98.0	98.0	P/P	80 - 120
2407927	Tin	96.8	99.2	P/P	80 - 120
2407927	Titanium	95.0	97.2	P/P	80 - 120
2407927	Vanadium	99.4	101	P/P	80 - 120
2407927	Zinc	96.4	97.8	P/P	80 - 120
2408660	Calcium	97.7		P	75 - 125
2408660	Iron	96.9		P	75 - 125
2408660	Magnesium	97.8		P	75 - 125
2408660	Potassium	98.7		P	75 - 125
2408660	Sodium	94.5		P	75 - 125
2408660	Strontium	98.6		P	75 - 125
2408660	Tin	95.8		P	75 - 125
2408660	Titanium	98.5		P	75 - 125
2408660	Vanadium	98.2		P	75 - 125
2408660	Zinc	95.5		P	75 - 125

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P429828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2407927	Aluminum	96.1	96.8	P/P	80 - 120
2407927	Antimony	100	99.7	P/P	80 - 120
2407927	Arsenic	97.9	98.8	P/P	80 - 120
2407927	Barium	103	103	P/P	80 - 120
2407927	Beryllium	94.2	94.6	P/P	80 - 120
2407927	Boron	105	105	P/P	80 - 120
2407927	Cadmium	103	102	P/P	80 - 120
2407927	Chromium	94.7	95.3	P/P	80 - 120
2407927	Cobalt	99.8	101	P/P	80 - 120
2407927	Lead	104	104	P/P	80 - 120
2407927	Manganese	98.0	102	P/P	80 - 120
2407927	Molybdenum	98.7	98.7	P/P	80 - 120
2407927	Nickel	95.3	95.9	P/P	80 - 120
2407927	Selenium	97.7	99.3	P/P	80 - 120
2407927	Silver	105	105	P/P	80 - 120
2407927	Thallium	99.6	103	P/P	80 - 120
2408660	Aluminum	100		P	80 - 120
2408660	Antimony	102		P	80 - 120
2408660	Arsenic	101		P	80 - 120
2408660	Barium	104		P	80 - 120
2408660	Beryllium	92.8		P	80 - 120
2408660	Boron	106		P	80 - 120
2408660	Cadmium	103		P	80 - 120
2408660	Chromium	97.5		P	80 - 120
2408660	Cobalt	101		P	80 - 120
2408660	Lead	105		P	80 - 120
2408660	Manganese	102		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408660	Molybdenum	101		P	80 - 120
2408660	Nickel	95.9		P	80 - 120
2408660	Selenium	99.7		P	80 - 120
2408660	Silver	106		P	80 - 120
2408660	Thallium	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430037

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408817	Copper	99.6		P	80 - 120
2410475	Copper	96.4	96.2	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408605	Chloride	102		P	90 - 110
2408888	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430020

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408605	Sulfate	100		P	90 - 110
2408888	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430074

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408662	Ammonia-N	96.0	97.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430086

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408814	Kjeldahl Nitrogen	101	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429986

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408787	NO2NO3-N	97.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429858

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408804	Total-P	100	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408936	O-Phosphate-P	100	99.7	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P429600

