

Chemical Analysis Report

CEN-DIST-2023-12-06-01

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

Event Description: **Little Wekiva SCI and non-SCI**
Request ID: **RQ-2023-12-04-24**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Matthew Bearden

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Certified by: Marek Topolski, Environmental Specialist III

Date Certified: 05-JAN-2024 15:49

A handwritten signature in black ink, appearing to read "Marek Topolski", with a stylized, flowing script.

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 WEKIVA CANAL 85M N OF SHADER RD Collection Date/Time: 12/05/2023 11:12

Field ID: G2CE0266

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2454834	DEP SOP: NU-094-1	Color (true)	95		PCU	P438585	
	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P438590	
	EPA 300.0 Rev. 2.1	Chloride	10	A	mg Cl/L	P439032	
		Sulfate	6.8	A	mg SO4/L	P439138	
	SM 2320 B-2011	Total Alkalinity	63		mg CaCO3/L	P438763	
	SM 2540 C-2015	TDS	116		mg/L	P439143	
	SM 2540 D-2015	TSS	2	U	mg/L	P439129	
2454836	SM 4500-F- C-2011	Fluoride	0.10		mg F/L	P438765	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.067		mg N/L	P438667	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.90		mg N/L	P438748	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P438677	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P438837	
2454838	SM 5310 B-2014	Organic Carbon	16		mg C/L	P438688	
2454838	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P438557	
2454847	EPA 8321B	2,4-D	0.22		ug/L	P438542	
		Acesulfame K	0.18	I	ug/L	P438531	
		2,4,5-T	0.0040	U	ug/L	P438542	
		AMPA	1.9		ug/L	P438531	
		Acetaminophen	0.0080	U	ug/L	P438542	
		Acetamiprid	0.0020	U	ug/L	P438542	
		Endothall	0.25	U	ug/L	P438531	
		Glufosinate	0.10	U	ug/L	P438531	
		Glyphosate	25		ug/L	P438531	
		Afidopyropen	0.0020	U	ug/L	P438542	RPD
		Bentazon	0.22		ug/L	P438542	
		Sucralose	0.26		ug/L	P438531	
		Benzovindiflupyr	0.0020	U	ug/L	P438542	
		Carbamazepine	8.0E-04	U	ug/L	P438542	
		Clothianidin	0.0020	U	ug/L	P438542	
		Dinotefuran	0.0044	I	ug/L	P438542	
		Diuron	0.0047	I	ug/L	P438542	
		Fenuron	0.032	U	ug/L	P438542	
		Fluridone	0.038		ug/L	P438542	
		Imazapyr	0.12		ug/L	P438542	
		Hydrocodone	0.0020	U	ug/L	P438542	
		Ibuprofen	0.080	U	ug/L	P438542	
		Imidacloprid	0.020		ug/L	P438542	
		Linuron	0.0040	U	ug/L	P438542	
		Mandestrobin	0.0020	U	ug/L	P438542	
		MCPP	0.0041	I	ug/L	P438542	
		Naproxen	0.0080	U	ug/L	P438542	
		Primidone	0.0040	U	ug/L	P438542	
		Pyraclostrobin	0.0020	U	ug/L	P438542	

Field ID: G2CE0266

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2454847	EPA 8321B	Silvex	0.0040	U	ug/L	P438542	
		Thiamethoxam	0.0020	U	ug/L	P438542	
		Tolfenpyrad	0.0020	U	ug/L	P438542	
		Triclopyr	0.0040	U	ug/L	P438542	
2454865	EPA 200.7 Rev. 4.4	Calcium	29.2		mg/L	P438706	
		Chromium	1.0	U	ug/L	P438706	
		Iron	380		ug/L	P438706	
		Magnesium	2.51		mg/L	P438706	
		Potassium	2.3		mg/L	P438706	
		Sodium	6.8		mg/L	P438706	
		Strontium	67.8		ug/L	P438706	
		Tin	3.0	U	ug/L	P438706	
		Titanium	0.75	U	ug/L	P438706	
		Vanadium	2.0	U	ug/L	P438706	
		Zinc	32		ug/L	P438706	
	EPA 200.8 Rev. 5.4	Aluminum	62		ug/L	P438706	
		Antimony	0.39		ug/L	P438706	
		Arsenic	0.76		ug/L	P438706	
		Barium	17.4		ug/L	P438706	
		Beryllium	0.010	U	ug/L	P438706	
		Boron	36.4		ug/L	P438706	
		Cadmium	0.020	U	ug/L	P438706	
		Cobalt	0.072	I	ug/L	P438706	
		Copper	0.96		ug/L	P438706	
		Lead	0.44		ug/L	P438706	
		Manganese	22.1		ug/L	P438706	
		Molybdenum	1.23		ug/L	P438706	
		Nickel	0.50	U	ug/L	P438706	
		Selenium	0.20	U	ug/L	P438706	
		Silver	0.010	U	ug/L	P438706	
		Thallium	0.10	U	ug/L	P438706	
2454867	SM 2340 B-2011	Hardness	83.4		mg/L	P438706	
	EPA 8270E	Oxybenzone**	10	UJ	ng/L	P438743	LCS, MS
		Acetochlor	0.21	U	ng/L	P438743	
		Octinoxate**	160	I	ng/L	P438743	MS
		Alachlor	0.41	U	ng/L	P438743	
		Avobenzone**	100	U	ng/L	P438743	MS
		Ametryn	1.1	U	ng/L	P438743	
		Atrazine	22	J	ng/L	P438743	
		PBDE-47**	4.1	U	ng/L	P438743	MS
		Atrazine Desethyl	1.3	U	ng/L	P438743	
		PBDE-99**	5.1	U	ng/L	P438743	MS
		Azinphos Methyl	3.1	U	ng/L	P438743	
		Tri-o-cresyl Phosphate**	6.2	UJ	ng/L	P438743	LCS, MS
		Azoxystrobin	0.41	U	ng/L	P438743	

Field ID: G2CE0266

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2454867	EPA 8270E	Bromacil	0.62	U	ng/L	P438743	
		2-Ethylhexyl	12	U	ng/L	P438743	MS
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.46	U	ng/L	P438743	
		Dechlorane Plus**	31	U	ng/L	P438743	
		Caffeine**	34	I	ng/L	P438743	
		Dechlorane 602**	5.1	U	ng/L	P438743	MS
		Carbophenothion	0.51	U	ng/L	P438743	
		Dechlorane 603**	4.1	U	ng/L	P438743	
		Carfentrazone Ethyl	0.15	U	ng/L	P438743	
		Hexabromobenzene**	6.2	U	ng/L	P438743	
		Chlorfenapyr	0.31	U	ng/L	P438743	
		PBB-153**	6.2	U	ng/L	P438743	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P438743	
		Pentabromotoluene**	3.1	U	ng/L	P438743	MS, RPD
		Chlorpyrifos Methyl	0.10	U	ng/L	P438743	
		Tris(2-chloroethyl) phosphate (TCEP)**	56	U	ng/L	P438743	MS
		Coumaphos	1.1	U	ng/L	P438743	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	200		ng/L	P438743	
		Cyanazine	5.1	U	ng/L	P438743	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	3.4	IJ	ng/L	P438743	LCS, MS
		Cyprodinil	0.21	U	ng/L	P438743	
		Tetradecachloro-m-terphenyl**	7.7	U	ng/L	P438743	MS
		Demeton	3.6	U	ng/L	P438743	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	62	U	ng/L	P438743	MS
		Diazinon	0.13	U	ng/L	P438743	
		Difenoconazole	0.62	U	ng/L	P438743	
		Dimethenamid	0.10	U	ng/L	P438743	
		Dimethomorph	0.31	U	ng/L	P438743	
		Disulfoton	0.62	U	ng/L	P438743	
		Dithiopyr	1.0	U	ng/L	P438743	
		EPTC	0.51	U	ng/L	P438743	
		Ethion	0.31	U	ng/L	P438743	
		Ethoprop	0.13	U	ng/L	P438743	
		Etridiazole	0.10	U	ng/L	P438743	
		Fenamiphos	0.46	U	ng/L	P438743	
		Fenbuconazole	0.51	U	ng/L	P438743	
		Fipronil	0.57	I	ng/L	P438743	
		Fipronil Desulfinyl**	1.1	J	ng/L	P438743	
		Fipronil Sulfide	1.3	J	ng/L	P438743	
		Fipronil Sulfone	1.4		ng/L	P438743	
		Fluazifop-P-butyl	0.10	UJ	ng/L	P438743	LCS, MS
		Fludioxonil	0.10	U	ng/L	P438743	
		Flumioxazin	3.1	U	ng/L	P438743	

Field ID: G2CE0266

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2454867	EPA 8270E	Flutolanil	0.10	U	ng/L	P438743	
		Fluxapyroxad	1.1	I J	ng/L	P438743	CCV
		Fonofos	0.15	U	ng/L	P438743	
		Hexazinone	0.51	U	ng/L	P438743	
		Imazalil	0.67	UJ	ng/L	P438743	CCV
		Iprodione	0.51	U	ng/L	P438743	
		Loratadine**	0.31	U	ng/L	P438743	
		Malathion	0.36	U	ng/L	P438743	
		Metalaxyl	0.51	U	ng/L	P438743	
		Metolachlor	0.77	U	ng/L	P438743	
		Metribuzin	0.57	I	ng/L	P438743	
		Mevinphos	1.0	U	ng/L	P438743	
		Molinate	0.26	U	ng/L	P438743	
		Myclobutanil	0.36	U	ng/L	P438743	
		Naled	2.6	U	ng/L	P438743	
		Napropamide	0.72	U	ng/L	P438743	
		Norflurazon	1.0	U	ng/L	P438743	MS
		Oxadiazon	14	J	ng/L	P438743	
		Oxyfluorfen	0.21	U	ng/L	P438743	
		Parathion Ethyl	0.15	UJ	ng/L	P438743	LCS
		Parathion Methyl	0.21	U	ng/L	P438743	
		Pendimethalin	1.7	U	ng/L	P438743	
		Phenytol**	5.4	U	ng/L	P438743	
		Phorate	0.26	U	ng/L	P438743	
		Prodiamine	0.21	U	ng/L	P438743	
		Prometon	3.1	U	ng/L	P438743	
		Prometryn	0.36	U	ng/L	P438743	MS
		Pronamide	0.10	U	ng/L	P438743	
		Propanil	0.10	U	ng/L	P438743	
		Propargite	0.82	U	ng/L	P438743	
		Propiconazole	2.9	I	ng/L	P438743	
		Pyraflufen Ethyl	0.31	U	ng/L	P438743	
		Pyridaben	1.4	U	ng/L	P438743	
		Pyriproxyfen	0.26	UJ	ng/L	P438743	CCV
		Simazine	0.26	U	ng/L	P438743	
		Stirophos	0.41	U	ng/L	P438743	
		Sulfentrazone	18	J	ng/L	P438743	CCV
		Tebuconazole	1.9	I	ng/L	P438743	
		Terbufos	0.21	U	ng/L	P438743	
		Terbutylazine	0.21	U	ng/L	P438743	
		Thiobencarb	0.51	U	ng/L	P438743	
		Triadimefon	0.15	U	ng/L	P438743	

Field ID: G2CE0266

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked. Estimation for atrazine, fipronil desulfinyl, fipronil sulfide and oxadiazon due to internal standard recovery exceeding control limits. Refer to the Lab Analysis Report for an explanation of QC Codes.

