Chemical Analysis Report

NW-DIST-2023-08-24-01

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

Event Description: **Reference Stream SCI**
Request ID: **RQ-2023-08-07-65**
Customer: **NW-DIST**
Project ID: **SCIREF**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
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Certified by: Colin Wright, Program Administrator

Date Certified: 21-SEP-2023 09:11

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: McCostill Mill Creek below Ebeneezer Church Road **Collection Date/Time: 08/23/2023 11:00**

Field ID: 33020147 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2433410	DEP SOP: NU-094-1	Color (true)	3.6	I	PCU	P434325	
	EPA 180.1 Rev. 2.0	Turbidity	0.65	I	NTU	P434328	
	EPA 300.0 Rev. 2.1	Chloride	6.4		mg Cl/L	P434602	
		Sulfate	0.39	I	mg SO4/L	P434605	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P434513	
	SM 2540 C-2015	TDS	32		mg/L	P434503	
	SM 2540 D-2015	TSS	2	U	mg/L	P434433	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P434516	
2433411	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P434580	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.13	I	mg N/L	P434729	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.5		mg N/L	P434794	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P434414	
	SM 5310 B-2011	Organic Carbon	0.60	I	mg C/L	P434450	
2433412	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P434312	
2433431	EPA 8321B	2,4-D	0.0020	U	ug/L	P434430	
		Acesulfame K	0.10	U	ug/L	P434207	
		2,4,5-T	0.0040	U	ug/L	P434430	
		AMPA	0.10	U	ug/L	P434207	
		Acetaminophen	0.0080	U	ug/L	P434430	
		Endothall	0.25	U	ug/L	P434207	
		Acetamiprid	0.0020	U	ug/L	P434430	MS, RPD
		Glufosinate	0.10	U	ug/L	P434207	
		Glyphosate	0.10	U	ug/L	P434207	
		Afidopyropen	0.0020	U	ug/L	P434430	
		Bentazon	0.0038		ug/L	P434430	
		Sucralose	0.062		ug/L	P434207	
		Benzovindiflupyr	0.0020	U	ug/L	P434430	
		Carbamazepine	8.0E-04	U	ug/L	P434430	
		Clothianidin	0.0042	I	ug/L	P434430	
		Dinotefuran	0.0020	U	ug/L	P434430	
		Diuron	0.0020	U	ug/L	P434430	
		Fenuron	0.032	U	ug/L	P434430	
		Fluridone	8.0E-04	U	ug/L	P434430	
		Imazapyr	0.012	I	ug/L	P434430	
		Hydrocodone	0.0020	U	ug/L	P434430	
		Ibuprofen	0.080	U	ug/L	P434430	
		Imidacloprid	0.0020	U	ug/L	P434430	
		Linuron	0.0040	U	ug/L	P434430	
		Mandestrobin	0.0020	U	ug/L	P434430	
		MCPP	0.0020	U	ug/L	P434430	
		Naproxen	0.0080	U	ug/L	P434430	
		Primidone	0.0040	U	ug/L	P434430	

Field ID: 33020147 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2433431	EPA 8321B	Pyraclostrobin	0.0020	U	ug/L	P434430	
		Silvex	0.0040	U	ug/L	P434430	
		Thiamethoxam	0.0020	U	ug/L	P434430	
		Tolfenpyrad	0.0020	U	ug/L	P434430	
		Triclopyr	0.0040	U	ug/L	P434430	
2433432	EPA 200.7 Rev. 4.4	Calcium	1.84		mg/L	P434377	
		Iron	57	I	ug/L	P434377	
		Magnesium	1.91		mg/L	P434377	
		Potassium	0.76	I	mg/L	P434377	
		Sodium	2.1		mg/L	P434377	
		Strontium	19.7		ug/L	P434377	
		Tin	3.0	U	ug/L	P434377	
		Titanium	0.75	U	ug/L	P434377	
		Vanadium	2.0	U	ug/L	P434377	
		Zinc	5.0	U	ug/L	P434377	
	EPA 200.8 Rev. 5.4	Aluminum	46		ug/L	P434377	
		Antimony	0.050	U	ug/L	P434377	
		Arsenic	0.15	I	ug/L	P434377	
		Barium	75.4		ug/L	P434377	
		Beryllium	0.136		ug/L	P434377	
		Boron	9.4		ug/L	P434377	
		Cadmium	0.020	U	ug/L	P434377	
		Chromium	0.40	U	ug/L	P434377	
		Cobalt	1.02		ug/L	P434377	
		Copper	0.66	I	ug/L	P434377	
		Lead	0.24	I	ug/L	P434377	
		Manganese	14.3		ug/L	P434377	
		Molybdenum	0.15	U	ug/L	P434377	
		Nickel	1.1	I	ug/L	P434377	
		Selenium	0.20	U	ug/L	P434377	
		Silver	0.010	U	ug/L	P434377	
		Thallium	0.10	U	ug/L	P434377	
	SM 2340 B-2011	Hardness	12.5		mg/L	P434377	
2433434	EPA 8270E	Oxybenzone**	11	U	ng/L	P434276	
		Acetochlor	0.22	U	ng/L	P434276	
		Octinoxate**	160	U	ng/L	P434276	
		Alachlor	0.43	U	ng/L	P434276	
		Avobenzone**	110	U	ng/L	P434276	
		Ametryn	1.2	U	ng/L	P434276	
		Atrazine	0.22	U	ng/L	P434276	
		PBDE-47**	4.3	U	ng/L	P434276	RPD
		Atrazine Desethyl	1.4	U	ng/L	P434276	
		PBDE-99**	5.4	U	ng/L	P434276	RPD
		Azinphos Methyl	3.2	U	ng/L	P434276	
		Tri-o-cresyl Phosphate**	6.5	U	ng/L	P434276	

Field ID: 33020147 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2433434	EPA 8270E	Azoxystrobin	0.43	U	ng/L	P434276	
		Bromacil	0.65	U	ng/L	P434276	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	13	U	ng/L	P434276	
		Butylate	0.22	U	ng/L	P434276	
		Dechlorane Plus**	32	U	ng/L	P434276	MS
		Caffeine**	18	I	ng/L	P434276	
		Dechlorane 602**	5.4	U	ng/L	P434276	MS, RPD
		Carbophenothion	0.54	U	ng/L	P434276	MS
		Dechlorane 603**	4.3	U	ng/L	P434276	MS, RPD
		Carfentrazone Ethyl	0.16	U	ng/L	P434276	
		Hexabromobenzene**	6.5	U	ng/L	P434276	
		Chlorfenapyr	0.32	U	ng/L	P434276	
		PBB-153**	8.6	U	ng/L	P434276	MS, RPD
		Chlorpyrifos Ethyl	0.32	U	ng/L	P434276	
		Pentabromotoluene**	3.2	U	ng/L	P434276	
		Chlorpyrifos Methyl	0.11	U	ng/L	P434276	
		Tris(2-chloroethyl) phosphate (TCEP)**	75	U	ng/L	P434276	
		Coumaphos	1.1	U	ng/L	P434276	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	16	U	ng/L	P434276	
		Cyanazine	5.4	U	ng/L	P434276	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.7	U	ng/L	P434276	
		Cyprodinil	0.22	U	ng/L	P434276	
		Tetradecachloro-m-terphenyl**	8.1	U	ng/L	P434276	MS, RPD
		Demeton	3.8	U	ng/L	P434276	
		Diazinon	0.13	U	ng/L	P434276	
		Difenoconazole	0.65	U	ng/L	P434276	MS, RPD
		Dimethenamid	0.11	U	ng/L	P434276	MS, RPD
		Dimethomorph	0.32	UJ	ng/L	P434276	LCS, RPD
		Disulfoton	0.65	U	ng/L	P434276	
		Dithiopyr	1.1	U	ng/L	P434276	RPD
		EPTC	0.54	U	ng/L	P434276	
		Ethion	0.32	U	ng/L	P434276	MS, RPD
		Ethoprop	0.13	U	ng/L	P434276	
		Etridiazole	0.11	U	ng/L	P434276	
		Fenamiphos	0.48	U	ng/L	P434276	
		Fenbuconazole	0.54	U	ng/L	P434276	MS, RPD
		Fipronil	0.22	U	ng/L	P434276	RPD
		Fipronil Desulfinyl**	0.11	U	ng/L	P434276	
		Fipronil Sulfide	0.11	U	ng/L	P434276	
		Fipronil Sulfone	0.19	I	ng/L	P434276	
		Fluazifop-P-butyl	0.11	U	ng/L	P434276	MS
		Fludioxonil	0.11	U	ng/L	P434276	
		Flumioxazin	3.2	U	ng/L	P434276	RPD
		Flutolanil	0.11	U	ng/L	P434276	