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2407708	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.1	112	P/P	26 - 165
2407708	Acetochlor	74.2	84.6	P/P	67 - 124
2407708	Alachlor	82.7	81.3	P/P	60 - 120
2407708	Ametryn	118	113	P/P	54 - 216
2407708	Atrazine	105	100	P/P	66 - 128
2407708	Atrazine Desethyl	101	107	P/P	15 - 122
2407708	Avobenzone	131	161	P/P	37 - 178
2407708	Azinphos Methyl	81.7	103	P/P	40 - 292
2407708	Azoxystrobin	83.4	114	P/P	35 - 220
2407708	Bromacil	112	108	P/P	45 - 127
2407708	Butylate	74.4	70.4	P/P	20 - 83.0
2407708	Caffeine	112	101	P/P	10 - 194
2407708	Carbophenothion	103	109	P/P	57 - 127
2407708	Carfentrazone Ethyl	119	120	P/P	51 - 141
2407708	Chlorfenapyr	81.4	88.6	P/P	46 - 111
2407708	Chlorpyrifos Ethyl	89.4	84.9	P/P	52 - 120
2407708	Chlorpyrifos Methyl	86.9	102	P/P	63 - 119
2407708	Coumaphos	117	123	P/P	10 - 228
2407708	Cyanazine	145	165	P/P	59 - 241
2407708	Cyprodinil	84.0	80.3	P/P	47 - 146
2407708	Dechlorane 602	74.0	89.8	P/P	50 - 150
2407708	Dechlorane 603	118	143	P/P	50 - 150
2407708	Dechlorane Plus	86.8	91.3	P/P	50 - 150
2407708	Demeton	75.9	81.9	P/P	40 - 136
2407708	Diazinon	113	119	P/P	69 - 132
2407708	Difenoconazole	58.2	94.4	P/P	57 - 258
2407708	Dimethenamid	97.7	103	P/P	54 - 110
2407708	Dimethomorph	167	183	P/P	28 - 210
2407708	Disulfoton	105	106	P/P	43 - 133
2407708	Dithiopyr	102	101	P/P	39 - 116
2407708	EPTC	67.4	65.6	P/P	20 - 78.0
2407708	Ethion	72.5	74.2	P/P	17 - 119
2407708	Ethoprop	92.0	97.3	P/P	66 - 120
2407708	Etridiazole	74.9	70.7	P/P	28 - 96.0
2407708	Fenamiphos	74.5	74.1	P/P	41 - 126
2407708	Fenbuconazole	47.2	77.0	P/P	42 - 169
2407708	Fipronil	92.3	100	P/P	61 - 132
2407708	Fipronil Desulfinyl	96.8	101	P/P	56 - 132
2407708	Fipronil Sulfide	100	106	P/P	48 - 119
2407708	Fipronil Sulfone	95.3	103	P/P	42 - 131
2407708	Fluazifop-P-butyl	75.9	84.3	P/P	53 - 131
2407708	Fludioxonil	86.7	88.5	P/P	56 - 127
2407708	Flumioxazin	66.7	112	P/P	19 - 300
2407708	Flutolanil	74.9	83.4	P/P	41 - 127
2407708	Fluxapyroxad	80.9	83.7	P/P	42 - 172
2407708	Fonofos	93.1	107	P/P	59 - 113

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P429600

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2407708	Hexabromobenzene	125	132	P/P	50 - 150
2407708	Hexazinone	97.7	93.6	P/P	66 - 122
2407708	Imazalil	79.6	85.1	P/P	21 - 283
2407708	Iprodione	85.0	88.0	P/P	43 - 150
2407708	Loratadine	100	155	P/P	23 - 201
2407708	Malathion	99.7	92.0	P/P	58 - 136
2407708	Metalaxyl	90.3	92.4	P/P	55 - 120
2407708	Metolachlor	86.7	82.8	P/P	57 - 121
2407708	Metribuzin	101	109	P/P	58 - 294
2407708	Mevinphos	92.4	98.7	P/P	50 - 126
2407708	Molinate	66.5	67.2	P/P	42 - 93.0
2407708	Myclobutanil	106	99.3	P/P	55 - 125
2407708	Naled	38.0	37.3	P/P	18 - 200
2407708	Napropamide	72.4	68.1	P/P	39 - 110
2407708	Norflurazon	92.1	94.9	P/P	48 - 128
2407708	Octinoxate	107	119	P/P	21 - 159
2407708	Oxadiazon	90.4	90.1	P/P	43 - 112
2407708	Oxybenzone	127	122	P/P	41 - 142
2407708	Oxyfluorfen	101	101	P/P	64 - 153
2407708	Parathion Ethyl	95.3	101	P/P	69 - 114
2407708	Parathion Methyl	93.4	107	P/P	79 - 139
2407708	PBB-153	112	138	P/P	50 - 150
2407708	PBDE-47	101	110	P/P	27 - 144
2407708	PBDE-99	84.3	104	P/P	18 - 150
2407708	Pendimethalin	104	108	P/P	50 - 139
2407708	Pentabromotoluene	108	116	P/P	50 - 150
2407708	Phenytoin	59.6	56.9	P/P	10 - 146
2407708	Phorate	107	111	P/P	54 - 161
2407708	Prodiamine	67.6	70.5	P/P	30 - 161
2407708	Prometon	71.0	59.1	P/P	45 - 134
2407708	Prometryn	95.3	103	P/P	45 - 137
2407708	Pronamide	111	108	P/P	65 - 133
2407708	Propanil	128	102	P/P	49 - 142
2407708	Propargite	61.4	63.4	P/P	10 - 203
2407708	Propiconazole	87.3	95.5	P/P	38 - 146
2407708	Pyraflufen Ethyl	71.2	78.0	P/P	34 - 153
2407708	Pyridaben	94.6	102	P/P	12 - 192
2407708	Pyriproxyfen	84.8	82.5	P/P	33 - 180
2407708	Simazine	90.9	91.2	P/P	51 - 157
2407708	Stirophos	70.8	69.7	P/P	10 - 128
2407708	Sulfentrazone	87.4	109	P/P	53 - 186
2407708	Tebuconazole	62.7	57.8	P/P	10 - 133
2407708	Terbufos	116	121	P/P	65 - 139
2407708	Terbutylazine	88.0	90.0	P/P	66 - 117
2407708	Tetradecachloro-m-terphenyl	170	184	P/P	70 - 200
2407708	Thiobencarb	104	101	P/P	51 - 119
2407708	Tri-o-cresyl Phosphate	112	118	P/P	31 - 144
2407708	Triadimefon	92.1	85.7	P/P	48 - 119
2407708	Tris(1-chloro-2-propyl) phosphate (TCPP)	94.4	87.0	P/P	50 - 150
2407708	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	98.4	108	P/P	50 - 150
2407708	Tris(2-chloroethyl) phosphate (TCEP)	112	111	P/P	70 - 180