**Sample Location: LITTLE WEKIVA RIVER AT 100M US OF
EDGEWATER DR**

Collection Date/Time: 12/05/2023 14:18

Field ID: G2CE0170

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2454835	DEP SOP: NU-094-1	Color (true)	33		PCU	P438585	
	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P438590	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P439032	
		Sulfate	6.8		mg SO4/L	P439138	
	SM 2320 B-2011	Total Alkalinity	54		mg CaCO3/L	P438763	
	SM 2540 C-2015	TDS	100		mg/L	P439143	
	SM 2540 D-2015	TSS	2	I	mg/L	P439129	
2454837	SM 4500-F- C-2011	Fluoride	0.081	I	mg F/L	P438765	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.036		mg N/L	P438667	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P438748	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P438677	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P438837	
2454839	SM 5310 B-2014	Organic Carbon	9.0		mg C/L	P438689	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.018		mg P/L	P438557	
2454848	EPA 8321B	2,4-D	0.87		ug/L	P438542	
		Acesulfame K	0.20	I	ug/L	P438531	
		2,4,5-T	0.0040	U	ug/L	P438542	
		AMPA	1.1		ug/L	P438531	
		Acetaminophen	0.0080	U	ug/L	P438542	
		Acetamiprid	0.0020	U	ug/L	P438542	
		Endothall	0.25	U	ug/L	P438531	
		Glufosinate	0.10	U	ug/L	P438531	
		Glyphosate	35		ug/L	P438531	
		Afidopyropen	0.0020	U	ug/L	P438542	RPD
		Bentazon	0.035		ug/L	P438542	
		Sucralose	0.44		ug/L	P438531	
		Benzovindiflupyr	0.0020	U	ug/L	P438542	
		Carbamazepine	8.0E-04	U	ug/L	P438542	
		Clothianidin	0.0024	I	ug/L	P438542	
		Dinotefuran	0.0020	U	ug/L	P438542	
		Diuron	0.0023	I	ug/L	P438542	
		Fenuron	0.032	U	ug/L	P438542	
		Fluridone	0.045		ug/L	P438542	
		Imazapyr	0.095		ug/L	P438542	
		Hydrocodone	0.0020	U	ug/L	P438542	
		Ibuprofen	0.080	U	ug/L	P438542	
		Imidacloprid	0.0074	I	ug/L	P438542	
		Linuron	0.0040	U	ug/L	P438542	
		Mandestrobin	0.0020	U	ug/L	P438542	
		MCPP	0.0020	U	ug/L	P438542	
		Naproxen	0.0080	U	ug/L	P438542	
		Primidone	0.0040	U	ug/L	P438542	

Field ID: G2CE0170

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2454848	EPA 8321B	Pyraclostrobin	0.0020	U	ug/L	P438542	
		Silvex	0.0040	U	ug/L	P438542	
		Thiamethoxam	0.0020	U	ug/L	P438542	
		Tolfenpyrad	0.0020	U	ug/L	P438542	
		Triclopyr	0.0040	U	ug/L	P438542	
2454866	EPA 200.7 Rev. 4.4	Calcium	23.8		mg/L	P438706	
		Chromium	1.0	U	ug/L	P438706	
		Iron	160		ug/L	P438706	
		Magnesium	2.46		mg/L	P438706	
		Potassium	1.9		mg/L	P438706	
		Sodium	7.7		mg/L	P438706	
		Strontium	56.0		ug/L	P438706	
		Tin	3.0	U	ug/L	P438706	
		Titanium	0.96	I	ug/L	P438706	
		Vanadium	2.0	U	ug/L	P438706	
		Zinc	5.0	U	ug/L	P438706	
	EPA 200.8 Rev. 5.4	Aluminum	39		ug/L	P438706	
		Antimony	0.24		ug/L	P438706	
		Arsenic	1.04		ug/L	P438706	
		Barium	13.7		ug/L	P438706	
		Beryllium	0.010	U	ug/L	P438706	
		Boron	33.2		ug/L	P438706	
		Cadmium	0.020	U	ug/L	P438706	
		Cobalt	0.036	I	ug/L	P438706	
		Copper	0.84		ug/L	P438706	
		Lead	0.20	U	ug/L	P438706	
		Manganese	10.9		ug/L	P438706	
		Molybdenum	0.94		ug/L	P438706	
		Nickel	0.50	U	ug/L	P438706	
		Selenium	0.20	U	ug/L	P438706	
		Silver	0.010	U	ug/L	P438706	
		Thallium	0.10	U	ug/L	P438706	
	SM 2340 B-2011	Hardness	69.5		mg/L	P438706	
2454868	EPA 8270E	Oxybenzone**	10	UJ	ng/L	P438743	LCS, MS
		Acetochlor	0.21	U	ng/L	P438743	
		Octinoxate**	150	U	ng/L	P438743	MS
		Alachlor	0.41	U	ng/L	P438743	
		Avobenzone**	100	U	ng/L	P438743	MS
		Ametryn	1.1	U	ng/L	P438743	
		Atrazine	27	J	ng/L	P438743	
		PBDE-47**	4.1	U	ng/L	P438743	MS
		Atrazine Desethyl	6.6	I	ng/L	P438743	
		PBDE-99**	5.2	U	ng/L	P438743	MS
		Azinphos Methyl	3.1	U	ng/L	P438743	
		Tri-o-cresyl Phosphate**	6.2	UJ	ng/L	P438743	LCS, MS

Field ID: G2CE0170

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2454868	EPA 8270E	Azoxystrobin	0.99	I	ng/L	P438743	
		Bromacil	1.7	I	ng/L	P438743	
		2-Ethylhexyl	12	U	ng/L	P438743	MS
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.46	U	ng/L	P438743	
		Dechlorane Plus**	31	U	ng/L	P438743	
		Caffeine**	26	I	ng/L	P438743	
		Dechlorane 602**	5.2	U	ng/L	P438743	MS
		Carbophenothion	0.52	U	ng/L	P438743	
		Dechlorane 603**	4.1	U	ng/L	P438743	
		Carfentrazone Ethyl	0.15	U	ng/L	P438743	
		Hexabromobenzene**	6.2	U	ng/L	P438743	
		Chlorfenapyr	0.31	U	ng/L	P438743	
		PBB-153**	6.2	U	ng/L	P438743	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P438743	
		Pentabromotoluene**	3.1	U	ng/L	P438743	MS, RPD
		Chlorpyrifos Methyl	0.10	U	ng/L	P438743	
		Tris(2-chloroethyl) phosphate (TCEP)**	57	U	ng/L	P438743	MS
		Coumaphos	1.1	U	ng/L	P438743	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	160		ng/L	P438743	
		Cyanazine	5.2	U	ng/L	P438743	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	3.3	I J	ng/L	P438743	LCS, MS
		Cyprodinil	0.21	U	ng/L	P438743	
		Tetradecachloro-m-terphenyl**	7.7	U	ng/L	P438743	MS
		Demeton	3.6	U	ng/L	P438743	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	62	U	ng/L	P438743	MS
		Diazinon	0.13	U	ng/L	P438743	
		Difenoconazole	0.62	U	ng/L	P438743	
		Dimethenamid	0.10	U	ng/L	P438743	
		Dimethomorph	0.31	U	ng/L	P438743	
		Disulfoton	0.62	U	ng/L	P438743	
		Dithiopyr	1.0	U	ng/L	P438743	
		EPTC	0.52	U	ng/L	P438743	
		Ethion	0.31	U	ng/L	P438743	
		Ethoprop	0.13	U	ng/L	P438743	
		Etridiazole	0.10	U	ng/L	P438743	
		Fenamiphos	0.46	U	ng/L	P438743	
		Fenbuconazole	0.52	U	ng/L	P438743	
		Fipronil	0.26	I	ng/L	P438743	
		Fipronil Desulfinyl**	0.66	J	ng/L	P438743	
		Fipronil Sulfide	0.78	J	ng/L	P438743	
		Fipronil Sulfone	1.3		ng/L	P438743	
		Fluazifop-P-butyl	0.10	UJ	ng/L	P438743	LCS, MS
		Fludioxonil	0.10	U	ng/L	P438743	