Field ID: 33020147 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2433434	EPA 8270E	Fluxapyroxad	0.27	U	ng/L	P434276	MS, RPD
		Fonofos	0.16	U	ng/L	P434276	
		Hexazinone	0.54	U	ng/L	P434276	
		Imazalil	0.70	U	ng/L	P434276	
		Iprodione	0.54	U	ng/L	P434276	
		Loratadine**	0.32	U	ng/L	P434276	RPD
		Malathion	0.38	U	ng/L	P434276	
		Metalaxyl	0.54	U	ng/L	P434276	
		Metolachlor	9.1		ng/L	P434276	
		Metribuzin	0.43	U	ng/L	P434276	
		Mevinphos	1.1	U	ng/L	P434276	RPD
		Molinate	0.27	U	ng/L	P434276	
		Myclobutanil	0.38	U	ng/L	P434276	MS, RPD
		Naled	2.7	U	ng/L	P434276	
		Napropamide	0.75	U	ng/L	P434276	MS, RPD
		Norflurazon	3.7	I	ng/L	P434276	MS, RPD
		Oxadiazon	0.38	U	ng/L	P434276	RPD
		Oxyfluorfen	0.22	U	ng/L	P434276	
		Parathion Ethyl	0.16	U	ng/L	P434276	
		Parathion Methyl	0.22	UJ	ng/L	P434276	LCS
		Pendimethalin	0.81	U	ng/L	P434276	
		Phenytoin**	5.7	U	ng/L	P434276	
		Phorate	0.27	UJ	ng/L	P434276	LCS
		Prodiamine	0.22	U	ng/L	P434276	
		Prometon	3.2	U	ng/L	P434276	
		Prometryn	0.38	U	ng/L	P434276	MS
		Pronamide	0.11	U	ng/L	P434276	
		Propanil	0.11	U	ng/L	P434276	
		Propargite	0.86	U	ng/L	P434276	
		Propiconazole	0.65	UJ	ng/L	P434276	LCS
		Pyraflufen Ethyl	0.32	U	ng/L	P434276	RPD
		Pyridaben	1.5	U	ng/L	P434276	RPD
		Pyriproxyfen	0.27	U	ng/L	P434276	MS, RPD
		Simazine	0.27	U	ng/L	P434276	
		Stirophos	0.43	U	ng/L	P434276	RPD
		Sulfentrazone	1.5	UJ	ng/L	P434276	CCV, MS, RPD
		Tebuconazole	1.5	U	ng/L	P434276	MS, RPD
		Terbufos	0.22	U	ng/L	P434276	
		Terbuthylazine	0.22	U	ng/L	P434276	MS
		Thiobencarb	0.54	U	ng/L	P434276	RPD
		Triadimefon	0.16	U	ng/L	P434276	MS, RPD

Ref. Method and Comment:
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.

Sample Location: FB **Collection Date/Time: 08/23/2023 11:10**

Field ID: FB_08232023 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2433413	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P434325	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P434328	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P434602	
		Sulfate	0.20	U	mg SO4/L	P434605	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P434513	
	SM 2540 C-2015	TDS	15	U	mg/L	P434503	
	SM 2540 D-2015	TSS	2	U	mg/L	P434433	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P434516	
2433414	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P434580	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P434729	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P434794	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P434414	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P434450	
2433415	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P434312	
2433433	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P434377	
		Iron	30	U	ug/L	P434377	
		Magnesium	0.040	U	mg/L	P434377	
		Potassium	0.30	U	mg/L	P434377	
		Sodium	0.50	U	mg/L	P434377	
		Strontium	2.0	U	ug/L	P434377	
		Tin	3.0	U	ug/L	P434377	
		Titanium	0.75	U	ug/L	P434377	
		Vanadium	2.0	U	ug/L	P434377	
		Zinc	5.0	U	ug/L	P434377	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P434377	
		Antimony	0.050	U	ug/L	P434377	
		Arsenic	0.050	U	ug/L	P434377	
		Barium	0.20	U	ug/L	P434377	
		Beryllium	0.010	U	ug/L	P434377	
		Boron	2.0	U	ug/L	P434377	
		Cadmium	0.020	U	ug/L	P434377	
		Chromium	0.40	U	ug/L	P434377	
		Cobalt	0.020	U	ug/L	P434377	
		Copper	0.40	U	ug/L	P434377	
		Lead	0.20	U	ug/L	P434377	
		Manganese	0.10	U	ug/L	P434377	
		Molybdenum	0.15	U	ug/L	P434377	
		Nickel	0.50	U	ug/L	P434377	
		Selenium	0.20	U	ug/L	P434377	
		Silver	0.010	U	ug/L	P434377	
		Thallium	0.10	U	ug/L	P434377	

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: P434325

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434328

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434377

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: P434377

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: P434602

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: P434605

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434580

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434729

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434794

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434414

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434312

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

Reference Method: EPA 8270E
Batch ID: P434276

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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P434276

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P434276

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P434276

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P434276

Component	Result	Code	Units
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	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

Reference Method: EPA 8321B
Batch ID: P434207

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P434430

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P434430

Component	Result	Code	Units
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P434513

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

Reference Method: SM 2540 C-2015
Batch ID: P434503

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P434433

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P434516

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P434450

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: P434325

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434328

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434377

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	103		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	101		P	85 - 115
Sodium	100		P	85 - 115
Strontium	99.5		P	85 - 115
Tin	107		P	85 - 115
Titanium	99.8		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434377

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	103		P	85 - 115
Barium	107		P	85 - 115
Beryllium	100		P	85 - 115
Boron	104		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	98.8		P	85 - 115
Cobalt	100		P	85 - 115
Copper	101		P	85 - 115
Lead	98.3		P	85 - 115
Manganese	99.1		P	85 - 115
Molybdenum	101		P	85 - 115
Nickel	101		P	85 - 115
Selenium	103		P	85 - 115
Silver	114		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434602

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434605

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434580

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434729

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434794

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434414

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434312

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

Reference Method: EPA 8270E
Batch ID: P434276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	83.4		P	42 - 162
Acetochlor	82.6		P	69 - 123
Alachlor	96.4		P	65 - 118
Ametryn	127		P	58 - 141
Atrazine	101		P	73 - 118
Atrazine Desethyl	74.4		P	32 - 125
Avobenzone	126		P	40 - 203
Azinphos Methyl	117		P	36 - 197
Azoxystrobin	109		P	58 - 226
Bromacil	88.8		P	48 - 120
Butylate	64.0		P	27 - 85.0
Caffeine	90.7		P	40 - 137
Carbophenothion	108		P	54 - 132
Carfentrazone Ethyl	108		P	60 - 142
Chlorfenapyr	91.4		P	53 - 117
Chlorpyrifos Ethyl	84.8		P	59 - 116

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P434276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	76.9		P	66 - 119
Coumaphos	159		P	11 - 234
Cyanazine	121		P	61 - 248
Cyprodinil	61.7		P	50 - 147
Dechlorane 602	66.0		P	50 - 150
Dechlorane 603	91.1		P	50 - 150
Dechlorane Plus	73.5		P	47 - 182
Demeton	67.4		P	30 - 138
Diazinon	101		P	67 - 126
Difenoconazole	118		P	38 - 205
Dimethenamid	58.9		P	57 - 111
Dimethomorph	219		F	16 - 212
Disulfoton	123		P	46 - 126
Dithiopyr	75.4		P	62 - 115
EPTC	60.3		P	28 - 80.0
Ethion	69.9		P	24 - 122
Ethoprop	105		P	62 - 113
Etridiazole	70.9		P	28 - 92.0
Fenamiphos	93.8		P	57 - 128
Fenbuconazole	114		P	52 - 155
Fipronil	105		P	63 - 130
Fipronil Desulfinyl	70.0		P	61 - 130
Fipronil Sulfide	94.5		P	56 - 117
Fipronil Sulfone	88.3		P	52 - 118
Fluazifop-P-butyl	77.0		P	61 - 128
Fludioxonil	72.8		P	59 - 129
Flumioxazin	128		P	30 - 250
Flutolanil	89.7		P	53 - 127
Fluxapyroxad	82.2		P	42 - 132
Fonofos	84.3		P	61 - 110
Hexabromobenzene	103		P	50 - 150
Hexazinone	93.4		P	46 - 139
Imazalil	97.4		P	40 - 139
Iprodione	80.1		P	40 - 146
Loratadine	215		P	10 - 224
Malathion	108		P	61 - 135
Metalaxyl	89.7		P	58 - 121
Metolachlor	100		P	64 - 118
Metribuzin	94.4		P	45 - 245
Mevinphos	111		P	49 - 118
Molinate	59.4		P	42 - 92.0
Myclobutanil	99.7		P	55 - 127
Naled	47.9		P	10 - 114
Napropamide	78.7		P	39 - 121
Norflurazon	86.9		P	55 - 129
Octinoxate	108		P	26 - 166
Oxadiazon	84.7		P	54 - 115
Oxybenzone	124		P	49 - 135
Oxyfluorfen	121		P	64 - 139
Parathion Ethyl	96.4		P	70 - 111
Parathion Methyl	72.0		F	76 - 136
PBB-153	141		P	50 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P434276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBDE-47	93.7		P	41 - 148
PBDE-99	81.6		P	38 - 147
Pendimethalin	66.2		P	52 - 118
Pentabromotoluene	99.8		P	50 - 150
Phenytoin	43.4		P	10 - 162
Phorate	153		F	40 - 122
Prodiamine	35.1		P	26 - 141
Prometon	103		P	54 - 122
Prometryn	75.9		P	61 - 128
Pronamide	110		P	72 - 121
Propanil	129		P	45 - 144
Propargite	67.4		P	10 - 199
Propiconazole	48.9		F	56 - 127
Pyraflufen Ethyl	83.0		P	56 - 140
Pyridaben	144		P	26 - 211
Pyriproxyfen	94.1		P	33 - 194
Simazine	107		P	67 - 121
Stirophos	26.4		P	20 - 142
Sulfentrazone	41.7		P	21 - 144
Tebuconazole	46.4		P	10 - 122
Terbufos	123		P	60 - 129
Terbuthylazine	86.4		P	69 - 113
Tetradecachloro-m-terphenyl	98.4		P	70 - 200
Thiobencarb	90.8		P	51 - 120
Tri-o-cresyl Phosphate	101		P	49 - 150
Triadimefon	95.2		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	132		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	101		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	116		P	70 - 180