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P430285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408903	Fluoride	102	103	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P429896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408608	Organic Carbon	97.6	97.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P429777

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408837	Color (true)	1.40	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408796	Turbidity	0.494	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2407927	Calcium	0.530	Spike	P	0 - 20
2407927	Iron	1.24	Spike	P	0 - 20
2407927	Magnesium	0.516	Spike	P	0 - 20
2407927	Potassium	0.0146	Spike	P	0 - 20
2407927	Sodium	0.505	Spike	P	0 - 20
2407927	Strontium	0.00725	Spike	P	0 - 20
2407927	Tin	2.44	Spike	P	0 - 20
2407927	Titanium	2.08	Spike	P	0 - 20
2407927	Vanadium	1.97	Spike	P	0 - 20
2407927	Zinc	1.40	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2407927	Aluminum	0.453	Spike	P	0 - 20
2407927	Antimony	0.708	Spike	P	0 - 20
2407927	Arsenic	0.884	Spike	P	0 - 20
2407927	Barium	0.326	Spike	P	0 - 20
2407927	Beryllium	0.401	Spike	P	0 - 20
2407927	Boron	0.366	Spike	P	0 - 20
2407927	Cadmium	0.926	Spike	P	0 - 20
2407927	Chromium	0.578	Spike	P	0 - 20
2407927	Cobalt	1.37	Spike	P	0 - 20
2407927	Lead	0.289	Spike	P	0 - 20
2407927	Manganese	1.50	Spike	P	0 - 20
2407927	Molybdenum	0.0192	Spike	P	0 - 20
2407927	Nickel	0.662	Spike	P	0 - 20
2407927	Selenium	1.65	Spike	P	0 - 20
2407927	Silver	0.406	Spike	P	0 - 20
2407927	Thallium	3.52	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430037

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410475	Copper	0.255	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408605	Chloride	0.662	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408662	Ammonia-N	0.876	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430086

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408814	Kjeldahl Nitrogen	0.844	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429986

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408787	NO2NO3-N	0.242	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408804	Total-P	0.342	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408936	O-Phosphate-P	0.500	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P429600

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2407708	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	16.4	Spike	P	0 - 37
2407708	Acetochlor	13.0	Spike	P	0 - 28