Field ID: G2CE0170

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2454868	EPA 8270E	Flumioxazin	3.8	I	ng/L	P438743	
		Flutolanil	0.10	U	ng/L	P438743	
		Fluxapyroxad	0.62	IJ	ng/L	P438743	CCV
		Fonofos	0.15	U	ng/L	P438743	
		Hexazinone	0.52	U	ng/L	P438743	
		Imazalil	0.67	UJ	ng/L	P438743	CCV
		Iprodione	0.52	U	ng/L	P438743	
		Loratadine**	0.31	U	ng/L	P438743	
		Malathion	0.36	U	ng/L	P438743	
		Metalaxyl	0.52	U	ng/L	P438743	
		Metolachlor	0.77	U	ng/L	P438743	
		Metribuzin	0.41	U	ng/L	P438743	
		Mevinphos	1.0	U	ng/L	P438743	
		Molinate	0.26	U	ng/L	P438743	
		Myclobutanil	0.36	U	ng/L	P438743	
		Naled	2.6	U	ng/L	P438743	
		Napropamide	0.72	U	ng/L	P438743	
		Norflurazon	1.0	U	ng/L	P438743	MS
		Oxadiazon	1.7	I	ng/L	P438743	
		Oxyfluorfen	0.21	U	ng/L	P438743	
		Parathion Ethyl	0.15	UJ	ng/L	P438743	LCS
		Parathion Methyl	0.21	U	ng/L	P438743	
		Pendimethalin	1.8	U	ng/L	P438743	
		Phenytol**	5.5	U	ng/L	P438743	
		Phorate	0.26	U	ng/L	P438743	
		Prodiamine	0.21	U	ng/L	P438743	
		Prometon	3.1	U	ng/L	P438743	
		Prometryn	0.36	U	ng/L	P438743	MS
		Pronamide	0.10	U	ng/L	P438743	
		Propanil	0.10	U	ng/L	P438743	
		Propargite	0.82	U	ng/L	P438743	
		Propiconazole	1.7	I	ng/L	P438743	
		Pyraflufen Ethyl	0.31	U	ng/L	P438743	
		Pyridaben	1.4	U	ng/L	P438743	
		Pyriproxyfen	0.26	UJ	ng/L	P438743	CCV
		Simazine	0.26	U	ng/L	P438743	
		Stirophos	0.41	U	ng/L	P438743	
		Sulfentrazone	17	J	ng/L	P438743	CCV
		Tebuconazole	2.1	I	ng/L	P438743	
		Terbufos	0.21	U	ng/L	P438743	
		Terbuthylazine	0.21	U	ng/L	P438743	
		Thiobencarb	0.52	U	ng/L	P438743	
		Triadimefon	0.15	U	ng/L	P438743	

Field ID: G2CE0170

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked. Estimation for atrazine, fipronil desulfinyl and fipronil sulfide due to internal standard recovery exceeding control limits. 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: P438585

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438590

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438706

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Chromium	1.0	U	ug/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: P438706

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
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: P439032

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: P439138

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438667

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438748

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438677

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438837

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P438557

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

Reference Method: EPA 8270E
Batch ID: P438743

Component	Result	Code	Units
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	60	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
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.45	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P438743

Component	Result	Code	Units
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 603	4.0	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
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
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	150	U	ng/L
Oxadiazon	0.35	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P438743

Component	Result	Code	Units
PBB-153	6.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.7	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	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
Thiobencarb	0.50	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)	25	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	55	U	ng/L

Reference Method: EPA 8321B

Batch ID: P438531

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: P438542

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P438542

Component	Result	Code	Units
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	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: P438763

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

Reference Method: SM 2540 C-2015

Batch ID: P439143

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P439129

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P438765

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014

Batch ID: P438688

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2014
Batch ID: P438689

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: P438585

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438590

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	110		P	85 - 115
Chromium	100		P	85 - 115
Iron	111		P	85 - 115
Magnesium	112		P	85 - 115
Potassium	101		P	85 - 115
Sodium	99.2		P	85 - 115
Strontium	97.7		P	85 - 115
Tin	98.1		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	98.2		P	85 - 115
Zinc	94.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.8		P	85 - 115
Antimony	98.9		P	85 - 115
Arsenic	97.0		P	85 - 115
Barium	98.4		P	85 - 115
Beryllium	103		P	85 - 115
Boron	103		P	85 - 115
Cadmium	98.0		P	85 - 115
Cobalt	98.2		P	85 - 115
Copper	96.5		P	85 - 115
Lead	101		P	85 - 115
Manganese	95.0		P	85 - 115
Molybdenum	97.2		P	85 - 115
Nickel	96.3		P	85 - 115
Selenium	97.6		P	85 - 115
Silver	104		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439032

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.1		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439138

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438748

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438677

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438837

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P438557

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

Reference Method: EPA 8270E
Batch ID: P438743

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	90.1		P	50 - 150
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	127		P	37 - 154
Acetochlor	95.8		P	60 - 124
Alachlor	104		P	54 - 122
Ametryn	141		P	51 - 208
Atrazine	109		P	57 - 131
Atrazine Desethyl	116		P	13 - 124
Avobenzone	150		P	48 - 193
Azinphos Methyl	201		P	43 - 276
Azoxystrobin	148		P	52 - 300
Bromacil	107		P	44 - 134
Butylate	70.0		P	23 - 82.0
Caffeine	116		P	10 - 277
Carbophenothion	129		P	47 - 135
Carfentrazone Ethyl	137		P	46 - 147
Chlorfenapyr	87.2		P	43 - 114

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P438743

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Ethyl	73.0		P	47 - 124
Chlorpyrifos Methyl	89.3		P	60 - 135
Coumaphos	101		P	10 - 222
Cyanazine	179		P	10 - 257
Cyprodinil	109		P	42 - 148
Dechlorane 602	71.5		P	23 - 142
Dechlorane 603	137		P	51 - 171
Dechlorane Plus	111		P	46 - 161
Demeton	127		P	41 - 137
Diazinon	129		P	64 - 139
Difenoconazole	61.8		P	46 - 254
Dimethenamid	92.0		P	47 - 117
Dimethomorph	169		P	14 - 255
Disulfoton	127		P	52 - 130
Dithiopyr	115		P	40 - 121
EPTC	57.7		P	19 - 78.0
Ethion	35.3		P	12 - 124
Ethoprop	130		P	68 - 144
Etridiazole	61.8		P	26 - 96.0
Fenamiphos	114		P	41 - 129
Fenbuconazole	82.4		P	26 - 169
Fipronil	101		P	46 - 145
Fipronil Desulfinyl	109		P	47 - 136
Fipronil Sulfide	114		P	41 - 127
Fipronil Sulfone	101		P	35 - 133
Fluazifop-P-butyl	139		F	46 - 131
Fludioxonil	82.1		P	51 - 124
Flumioxazin	107		P	10 - 289
Flutolanil	82.4		P	34 - 130
Fluxapyroxad	99.0		P	10 - 197
Fonofos	81.4		P	42 - 131
Hexabromobenzene	134		P	52 - 165
Hexazinone	108		P	64 - 125
Imazalil	88.4		P	37 - 252
Iprodione	196		P	34 - 265
Loratadine	187		P	20 - 231
Malathion	146		P	34 - 164
Metalaxyl	108		P	49 - 125
Metolachlor	115		P	54 - 125
Metribuzin	135		P	51 - 139
Mevinphos	111		P	46 - 130
Molinate	91.2		P	39 - 93.0
Myclobutanil	92.9		P	50 - 130
Naled	23.7		P	10 - 150
Napropamide	62.8		P	10 - 109
Norflurazon	127		P	36 - 134
Octinoxate	172		P	29 - 176
Oxadiazon	85.0		P	43 - 112
Oxybenzone	146		F	45 - 145
Oxyfluorfen	109		P	62 - 154
Parathion Ethyl	127		F	65 - 120
Parathion Methyl	156		P	77 - 185

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P438743

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBB-153	137		P	42 - 179
PBDE-47	90.5		P	44 - 141
PBDE-99	108		P	36 - 141
Pendimethalin	137		P	50 - 146
Pentabromotoluene	142		P	58 - 148
Phenytoin	51.6		P	10 - 157
Phorate	158		P	54 - 161
Prodiamine	67.7		P	29 - 160
Prometon	93.3		P	38 - 145
Prometryn	120		P	32 - 151
Pronamide	110		P	61 - 140
Propanil	115		P	50 - 147
Propargite	73.3		P	10 - 190
Propiconazole	93.6		P	30 - 146
Pyraflufen Ethyl	135		P	30 - 147
Pyridaben	86.0		P	15 - 195
Pyriproxyfen	95.1		P	31 - 218
Simazine	113		P	45 - 139
Stirophos	35.3		P	10 - 134
Sulfentrazone	119		P	53 - 186
Tebuconazole	56.6		P	10 - 133
Terbufos	141		P	65 - 151
Terbutylazine	99.3		P	62 - 117
Tetradecachloro-m-terphenyl	222		P	30 - 235
Thiobencarb	108		P	48 - 122
Tri-o-cresyl Phosphate	154		F	50 - 150
Triadimefon	89.4		P	46 - 124
Tris(1-chloro-2-propyl) phosphate (TCPP)	60.1		P	60 - 160
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	60.5		F	66 - 141
Tris(2-chloroethyl) phosphate (TCEP)	64.1		P	59 - 166

Reference Method: EPA 8321B

Batch ID: P438531

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	109		P	40 - 150
AMPA	99.4		P	40 - 160
Endothall	101		P	40 - 160
Glufosinate	99.1		P	40 - 160
Glyphosate	95.8		P	40 - 160
Sucralose	106		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P438542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	100		P	40 - 150
2,4,5-T	122		P	40 - 150
Acetaminophen	95.7		P	30 - 150
Acetamiprid	85.4		P	40 - 150
Afidopyropen	68.5		P	30 - 150
Bentazon	74.4		P	30 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P438542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Benzovindiflupyr	90.2		P	40 - 150
Carbamazepine	85.4		P	40 - 150
Clothianidin	95.2		P	40 - 150
Dinotefuran	106		P	40 - 150
Diuron	80.8		P	40 - 150
Fenuron	96.5		P	40 - 150
Fluridone	92.8		P	40 - 150
Hydrocodone	93.6		P	40 - 150
Ibuprofen	70.0		P	40 - 150
Imazapyr	95.4		P	40 - 150
Imidacloprid	90.9		P	40 - 150
Linuron	82.8		P	40 - 150
Mandestrobin	96.3		P	40 - 150
MCPP	97.2		P	40 - 150
Naproxen	87.4		P	40 - 150
Primidone	88.6		P	40 - 150
Pyraclostrobin	80.9		P	40 - 150
Silvex	92.2		P	40 - 150
Thiamethoxam	93.8		P	40 - 150
Tolfenpyrad	52.3		P	30 - 150
Triclopyr	125		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P438763

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.6		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P439143

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

Reference Method: SM 2540 D-2015

Batch ID: P439129

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

Reference Method: SM 4500-F- C-2011

Batch ID: P438765

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

Reference Method: SM 5310 B-2014

Batch ID: P438688

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.7		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2014
Batch ID: P438689