Reference Method: EPA 8321B
Batch ID: P434207

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	117		P	40 - 150
AMPA	129		P	40 - 150
Endothall	92.7		P	40 - 150
Glufosinate	96.1		P	40 - 150
Glyphosate	71.8		P	40 - 150
Sucralose	123		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P434430

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	71.2		P	40 - 150
2,4,5-T	79.6		P	40 - 150
Acetaminophen	89.5		P	30 - 150
Acetamiprid	106		P	40 - 150
Afidopyropen	74.7		P	30 - 150
Bentazon	111		P	30 - 150
Benzovindiflupyr	96.1		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P434430

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	93.2		P	40 - 150
Clothianidin	102		P	40 - 150
Dinotefuran	96.4		P	40 - 150
Diuron	84.8		P	40 - 150
Fenuron	106		P	40 - 150
Fluridone	89.6		P	40 - 150
Hydrocodone	110		P	40 - 150
Ibuprofen	78.7		P	40 - 150
Imazapyr	77.2		P	40 - 150
Imidacloprid	89.3		P	40 - 150
Linuron	78.2		P	40 - 150
Mandestrobin	105		P	40 - 150
MCPP	87.5		P	40 - 150
Naproxen	55.3		P	40 - 150
Primidone	94.4		P	40 - 150
Pyraclostrobin	95.2		P	40 - 150
Silvex	80.9		P	40 - 150
Thiamethoxam	104		P	40 - 150
Tolfenpyrad	60.0		P	30 - 150
Triclopyr	84.0		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P434513

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.6		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P434503

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	91.8		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P434433

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	100		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P434516

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

Reference Method: SM 5310 B-2011
Batch ID: P434450

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.4		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434377

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433091	Calcium	101	98.9	P/P	80 - 120
2433091	Iron	103	101	P/P	80 - 120
2433091	Magnesium	103	102	P/P	80 - 120
2433091	Potassium	101	101	P/P	80 - 120
2433091	Sodium	97.1	97.6	P/P	80 - 120
2433091	Strontium	97.6	98.2	P/P	80 - 120
2433091	Tin	102	106	P/P	80 - 120
2433091	Titanium	98.7	100	P/P	80 - 120
2433091	Vanadium	99.9	103	P/P	80 - 120
2433091	Zinc	101	103	P/P	80 - 120
2433432	Calcium	98.3		P	80 - 120
2433432	Iron	101		P	80 - 120
2433432	Magnesium	99.9		P	80 - 120
2433432	Potassium	95.8		P	80 - 120
2433432	Sodium	96.3		P	80 - 120
2433432	Strontium	96.2		P	80 - 120
2433432	Tin	105		P	80 - 120
2433432	Titanium	98.9		P	80 - 120
2433432	Vanadium	101		P	80 - 120
2433432	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434377

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433091	Aluminum	104	103	P/P	80 - 120
2433091	Antimony	103	103	P/P	80 - 120
2433091	Arsenic	106	106	P/P	80 - 120
2433091	Barium	109	109	P/P	80 - 120
2433091	Beryllium	99.7	96.3	P/P	80 - 120
2433091	Boron	103	103	P/P	80 - 120
2433091	Cadmium	103	104	P/P	80 - 120
2433091	Chromium	99.3	99.2	P/P	80 - 120
2433091	Cobalt	102	102	P/P	80 - 120
2433091	Copper	105	106	P/P	80 - 120
2433091	Lead	99.9	101	P/P	80 - 120
2433091	Manganese	100	99.9	P/P	80 - 120
2433091	Molybdenum	102	102	P/P	80 - 120
2433091	Nickel	103	104	P/P	80 - 120
2433091	Selenium	104	107	P/P	80 - 120
2433091	Silver	114	115	P/P	80 - 120
2433091	Thallium	106	107	P/P	80 - 120
2433432	Aluminum	103		P	80 - 120
2433432	Antimony	105		P	80 - 120
2433432	Arsenic	103		P	80 - 120
2433432	Barium	110		P	80 - 120
2433432	Beryllium	98.9		P	80 - 120
2433432	Boron	104		P	80 - 120
2433432	Cadmium	106		P	80 - 120
2433432	Chromium	101		P	80 - 120
2433432	Cobalt	99.6		P	80 - 120
2433432	Copper	99.3		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434377

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433432	Lead	99.3		P	80 - 120
2433432	Manganese	102		P	80 - 120
2433432	Molybdenum	102		P	80 - 120
2433432	Nickel	99.8		P	80 - 120
2433432	Selenium	106		P	80 - 120
2433432	Silver	116		P	80 - 120
2433432	Thallium	105		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434602

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433273	Chloride	101		P	90 - 110
2433410	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433273	Sulfate	98.6		P	90 - 110
2433410	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434580

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433357	Ammonia-N	97.6	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434729

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433411	Kjeldahl Nitrogen	103	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433357	NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433411	Total-P	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433318	O-Phosphate-P	98.3	97.4	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P434276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433663	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	56.2	45.9	P/P	26 - 165
2433663	Acetochlor	69.2	80.4	P/P	67 - 124
2433663	Alachlor	78.6	80.4	P/P	60 - 120
2433663	Ametryn	117	125	P/P	54 - 216
2433663	Atrazine	67.5	70.6	P/P	66 - 128
2433663	Atrazine Desethyl	55.2	70.3	P/P	15 - 122
2433663	Avobenzone	56.2	59.3	P/P	37 - 178
2433663	Azinphos Methyl	68.2	99.7	P/P	40 - 292
2433663	Azoxystrobin	65.1	96.1	P/P	35 - 220
2433663	Bromacil	65.0	74.9	P/P	45 - 127
2433663	Butylate	64.0	57.7	P/P	20 - 83.0
2433663	Caffeine	98.6	99.0	P/P	10 - 194
2433663	Carbophenothion	54.8	59.0	F/P	57 - 127
2433663	Carfentrazone Ethyl	62.7	79.4	P/P	51 - 141
2433663	Chlorfenapyr	49.9	50.0	P/P	46 - 111
2433663	Chlorpyrifos Ethyl	92.7	77.2	P/P	52 - 120
2433663	Chlorpyrifos Methyl	77.5	96.1	P/P	63 - 119
2433663	Coumaphos	86.2	100	P/P	10 - 228
2433663	Cyanazine	65.5	103	P/P	59 - 241
2433663	Cyprodinil	68.0	79.6	P/P	47 - 146
2433663	Dechlorane 602	20.9	41.1	F/F	50 - 150
2433663	Dechlorane 603	37.9	55.5	F/P	50 - 150
2433663	Dechlorane Plus	36.2	47.1	F/F	50 - 150
2433663	Demeton	80.7	73.3	P/P	40 - 136
2433663	Diazinon	83.2	97.5	P/P	69 - 132
2433663	Difenoconazole	35.4	102	F/P	57 - 258
2433663	Dimethenamid	56.9	135	P/F	54 - 110
2433663	Dimethomorph	76.7	181	P/P	28 - 210
2433663	Disulfoton	102	86.1	P/P	43 - 133
2433663	Dithiopyr	70.8	106	P/P	39 - 116
2433663	EPTC	61.9	52.8	P/P	20 - 78.0
2433663	Ethion	4.88	39.2	F/P	17 - 119
2433663	Ethoprop	106	88.5	P/P	66 - 120
2433663	Etridiazole	64.2	51.2	P/P	28 - 96.0
2433663	Fenamiphos	70.6	67.5	P/P	41 - 126
2433663	Fenbuconazole	18.9	55.3	F/P	42 - 169
2433663	Fipronil	64.5	114	P/P	61 - 132
2433663	Fipronil Desulfinyl	59.3	78.5	P/P	56 - 132
2433663	Fipronil Sulfide	57.2	74.7	P/P	48 - 119
2433663	Fipronil Sulfone	58.2	68.1	P/P	42 - 131
2433663	Fluazifop-P-butyl	58.2	43.6	P/F	53 - 131
2433663	Fludioxonil	68.5	65.1	P/P	56 - 127
2433663	Flumioxazin	39.0	135	P/P	19 - 300
2433663	Flutolanil	54.3	68.4	P/P	41 - 127
2433663	Fluxapyroxad	23.7	46.4	F/P	42 - 172
2433663	Fonofos	87.4	83.2	P/P	59 - 113
2433663	Hexabromobenzene	51.1	63.7	P/P	50 - 150
2433663	Hexazinone	81.5	94.8	P/P	66 - 122
2433663	Imazalil	60.6	61.8	P/P	21 - 283
2433663	Iprodione	62.6	73.1	P/P	43 - 150
2433663	Loratadine	61.8	146	P/P	23 - 201
2433663	Malathion	63.3	84.9	P/P	58 - 136

