

Chemical Analysis Report

NW-DIST-2022-12-21-03

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

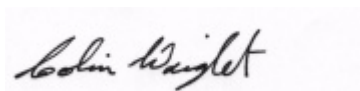
Event Description: **SCI**
Request ID: **RQ-2022-12-12-18**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 18-JAN-2023 16:14



NON-CONFORMANCE REPORT INCLUDED

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: Wrights Creek

Collection Date/Time: 12/20/2022 11:30

Field ID: G3NW0227

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2377015	DEP SOP: NU-094-1	Color (true)	34		PCU	P423845	
	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P423848	
	EPA 300.0 Rev. 2.1	Chloride	4.4		mg Cl/L	P424400	
		Sulfate	1.3		mg SO4/L	P424209	
	SM 2320 B-2011	Total Alkalinity	56	Q	mg CaCO3/L	P424167	
	SM 2540 C-2015	TDS	74		mg/L	P424227	
	SM 2540 D-2015	TSS	2	I	mg/L	P424117	
2377017	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P424392	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P424305	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P424049	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P424014	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P424134	
2377019	SM 5310 B-2011	Organic Carbon	3.3		mg C/L	P424182	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P423849	
2377026	EPA 8321B	2,4-D	0.0020	U	ug/L	P423825	
		Acesulfame K	0.10	U	ug/L	P423755	
		2,4,5-T	0.0040	U	ug/L	P423825	
		AMPA	0.10	U	ug/L	P423755	
		Acetaminophen	0.0080	U	ug/L	P423825	
		Acetamiprid	0.0020	U	ug/L	P423825	
		Endothall	0.25	U	ug/L	P423755	MS
		Glufosinate	0.10	U	ug/L	P423755	
		Glyphosate	0.10	U	ug/L	P423755	
		Afidopyrophen	0.0020	U	ug/L	P423825	
		Bentazon	8.0E-04	U	ug/L	P423825	
		Sucralose	0.034	I	ug/L	P423755	
		Benzovindiflupyr	0.0020	U	ug/L	P423825	
		Carbamazepine	8.0E-04	U	ug/L	P423825	
		Clothianidin	0.0020	U	ug/L	P423825	
		Dinotefuran	0.0020	U	ug/L	P423825	
		Diuron	0.0020	U	ug/L	P423825	
		Fenuron	0.032	U	ug/L	P423825	
		Fluridone	8.0E-04	U	ug/L	P423825	
		Imazapyr	0.0076	I	ug/L	P423825	
		Hydrocodone	0.0020	U	ug/L	P423825	
		Ibuprofen	0.20	U	ug/L	P423825	
		Imidacloprid	0.0020	U	ug/L	P423825	
		Linuron	0.0040	U	ug/L	P423825	
		Mandestrobin	0.0020	U	ug/L	P423825	
		MCP	0.0040	U	ug/L	P423825	
		Naproxen	0.0080	U	ug/L	P423825	
		Primidone	0.0040	U	ug/L	P423825	
		Pyraclostrobin	0.0020	U	ug/L	P423825	

Field ID: G3NW0227

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2377026	EPA 8321B	Silvex	0.0040	U	ug/L	P423825	
		Thiamethoxam	0.0020	U	ug/L	P423825	
		Tolfenpyrad	0.0020	U	ug/L	P423825	
		Triclopyr	0.0040	U	ug/L	P423825	
2377031	EPA 200.7 Rev. 4.4	Calcium	22.7		mg/L	P423890	
		Iron	660		ug/L	P423890	
		Magnesium	1.27		mg/L	P423890	
		Potassium	1.1	I	mg/L	P423890	
		Sodium	2.1		mg/L	P423890	
		Strontium	15.4		ug/L	P423890	
		Tin	3.0	U	ug/L	P423890	
		Titanium	1.8	I	ug/L	P423890	
		Vanadium	2.0	U	ug/L	P423890	
		Zinc	5.0	U	ug/L	P423890	
	EPA 200.8 Rev. 5.4	Aluminum	73		ug/L	P423890	
		Antimony	0.050	U	ug/L	P423890	
		Arsenic	0.33		ug/L	P423890	
		Barium	9.94		ug/L	P423890	
		Beryllium	0.015	I	ug/L	P423890	
		Boron	8.3		ug/L	P423890	
		Cadmium	0.020	U	ug/L	P423890	
		Chromium	0.71	I	ug/L	P423890	
		Cobalt	0.055	I	ug/L	P423890	
		Copper	0.40	U	ug/L	P423890	
		Lead	0.20	U	ug/L	P423890	
		Manganese	15.0		ug/L	P423890	
		Molybdenum	0.15	U	ug/L	P423890	
		Nickel	0.50	U	ug/L	P423890	
		Selenium	0.20	U	ug/L	P423890	
		Silver	0.010	U	ug/L	P423890	
		Thallium	0.10	U	ug/L	P423890	
	SM 2340 B-2011	Hardness	61.8		mg/L	P423890	
2377038	EPA 8270E	Oxybenzone**	10	U	ng/L	P423751	
		Acetochlor	0.35	I	ng/L	P423751	
		Octinoxate**	20	U	ng/L	P423751	
		Alachlor	0.25	U	ng/L	P423751	
		Avobenzone**	100	U	ng/L	P423751	
		Ametryn	0.61	U	ng/L	P423751	
		Atrazine	0.70	I	ng/L	P423751	
		PBDE-47**	4.0	U	ng/L	P423751	
		Atrazine Desethyl	1.5	U	ng/L	P423751	
		PBDE-99**	5.0	U	ng/L	P423751	
		Azinphos Methyl	2.0	U	ng/L	P423751	
		Tri-o-cresyl Phosphate**	6.1	U	ng/L	P423751	
		Azoxystrobin	0.50	U	ng/L	P423751	