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P429600

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2407708	Alachlor	1.72	Spike	P	0 - 30
2407708	Ametryn	4.66	Spike	P	0 - 32
2407708	Atrazine	4.56	Spike	P	0 - 41
2407708	Atrazine Desethyl	5.24	Spike	P	0 - 36
2407708	Avobenzone	20.7	Spike	P	0 - 36
2407708	Azinphos Methyl	23.3	Spike	P	0 - 75
2407708	Azoxystrobin	31.1	Spike	P	0 - 39
2407708	Bromacil	3.09	Spike	P	0 - 33
2407708	Butylate	5.53	Spike	P	0 - 44
2407708	Caffeine	10.7	Spike	P	0 - 74
2407708	Carbophenothion	5.53	Spike	P	0 - 25
2407708	Carfentrazone Ethyl	0.268	Spike	P	0 - 27
2407708	Chlorfenapyr	8.46	Spike	P	0 - 24
2407708	Chlorpyrifos Ethyl	5.17	Spike	P	0 - 26
2407708	Chlorpyrifos Methyl	16.3	Spike	P	0 - 26
2407708	Coumaphos	5.10	Spike	P	0 - 28
2407708	Cyanazine	13.1	Spike	P	0 - 48
2407708	Cyprodinil	4.49	Spike	P	0 - 29
2407708	Dechlorane 602	19.3	Spike	P	0 - 30
2407708	Dechlorane 603	19.1	Spike	P	0 - 30
2407708	Dechlorane Plus	5.11	Spike	P	0 - 30
2407708	Demeton	7.61	Spike	P	0 - 33
2407708	Diazinon	5.45	Spike	P	0 - 29
2407708	Difenoconazole	47.5	Spike	F	0 - 34
2407708	Dimethenamid	4.99	Spike	P	0 - 39
2407708	Dimethomorph	9.09	Spike	P	0 - 51
2407708	Disulfoton	0.858	Spike	P	0 - 30
2407708	Dithiopyr	1.25	Spike	P	0 - 26
2407708	EPTC	2.80	Spike	P	0 - 43
2407708	Ethion	2.42	Spike	P	0 - 79
2407708	Ethoprop	5.65	Spike	P	0 - 29
2407708	Etridiazole	5.73	Spike	P	0 - 33
2407708	Fenamiphos	0.531	Spike	P	0 - 40
2407708	Fenbuconazole	48.0	Spike	P	0 - 74
2407708	Fipronil	8.22	Spike	P	0 - 29
2407708	Fipronil Desulfinyl	4.59	Spike	P	0 - 32
2407708	Fipronil Sulfide	5.32	Spike	P	0 - 30
2407708	Fipronil Sulfone	6.76	Spike	P	0 - 33
2407708	Fluazifop-P-butyl	10.4	Spike	P	0 - 38
2407708	Fludioxonil	2.05	Spike	P	0 - 29
2407708	Flumioxazin	50.3	Spike	P	0 - 51
2407708	Flutolanil	10.7	Spike	P	0 - 25
2407708	Fluxapyroxad	3.40	Spike	P	0 - 45
2407708	Fonofos	14.0	Spike	P	0 - 27
2407708	Hexabromobenzene	5.67	Spike	P	0 - 30
2407708	Hexazinone	4.33	Spike	P	0 - 30
2407708	Imazalil	6.71	Spike	P	0 - 100
2407708	Iprodione	3.42	Spike	P	0 - 33
2407708	Loratadine	42.7	Spike	P	0 - 56
2407708	Malathion	7.95	Spike	P	0 - 37
2407708	Metalaxyl	2.30	Spike	P	0 - 40

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P429600

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2407708	Metolachlor	4.60	Spike	P	0 - 29
2407708	Metribuzin	8.08	Spike	P	0 - 45
2407708	Mevinphos	6.59	Spike	P	0 - 29
2407708	Molinate	1.06	Spike	P	0 - 33
2407708	Myclobutanil	6.32	Spike	P	0 - 26
2407708	Naled	1.82	Spike	P	0 - 37
2407708	Napropamide	6.06	Spike	P	0 - 44
2407708	Norflurazon	3.08	Spike	P	0 - 30
2407708	Octinoxate	10.5	Spike	P	0 - 45
2407708	Oxadiazon	0.332	Spike	P	0 - 28
2407708	Oxybenzone	3.24	Spike	P	0 - 46
2407708	Oxyfluorfen	0.330	Spike	P	0 - 28
2407708	Parathion Ethyl	5.41	Spike	P	0 - 31
2407708	Parathion Methyl	13.5	Spike	P	0 - 29
2407708	PBB-153	20.5	Spike	P	0 - 30
2407708	PBDE-47	8.65	Spike	P	0 - 36
2407708	PBDE-99	20.7	Spike	P	0 - 40
2407708	Pendimethalin	3.55	Spike	P	0 - 33
2407708	Pentabromotoluene	7.14	Spike	P	0 - 30
2407708	Phenytoin	4.73	Spike	P	0 - 100
2407708	Phorate	4.47	Spike	P	0 - 36
2407708	Prodiamine	4.17	Spike	P	0 - 71
2407708	Prometon	18.3	Spike	P	0 - 36
2407708	Prometryn	6.39	Spike	P	0 - 28
2407708	Pronamide	2.20	Spike	P	0 - 24
2407708	Propanil	23.0	Spike	P	0 - 28
2407708	Propargite	3.28	Spike	P	0 - 43
2407708	Propiconazole	9.00	Spike	P	0 - 33
2407708	Pyraflufen Ethyl	9.12	Spike	P	0 - 29
2407708	Pyridaben	7.90	Spike	P	0 - 30
2407708	Pyriproxyfen	2.71	Spike	P	0 - 79
2407708	Simazine	0.331	Spike	P	0 - 29
2407708	Stirophos	1.64	Spike	P	0 - 61
2407708	Sulfentrazone	22.4	Spike	P	0 - 33
2407708	Tebuconazole	8.08	Spike	P	0 - 69
2407708	Terbufos	3.82	Spike	P	0 - 29
2407708	Terbuthylazine	2.25	Spike	P	0 - 32
2407708	Tetradecachloro-m-terphenyl	7.57	Spike	P	0 - 30
2407708	Thiobencarb	3.38	Spike	P	0 - 26
2407708	Tri-o-cresyl Phosphate	5.44	Spike	P	0 - 33
2407708	Triadimefon	7.20	Spike	P	0 - 28
2407708	Tris(1-chloro-2-propyl) phosphate (TCPP)	8.18	Spike	P	0 - 30
2407708	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	9.55	Spike	P	0 - 30
2407708	Tris(2-chloroethyl) phosphate (TCEP)	1.37	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P430117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408651	Total Alkalinity	1.29	Sample	P	0 - 3.9

Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
Batch ID: P430193

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409028	TDS	0.560	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P430285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408903	Fluoride	1.04	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P429896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408608	Organic Carbon	0.412	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2408818
Field Sample ID: G2NE1201

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	76.5	P	20 - 200
EPA 8270E	Simazine-d10	73.8	P	62 - 142
EPA 8270E	Terbufos-d10	76.0	P	58 - 132
EPA 8270E	Terphenyl-d14	83.0	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A119111

Included Lab Sample IDs: 2408815

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.2	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A119113

Included Lab Sample IDs: 2408813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.1	99.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A119114

Included Lab Sample IDs: 2408813

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

Reference Method: EPA 8270E

Run ID: A119152

Included Lab Sample IDs: 2408818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	106		P	80 - 120
Avobenzene	111		P	80 - 120
Dechlorane 602	103		P	80 - 120
Dechlorane 603	105		P	80 - 120
Dechlorane Plus	95.2		P	80 - 120
Hexabromobenzene	102		P	80 - 120
Octinoxate	97.1		P	80 - 120
Oxybenzone	97.1		P	80 - 120
PBB-153	104		P	80 - 120
PBDE-47	98.7		P	80 - 120
PBDE-99	107		P	80 - 120
Pentabromotoluene	96.9		P	80 - 120
Tetradecachloro-m-terphenyl	104		P	80 - 120
Tri-o-cresyl Phosphate	99.9		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	86.0		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	96.7		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	98.4		P	80 - 120

Reference Method: SM 5310 B-2011

Run ID: A119185

Included Lab Sample IDs: 2408814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	96.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119193

Included Lab Sample IDs: 2408814

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119193

Included Lab Sample IDs: 2408814

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119202

Included Lab Sample IDs: 2408817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.5	100	P/P	90 - 110
Antimony	101	99.2	P/P	90 - 110
Arsenic	96.9	98.1	P/P	90 - 110
Barium	101	98.4	P/P	90 - 110
Beryllium	94.4	96.0	P/P	90 - 110
Boron	96.7	99.6	P/P	90 - 110
Cadmium	101	99.6	P/P	90 - 110
Chromium	96.0	98.1	P/P	90 - 110
Cobalt	98.6	101	P/P	90 - 110
Lead	102	101	P/P	90 - 110
Manganese	96.5	100	P/P	90 - 110
Molybdenum	98.2	98.3	P/P	90 - 110
Nickel	95.4	96.8	P/P	90 - 110
Selenium	99.1	101	P/P	90 - 110
Silver	103	102	P/P	90 - 110
Thallium	104	102	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A119211

Included Lab Sample IDs: 2408813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.9	99.7	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119221

Included Lab Sample IDs: 2408814

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119259

Included Lab Sample IDs: 2408814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	96.4	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A119276

Included Lab Sample IDs: 2408813

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

Reference Method: SM 2320 B-2011
Run ID: A119276
Included Lab Sample IDs: 2408813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.1	93.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A119301
Included Lab Sample IDs: 2408817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	98.1	97.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A119322
Included Lab Sample IDs: 2408814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	96.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A119358
Included Lab Sample IDs: 2408817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.9	96.7	P/P	90 - 110
Iron	95.7	97.3	P/P	90 - 110
Magnesium	94.1	95.4	P/P	90 - 110
Potassium	95.1	96.8	P/P	90 - 110
Sodium	91.8	92.4	P/P	90 - 110
Strontium	96.7	94.3	P/P	90 - 110
Tin	95.5	94.3	P/P	90 - 110
Titanium	96.9	95.9	P/P	90 - 110
Vanadium	96.0	94.6	P/P	90 - 110
Zinc	93.5	92.1	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A119359
Included Lab Sample IDs: 2408813