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P434276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433663	Metalaxyl	82.6	81.8	P/P	55 - 120
2433663	Metolachlor	73.4	102	P/P	57 - 121
2433663	Metribuzin	75.7	59.7	P/P	58 - 294
2433663	Mevinphos	86.5	64.2	P/P	50 - 126
2433663	Molinate	61.4	67.0	P/P	42 - 93.0
2433663	Myclobutanil	21.6	73.6	F/P	55 - 125
2433663	Naled	51.0	44.4	P/P	18 - 200
2433663	Napropamide	5.83	66.7	F/P	39 - 110
2433663	Norflurazon	36.9	53.1	F/P	48 - 128
2433663	Octinoxate	57.2	67.1	P/P	21 - 159
2433663	Oxadiazon	57.2	96.8	P/P	43 - 112
2433663	Oxybenzone	76.2	85.8	P/P	41 - 142
2433663	Oxyfluorfen	69.3	77.7	P/P	64 - 153
2433663	Parathion Ethyl	79.6	96.7	P/P	69 - 114
2433663	Parathion Methyl	86.2	112	P/P	79 - 139
2433663	PBB-153	35.7	53.0	F/P	50 - 150
2433663	PBDE-47	31.3	57.4	P/P	27 - 144
2433663	PBDE-99	23.2	49.6	P/P	18 - 150
2433663	Pendimethalin	74.1	93.6	P/P	50 - 139
2433663	Pentabromotoluene	53.4	59.3	P/P	50 - 150
2433663	Phenytoin	27.3	27.7	P/P	10 - 146
2433663	Phorate	132	116	P/P	54 - 161
2433663	Prodiamine	34.3	32.8	P/P	30 - 161
2433663	Prometon	111	104	P/P	45 - 134
2433663	Prometryn	124	153	P/F	45 - 137
2433663	Pronamide	84.4	99.8	P/P	65 - 133
2433663	Propanil	133	128	P/P	49 - 142
2433663	Propargite	33.9	48.1	P/P	10 - 203
2433663	Propiconazole	43.0	46.0	P/P	38 - 146
2433663	Pyraflufen Ethyl	41.4	77.6	P/P	34 - 153
2433663	Pyridaben	73.5	105	P/P	12 - 192
2433663	Pyriproxyfen	25.8	67.6	F/P	33 - 180
2433663	Simazine	92.7	102	P/P	51 - 157
2433663	Stirophos	16.9	59.4	P/P	10 - 128
2433663	Sulfentrazone	34.2	77.8	F/P	53 - 186
2433663	Tebuconazole	8.04	36.7	F/P	10 - 133
2433663	Terbufos	117	117	P/P	65 - 139
2433663	Terbuthylazine	55.3	70.8	F/P	66 - 117
2433663	Tetradecachloro-m-terphenyl	69.7	51.5	F/F	70 - 200
2433663	Thiobencarb	56.6	76.2	P/P	51 - 119
2433663	Tri-o-cresyl Phosphate	54.4	68.5	P/P	31 - 144
2433663	Triadimefon	42.7	83.0	F/P	48 - 119
2433663	Tris(1-chloro-2-propyl) phosphate (TCPP)	97.3	104	P/P	50 - 150
2433663	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	60.9	76.3	P/P	50 - 150
2433663	Tris(2-chloroethyl) phosphate (TCEP)	92.0	97.4	P/P	70 - 180

Reference Method: EPA 8321B
Batch ID: P434207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432732	Acesulfame K	122	126	P/P	40 - 150
2432732	AMPA	101	106	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P434207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432732	Endothall	90.8	93.2	P/P	40 - 150
2432732	Glufosinate	87.8	82.4	P/P	40 - 150
2432732	Glyphosate	68.9	66.1	P/P	40 - 150
2432732	Sucralose	125	123	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P434430

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432763	2,4-D	108	107	P/P	40 - 150
2432763	2,4,5-T	116	123	P/P	40 - 150
2432763	Acetaminophen	117	115	P/P	30 - 150
2432763	Acetamiprid	30.9	52.2	F/P	40 - 150
2432763	Afidopyropen	42.5	54.7	P/P	30 - 150
2432763	Bentazon	61.3	61.5	P/P	30 - 150
2432763	Benzovindiflupyr	97.0	93.2	P/P	40 - 150
2432763	Carbamazepine	70.9	66.1	P/P	40 - 150
2432763	Clothianidin	97.0	99.9	P/P	40 - 150
2432763	Dinotefuran	70.8	69.2	P/P	40 - 150
2432763	Diuron	56.8	57.4	P/P	40 - 150
2432763	Fenuron	53.1	53.9	P/P	40 - 150
2432763	Fluridone	69.7	66.4	P/P	40 - 150
2432763	Hydrocodone	70.8	72.5	P/P	40 - 150
2432763	Ibuprofen	79.8	71.2	P/P	40 - 150
2432763	Imazapyr	69.2	68.8	P/P	40 - 150
2432763	Imidacloprid	119	114	P/P	40 - 150
2432763	Linuron	63.0	69.1	P/P	40 - 150
2432763	Mandestrobin	103	96.6	P/P	40 - 150
2432763	MCPP	127	120	P/P	40 - 150
2432763	Naproxen	88.4	84.3	P/P	40 - 150
2432763	Primidone	80.5	81.8	P/P	40 - 150
2432763	Pyraclostrobin	94.6	92.1	P/P	40 - 150
2432763	Silvex	122	123	P/P	40 - 150
2432763	Thiamethoxam	86.9	86.1	P/P	40 - 150
2432763	Tolfenpyrad	60.4	56.0	P/P	30 - 150
2432763	Triclopyr	125	124	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P434516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433499	Fluoride	103	103	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P434450

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433617	Organic Carbon	97.0	97.8	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P434325

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433356	Color (true)	0.909	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434328

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433208	Turbidity	3.15	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434377

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433091	Calcium	1.70	Spike	P	0 - 20
2433091	Iron	1.65	Spike	P	0 - 20
2433091	Magnesium	1.60	Spike	P	0 - 20
2433091	Potassium	0.0697	Spike	P	0 - 20
2433091	Sodium	0.420	Spike	P	0 - 20
2433091	Strontium	0.602	Spike	P	0 - 20
2433091	Tin	3.83	Spike	P	0 - 20
2433091	Titanium	1.64	Spike	P	0 - 20
2433091	Vanadium	2.69	Spike	P	0 - 20
2433091	Zinc	2.17	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434377

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433091	Aluminum	0.267	Spike	P	0 - 20
2433091	Antimony	0.150	Spike	P	0 - 20
2433091	Arsenic	0.00818	Spike	P	0 - 20
2433091	Barium	0.0584	Spike	P	0 - 20
2433091	Beryllium	3.32	Spike	P	0 - 20
2433091	Boron	0.535	Spike	P	0 - 20
2433091	Cadmium	1.52	Spike	P	0 - 20
2433091	Chromium	0.118	Spike	P	0 - 20
2433091	Cobalt	0.164	Spike	P	0 - 20
2433091	Copper	0.430	Spike	P	0 - 20
2433091	Lead	0.663	Spike	P	0 - 20
2433091	Manganese	0.191	Spike	P	0 - 20
2433091	Molybdenum	0.599	Spike	P	0 - 20
2433091	Nickel	1.30	Spike	P	0 - 20
2433091	Selenium	2.31	Spike	P	0 - 20
2433091	Silver	0.992	Spike	P	0 - 20
2433091	Thallium	0.723	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433273	Chloride	0.374	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433273	Sulfate	0.245	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434580