Field ID: G3NW0227

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2377038	EPA 8270E	Bromacil	0.50	U	ng/L	P423751	LCS, MS
		2-Ethylhexyl	12	U	ng/L	P423751	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.40	U	ng/L	P423751	
		Dechlorane Plus**	30	U	ng/L	P423751	
		Caffeine**	7.6	U	ng/L	P423751	
		Carbophenothion	0.20	U	ng/L	P423751	
		Carfentrazone Ethyl	0.10	U	ng/L	P423751	
		Chlorfenapyr	0.18	U	ng/L	P423751	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P423751	
		Chlorpyrifos Methyl	0.050	U	ng/L	P423751	
		Coumaphos	0.50	U	ng/L	P423751	
		Cyanazine	3.3	UJ	ng/L	P423751	
		Cyprodinil	0.10	U	ng/L	P423751	
		Demeton	1.5	U	ng/L	P423751	
		Diazinon	0.13	U	ng/L	P423751	
		Difenoconazole	0.61	U	ng/L	P423751	
		Dimethenamid	0.10	U	ng/L	P423751	
		Dimethomorph	0.18	U	ng/L	P423751	
		Disulfoton	0.50	U	ng/L	P423751	
		Dithiopyr	0.63	U	ng/L	P423751	
		EPTC	1.3	U	ng/L	P423751	
		Ethion	0.15	U	ng/L	P423751	
		Ethoprop	0.10	U	ng/L	P423751	
		Etridiazole	0.15	U	ng/L	P423751	
		Fenamiphos	0.50	U	ng/L	P423751	
		Fenbuconazole	0.13	U	ng/L	P423751	
		Fipronil	0.25	U	ng/L	P423751	
		Fipronil Desulfinyl**	0.13	U	ng/L	P423751	
		Fipronil Sulfide	0.15	U	ng/L	P423751	
		Fipronil Sulfone	0.15	U	ng/L	P423751	
		Fluazifop-P-butyl	0.10	U	ng/L	P423751	
		Fludioxonil	0.13	U	ng/L	P423751	
		Flumioxazin	4.5	U	ng/L	P423751	
		Flutolanil	0.53		ng/L	P423751	
		Fluxapyroxad	0.10	U	ng/L	P423751	
		Fonofos	0.20	U	ng/L	P423751	
		Hexazinone	0.50	U	ng/L	P423751	
		Imazalil	0.76	U	ng/L	P423751	
		Iprodione	0.61	U	ng/L	P423751	
		Loratadine**	0.35	U	ng/L	P423751	
		Malathion	0.35	U	ng/L	P423751	
		Metalaxyl	0.76	U	ng/L	P423751	
		Metolachlor	0.35	U	ng/L	P423751	
		Metribuzin	1.5	U	ng/L	P423751	

Field ID: G3NW0227

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2377038	EPA 8270E	Mevinphos	1.1	U	ng/L	P423751	
		Molinate	0.30	U	ng/L	P423751	
		Myclobutanil	0.25	U	ng/L	P423751	
		Naled	1.5	U	ng/L	P423751	
		Napropamide	0.40	U	ng/L	P423751	
		Norflurazon	0.50	U	ng/L	P423751	
		Oxadiazon	0.30	U	ng/L	P423751	
		Oxyfluorfen	0.15	U	ng/L	P423751	
		Parathion Ethyl	0.25	U	ng/L	P423751	
		Parathion Methyl	0.55	U	ng/L	P423751	
		Pendimethalin	1.0	U	ng/L	P423751	
		Phenytoin**	3.5	U	ng/L	P423751	
		Phorate	0.53	U	ng/L	P423751	
		Prodiamine	0.18	U	ng/L	P423751	
		Prometon	0.91	U	ng/L	P423751	
		Prometryn	0.20	U	ng/L	P423751	
		Pronamide	0.15	U	ng/L	P423751	
		Propanil	0.13	U	ng/L	P423751	
		Propargite	1.5	U	ng/L	P423751	
		Propiconazole	0.50	U	ng/L	P423751	
		Pyraflufen Ethyl	0.25	U	ng/L	P423751	
		Pyridaben	0.45	U	ng/L	P423751	
		Pyriproxyfen	0.13	U	ng/L	P423751	
		Simazine	0.50	U	ng/L	P423751	
		Stirophos	0.13	U	ng/L	P423751	
		Sulfentrazone	0.50	U	ng/L	P423751	
		Tebuconazole	0.96	I	ng/L	P423751	
		Terbufos	0.10	U	ng/L	P423751	
		Terbutylazine	0.43	U	ng/L	P423751	
		Thiobencarb	0.61	U	ng/L	P423751	
		Triadimefon	0.25	U	ng/L	P423751	

Ref. Method and Comment:

SM 2320 B-2011: The sample was analyzed out of hold time because the HVAC system in the laboratory was down resulting in excessively cold temperatures.