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454849	Calcium	109	109	P/P	80 - 120
2454849	Chromium	89.7	90.4	P/P	80 - 120
2454849	Iron	108	109	P/P	80 - 120
2454849	Magnesium	109	111	P/P	80 - 120
2454849	Potassium	99.5	99.4	P/P	80 - 120
2454849	Sodium	97.1		P	80 - 120
2454849	Strontium	96.5	96.9	P/P	80 - 120
2454849	Tin	96.6	97.0	P/P	80 - 120
2454849	Titanium	104	104	P/P	80 - 120
2454849	Vanadium	99.1	98.9	P/P	80 - 120
2454849	Zinc	93.2	91.6	P/P	80 - 120
2455252	Calcium	105		P	80 - 120
2455252	Chromium	99.7		P	80 - 120
2455252	Iron	111		P	80 - 120
2455252	Magnesium	112		P	80 - 120
2455252	Potassium	101		P	80 - 120
2455252	Sodium	100		P	80 - 120
2455252	Strontium	98.6		P	80 - 120
2455252	Tin	99.0		P	80 - 120
2455252	Titanium	103		P	80 - 120
2455252	Vanadium	99.2		P	80 - 120
2455252	Zinc	94.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454849	Aluminum	97.8	95.7	P/P	80 - 120
2454849	Antimony	96.9	96.4	P/P	80 - 120
2454849	Arsenic	95.3	95.6	P/P	80 - 120
2454849	Barium	97.5	96.7	P/P	80 - 120
2454849	Beryllium	106	104	P/P	80 - 120
2454849	Boron	101	97.6	P/P	80 - 120
2454849	Cadmium	97.6	95.5	P/P	80 - 120
2454849	Cobalt	96.9	96.2	P/P	80 - 120
2454849	Copper	95.0	95.4	P/P	80 - 120
2454849	Lead	101	99.9	P/P	80 - 120
2454849	Manganese	90.9	90.2	P/P	80 - 120
2454849	Molybdenum	96.1	96.5	P/P	80 - 120
2454849	Nickel	83.0	83.0	P/P	80 - 120
2454849	Selenium	95.1	94.9	P/P	80 - 120
2454849	Silver	101	102	P/P	80 - 120
2454849	Thallium	103	103	P/P	80 - 120
2455252	Aluminum	90.2		P	80 - 120
2455252	Antimony	97.2		P	80 - 120
2455252	Arsenic	96.7		P	80 - 120
2455252	Barium	95.9		P	80 - 120
2455252	Beryllium	96.5		P	80 - 120
2455252	Boron	103		P	80 - 120
2455252	Cadmium	95.8		P	80 - 120
2455252	Cobalt	97.0		P	80 - 120
2455252	Copper	95.7		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455252	Lead	99.9		P	80 - 120
2455252	Manganese	99.7		P	80 - 120
2455252	Molybdenum	96.3		P	80 - 120
2455252	Nickel	95.1		P	80 - 120
2455252	Selenium	92.8		P	80 - 120
2455252	Silver	102		P	80 - 120
2455252	Thallium	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439032

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454834	Chloride	98.4		P	90 - 110
2454955	Chloride	99.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439138

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454834	Sulfate	98.7		P	90 - 110
2454955	Sulfate	98.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438667

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454779	Ammonia-N	98.4	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454854	Kjeldahl Nitrogen	104	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438677

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454779	NO2NO3-N	95.4	96.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454829	Total-P	106	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P438557

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454839	O-Phosphate-P	98.4	97.7	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P438743

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455364	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	156	134	F/P	50 - 150
2455364	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	184	152	F/P	29 - 155
2455364	Acetochlor	91.7	83.7	P/P	60 - 124
2455364	Alachlor	111	111	P/P	54 - 122
2455364	Ametryn	116	111	P/P	51 - 208
2455364	Atrazine Desethyl	98.3	98.0	P/P	13 - 124
2455364	Avobenzene	206	178	F/P	35 - 187
2455364	Azinphos Methyl	129	144	P/P	43 - 276
2455364	Azoxystrobin	92.9	97.6	P/P	52 - 300
2455364	Bromacil	87.5	85.0	P/P	44 - 134
2455364	Butylate	69.9	62.4	P/P	23 - 82.0
2455364	Caffeine	126	119	P/P	10 - 277
2455364	Carbophenothion	129	114	P/P	47 - 135
2455364	Carfentrazone Ethyl	146	127	P/P	46 - 147
2455364	Chlorfenapyr	84.5	89.8	P/P	43 - 114
2455364	Chlorpyrifos Ethyl	121	119	P/P	47 - 124
2455364	Chlorpyrifos Methyl	66.7	79.4	P/P	60 - 135
2455364	Coumaphos	76.6	94.4	P/P	10 - 222
2455364	Cyanazine	134	126	P/P	10 - 257
2455364	Cyprodinil	76.8	96.6	P/P	42 - 148
2455364	Dechlorane 602	153	114	F/P	14 - 133
2455364	Dechlorane 603	146	98.5	P/P	18 - 191
2455364	Dechlorane Plus	126	88.0	P/P	23 - 154
2455364	Demeton	102	99.6	P/P	41 - 137
2455364	Diazinon	112	113	P/P	64 - 139
2455364	Difenoconazole	82.9	91.3	P/P	46 - 254
2455364	Dimethenamid	84.4	82.2	P/P	47 - 117
2455364	Dimethomorph	170	181	P/P	14 - 255
2455364	Disulfoton	101	97.4	P/P	52 - 130
2455364	Dithiopyr	76.4	77.7	P/P	40 - 121
2455364	EPTC	52.8	51.5	P/P	19 - 78.0
2455364	Ethion	107	104	P/P	12 - 124
2455364	Ethoprop	111	111	P/P	68 - 144
2455364	Etridiazole	60.4	55.8	P/P	26 - 96.0
2455364	Fenamiphos	127	118	P/P	41 - 129
2455364	Fenbuconazole	53.1	62.7	P/P	26 - 169
2455364	Fipronil	95.1	112	P/P	46 - 145
2455364	Fipronil Desulfinyl	58.8	60.9	P/P	47 - 136
2455364	Fipronil Sulfide	95.8	113	P/P	41 - 127
2455364	Fipronil Sulfone	53.3	67.5	P/P	35 - 133
2455364	Fluazifop-P-butyl	129	140	P/F	46 - 131
2455364	Fludioxonil	91.9	72.4	P/P	51 - 124
2455364	Flumioxazin	128	127	P/P	10 - 289
2455364	Flutolanil	119	97.8	P/P	34 - 130
2455364	Fluxapyroxad	131	175	P/P	10 - 197
2455364	Fonofos	99.7	112	P/P	42 - 131
2455364	Hexabromobenzene	155	134	P/P	47 - 178
2455364	Hexazinone	109	109	P/P	64 - 125
2455364	Imazalil	89.0	65.6	P/P	37 - 252
2455364	Iprodione	167	154	P/P	34 - 265
2455364	Loratadine	125	155	P/P	20 - 231
2455364	Malathion	115	121	P/P	34 - 164

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P438743

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455364	Metalaxyl	86.6	85.2	P/P	49 - 125
2455364	Metolachlor	82.0	91.2	P/P	54 - 125
2455364	Metribuzin	126	122	P/P	51 - 139
2455364	Mevinphos	88.3	90.2	P/P	46 - 130
2455364	Molinate	83.8	76.0	P/P	39 - 93.0
2455364	Myclobutanil	101	85.8	P/P	50 - 130
2455364	Naled	18.6	19.8	P/P	10 - 150
2455364	Napropamide	98.1	69.1	P/P	10 - 109
2455364	Norflurazon	127	150	P/F	36 - 134
2455364	Octinoxate	271	223	F/F	18 - 170
2455364	Oxadiazon	50.1	56.3	P/P	43 - 112
2455364	Oxybenzone	184	153	F/P	33 - 154
2455364	Oxyfluorfen	132	105	P/P	62 - 154
2455364	Parathion Ethyl	114	96.5	P/P	65 - 120
2455364	Parathion Methyl	153	129	P/P	77 - 185
2455364	PBB-153	178	147	P/P	23 - 193
2455364	PBDE-47	160	136	F/P	31 - 139
2455364	PBDE-99	174	145	F/F	24 - 138
2455364	Pendimethalin	106	99.8	P/P	50 - 146
2455364	Pentabromotoluene	175	140	F/P	54 - 152
2455364	Phenytoin	115	110	P/P	10 - 157
2455364	Phorate	132	129	P/P	54 - 161
2455364	Prodiamine	54.0	57.9	P/P	29 - 160
2455364	Prometon	138	128	P/P	38 - 145
2455364	Prometryn	147	151	P/F	32 - 151
2455364	Pronamide	92.5	92.5	P/P	61 - 140
2455364	Propanil	106	105	P/P	50 - 147
2455364	Propargite	134	130	P/P	10 - 190
2455364	Propiconazole	113	140	P/P	30 - 146
2455364	Pyraflufen Ethyl	145	111	P/P	30 - 147
2455364	Pyridaben	172	183	P/P	15 - 195
2455364	Pyriproxyfen	98.8	114	P/P	31 - 218
2455364	Simazine	87.8	91.6	P/P	45 - 139
2455364	Stirophos	41.1	49.7	P/P	10 - 134
2455364	Sulfentrazone	67.5	97.7	P/P	53 - 186
2455364	Tebuconazole	129	129	P/P	10 - 133
2455364	Terbufos	116	122	P/P	65 - 151
2455364	Terbutylazine	84.1	89.8	P/P	62 - 117
2455364	Tetradecachloro-m-terphenyl	267	213	F/P	10 - 260
2455364	Thiobencarb	83.0	81.9	P/P	48 - 122
2455364	Tri-o-cresyl Phosphate	177	154	F/F	32 - 151
2455364	Triadimefon	65.6	63.8	P/P	46 - 124
2455364	Tris(1-chloro-2-propyl) phosphate (TCPP)	54.2	53.0	P/P	51 - 154
2455364	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	59.2	55.0	P/F	59 - 147
2455364	Tris(2-chloroethyl) phosphate (TCEP)	65.8	62.7	P/F	65 - 156

Reference Method: EPA 8321B

Batch ID: P438531

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454732	Acesulfame K	101	102	P/P	40 - 150
2454732	AMPA	76.1	91.2	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P438531

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454732	Endothall	113	120	P/P	40 - 160
2454732	Glufosinate	93.9	99.5	P/P	40 - 160
2454732	Glyphosate	90.4	93.4	P/P	40 - 160
2454732	Sucralose	112	88.7	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P438542