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433357	Ammonia-N	1.70	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434729

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433411	Kjeldahl Nitrogen	2.37	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433357	NO2NO3-N	0.976	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433411	Total-P	0.531	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434312

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433318	O-Phosphate-P	0.665	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P434276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433663	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	20.0	Spike	P	0 - 37
2433663	Acetochlor	14.1	Spike	P	0 - 28

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P434276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433663	Alachlor	2.27	Spike	P	0 - 30
2433663	Ametryn	6.23	Spike	P	0 - 32
2433663	Atrazine	4.09	Spike	P	0 - 41
2433663	Atrazine Desethyl	21.0	Spike	P	0 - 36
2433663	Avobenzone	5.46	Spike	P	0 - 36
2433663	Azinphos Methyl	37.6	Spike	P	0 - 75
2433663	Azoxystrobin	38.4	Spike	P	0 - 39
2433663	Bromacil	14.2	Spike	P	0 - 33
2433663	Butylate	10.5	Spike	P	0 - 44
2433663	Caffeine	0.352	Spike	P	0 - 74
2433663	Carbophenothion	6.43	Spike	P	0 - 25
2433663	Carfentrazone Ethyl	23.5	Spike	P	0 - 27
2433663	Chlorfenapyr	0.0782	Spike	P	0 - 24
2433663	Chlorpyrifos Ethyl	18.2	Spike	P	0 - 26
2433663	Chlorpyrifos Methyl	21.5	Spike	P	0 - 26
2433663	Coumaphos	15.0	Spike	P	0 - 28
2433663	Cyanazine	44.8	Spike	P	0 - 48
2433663	Cyprodinil	15.7	Spike	P	0 - 29
2433663	Dechlorane 602	65.0	Spike	F	0 - 30
2433663	Dechlorane 603	37.8	Spike	F	0 - 30
2433663	Dechlorane Plus	26.3	Spike	P	0 - 30
2433663	Demeton	9.66	Spike	P	0 - 33
2433663	Diazinon	15.8	Spike	P	0 - 29
2433663	Difenoconazole	84.7	Spike	F	0 - 34
2433663	Dimethenamid	81.3	Spike	F	0 - 39
2433663	Dimethomorph	73.0	Spike	F	0 - 51
2433663	Disulfoton	16.7	Spike	P	0 - 30
2433663	Dithiopyr	40.1	Spike	F	0 - 26
2433663	EPTC	15.8	Spike	P	0 - 43
2433663	Ethion	156	Spike	F	0 - 79
2433663	Ethoprop	18.0	Spike	P	0 - 29
2433663	Etridiazole	22.6	Spike	P	0 - 33
2433663	Fenamiphos	4.46	Spike	P	0 - 40
2433663	Fenbuconazole	78.7	Spike	F	0 - 74
2433663	Fipronil	50.0	Spike	F	0 - 29
2433663	Fipronil Desulfinyl	25.3	Spike	P	0 - 32
2433663	Fipronil Sulfide	24.2	Spike	P	0 - 30
2433663	Fipronil Sulfone	12.9	Spike	P	0 - 33
2433663	Fluazifop-P-butyl	24.6	Spike	P	0 - 38
2433663	Fludioxonil	5.10	Spike	P	0 - 29
2433663	Flumioxazin	110	Spike	F	0 - 51
2433663	Flutolanil	23.0	Spike	P	0 - 25
2433663	Fluxapyroxad	64.8	Spike	F	0 - 45
2433663	Fonofos	4.90	Spike	P	0 - 27
2433663	Hexabromobenzene	21.9	Spike	P	0 - 30
2433663	Hexazinone	15.1	Spike	P	0 - 30
2433663	Imazalil	2.01	Spike	P	0 - 100
2433663	Iprodione	15.4	Spike	P	0 - 33
2433663	Loratadine	73.0	Spike	F	0 - 56
2433663	Malathion	29.1	Spike	P	0 - 37
2433663	Metalaxyl	1.05	Spike	P	0 - 40

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P434276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433663	Metolachlor	28.0	Spike	P	0 - 29
2433663	Metribuzin	23.7	Spike	P	0 - 45
2433663	Mevinphos	29.5	Spike	F	0 - 29
2433663	Molinate	8.71	Spike	P	0 - 33
2433663	Myclobutanil	109	Spike	F	0 - 26
2433663	Naled	13.8	Spike	P	0 - 37
2433663	Napropamide	168	Spike	F	0 - 44
2433663	Norflurazon	35.9	Spike	F	0 - 30
2433663	Octinoxate	15.9	Spike	P	0 - 45
2433663	Oxadiazon	51.5	Spike	F	0 - 28
2433663	Oxybenzone	11.8	Spike	P	0 - 46
2433663	Oxyfluorfen	11.4	Spike	P	0 - 28
2433663	Parathion Ethyl	19.4	Spike	P	0 - 31
2433663	Parathion Methyl	26.1	Spike	P	0 - 29
2433663	PBB-153	39.0	Spike	F	0 - 30
2433663	PBDE-47	58.8	Spike	F	0 - 36
2433663	PBDE-99	72.4	Spike	F	0 - 40
2433663	Pendimethalin	23.2	Spike	P	0 - 33
2433663	Pentabromotoluene	10.4	Spike	P	0 - 30
2433663	Phenytoin	1.62	Spike	P	0 - 100
2433663	Phorate	13.1	Spike	P	0 - 36
2433663	Prodiamine	4.24	Spike	P	0 - 71
2433663	Prometon	6.67	Spike	P	0 - 36
2433663	Prometryn	20.6	Spike	P	0 - 28
2433663	Pronamide	16.8	Spike	P	0 - 24
2433663	Propanil	4.18	Spike	P	0 - 28
2433663	Propargite	34.8	Spike	P	0 - 43
2433663	Propiconazole	6.82	Spike	P	0 - 33
2433663	Pyraflufen Ethyl	60.8	Spike	F	0 - 29
2433663	Pyridaben	35.5	Spike	F	0 - 30
2433663	Pyriproxyfen	89.7	Spike	F	0 - 79
2433663	Simazine	9.74	Spike	P	0 - 29
2433663	Stirophos	112	Spike	F	0 - 61
2433663	Sulfentrazone	64.4	Spike	F	0 - 33
2433663	Tebuconazole	128	Spike	F	0 - 69
2433663	Terbufos	0.314	Spike	P	0 - 29
2433663	Terbuthylazine	22.9	Spike	P	0 - 32
2433663	Tetradecachloro-m-terphenyl	30.1	Spike	F	0 - 30
2433663	Thiobencarb	29.5	Spike	F	0 - 26
2433663	Tri-o-cresyl Phosphate	23.0	Spike	P	0 - 33
2433663	Triadimefon	64.0	Spike	F	0 - 28
2433663	Tris(1-chloro-2-propyl) phosphate (TCPP)	6.72	Spike	P	0 - 30
2433663	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	22.4	Spike	P	0 - 30
2433663	Tris(2-chloroethyl) phosphate (TCEP)	5.77	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P434207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432732	Acesulfame K	3.26	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P434207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432732	AMPA	4.72	Spike	P	0 - 30
2432732	Endothall	2.60	Spike	P	0 - 30
2432732	Glufosinate	6.29	Spike	P	0 - 30
2432732	Glyphosate	4.11	Spike	P	0 - 30
2432732	Sucralose	1.79	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P434430

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432763	2,4-D	1.44	Spike	P	0 - 30
2432763	2,4,5-T	5.74	Spike	P	0 - 30
2432763	Acetaminophen	1.10	Spike	P	0 - 30
2432763	Acetamiprid	51.2	Spike	F	0 - 30
2432763	Afidopyropen	25.2	Spike	P	0 - 30
2432763	Bentazon	0.269	Spike	P	0 - 30
2432763	Benzovindiflupyr	3.92	Spike	P	0 - 30
2432763	Carbamazepine	7.00	Spike	P	0 - 30
2432763	Clothianidin	3.01	Spike	P	0 - 30
2432763	Dinotefuran	2.31	Spike	P	0 - 30
2432763	Diuron	1.18	Spike	P	0 - 30
2432763	Fenuron	1.61	Spike	P	0 - 30
2432763	Fluridone	4.83	Spike	P	0 - 30
2432763	Hydrocodone	2.39	Spike	P	0 - 30
2432763	Ibuprofen	11.3	Spike	P	0 - 30
2432763	Imazapyr	0.579	Spike	P	0 - 30
2432763	Imidacloprid	4.62	Spike	P	0 - 30
2432763	Linuron	9.16	Spike	P	0 - 30
2432763	Mandestrobin	5.94	Spike	P	0 - 30
2432763	MCPP	5.99	Spike	P	0 - 30
2432763	Naproxen	4.80	Spike	P	0 - 30
2432763	Primidone	1.61	Spike	P	0 - 30
2432763	Pyraclostrobin	2.72	Spike	P	0 - 30
2432763	Silvex	0.987	Spike	P	0 - 30
2432763	Thiamethoxam	0.908	Spike	P	0 - 30
2432763	Tolfenpyrad	7.54	Spike	P	0 - 30
2432763	Triclopyr	0.682	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P434513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433499	Total Alkalinity	0.292	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P434503