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

Reference Method: EPA 8270E
Run ID: A119367
Included Lab Sample IDs: 2408818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	84.7		P	80 - 120
Alachlor	90.7		P	80 - 120
Ametryn	99.6		P	80 - 120
Atrazine	85.7		P	80 - 120
Atrazine Desethyl	85.1		P	80 - 120
Azinphos Methyl	85.0		P	80 - 120
Azoxystrobin	97.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119367
Included Lab Sample IDs: 2408818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	98.6		P	80 - 120
Butylate	98.0		P	80 - 120
Caffeine	116		P	80 - 120
Carbophenothion	97.7		P	80 - 120
Carfentrazone Ethyl	96.1		P	80 - 120
Chlorfenapyr	83.7		P	80 - 120
Chlorpyrifos Ethyl	91.3		P	80 - 120
Chlorpyrifos Methyl	97.0		P	80 - 120
Coumaphos	95.0		P	80 - 120
Cyanazine	75.8*		F	80 - 120
Cyprodinil	95.0		P	80 - 120
Demeton	98.6		P	80 - 120
Diazinon	99.2		P	80 - 120
Difenoconazole	94.2		P	80 - 120
Dimethenamid	99.5		P	80 - 120
Dimethomorph	85.5		P	80 - 120
Disulfoton	99.9		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	100		P	80 - 120
Ethion	88.4		P	80 - 120
Ethoprop	99.3		P	80 - 120
Etridiazole	97.1		P	80 - 120
Fenamiphos	90.4		P	80 - 120
Fenbuconazole	85.3		P	80 - 120
Fipronil	84.7		P	80 - 120
Fipronil Desulfinyl	97.6		P	80 - 120
Fipronil Sulfide	97.3		P	80 - 120
Fipronil Sulfone	96.2		P	80 - 120
Fluazifop-P-butyl	97.8		P	80 - 120
Fludioxonil	106		P	80 - 120
Flumioxazin	92.0		P	80 - 120
Flutolanil	102		P	80 - 120
Fluxapyroxad	97.1		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	100		P	80 - 120
Imazalil	99.4		P	80 - 120
Iprodione	84.2		P	80 - 120
Loratadine	80.1		P	80 - 120
Malathion	83.6		P	80 - 120
Metalaxyl	90.3		P	80 - 120
Metolachlor	98.1		P	80 - 120
Metribuzin	104		P	80 - 120
Mevinphos	105		P	80 - 120
Molinate	88.3		P	80 - 120
Myclobutanil	88.1		P	80 - 120
Naled	92.6		P	80 - 120
Napropamide	95.6		P	80 - 120
Norflurazon	94.2		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	94.5		P	80 - 120
Parathion Ethyl	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119367
Included Lab Sample IDs: 2408818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Parathion Methyl	85.3		P	80 - 120
Pendimethalin	97.9		P	80 - 120
Phenytol	102		P	80 - 120
Phorate	85.0		P	80 - 120
Prodiamine	101		P	80 - 120
Prometon	106		P	80 - 120
Prometryn	106		P	80 - 120
Pronamide	97.7		P	80 - 120
Propanil	105		P	80 - 120
Propargite	98.7		P	80 - 120
Propiconazole	104		P	80 - 120
Pyraflufen Ethyl	95.0		P	80 - 120
Pyridaben	102		P	80 - 120
Pyriproxyfen	98.4		P	80 - 120
Simazine	83.7		P	80 - 120
Stirophos	81.9		P	80 - 120
Sulfentrazone	99.6		P	80 - 120
Tebuconazole	98.5		P	80 - 120
Terbufos	104		P	80 - 120
Terbutylazine	87.2		P	80 - 120
Thiobencarb	101		P	80 - 120
Triadimefon	97.2		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)	97.9					1.40	
EPA 180.1 Rev. 2.0	Turbidity	99.7					0.494	
EPA 200.7 Rev. 4.4	Calcium	100	100	97.7				0.530
	Iron	101	96.2	97.9	96.9			1.24
	Magnesium	99.1	96.5	97.3	97.8			0.516
	Potassium	99.7	98.8	98.8	98.7			0.0146
	Sodium	94.4	94.9	94.5				0.505
	Strontium	98.0	98.0	98.0	98.6			0.0072
	Tin	99.4	96.8	99.2	95.8			2.44
	Titanium	99.6	98.5	95.0	97.2			2.08
	Vanadium	98.7	98.2	99.4	101			1.97
	Zinc	98.0	95.5	96.4	97.8			1.40
EPA 200.8 Rev. 5.4	Aluminum	101	96.1	96.8	100			0.453
	Antimony	103	100	99.7	102			0.708
	Arsenic	100	97.9	98.8	101			0.884
	Barium	105	103	103	104			0.326
	Beryllium	93.5	94.2	94.6	92.8			0.401
	Boron	105	105	105	106			0.366
	Cadmium	102	103	102	103			0.926
	Chromium	96.7	94.7	95.3	97.5			0.578
	Cobalt	102	99.8	101	101			1.37
	Copper	99.5	96.4	96.2	99.6			0.255
	Lead	103	104	104	105			0.289
	Manganese	97.7	98.0	102	102			1.50
	Molybdenum	100	98.7	98.7	101			0.0192
	Nickel	98.1	95.3	95.9	95.9			0.662
	Selenium	100	97.7	99.3	99.7			1.65
	Silver	106	105	105	106			0.406
	Thallium	98.4	99.6	103	103			3.52
EPA 300.0 Rev. 2.1	Chloride	101	102	102			0.662	
	Sulfate	100	100	101				
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	96.0	97.4				0.876
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.5	101	102				0.844
EPA 353.2 Rev. 2.0	NO2NO3-N	101	97.0					0.242
EPA 365.1 Rev. 2.0	Total-P	101	100	101				0.342
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	100	99.7				0.500
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	103	95.1	112				16.4
	Acetochlor	77.4	74.2	84.6				13.0
	Alachlor	92.1	82.7	81.3				1.72
	Ametryn	139	118	113				4.66
	Atrazine	96.1	105	100				4.56
	Atrazine Desethyl	108	101	107				5.24
	Avobenzone	152	131	161				20.7
	Azinphos Methyl	94.8	81.7	103				23.3
	Azoxystrobin	109	83.4	114				31.1
	Bromacil	108	112	108				3.09
	Butylate	71.4	74.4	70.4				5.53
	Caffeine	85.8	112	101				10.7
	Carbophenothion	115	103	109				5.53
	Carfentrazone Ethyl	130	119	120				0.268
	Chlorfenapyr	87.6	81.4	88.6				8.46
	Chlorpyrifos Ethyl	101	89.4	84.9				5.17