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454732	2,4-D	114	85.5	P/P	40 - 150
2454732	2,4,5-T	97.3	106	P/P	40 - 150
2454732	Acetaminophen	102	85.4	P/P	30 - 150
2454732	Acetamiprid	91.7	71.6	P/P	40 - 150
2454732	Afidopyropen	83.8	50.2	P/P	30 - 150
2454732	Bentazon	72.5	60.2	P/P	30 - 150
2454732	Benzovindiflupyr	94.7	81.2	P/P	40 - 150
2454732	Carbamazepine	91.6	79.5	P/P	40 - 150
2454732	Clothianidin	104	85.7	P/P	40 - 150
2454732	Dinotefuran	113	94.6	P/P	40 - 150
2454732	Diuron	83.6	71.8	P/P	40 - 150
2454732	Fenuron	99.6	85.1	P/P	40 - 150
2454732	Fluridone	100	85.5	P/P	40 - 150
2454732	Hydrocodone	96.4	84.9	P/P	40 - 150
2454732	Ibuprofen	74.5	58.4	P/P	40 - 150
2454732	Imazapyr	101	81.9	P/P	40 - 150
2454732	Imidacloprid	101	82.8	P/P	40 - 150
2454732	Linuron	85.6	70.2	P/P	40 - 150
2454732	Mandestrobin	101	83.5	P/P	40 - 150
2454732	MCPP	102	83.7	P/P	40 - 150
2454732	Naproxen	67.2	57.9	P/P	40 - 150
2454732	Primidone	95.5	77.4	P/P	40 - 150
2454732	Pyraclostrobin	87.8	75.3	P/P	40 - 150
2454732	Silvex	96.3	77.0	P/P	40 - 150
2454732	Thiamethoxam	86.8	73.9	P/P	40 - 150
2454732	Tolfenpyrad	56.8	47.3	P/P	30 - 150
2454732	Triclopyr	99.2	99.2	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P438765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454955	Fluoride	103	103	P/P	94 - 106

Reference Method: SM 5310 B-2014

Batch ID: P438688

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454779	Organic Carbon	98.5	99.0	P/P	85 - 115

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2014
Batch ID: P438689

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454936	Organic Carbon	99.4	99.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P438585

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454832	Color (true)	0.244	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438590

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454739	Turbidity	7.14	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454849	Calcium	0.315	Spike	P	0 - 20
2454849	Chromium	0.674	Spike	P	0 - 20
2454849	Iron	0.593	Spike	P	0 - 20
2454849	Magnesium	0.913	Spike	P	0 - 20
2454849	Potassium	0.0834	Spike	P	0 - 20
2454849	Sodium	0.623	Spike	P	0 - 20
2454849	Strontium	0.396	Spike	P	0 - 20
2454849	Tin	0.503	Spike	P	0 - 20
2454849	Titanium	0.125	Spike	P	0 - 20
2454849	Vanadium	0.223	Spike	P	0 - 20
2454849	Zinc	1.60	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454849	Aluminum	1.79	Spike	P	0 - 20
2454849	Antimony	0.472	Spike	P	0 - 20
2454849	Arsenic	0.261	Spike	P	0 - 20
2454849	Barium	0.751	Spike	P	0 - 20
2454849	Beryllium	1.75	Spike	P	0 - 20
2454849	Boron	2.40	Spike	P	0 - 20
2454849	Cadmium	2.12	Spike	P	0 - 20
2454849	Cobalt	0.647	Spike	P	0 - 20
2454849	Copper	0.365	Spike	P	0 - 20
2454849	Lead	1.25	Spike	P	0 - 20
2454849	Manganese	0.653	Spike	P	0 - 20
2454849	Molybdenum	0.395	Spike	P	0 - 20
2454849	Nickel	0.0495	Spike	P	0 - 20
2454849	Selenium	0.190	Spike	P	0 - 20
2454849	Silver	1.21	Spike	P	0 - 20
2454849	Thallium	0.112	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454834	Chloride	0.101	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454834	Sulfate	0.282	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454779	Ammonia-N	0.158	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454854	Kjeldahl Nitrogen	3.76	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454779	NO2NO3-N	1.14	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454829	Total-P	1.05	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P438557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454839	O-Phosphate-P	0.605	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P438743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455364	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	15.2	Spike	P	0 - 30
2455364	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	19.0	Spike	P	0 - 35

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P438743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455364	Acetochlor	9.09	Spike	P	0 - 28
2455364	Alachlor	0.0134	Spike	P	0 - 30
2455364	Ametryn	4.56	Spike	P	0 - 32
2455364	Atrazine	2.01	Spike	P	0 - 33
2455364	Atrazine Desethyl	0.273	Spike	P	0 - 36
2455364	Avobenzone	14.8	Spike	P	0 - 35
2455364	Azinphos Methyl	11.1	Spike	P	0 - 62
2455364	Azoxystrobin	4.88	Spike	P	0 - 39
2455364	Bromacil	2.91	Spike	P	0 - 33
2455364	Butylate	11.3	Spike	P	0 - 51
2455364	Caffeine	4.57	Spike	P	0 - 100
2455364	Carbophenothion	12.7	Spike	P	0 - 34
2455364	Carfentrazone Ethyl	14.4	Spike	P	0 - 33
2455364	Chlorfenapyr	6.03	Spike	P	0 - 28
2455364	Chlorpyrifos Ethyl	1.60	Spike	P	0 - 31
2455364	Chlorpyrifos Methyl	17.5	Spike	P	0 - 27
2455364	Coumaphos	20.8	Spike	P	0 - 62
2455364	Cyanazine	5.84	Spike	P	0 - 48
2455364	Cyprodinil	22.9	Spike	P	0 - 29
2455364	Dechlorane 602	28.6	Spike	P	0 - 60
2455364	Dechlorane 603	38.5	Spike	P	0 - 40
2455364	Dechlorane Plus	35.6	Spike	P	0 - 38
2455364	Demeton	2.21	Spike	P	0 - 33
2455364	Diazinon	0.738	Spike	P	0 - 32
2455364	Difenoconazole	9.65	Spike	P	0 - 71
2455364	Dimethenamid	2.73	Spike	P	0 - 60
2455364	Dimethomorph	6.14	Spike	P	0 - 61
2455364	Disulfoton	4.01	Spike	P	0 - 30
2455364	Dithiopyr	1.71	Spike	P	0 - 28
2455364	EPTC	2.46	Spike	P	0 - 56
2455364	Ethion	2.92	Spike	P	0 - 79
2455364	Ethoprop	0.454	Spike	P	0 - 31
2455364	Etridiazole	7.88	Spike	P	0 - 43
2455364	Fenamiphos	7.84	Spike	P	0 - 43
2455364	Fenbuconazole	16.6	Spike	P	0 - 79
2455364	Fipronil	16.5	Spike	P	0 - 46
2455364	Fipronil Desulfinyl	3.60	Spike	P	0 - 36
2455364	Fipronil Sulfide	15.5	Spike	P	0 - 34
2455364	Fipronil Sulfone	19.4	Spike	P	0 - 47
2455364	Fluazifop-P-butyl	8.18	Spike	P	0 - 38
2455364	Fludioxonil	23.8	Spike	P	0 - 29
2455364	Flumioxazin	0.873	Spike	P	0 - 63
2455364	Flutolanil	19.2	Spike	P	0 - 36
2455364	Fluxapyroxad	28.4	Spike	P	0 - 65
2455364	Fonofos	11.6	Spike	P	0 - 35
2455364	Hexabromobenzene	14.6	Spike	P	0 - 41
2455364	Hexazinone	0.420	Spike	P	0 - 31
2455364	Imazalil	30.3	Spike	P	0 - 52
2455364	Iprodione	8.29	Spike	P	0 - 49
2455364	Loratadine	21.6	Spike	P	0 - 59
2455364	Malathion	4.96	Spike	P	0 - 77

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P438743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455364	Metalaxyl	1.58	Spike	P	0 - 76
2455364	Metolachlor	9.89	Spike	P	0 - 29
2455364	Metribuzin	3.14	Spike	P	0 - 51
2455364	Mevinphos	2.07	Spike	P	0 - 31
2455364	Molinate	9.80	Spike	P	0 - 39
2455364	Myclobutanil	16.3	Spike	P	0 - 34
2455364	Naled	6.62	Spike	P	0 - 37
2455364	Napropamide	34.6	Spike	P	0 - 100
2455364	Norflurazon	16.7	Spike	P	0 - 54
2455364	Octinoxate	19.5	Spike	P	0 - 35
2455364	Oxadiazon	8.05	Spike	P	0 - 34
2455364	Oxybenzone	17.9	Spike	P	0 - 35
2455364	Oxyfluorfen	23.4	Spike	P	0 - 28
2455364	Parathion Ethyl	16.6	Spike	P	0 - 31
2455364	Parathion Methyl	16.9	Spike	P	0 - 29
2455364	PBB-153	19.5	Spike	P	0 - 49
2455364	PBDE-47	16.3	Spike	P	0 - 36
2455364	PBDE-99	17.6	Spike	P	0 - 46
2455364	Pendimethalin	5.97	Spike	P	0 - 31
2455364	Pentabromotoluene	22.3	Spike	F	0 - 16
2455364	Phenytoin	4.37	Spike	P	0 - 100
2455364	Phorate	1.83	Spike	P	0 - 36
2455364	Prodiamine	6.95	Spike	P	0 - 68
2455364	Prometon	7.48	Spike	P	0 - 35
2455364	Prometryn	2.71	Spike	P	0 - 33
2455364	Pronamide	0.0135	Spike	P	0 - 24
2455364	Propanil	0.552	Spike	P	0 - 28
2455364	Propargite	3.20	Spike	P	0 - 53
2455364	Propiconazole	21.8	Spike	P	0 - 44
2455364	Pyraflufen Ethyl	26.6	Spike	P	0 - 61
2455364	Pyridaben	6.42	Spike	P	0 - 43
2455364	Pyriproxyfen	14.3	Spike	P	0 - 82
2455364	Simazine	4.27	Spike	P	0 - 29
2455364	Stirophos	18.9	Spike	P	0 - 100
2455364	Sulfentrazone	36.5	Spike	P	0 - 64
2455364	Tebuconazole	0.230	Spike	P	0 - 76
2455364	Terbufos	5.33	Spike	P	0 - 29
2455364	Terbuthylazine	6.54	Spike	P	0 - 28
2455364	Tetradecachloro-m-terphenyl	22.4	Spike	P	0 - 42
2455364	Thiobencarb	1.34	Spike	P	0 - 26
2455364	Tri-o-cresyl Phosphate	14.0	Spike	P	0 - 24
2455364	Triadimefon	2.75	Spike	P	0 - 40
2455364	Tris(1-chloro-2-propyl) phosphate (TCPP)	1.88	Spike	P	0 - 30
2455364	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	7.04	Spike	P	0 - 22
2455364	Tris(2-chloroethyl) phosphate (TCEP)	4.74	Spike	P	0 - 15