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: SM 2540 C-2015
Batch ID: P434503

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433310	TDS	2.31	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P434516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433499	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P434450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433617	Organic Carbon	0.822	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2433431
Field Sample ID: 33020147

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	90.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	104	P	30 - 160
EPA 8321B	Diuron-d6	80.4	P	30 - 160
EPA 8321B	Endothall-d6	94.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	58.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	60.1	P	30 - 160
EPA 8321B	Primidone-d5	94.2	P	30 - 160
EPA 8321B	Sucralose-d6	136	P	30 - 160

Lab Sample ID: 2433434
Field Sample ID: 33020147

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	73.6	P	20 - 200
EPA 8270E	Simazine-d10	96.1	P	62 - 142
EPA 8270E	Terbufos-d10	109	P	58 - 132
EPA 8270E	Terphenyl-d14	90.1	P	52 - 137

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A121229
Included Lab Sample IDs: 2433412, 2433415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	98.0	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1
Run ID: A121232
Included Lab Sample IDs: 2433410, 2433413

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.9	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A121233
Included Lab Sample IDs: 2433410, 2433413

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

Reference Method: EPA 8321B
Run ID: A121277
Included Lab Sample IDs: 2433431

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	105	P/P	60 - 160
Endothall	93.9	93.5	P/P	60 - 160
Glufosinate	102	99.0	P/P	60 - 160
Glyphosate	98.4	94.2	P/P	60 - 160

Reference Method: SM 5310 B-2011
Run ID: A121294
Included Lab Sample IDs: 2433411, 2433414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	96.6	P/P	90 - 110
Organic Carbon	96.6	96.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A121299
Included Lab Sample IDs: 2433432, 2433433

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	102	P/P	90 - 110
Aluminum	99.7	101	P/P	90 - 110
Antimony	97.7	98.9	P/P	90 - 110
Antimony	98.9	102	P/P	90 - 110
Arsenic	103	104	P/P	90 - 110
Arsenic	104	104	P/P	90 - 110
Barium	102	104	P/P	90 - 110
Barium	104	105	P/P	90 - 110
Beryllium	100	101	P/P	90 - 110
Beryllium	101	101	P/P	90 - 110
Boron	95.4	97.6	P/P	90 - 110
Boron	97.6	99.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A121299
Included Lab Sample IDs: 2433432, 2433433

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	102	105	P/P	90 - 110
Cadmium	99.6	102	P/P	90 - 110
Chromium	98.5	99.1	P/P	90 - 110
Chromium	99.1	103	P/P	90 - 110
Cobalt	99.3	99.9	P/P	90 - 110
Cobalt	99.9	99.4	P/P	90 - 110
Copper	101	102	P/P	90 - 110
Copper	102	100	P/P	90 - 110
Lead	96.1	96.7	P/P	90 - 110
Lead	96.7	97.7	P/P	90 - 110
Manganese	98.5	103	P/P	90 - 110
Manganese	98.6	98.5	P/P	90 - 110
Molybdenum	101	102	P/P	90 - 110
Molybdenum	99.0	101	P/P	90 - 110
Nickel	101	102	P/P	90 - 110
Nickel	102	100	P/P	90 - 110
Selenium	101	102	P/P	90 - 110
Selenium	102	105	P/P	90 - 110
Silver	97.4	98.9	P/P	90 - 110
Silver	98.9	101	P/P	90 - 110
Thallium	99.4	99.5	P/P	90 - 110
Thallium	99.5	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A121302
Included Lab Sample IDs: 2433432, 2433433

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.0	95.6	P/P	90 - 110
Calcium	99.4	98.4	P/P	95 - 105
Iron	103	99.8	P/P	95 - 105
Iron	98.5	98.8	P/P	90 - 110
Magnesium	102	99.5	P/P	95 - 105
Magnesium	98.4	98.1	P/P	90 - 110
Potassium	100	96.7	P/P	95 - 105
Potassium	95.5	95.3	P/P	90 - 110
Sodium	92.4	92.0	P/P	90 - 110
Sodium	97.7	94.1	P/P	95 - 105
Strontium	93.8	94.6	P/P	90 - 110
Strontium	98.8	98.4	P/P	95 - 105
Tin	100	101	P/P	95 - 105
Tin	98.3	93.0	P/P	90 - 110
Titanium	100	99.7	P/P	95 - 105
Titanium	96.6	93.7	P/P	90 - 110
Vanadium	101	101	P/P	95 - 105
Vanadium	97.3	94.2	P/P	90 - 110
Zinc	101	101	P/P	95 - 105
Zinc	96.7	93.9	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A121308
Included Lab Sample IDs: 2433411, 2433414

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

Reference Method: SM 2320 B-2011
Run ID: A121328
Included Lab Sample IDs: 2433410, 2433413

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.3	97.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A121328
Included Lab Sample IDs: 2433410, 2433413

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

Reference Method: EPA 8270E
Run ID: A121341
Included Lab Sample IDs: 2433434

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	93.5		P	80 - 120
Avobenzone	102		P	80 - 120
Dechlorane 602	94.4		P	80 - 120
Dechlorane 603	92.6		P	80 - 120
Dechlorane Plus	95.8		P	80 - 120
Hexabromobenzene	93.8		P	80 - 120
Octinoxate	91.4		P	80 - 120
Oxybenzone	95.9		P	80 - 120
PBB-153	91.7		P	80 - 120
PBDE-47	91.7		P	80 - 120
PBDE-99	92.3		P	80 - 120
Pentabromotoluene	93.2		P	80 - 120
Tetradecachloro-m-terphenyl	101		P	80 - 120
Tri-o-cresyl Phosphate	95.3		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	92.5		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	92.3		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	100		P	80 - 120

Reference Method: EPA 8321B
Run ID: A121350
Included Lab Sample IDs: 2433431

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.8	91.0	P/P	50 - 150
2,4,5-T	85.7	79.1	P/P	50 - 150
Acetaminophen	102	107	P/P	60 - 160
Acetamiprid	125	128	P/P	50 - 150
Afidopyropen	104	112	P/P	50 - 150
Bentazon	142	138	P/P	50 - 160
Benzovindiflupyr	113	119	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A121350
Included Lab Sample IDs: 2433431

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbamazepine	117	129	P/P	60 - 150
Clothianidin	113	120	P/P	60 - 150
Dinotefuran	108	113	P/P	50 - 150
Diuron	111	111	P/P	60 - 160
Fenuron	117	118	P/P	60 - 150
Fluridone	110	111	P/P	60 - 160
Hydrocodone	130	135	P/P	60 - 150
Ibuprofen	122	101	P/P	50 - 160
Imazapyr	93.0	89.2	P/P	50 - 150
Imidacloprid	104	104	P/P	60 - 150
Linuron	100	108	P/P	60 - 150
Mandestrobin	123	127	P/P	50 - 150
MCPP	85.3	90.3	P/P	50 - 150
Naproxen	111	63.4	P/P	50 - 160
Primidone	108	105	P/P	60 - 150
Pyraclostrobin	120	124	P/P	60 - 150
Silvex	89.4	85.8	P/P	50 - 150
Thiamethoxam	125	122	P/P	50 - 150
Tolfenpyrad	105	106	P/P	60 - 150
Triclopyr	84.9	87.4	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A121360
Included Lab Sample IDs: 2433411, 2433414

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A121370
Included Lab Sample IDs: 2433410, 2433413

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.2	98.6	P/P	90 - 110
Chloride	98.6	99.2	P/P	90 - 110
Sulfate	97.0	97.7	P/P	90 - 110
Sulfate	97.7	97.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A121460
Included Lab Sample IDs: 2433411, 2433414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	103	P/P	90 - 110
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A121469
Included Lab Sample IDs: 2433411, 2433414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A121469
Included Lab Sample IDs: 2433411, 2433414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	105	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A121592
Included Lab Sample IDs: 2433434