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Methyl	88.8	86.9	102		16.3
	Coumaphos	118	117	123		5.10
	Cyanazine	177	145	165		13.1
	Cyprodinil	77.4	84.0	80.3		4.49
	Dechlorane 602	88.0	74.0	89.8		19.3
	Dechlorane 603	143	118	143		19.1
	Dechlorane Plus	103	86.8	91.3		5.11
	Demeton	80.6	75.9	81.9		7.61
	Diazinon	121	113	119		5.45
	Difenoconazole	72.8	58.2	94.4		47.5
	Dimethenamid	108	97.7	103		4.99
	Dimethomorph	183	167	183		9.09
	Disulfoton	122	105	106		0.858
	Dithiopyr	115	102	101		1.25
	EPTC	64.5	67.4	65.6		2.80
	Ethion	83.4	72.5	74.2		2.42
	Ethoprop	103	92.0	97.3		5.65
	Etridiazole	82.0	74.9	70.7		5.73
	Fenamiphos	86.0	74.5	74.1		0.531
	Fenbuconazole	65.1	47.2	77.0		48.0
	Fipronil	109	92.3	100		8.22
	Fipronil Desulfinyl	102	96.8	101		4.59
	Fipronil Sulfide	115	100	106		5.32
	Fipronil Sulfone	109	95.3	103		6.76
	Fluazifop-P-butyl	74.3	75.9	84.3		10.4
	Fludioxonil	98.4	86.7	88.5		2.05
	Flumioxazin	90.0	66.7	112		50.3
	Flutolanil	84.7	74.9	83.4		10.7
	Fluxapyroxad	91.9	80.9	83.7		3.40
	Fonofos	98.5	93.1	107		14.0
	Hexabromobenzene	129	125	132		5.67
	Hexazinone	93.8	97.7	93.6		4.33
	Imazalil	86.6	79.6	85.1		6.71
	Iprodione	96.3	85.0	88.0		3.42
	Loratadine	134	100	155		42.7
	Malathion	103	99.7	92.0		7.95
	Metalaxyl	95.1	90.3	92.4		2.30
	Metolachlor	95.9	86.7	82.8		4.60
	Metribuzin	104	101	109		8.08
	Mevinphos	97.7	92.4	98.7		6.59
	Molinate	66.4	66.5	67.2		1.06
	Myclobutanil	115	106	99.3		6.32
	Naled	39.1	38.0	37.3		1.82
	Napropamide	78.7	72.4	68.1		6.06
	Norflurazon	102	92.1	94.9		3.08
	Octinoxate	117	107	119		10.5
	Oxadiazon	107	90.4	90.1		0.332
	Oxybenzone	131	127	122		3.24
	Oxyfluorfen	124	101	101		0.330
	Parathion Ethyl	101	95.3	101		5.41
	Parathion Methyl	101	93.4	107		13.5
	PBB-153	135	112	138		20.5
	PBDE-47	113	101	110		8.65
	PBDE-99	99.0	84.3	104		20.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Pendimethalin	103	104	108			3.55
	Pentabromotoluene	117	108	116			7.14
	Phenytain	60.4	59.6	56.9			4.73
	Phorate	117	107	111			4.47
	Prodiamine	71.3	67.6	70.5			4.17
	Prometon	67.7	71.0	59.1			18.3
	Prometryn	110	95.3	103			6.39
	Pronamide	121	111	108			2.20
	Propanil	130	128	102			23.0
	Propargite	81.0	61.4	63.4			3.28
	Propiconazole	96.6	87.3	95.5			9.00
	Pyraflufen Ethyl	64.6	71.2	78.0			9.12
	Pyridaben	99.8	94.6	102			7.90
	Pyriproxyfen	90.5	84.8	82.5			2.71
	Simazine	85.1	90.9	91.2			0.331
	Stirophos	84.8	70.8	69.7			1.64
	Sulfentrazone	93.4	87.4	109			22.4
	Tebuconazole	65.3	62.7	57.8			8.08
	Terbufos	124	116	121			3.82
	Terbutylazine	94.6	88.0	90.0			2.25
	Tetradecachloro-m-terphenyl	185	170	184			7.57
	Thiobencarb	109	104	101			3.38
	Tri-o-cresyl Phosphate	121	112	118			5.44
	Triadimefon	103	92.1	85.7			7.20
	Tris(1-chloro-2-propyl) phosphate (TCPP)	102	94.4	87.0			8.18
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	106	98.4	108			9.55
	Tris(2-chloroethyl) phosphate (TCEP)	117	112	111			1.37
SM 2320 B-2011	Total Alkalinity	100				1.29	
SM 2540 C-2015	TDS	97.1				0.560	
SM 2540 D-2015	TSS	94.3					
SM 4500-F- C-2011	Fluoride	102	102	103			1.04
SM 5310 B-2011	Organic Carbon	96.7	97.6	97.0			0.412