Reference Method: EPA 8321B

Batch ID: P438531

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

Precision

Reference Method: EPA 8321B

Batch ID: P438531

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454732	Acesulfame K	0.640	Spike	P	0 - 30
2454732	AMPA	18.1	Spike	P	0 - 30
2454732	Endothall	5.69	Spike	P	0 - 30
2454732	Glufosinate	5.79	Spike	P	0 - 30
2454732	Glyphosate	3.27	Spike	P	0 - 30
2454732	Sucralose	22.8	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P438542

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454732	2,4-D	28.4	Spike	P	0 - 30
2454732	2,4,5-T	8.97	Spike	P	0 - 30
2454732	Acetaminophen	17.7	Spike	P	0 - 30
2454732	Acetamiprid	24.6	Spike	P	0 - 30
2454732	Afidopyropen	50.1	Spike	F	0 - 30
2454732	Bentazon	18.5	Spike	P	0 - 30
2454732	Benzovindiflupyr	15.3	Spike	P	0 - 30
2454732	Carbamazepine	14.1	Spike	P	0 - 30
2454732	Clothianidin	15.7	Spike	P	0 - 30
2454732	Dinotefuran	17.5	Spike	P	0 - 30
2454732	Diuron	15.2	Spike	P	0 - 30
2454732	Fenuron	15.7	Spike	P	0 - 30
2454732	Fluridone	15.8	Spike	P	0 - 30
2454732	Hydrocodone	12.7	Spike	P	0 - 30
2454732	Ibuprofen	24.2	Spike	P	0 - 30
2454732	Imazapyr	20.9	Spike	P	0 - 30
2454732	Imidacloprid	19.7	Spike	P	0 - 30
2454732	Linuron	19.8	Spike	P	0 - 30
2454732	Mandestrobin	19.3	Spike	P	0 - 30
2454732	MCPP	19.9	Spike	P	0 - 30
2454732	Naproxen	14.9	Spike	P	0 - 30
2454732	Primidone	20.9	Spike	P	0 - 30
2454732	Pyraclostrobin	15.3	Spike	P	0 - 30
2454732	Silvex	22.3	Spike	P	0 - 30
2454732	Thiamethoxam	16.1	Spike	P	0 - 30
2454732	Tolfenpyrad	18.3	Spike	P	0 - 30
2454732	Triclopyr	0.0424	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P438763

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454955	Total Alkalinity	2.56	Sample	P	0 - 3.9

Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
Batch ID: P439143

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454289	TDS	3.89	Sample	P	0 - 10

Reference Method: SM 2540 D-2015
Batch ID: P439129

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454289	TSS	8.33	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P438765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454955	Fluoride	0.516	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P438688

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454779	Organic Carbon	0.412	Spike	P	0 - 15

Reference Method: SM 5310 B-2014
Batch ID: P438689

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454936	Organic Carbon	0.255	Spike	P	0 - 15

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

Quality Assurance Report Surrogates

Lab Sample ID: 2454847
Field Sample ID: G2CE0266

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	88.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	57.0	P	30 - 160
EPA 8321B	Diuron-d6	49.8	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.2	P	30 - 160
EPA 8321B	Primidone-d5	89.9	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Lab Sample ID: 2454848
Field Sample ID: G2CE0170

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	82.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.5	P	30 - 160
EPA 8321B	Diuron-d6	53.3	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	61.7	P	30 - 160
EPA 8321B	Primidone-d5	92.3	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2454867
Field Sample ID: G2CE0266

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	75.6	P	20 - 200
EPA 8270E	Simazine-d10	89.4	P	58 - 137
EPA 8270E	Terbufos-d10	94.9	P	50 - 134
EPA 8270E	Terphenyl-d14	119	P	44 - 134

Lab Sample ID: 2454868
Field Sample ID: G2CE0170

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	77.1	P	20 - 200
EPA 8270E	Simazine-d10	82.0	P	58 - 137
EPA 8270E	Terbufos-d10	88.8	P	50 - 134
EPA 8270E	Terphenyl-d14	94.4	P	44 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A123054

Included Lab Sample IDs: 2454838, 2454839

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	99.3	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A123059

Included Lab Sample IDs: 2454834, 2454835

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A123061

Included Lab Sample IDs: 2454834, 2454835

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A123081

Included Lab Sample IDs: 2454836, 2454837

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.9	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A123088

Included Lab Sample IDs: 2454836, 2454837

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

Reference Method: SM 5310 B-2014

Run ID: A123093

Included Lab Sample IDs: 2454836, 2454837

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	108	96.2	P/P	70 - 130
Organic Carbon	96.2	101	P/P	85 - 115

Reference Method: EPA 8321B

Run ID: A123094

Included Lab Sample IDs: 2454847, 2454848

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	108	P/P	60 - 160
Endothall	114	112	P/P	60 - 160
Glufosinate	102	96.5	P/P	60 - 160
Glyphosate	101	99.0	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A123117

Included Lab Sample IDs: 2454847, 2454848

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	115	125	P/P	60 - 160
Sucralose	104	110	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A123118

Included Lab Sample IDs: 2454834, 2454835

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

Reference Method: EPA 8321B

Run ID: A123127

Included Lab Sample IDs: 2454847, 2454848

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	103	101	P/P	50 - 150
2,4-D	105	103	P/P	50 - 150
2,4,5-T	111	96.8	P/P	50 - 150
2,4,5-T	96.8	96.1	P/P	50 - 150
Acetaminophen	110	111	P/P	60 - 160
Acetaminophen	111	110	P/P	60 - 160
Acetamiprid	106	107	P/P	50 - 150
Acetamiprid	107	108	P/P	50 - 150
Afidopyropen	92.5	105	P/P	50 - 150
Afidopyropen	97.3	92.5	P/P	50 - 150
Bentazon	89.1	90.4	P/P	50 - 160
Bentazon	97.3	102	P/P	50 - 160
Benzovindiflupyr	108	108	P/P	50 - 150
Benzovindiflupyr	108	105	P/P	50 - 150
Carbamazepine	107	108	P/P	60 - 150
Carbamazepine	109	107	P/P	60 - 150
Clothianidin	105	108	P/P	60 - 150
Clothianidin	108	106	P/P	60 - 150
Dinotefuran	108	110	P/P	50 - 150
Dinotefuran	110	109	P/P	50 - 150
Diuron	104	110	P/P	60 - 160
Diuron	106	104	P/P	60 - 160
Fenuron	104	105	P/P	60 - 150
Fenuron	105	105	P/P	60 - 150
Fluridone	108	112	P/P	60 - 160
Fluridone	112	111	P/P	60 - 160
Hydrocodone	108	108	P/P	60 - 150
Hydrocodone	108	108	P/P	60 - 150
Ibuprofen	107	93.0	P/P	50 - 160
Ibuprofen	93.0	91.6	P/P	50 - 160
Imazapyr	88.6	90.7	P/P	50 - 150
Imazapyr	98.9	88.6	P/P	50 - 150
Imidacloprid	102	98.0	P/P	60 - 150
Imidacloprid	96.6	102	P/P	60 - 150
Linuron	103	97.6	P/P	60 - 150
Linuron	97.6	108	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A123127

Included Lab Sample IDs: 2454847, 2454848

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mandestrobin	107	109	P/P	50 - 150
Mandestrobin	109	106	P/P	50 - 150
MCPD	111	97.7	P/P	50 - 150
MCPD	97.7	104	P/P	50 - 150
Naproxen	69.7	113	P/P	50 - 160
Naproxen	97.4	69.7	P/P	50 - 160
Primidone	94.3	101	P/P	60 - 150
Primidone	95.8	94.3	P/P	60 - 150
Pyraclostrobin	105	106	P/P	60 - 150
Pyraclostrobin	107	105	P/P	60 - 150
Silvex	103	92.7	P/P	50 - 150
Silvex	108	103	P/P	50 - 150
Thiamethoxam	109	109	P/P	50 - 150
Thiamethoxam	109	112	P/P	50 - 150
Tolfenpyrad	96.2	99.6	P/P	60 - 150
Tolfenpyrad	99.6	98.1	P/P	60 - 150
Triclopyr	102	107	P/P	50 - 150
Triclopyr	105	102	P/P	50 - 150

Reference Method: SM 2320 B-2011

Run ID: A123130

Included Lab Sample IDs: 2454834, 2454835

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.4	95.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A123130

Included Lab Sample IDs: 2454834, 2454835

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A123144

Included Lab Sample IDs: 2454865, 2454866

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.2	99.1	P/P	90 - 110
Aluminum	99.1	96.7	P/P	90 - 110
Antimony	96.0	96.2	P/P	90 - 110
Antimony	97.1	96.0	P/P	90 - 110
Arsenic	96.9	97.0	P/P	90 - 110
Arsenic	97.0	97.7	P/P	90 - 110
Barium	95.7	94.7	P/P	90 - 110
Barium	96.5	95.7	P/P	90 - 110
Boron	103	103	P/P	90 - 110
Boron	99.1	103	P/P	90 - 110
Cadmium	95.5	96.1	P/P	90 - 110
Cadmium	96.7	95.5	P/P	90 - 110
Cobalt	98.6	99.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A123144

Included Lab Sample IDs: 2454865, 2454866

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cobalt	99.0	97.3	P/P	90 - 110
Copper	96.1	96.3	P/P	90 - 110
Copper	96.3	96.3	P/P	90 - 110
Lead	99.2	98.9	P/P	90 - 110
Lead	99.4	99.2	P/P	90 - 110
Manganese	92.5	91.8	P/P	90 - 110
Molybdenum	96.1	96.3	P/P	90 - 110
Molybdenum	97.5	96.1	P/P	90 - 110
Nickel	98.0	98.2	P/P	90 - 110
Nickel	98.2	97.0	P/P	90 - 110
Selenium	96.6	96.6	P/P	90 - 110
Selenium	96.6	95.0	P/P	90 - 110
Silver	100	99.6	P/P	90 - 110
Silver	99.6	100	P/P	90 - 110
Thallium	98.6	99.7	P/P	90 - 110
Thallium	99.7	98.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A123170

Included Lab Sample IDs: 2454865, 2454866

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	104	108	P/P	90 - 110
Beryllium	108	100	P/P	90 - 110
Manganese	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A123174

Included Lab Sample IDs: 2454836, 2454837

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.0	96.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123196