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	92.3		P	80 - 120
Alachlor	87.6		P	80 - 120
Ametryn	111		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	93.4		P	80 - 120
Azinphos Methyl	84.7		P	80 - 120
Azoxystrobin	102		P	80 - 120
Bromacil	90.6		P	80 - 120
Butylate	102		P	80 - 120
Caffeine	94.1		P	80 - 120
Carbophenothion	100		P	80 - 120
Carfentrazone Ethyl	89.8		P	80 - 120
Chlorfenapyr	94.3		P	80 - 120
Chlorpyrifos Ethyl	87.3		P	80 - 120
Chlorpyrifos Methyl	93.5		P	80 - 120
Coumaphos	96.0		P	80 - 120
Cyanazine	102		P	80 - 120
Cyprodinil	92.0		P	80 - 120
Demeton	85.2		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	87.3		P	80 - 120
Dimethenamid	88.0		P	80 - 120
Dimethomorph	95.2		P	80 - 120
Disulfoton	103		P	80 - 120
Dithiopyr	91.6		P	80 - 120
EPTC	99.0		P	80 - 120
Ethion	88.9		P	80 - 120
Ethoprop	87.9		P	80 - 120
Etridiazole	102		P	80 - 120
Fenamiphos	98.3		P	80 - 120
Fenbuconazole	90.4		P	80 - 120
Fipronil	81.0		P	80 - 120
Fipronil Desulfinyl	89.7		P	80 - 120
Fipronil Sulfide	98.7		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fluazifop-P-butyl	96.4		P	80 - 120
Fludioxonil	93.0		P	80 - 120
Flumioxazin	89.4		P	80 - 120
Flutolanil	98.8		P	80 - 120
Fluxapyroxad	92.5		P	80 - 120
Fonofos	85.2		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	103		P	80 - 120
Iprodione	80.7		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A121592
Included Lab Sample IDs: 2433434

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Loratadine	91.0		P	80 - 120
Malathion	88.9		P	80 - 120
Metalaxyl	89.7		P	80 - 120
Metolachlor	99.5		P	80 - 120
Metribuzin	110		P	80 - 120
Mevinphos	86.6		P	80 - 120
Molinate	88.4		P	80 - 120
Myclobutanil	93.7		P	80 - 120
Naled	89.9		P	80 - 120
Napropamide	99.9		P	80 - 120
Norflurazon	103		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	106		P	80 - 120
Parathion Ethyl	95.3		P	80 - 120
Parathion Methyl	84.0		P	80 - 120
Pendimethalin	89.1		P	80 - 120
Phenytoin	100		P	80 - 120
Phorate	87.3		P	80 - 120
Prodiamine	94.7		P	80 - 120
Prometon	100		P	80 - 120
Prometryn	86.4		P	80 - 120
Pronamide	106		P	80 - 120
Propanil	102		P	80 - 120
Propargite	104		P	80 - 120
Propiconazole	82.1		P	80 - 120
Pyraflufen Ethyl	95.1		P	80 - 120
Pyridaben	103		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	90.8		P	80 - 120
Stirophos	83.9		P	80 - 120
Sulfentrazone	77.3*		F	80 - 120
Tebuconazole	99.6		P	80 - 120
Terbufos	99.8		P	80 - 120
Terbuthylazine	94.5		P	80 - 120
Thiobencarb	104		P	80 - 120
Triadimefon	103		P	80 - 120

Reference Method: EPA 8321B
Run ID: P121278
Included Lab Sample IDs: 2433431

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	131	136	P/P	60 - 160
Sucralose	128	129	P/P	60 - 160

* 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			Precision		
						LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	100					0.909	
EPA 180.1 Rev. 2.0	Turbidity	97.7					3.15	
EPA 200.7 Rev. 4.4	Calcium	102	101	98.9	98.3			1.70
	Iron	103	103	101	101			1.65
	Magnesium	104	103	102	99.9			1.60
	Potassium	101	101	101	95.8			0.0697
	Sodium	100	97.1	97.6	96.3			0.420
	Strontium	99.5	97.6	98.2	96.2			0.602
	Tin	107	102	106	105			3.83
	Titanium	99.8	98.7	100	98.9			1.64
	Vanadium	102	99.9	103	101			2.69
	Zinc	103	101	103	102			2.17
EPA 200.8 Rev. 5.4	Aluminum	103	104	103	103			0.267
	Antimony	102	103	103	105			0.150
	Arsenic	103	106	106	103			0.0081
	Barium	107	109	109	110			0.0584
	Beryllium	100	99.7	96.3	98.9			3.32
	Boron	104	103	103	104			0.535
	Cadmium	102	103	104	106			1.52
	Chromium	98.8	99.3	99.2	101			0.118
	Cobalt	100	102	102	99.6			0.164
	Copper	101	105	106	99.3			0.430
	Lead	98.3	99.9	101	99.3			0.663
	Manganese	99.1	100	99.9	102			0.191
	Molybdenum	101	102	102	102			0.599
	Nickel	101	103	104	99.8			1.30
	Selenium	103	104	107	106			2.31
	Silver	114	114	115	116			0.992
	Thallium	103	106	107	105			0.723
EPA 300.0 Rev. 2.1	Chloride	99.6	101	103			0.374	
	Sulfate	97.7	98.6	101			0.245	
EPA 350.1 Rev. 2.0	Ammonia-N	99.6	97.6	99.4				1.70
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	103	100				2.37
EPA 353.2 Rev. 2.0	NO2NO3-N	104	102	103				0.976
EPA 365.1 Rev. 2.0	Total-P	103	103	104				0.531
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4	98.3	97.4				0.665
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	83.4	45.9	56.2				20.0
	Acetochlor	82.6	69.2	80.4				14.1
	Alachlor	96.4	78.6	80.4				2.27
	Ametryn	127	117	125				6.23
	Atrazine	101	67.5	70.6				4.09
	Atrazine Desethyl	74.4	55.2	70.3				21.0
	Avobenzone	126	59.3	56.2				5.46
	Azinphos Methyl	117	68.2	99.7				37.6
	Azoxystrobin	109	65.1	96.1				38.4
	Bromacil	88.8	65.0	74.9				14.2
	Butylate	64.0	64.0	57.7				10.5
	Caffeine	90.7	98.6	99.0				0.352
	Carbophenothion	108	54.8	59.0				6.43
	Carfentrazone Ethyl	108	62.7	79.4				23.5
	Chlorfenapyr	91.4	49.9	50.0				0.0782
	Chlorpyrifos Ethyl	84.8	92.7	77.2				18.2

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Chlorpyrifos Methyl	76.9	77.5	96.1			21.5
	Coumaphos	159	86.2	100			15.0
	Cyanazine	121	65.5	103			44.8
	Cyprodinil	61.7	68.0	79.6			15.7
	Dechlorane 602	66.0	41.1	20.9			65.0
	Dechlorane 603	91.1	55.5	37.9			37.8
	Dechlorane Plus	73.5	47.1	36.2			26.3
	Demeton	67.4	80.7	73.3			9.66
	Diazinon	101	83.2	97.5			15.8
	Difenoconazole	118	35.4	102			84.7
	Dimethenamid	58.9	56.9	135			81.3
	Dimethomorph	219	76.7	181			73.0
	Disulfoton	123	102	86.1			16.7
	Dithiopyr	75.4	70.8	106			40.1
	EPTC	60.3	61.9	52.8			15.8
	Ethion	69.9	4.88	39.2			156
	Ethoprop	105	106	88.5			18.0
	Etridiazole	70.9	64.2	51.2			22.6
	Fenamiphos	93.8	70.6	67.5			4.46
	Fenbuconazole	114	18.9	55.3			78.7
	Fipronil	105	64.5	114			50.0
	Fipronil Desulfinyl	70.0	59.3	78.5			25.3
	Fipronil Sulfide	94.5	57.2	74.7			24.2
	Fipronil Sulfone	88.3	68.1	58.2			12.9
	Fluazifop-P-butyl	77.0	43.6	58.2			24.6
	Fludioxonil	72.8	65.1	68.5			5.10
	Flumioxazin	128	135	39.0			110
	Flutolanil	89.7	68.4	54.3			23.0
	Fluxapyroxad	82.2	46.4	23.7			64.8
	Fonofos	84.3	83.2	87.4			4.90
	Hexabromobenzene	103	63.7	51.1			21.9
	Hexazinone	93.4	94.8	81.5			15.1
	Imazalil	97.4	61.8	60.6			2.01
	Iprodione	80.1	73.1	62.6			15.4
	Loratadine	215	146	61.8			73.0
	Malathion	108	84.9	63.3			29.1
	Metalaxyl	89.7	81.8	82.6			1.05
	Metolachlor	100	102	73.4			28.0
	Metribuzin	94.4	59.7	75.7			23.7
	Mevinphos	111	64.2	86.5			29.5
	Molinate	59.4	67.0	61.4			8.71
	Myclobutanil	99.7	73.6	21.6			109
	Naled	47.9	44.4	51.0			13.8
	Napropamide	78.7	66.7	5.83			168
	Norflurazon	86.9	53.1	36.9			35.9
	Octinoxate	108	67.1	57.2			15.9
	Oxadiazon	84.7	96.8	57.2			51.5
	Oxybenzone	124	85.8	76.2			11.8
	Oxyfluorfen	121	77.7	69.3			11.4
	Parathion Ethyl	96.4	96.7	79.6			19.4
	Parathion Methyl	72.0	112	86.2			26.1
	PBB-153	141	35.7	53.0			39.0
	PBDE-47	93.7	57.4	31.3			58.8
	PBDE-99	81.6	49.6	23.2			72.4