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2408813
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2408813
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2408817
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2408817
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2408813
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2408813
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2408814
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2408814
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2408814
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2408814
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2408815
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2408818

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2408818
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2408813
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2408817
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2408813
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2408813
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2408813
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2408814

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	05/11/2023			05/11/2023 14:15	Samantha L Bates	2408813
EPA 180.1 Rev. 2.0	05/11/2023			05/11/2023 13:58	Anna M. Plaviak	2408813
EPA 200.7 Rev. 4.4	05/11/2023	05/12/2023 12:40	George D Taylor	05/23/2023 18:25	McKinley C Carter	2408817
EPA 200.8 Rev. 5.4	05/11/2023	05/12/2023 12:40	George D Taylor	05/16/2023 19:12	Conrad Hartmann	2408817
	05/11/2023	05/18/2023 10:55	George D Taylor	05/19/2023 22:56	Conrad Hartmann	2408817
EPA 300.0 Rev. 2.1	05/11/2023			05/17/2023 15:58	James L Waggeberby	2408813
EPA 350.1 Rev. 2.0	05/11/2023			05/18/2023 14:07	Ping Hua	2408814
EPA 351.2 Rev. 2.0	05/11/2023	05/19/2023 08:44	Samantha L Bates	05/22/2023 16:26	Samantha L Bates	2408814
EPA 353.2 Rev. 2.0	05/11/2023			05/17/2023 12:21	Beverly Y. Sanders	2408814
EPA 365.1 Rev. 2.0	05/11/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 13:08	James L Waggeberby	2408814
EPA 365.1 Rev. 2.0 dissolved	05/11/2023			05/11/2023 14:30	Elise M. Gillis	2408815
EPA 8270E	05/11/2023	05/11/2023 11:00	Fe-Val Siddell	05/13/2023 00:07	Arthur Maknenko	2408818
	05/11/2023	05/11/2023 11:00	Fe-Val Siddell	05/14/2023 19:50	Vandana T. Nagar	2408818
SM 2320 B-2011	05/11/2023			05/19/2023 02:54	Dale L. Simmons	2408813
SM 2340 B-2011	05/11/2023			05/23/2023 18:30	McKinley C Carter	2408817
SM 2540 C-2015	05/11/2023			05/12/2023 13:06	Dana G. Hughes	2408813
SM 2540 D-2015	05/11/2023			05/12/2023 13:06	Dana G. Hughes	2408813
SM 4500-F- C-2011	05/11/2023			05/24/2023 01:54	Dale L. Simmons	2408813
SM 5310 B-2011	05/11/2023			05/15/2023 20:18	Elise M. Gillis	2408814