Included Lab Sample IDs: 2454836

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	95.3	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123197

Included Lab Sample IDs: 2454837

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	95.2	98.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A123206

Included Lab Sample IDs: 2454865, 2454866

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Chromium	102	101	P/P	90 - 110
Iron	102	102	P/P	90 - 110
Magnesium	102	103	P/P	90 - 110
Potassium	101	100	P/P	90 - 110
Sodium	97.2	97.7	P/P	90 - 110
Strontium	98.0	98.4	P/P	90 - 110
Tin	103	101	P/P	90 - 110
Titanium	104	103	P/P	90 - 110
Vanadium	100	99.4	P/P	90 - 110
Zinc	100	99.5	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A123254

Included Lab Sample IDs: 2454834, 2454835

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.4	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A123410

Included Lab Sample IDs: 2454867, 2454868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.6		P	80 - 120
Alachlor	96.3		P	80 - 120
Ametryn	108		P	80 - 120
Atrazine	94.5		P	80 - 120
Atrazine Desethyl	113		P	80 - 120
Azinphos Methyl	116		P	80 - 120
Azoxystrobin	102		P	80 - 120
Bromacil	108		P	80 - 120
Butylate	102		P	80 - 120
Caffeine	107		P	80 - 120
Carbophenothion	106		P	80 - 120
Carfentrazone Ethyl	109		P	80 - 120
Chlorfenapyr	99.5		P	80 - 120
Chlorpyrifos Ethyl	93.9		P	80 - 120
Chlorpyrifos Methyl	118		P	80 - 120
Coumaphos	91.4		P	80 - 120
Cyanazine	105		P	80 - 120
Cyprodinil	112		P	80 - 120
Demeton	105		P	80 - 120
Diazinon	119		P	80 - 120
Difenoconazole	87.6		P	80 - 120
Dimethenamid	94.5		P	80 - 120
Dimethomorph	87.0		P	80 - 120
Disulfoton	118		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	99.9		P	80 - 120
Ethion	93.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A123410

Included Lab Sample IDs: 2454867, 2454868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethoprop	102		P	80 - 120
Etridiazole	99.4		P	80 - 120
Fenamiphos	90.5		P	80 - 120
Fenbuconazole	82.7		P	80 - 120
Fipronil	109		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	119		P	80 - 120
Fipronil Sulfone	97.8		P	80 - 120
Fluazifop-P-butyl	112		P	80 - 120
Fludioxonil	87.4		P	80 - 120
Flumioxazin	83.4		P	80 - 120
Flutolanil	114		P	80 - 120
Fluxapyroxad	167*		F	80 - 120
Fonofos	110		P	80 - 120
Hexazinone	93.8		P	80 - 120
Imazalil	182*		F	80 - 120
Iprodione	95.4		P	80 - 120
Loratadine	80.8		P	80 - 120
Malathion	93.8		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	106		P	80 - 120
Metribuzin	110		P	80 - 120
Mevinphos	87.4		P	80 - 120
Molinate	95.3		P	80 - 120
Myclobutanil	86.1		P	80 - 120
Naled	103		P	80 - 120
Napropamide	116		P	80 - 120
Norflurazon	87.8		P	80 - 120
Oxadiazon	107		P	80 - 120
Oxyfluorfen	116		P	80 - 120
Parathion Ethyl	101		P	80 - 120
Parathion Methyl	110		P	80 - 120
Pendimethalin	115		P	80 - 120
Phenytoin	88.2		P	80 - 120
Phorate	107		P	80 - 120
Prodiamine	114		P	80 - 120
Prometon	99.6		P	80 - 120
Prometryn	117		P	80 - 120
Pronamide	96.7		P	80 - 120
Propanil	97.4		P	80 - 120
Propargite	101		P	80 - 120
Propiconazole	86.6		P	80 - 120
Pyraflufen Ethyl	109		P	80 - 120
Pyridaben	99.0		P	80 - 120
Pyriproxyfen	173*		F	80 - 120
Simazine	94.9		P	80 - 120
Stirophos	102		P	80 - 120
Sulfentrazone	212*		F	80 - 120
Tebuconazole	98.1		P	80 - 120
Terbufos	109		P	80 - 120
Terbuthylazine	87.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A123410

Included Lab Sample IDs: 2454867, 2454868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thiobencarb	105		P	80 - 120
Triadimefon	107		P	80 - 120

Reference Method: EPA 8270E

Run ID: A123463

Included Lab Sample IDs: 2454867, 2454868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	98.7		P	80 - 120
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	91.3		P	80 - 120
Avobenzone	95.5		P	80 - 120
Dechlorane 602	100		P	80 - 120
Dechlorane 603	95.1		P	80 - 120
Dechlorane Plus	94.7		P	80 - 120
Hexabromobenzene	94.0		P	80 - 120
Octinoxate	96.1		P	80 - 120
Oxybenzone	98.4		P	80 - 120
PBB-153	88.9		P	80 - 120
PBDE-47	113		P	80 - 120
PBDE-99	95.4		P	80 - 120
Pentabromotoluene	96.9		P	80 - 120
Tetradecachloro-m-terphenyl	87.1		P	80 - 120
Tri-o-cresyl Phosphate	98.9		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	98.2		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	98.6		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	99.7		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	101					0.244	
EPA 180.1 Rev. 2.0	Turbidity	104					7.14	
EPA 200.7 Rev. 4.4	Calcium	110	109	109	105			0.315
	Chromium	100	89.7	90.4	99.7			0.674
	Iron	111	108	109	111			0.593
	Magnesium	112	109	111	112			0.913
	Potassium	101	99.5	99.4	101			0.0834
	Sodium	99.2	97.1	100				0.623
	Strontium	97.7	96.5	96.9	98.6			0.396
	Tin	98.1	96.6	97.0	99.0			0.503
	Titanium	102	104	104	103			0.125
	Vanadium	98.2	99.1	98.9	99.2			0.223
	Zinc	94.9	93.2	91.6	94.5			1.60
EPA 200.8 Rev. 5.4	Aluminum	97.8	97.8	95.7	90.2			1.79
	Antimony	98.9	96.9	96.4	97.2			0.472
	Arsenic	97.0	95.3	95.6	96.7			0.261
	Barium	98.4	97.5	96.7	95.9			0.751
	Beryllium	103	106	104	96.5			1.75
	Boron	103	101	97.6	103			2.40
	Cadmium	98.0	97.6	95.5	95.8			2.12
	Cobalt	98.2	96.9	96.2	97.0			0.647
	Copper	96.5	95.0	95.4	95.7			0.365
	Lead	101	101	99.9	99.9			1.25
	Manganese	95.0	90.9	90.2	99.7			0.653
	Molybdenum	97.2	96.1	96.5	96.3			0.395
	Nickel	96.3	83.0	83.0	95.1			0.0495
	Selenium	97.6	95.1	94.9	92.8			0.190
	Silver	104	101	102	102			1.21
	Thallium	101	103	103	101			0.112
EPA 300.0 Rev. 2.1	Chloride	99.1	98.4	99.0			0.101	
	Sulfate	99.2	98.7	98.8			0.282	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8	98.4	98.6				0.158
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	104	109				3.76
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	95.4	96.9				1.14
EPA 365.1 Rev. 2.0	Total-P	106	106	107				1.05
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.7	98.4	97.7				0.605
EPA 8270E	2-(2H-benzotriazol-2-yl)-4,6-ditertpe ntylphenol (UV-328)	90.1	156	134				15.2
	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	127	184	152				19.0
	Acetochlor	95.8	91.7	83.7				9.09
	Alachlor	104	111	111				0.0134
	Ametryn	141	116	111				4.56
	Atrazine	109						2.01
	Atrazine Desethyl	116	98.3	98.0				0.273
	Avobenzone	150	206	178				14.8
	Azinphos Methyl	201	129	144				11.1
	Azoxystrobin	148	92.9	97.6				4.88
	Bromacil	107	87.5	85.0				2.91
	Butylate	70.0	69.9	62.4				11.3
	Caffeine	116	126	119				4.57
	Carbophenothion	129	129	114				12.7
	Carfentrazone Ethyl	137	146	127				14.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorfenapyr	87.2	84.5	89.8		6.03
	Chlorpyrifos Ethyl	73.0	121	119		1.60
	Chlorpyrifos Methyl	89.3	66.7	79.4		17.5
	Coumaphos	101	76.6	94.4		20.8
	Cyanazine	179	134	126		5.84
	Cyprodinil	109	76.8	96.6		22.9
	Dechlorane 602	71.5	153	114		28.6
	Dechlorane 603	137	146	98.5		38.5
	Dechlorane Plus	111	126	88.0		35.6
	Demeton	127	102	99.6		2.21
	Diazinon	129	112	113		0.738
	Difenoconazole	61.8	82.9	91.3		9.65
	Dimethenamid	92.0	84.4	82.2		2.73
	Dimethomorph	169	170	181		6.14
	Disulfoton	127	101	97.4		4.01
	Dithiopyr	115	76.4	77.7		1.71
	EPTC	57.7	52.8	51.5		2.46
	Ethion	35.3	107	104		2.92
	Ethoprop	130	111	111		0.454
	Etridiazole	61.8	60.4	55.8		7.88
	Fenamiphos	114	127	118		7.84
	Fenbuconazole	82.4	53.1	62.7		16.6
	Fipronil	101	95.1	112		16.5
	Fipronil Desulfinyl	109	58.8	60.9		3.60
	Fipronil Sulfide	114	95.8	113		15.5
	Fipronil Sulfone	101	53.3	67.5		19.4
	Fluazifop-P-butyl	139	129	140		8.18
	Fludioxonil	82.1	91.9	72.4		23.8
	Flumioxazin	107	128	127		0.873
	Flutolanil	82.4	119	97.8		19.2
	Fluxapyroxad	99.0	131	175		28.4
	Fonofos	81.4	99.7	112		11.6
	Hexabromobenzene	134	155	134		14.6
	Hexazinone	108	109	109		0.420
	Imazalil	88.4	89.0	65.6		30.3
	Iprodione	196	167	154		8.29
	Loratadine	187	125	155		21.6
	Malathion	146	115	121		4.96
	Metalaxyl	108	86.6	85.2		1.58
	Metolachlor	115	82.0	91.2		9.89
	Metribuzin	135	126	122		3.14
	Mevinphos	111	88.3	90.2		2.07
	Molinate	91.2	83.8	76.0		9.80
	Myclobutanil	92.9	101	85.8		16.3
	Naled	23.7	18.6	19.8		6.62
	Napropamide	62.8	98.1	69.1		34.6
	Norflurazon	127	127	150		16.7
	Octinoxate	172	271	223		19.5
	Oxadiazon	85.0	50.1	56.3		8.05
	Oxybenzone	146	184	153		17.9
	Oxyfluorfen	109	132	105		23.4
	Parathion Ethyl	127	114	96.5		16.6
	Parathion Methyl	156	153	129		16.9
	PBB-153	137	178	147		19.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	PBDE-47	90.5	160	136			16.3
	PBDE-99	108	174	145			17.6
	Pendimethalin	137	106	99.8			5.97
	Pentabromotoluene	142	175	140			22.3
	Phenytoin	51.6	115	110			4.37
	Phorate	158	132	129			1.83
	Prodiamine	67.7	54.0	57.9			6.95
	Prometon	93.3	138	128			7.48
	Prometryn	120	147	151			2.71
	Pronamide	110	92.5	92.5			0.0135
	Propanil	115	106	105			0.552
	Propargite	73.3	134	130			3.20
	Propiconazole	93.6	113	140			21.8
	Pyraflufen Ethyl	135	145	111			26.6
	Pyridaben	86.0	172	183			6.42
	Pyriproxyfen	95.1	98.8	114			14.3
	Simazine	113	87.8	91.6			4.27
	Stirophos	35.3	41.1	49.7			18.9
	Sulfentrazone	119	67.5	97.7			36.5
	Tebuconazole	56.6	129	129			0.230
	Terbufos	141	116	122			5.33
	Terbuthylazine	99.3	84.1	89.8			6.54
	Tetradecachloro-m-terphenyl	222	267	213			22.4
	Thiobencarb	108	83.0	81.9			1.34
	Tri-o-cresyl Phosphate	154	177	154			14.0
	Triadimefon	89.4	65.6	63.8			2.75
	Tris(1-chloro-2-propyl) phosphate (TCPP)	60.1	54.2	53.0			1.88
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	60.5	59.2	55.0			7.04
	Tris(2-chloroethyl) phosphate (TCEP)	64.1	65.8	62.7			4.74
EPA 8321B	2,4-D	100	114	85.5			28.4
	2,4,5-T	122	97.3	106			8.97
	Acesulfame K	109	101	102			0.640
	Acetaminophen	95.7	102	85.4			17.7
	Acetamiprid	85.4	91.7	71.6			24.6
	Afidopyropen	68.5	83.8	50.2			50.1
	AMPA	99.4	76.1	91.2			18.1
	Bentazon	74.4	72.5	60.2			18.5
	Benzovindiflupyr	90.2	94.7	81.2			15.3
	Carbamazepine	85.4	91.6	79.5			14.1
	Clothianidin	95.2	104	85.7			15.7
	Dinotefuran	106	113	94.6			17.5
	Diuron	80.8	83.6	71.8			15.2
	Endothall	101	113	120			5.69
	Fenuron	96.5	99.6	85.1			15.7
	Fluridone	92.8	100	85.5			15.8
	Glufosinate	99.1	93.9	99.5			5.79
	Glyphosate	95.8	90.4	93.4			3.27
	Hydrocodone	93.6	96.4	84.9			12.7
	Ibuprofen	70.0	74.5	58.4			24.2
	Imazapyr	95.4	101	81.9			20.9
	Imidacloprid	90.9	101	82.8			19.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Linuron	82.8	85.6	70.2		19.8
	Mandestrobin	96.3	101	83.5		19.3
	MCCP	97.2	102	83.7		19.9
	Naproxen	87.4	67.2	57.9		14.9
	Primidone	88.6	95.5	77.4		20.9
	Pyraclostrobin	80.9	87.8	75.3		15.3
	Silvex	92.2	96.3	77.0		22.3
	Sucralose	106	112	88.7		22.8
	Thiamethoxam	93.8	86.8	73.9		16.1
	Tolfenpyrad	52.3	56.8	47.3		18.3
	Triclopyr	125	99.2	99.2		0.0424
SM 2320 B-2011	Total Alkalinity	95.6			2.56	
SM 2540 C-2015	TDS	103			3.89	
SM 2540 D-2015	TSS	106			8.33	
SM 4500-F- C-2011	Fluoride	103	103	103		0.516
SM 5310 B-2014	Organic Carbon	98.7	98.5	99.0		0.412
	Organic Carbon	99.2	99.4	99.1		0.255