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Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Pendimethalin	66.2	93.6	74.1			23.2
	Pentabromotoluene	99.8	59.3	53.4			10.4
	Phenytoin	43.4	27.7	27.3			1.62
	Phorate	153	116	132			13.1
	Prodiamine	35.1	32.8	34.3			4.24
	Prometon	103	104	111			6.67
	Prometryn	75.9	153	124			20.6
	Pronamide	110	99.8	84.4			16.8
	Propanil	129	128	133			4.18
	Propargite	67.4	48.1	33.9			34.8
	Propiconazole	48.9	46.0	43.0			6.82
	Pyraflufen Ethyl	83.0	77.6	41.4			60.8
	Pyridaben	144	105	73.5			35.5
	Pyriproxyfen	94.1	67.6	25.8			89.7
	Simazine	107	102	92.7			9.74
	Stirophos	26.4	59.4	16.9			112
	Sulfentrazone	41.7	77.8	34.2			64.4
	Tebuconazole	46.4	36.7	8.04			128
	Terbufos	123	117	117			0.314
	Terbuthylazine	86.4	70.8	55.3			22.9
	Tetradecachloro-m-terphenyl	98.4	69.7	51.5			30.1
	Thiobencarb	90.8	76.2	56.6			29.5
	Tri-o-cresyl Phosphate	101	68.5	54.4			23.0
	Triadimefon	95.2	83.0	42.7			64.0
	Tris(1-chloro-2-propyl) phosphate (TCPP)	132	97.3	104			6.72
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	101	60.9	76.3			22.4
	Tris(2-chloroethyl) phosphate (TCEP)	116	97.4	92.0			5.77
EPA 8321B	2,4-D	71.2	108	107			1.44
	2,4,5-T	79.6	116	123			5.74
	Acesulfame K	117	122	126			3.26
	Acetaminophen	89.5	117	115			1.10
	Acetamiprid	106	30.9	52.2			51.2
	Afidopyropen	74.7	42.5	54.7			25.2
	AMPA	129	101	106			4.72
	Bentazon	111	61.3	61.5			0.269
	Benzovindiflupyr	96.1	97.0	93.2			3.92
	Carbamazepine	93.2	70.9	66.1			7.00
	Clothianidin	102	97.0	99.9			3.01
	Dinotefuran	96.4	70.8	69.2			2.31
	Diuron	84.8	56.8	57.4			1.18
	Endothall	92.7	90.8	93.2			2.60
	Fenuron	106	53.1	53.9			1.61
	Fluridone	89.6	69.7	66.4			4.83
	Glufosinate	96.1	87.8	82.4			6.29
	Glyphosate	71.8	68.9	66.1			4.11
	Hydrocodone	110	70.8	72.5			2.39
	Ibuprofen	78.7	79.8	71.2			11.3
	Imazapyr	77.2	69.2	68.8			0.579
	Imidacloprid	89.3	119	114			4.62
	Linuron	78.2	63.0	69.1			9.16
	Mandestrobin	105	103	96.6			5.94

Quality Assurance Report
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Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	MCPP	87.5	127	120			5.99
	Naproxen	55.3	88.4	84.3			4.80
	Primidone	94.4	80.5	81.8			1.61
	Pyraclostrobin	95.2	94.6	92.1			2.72
	Silvex	80.9	122	123			0.987
	Sucralose	123	125	123			1.79
	Thiamethoxam	104	86.9	86.1			0.908
	Tolfenpyrad	60.0	60.4	56.0			7.54
	Triclopyr	84.0	125	124			0.682
SM 2320 B-2011	Total Alkalinity	98.6				0.292	
SM 2540 C-2015	TDS	91.8				2.31	
SM 2540 D-2015	TSS	100					
SM 4500-F- C-2011	Fluoride	99.8	103	103			0.0
SM 5310 B-2011	Organic Carbon	93.4	97.0	97.8			0.822

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2433410, 2433413
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2433410, 2433413
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2433432, 2433433
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2433432, 2433433
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2433410, 2433413
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2433410, 2433413
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2433411, 2433414
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2433411, 2433414
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2433411, 2433414
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2433411, 2433414
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2433412, 2433415
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2433434
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2433434
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2433431
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2433410, 2433413
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2433432
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2433410, 2433413
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2433410, 2433413
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2433410, 2433413
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2433411, 2433414

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	08/24/2023			08/24/2023 14:09	Anna M. Plaviak	2433410
	08/24/2023			08/24/2023 14:10	Anna M. Plaviak	2433413
EPA 180.1 Rev. 2.0	08/24/2023			08/24/2023 14:22	Khloe J Berg	2433410, 2433413
EPA 200.7 Rev. 4.4	08/24/2023	08/25/2023 13:05	George D Taylor	08/28/2023 14:16	McKinley C Carter	2433433
	08/24/2023	08/25/2023 13:05	George D Taylor	08/28/2023 17:31	McKinley C Carter	2433432
EPA 200.8 Rev. 5.4	08/24/2023	08/25/2023 13:05	George D Taylor	08/28/2023 15:58	Emily M Philpot	2433433
	08/24/2023	08/25/2023 13:05	George D Taylor	08/28/2023 18:51	Emily M Philpot	2433432
EPA 300.0 Rev. 2.1	08/24/2023			09/05/2023 17:47	James L Waggerby	2433410
	08/24/2023			09/05/2023 22:18	James L Waggerby	2433413
EPA 350.1 Rev. 2.0	08/24/2023			09/05/2023 13:38	Ping Hua	2433411
	08/24/2023			09/05/2023 13:39	Ping Hua	2433414
EPA 351.2 Rev. 2.0	08/24/2023	09/08/2023 13:42	Simonne.V. Calhoun	09/12/2023 11:57	Samantha L Bates	2433411
	08/24/2023	09/08/2023 13:42	Simonne.V. Calhoun	09/12/2023 12:02	Samantha L Bates	2433414
EPA 353.2 Rev. 2.0	08/24/2023			09/11/2023 11:59	Anna M. Plaviak	2433414
	08/24/2023			09/11/2023 13:28	Anna M. Plaviak	2433411
EPA 365.1 Rev. 2.0	08/24/2023	08/28/2023 16:10	Adam P Silver	08/29/2023 11:07	Chandler E Cox	2433414
	08/24/2023	08/28/2023 16:10	Adam P Silver	08/29/2023 11:08	Chandler E Cox	2433411
EPA 365.1 Rev. 2.0 dissolved	08/24/2023			08/24/2023 13:54	Chandler E Cox	2433412
	08/24/2023			08/24/2023 13:55	Chandler E Cox	2433415
EPA 8270E	08/24/2023	08/28/2023 08:00	Fe-Val Siddell	08/29/2023 17:32	Vandana T. Nagar	2433434
	08/24/2023	08/28/2023 08:00	Fe-Val Siddell	09/02/2023 22:38	Arthur Maknenko	2433434
EPA 8321B	08/24/2023	08/25/2023 06:00	Hana Lee	08/25/2023 11:21	Tae K Lee	2433431
	08/24/2023	08/25/2023 06:00	Hana Lee	08/25/2023 22:04	Tae K Lee	2433431
	08/24/2023	08/29/2023 09:00	Hoor Shaik	09/02/2023 11:20	Juyoung Kim	2433431
SM 2320 B-2011	08/24/2023			08/30/2023 05:59	Dale L. Simmons	2433410
	08/24/2023			08/30/2023 06:08	Dale L. Simmons	2433413
SM 2340 B-2011	08/24/2023			08/28/2023 17:31	McKinley C Carter	2433432
SM 2540 C-2015	08/24/2023			08/25/2023 11:30	Dana G. Hughes	2433410, 2433413
SM 2540 D-2015	08/24/2023			08/25/2023 11:30	Dana G. Hughes	2433410, 2433413
SM 4500-F- C-2011	08/24/2023			08/30/2023 05:59	Dale L. Simmons	2433410
	08/24/2023			08/30/2023 06:08	Dale L. Simmons	2433413
SM 5310 B-2011	08/24/2023			08/28/2023 21:46	Elise M. Gillis	2433411
	08/24/2023			08/28/2023 22:25	Elise M. Gillis	2433414