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2454834, 2454835
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2454834, 2454835
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2454865, 2454866
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2454865, 2454866
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2454834, 2454835
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2454834, 2454835
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2454836, 2454837
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2454836, 2454837
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2454836, 2454837
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2454836, 2454837
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2454838, 2454839
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2454867, 2454868
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2454867, 2454868
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2454847, 2454848
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2454834, 2454835
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2454865, 2454866
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2454834, 2454835
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2454834, 2454835
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2454834, 2454835
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2454836, 2454837

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	12/06/2023			12/06/2023 14:16	Blanca Fach	2454834
	12/06/2023			12/06/2023 14:17	Blanca Fach	2454835
EPA 180.1 Rev. 2.0	12/06/2023			12/06/2023 14:30	Anna M. Plaviak	2454834
	12/06/2023			12/06/2023 14:31	Anna M. Plaviak	2454835
EPA 200.7 Rev. 4.4	12/06/2023	12/08/2023 12:10	George D Taylor	12/13/2023 17:08	Chase Roberts	2454865
	12/06/2023	12/08/2023 12:10	George D Taylor	12/13/2023 17:15	Chase Roberts	2454866
EPA 200.8 Rev. 5.4	12/06/2023	12/08/2023 12:10	George D Taylor	12/11/2023 17:39	Conrad Hartmann	2454865
	12/06/2023	12/08/2023 12:10	George D Taylor	12/11/2023 18:41	Conrad Hartmann	2454866
	12/06/2023	12/08/2023 12:10	George D Taylor	12/13/2023 00:43	Conrad Hartmann	2454865
	12/06/2023	12/08/2023 12:10	George D Taylor	12/13/2023 01:25	Conrad Hartmann	2454866
	12/06/2023	12/08/2023 12:10	George D Taylor	12/12/2023 16:59	Anna M. Plaviak	2454834
EPA 300.0 Rev. 2.1	12/06/2023			12/12/2023 18:44	Anna M. Plaviak	2454835
	12/06/2023			12/15/2023 12:12	James L Waggeberby	2454834
	12/06/2023			12/15/2023 13:58	James L Waggeberby	2454835
	12/06/2023			12/07/2023 12:55	Khloe J Berg	2454836
EPA 350.1 Rev. 2.0	12/06/2023			12/07/2023 12:56	Khloe J Berg	2454837
	12/06/2023	12/11/2023 12:28	Simonne.V. Calhoun	12/12/2023 15:59	Samantha L Bates	2454836
EPA 351.2 Rev. 2.0	12/06/2023	12/11/2023 12:28	Simonne.V. Calhoun	12/12/2023 16:01	Samantha L Bates	2454837
	12/06/2023			12/07/2023 14:34	Fadila Guebre	2454836
EPA 353.2 Rev. 2.0	12/06/2023			12/07/2023 14:35	Fadila Guebre	2454837
	12/06/2023	12/12/2023 14:15	Adam P Silver	12/13/2023 13:57	Simonne.V. Calhoun	2454836
EPA 365.1 Rev. 2.0	12/06/2023	12/12/2023 14:15	Adam P Silver	12/13/2023 15:10	Simonne.V. Calhoun	2454837
	12/06/2023			12/06/2023 13:55	Elise M. Gillis	2454839
EPA 365.1 Rev. 2.0 dissolved	12/06/2023			12/06/2023 13:57	Elise M. Gillis	2454838
	12/06/2023	12/10/2023 11:30	Mohammad Ghaffari	12/16/2023 19:06	Vandana T. Nagar	2454867
EPA 8270E	12/06/2023	12/10/2023 11:30	Mohammad Ghaffari	12/16/2023 19:33	Vandana T. Nagar	2454868
	12/06/2023	12/10/2023 11:30	Mohammad Ghaffari	12/29/2023 21:13	Arthur Maknenko	2454867
	12/06/2023	12/10/2023 11:30	Mohammad Ghaffari	12/29/2023 21:40	Arthur Maknenko	2454868
	12/06/2023	12/07/2023 13:00	Tae K Lee	12/07/2023 16:51	Hana Lee	2454847
EPA 8321B	12/06/2023	12/07/2023 13:00	Tae K Lee	12/07/2023 17:04	Hana Lee	2454848
	12/06/2023	12/07/2023 13:00	Tae K Lee	12/07/2023 21:12	Hana Lee	2454847
	12/06/2023	12/07/2023 13:00	Tae K Lee	12/07/2023 21:26	Hana Lee	2454848
	12/06/2023	12/07/2023 13:00	Tae K Lee	12/08/2023 08:29	Hana Lee	2454847
	12/06/2023	12/07/2023 13:00	Tae K Lee	12/08/2023 08:43	Hana Lee	2454848
	12/06/2023	12/08/2023 09:00	Hoor Shaik	12/08/2023 17:12	Juyoung Kim	2454847
	12/06/2023	12/08/2023 09:00	Hoor Shaik	12/08/2023 17:48	Juyoung Kim	2454848
	12/06/2023	12/08/2023 09:00	Hoor Shaik	12/11/2023 10:16	Juyoung Kim	2454847
	12/06/2023			12/08/2023 02:17	Adam P Silver	2454834
	12/06/2023			12/08/2023 02:29	Adam P Silver	2454835
	12/06/2023			12/13/2023 17:08	Chase Roberts	2454865
	12/06/2023					
SM 2320 B-2011	12/06/2023					
SM 2340 B-2011	12/06/2023					

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2340 B-2011	12/06/2023			12/13/2023 17:15	Chase Roberts	2454866
SM 2540 C-2015	12/06/2023			12/08/2023 16:18	Yijie Li	2454834, 2454835
SM 2540 D-2015	12/06/2023			12/08/2023 16:18	Yijie Li	2454834, 2454835
SM 4500-F- C-2011	12/06/2023			12/08/2023 02:17	Adam P Silver	2454834
	12/06/2023			12/08/2023 02:29	Adam P Silver	2454835
SM 5310 B-2014	12/06/2023			12/07/2023 22:50	Kenneth H Lee	2454836
	12/06/2023			12/08/2023 02:14	Kenneth H Lee	2454837