EPA 8270E: MS accuracy for bromacil and norflurazon not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Seven Runs upstream of Hwy 81

Collection Date/Time: 12/19/2022 12:30

Field ID: G3NW0116

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2377016	DEP SOP: NU-094-1	Color (true)	30		PCU	P423837	
	EPA 180.1 Rev. 2.0	Turbidity	1.4	A	NTU	P423847	
	EPA 300.0 Rev. 2.1	Chloride	2.6		mg Cl/L	P424400	
		Sulfate	2.4		mg SO4/L	P424209	
	SM 2320 B-2011	Total Alkalinity	1.1	I	mg CaCO3/L	P424045	
	SM 2540 C-2015	TDS	17	I	mg/L	P424227	
	SM 2540 D-2015	TSS	3	I	mg/L	P424117	
2377018	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P424392	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P424305	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P424049	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.084		mg N/L	P424014	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P424135	
2377020	SM 5310 B-2011	Organic Carbon	2.8		mg C/L	P424182	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	UQ	mg P/L	P423849	
2377027	EPA 8321B	2,4-D	0.0020	U	ug/L	P423825	
		Acesulfame K	0.10	U	ug/L	P423755	
		2,4,5-T	0.0040	U	ug/L	P423825	
		AMPA	0.10	U	ug/L	P423755	
		Acetaminophen	0.0080	U	ug/L	P423825	
		Acetamiprid	0.0020	U	ug/L	P423825	
		Endothall	0.25	U	ug/L	P423755	MS
		Glufosinate	0.10	U	ug/L	P423755	
		Glyphosate	0.10	U	ug/L	P423755	
		Afidopyrophen	0.0020	U	ug/L	P423825	
		Bentazon	8.0E-04	U	ug/L	P423825	
		Sucralose	0.019	I	ug/L	P423755	
		Benzovindiflupyr	0.0020	U	ug/L	P423825	
		Carbamazepine	8.0E-04	U	ug/L	P423825	
		Clothianidin	0.0020	U	ug/L	P423825	
		Dinotefuran	0.0020	U	ug/L	P423825	
		Diuron	0.0020	U	ug/L	P423825	
		Fenuron	0.032	U	ug/L	P423825	
		Fluridone	8.0E-04	U	ug/L	P423825	
		Imazapyr	0.0040	U	ug/L	P423825	
		Hydrocodone	0.0020	U	ug/L	P423825	
		Ibuprofen	0.20	U	ug/L	P423825	
		Imidacloprid	0.0020	U	ug/L	P423825	
		Linuron	0.0040	U	ug/L	P423825	
		Mandestrobin	0.0020	U	ug/L	P423825	
		MCP	0.0040	U	ug/L	P423825	
		Naproxen	0.0080	U	ug/L	P423825	
		Primidone	0.0040	U	ug/L	P423825	
		Pyraclostrobin	0.0020	U	ug/L	P423825	

Field ID: G3NW0116

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2377027	EPA 8321B	Silvex	0.0040	U	ug/L	P423825	
		Thiamethoxam	0.0020	U	ug/L	P423825	
		Tolfenpyrad	0.0020	U	ug/L	P423825	
		Triclopyr	0.0040	U	ug/L	P423825	
2377032	EPA 200.7 Rev. 4.4	Calcium	1.37		mg/L	P423890	
		Iron	110	I	ug/L	P423890	
		Magnesium	0.44		mg/L	P423890	
		Potassium	0.45	I	mg/L	P423890	
		Sodium	1.5	I	mg/L	P423890	
		Strontium	5.4	I	ug/L	P423890	
		Tin	3.0	U	ug/L	P423890	
		Titanium	1.9	I	ug/L	P423890	
		Vanadium	2.0	U	ug/L	P423890	
		Zinc	5.0	U	ug/L	P423890	
	EPA 200.8 Rev. 5.4	Aluminum	124		ug/L	P423890	
		Antimony	0.050	U	ug/L	P423890	
		Arsenic	0.082	I	ug/L	P423890	
		Barium	5.88		ug/L	P423890	
		Beryllium	0.011	I	ug/L	P423890	
		Boron	6.2	I	ug/L	P423890	
		Cadmium	0.020	U	ug/L	P423890	
		Chromium	0.40	U	ug/L	P423890	
		Cobalt	0.099		ug/L	P423890	
		Copper	0.40	U	ug/L	P423890	
		Lead	0.20	U	ug/L	P423890	
		Manganese	4.55		ug/L	P423890	
		Molybdenum	0.15	U	ug/L	P423890	
		Nickel	0.50	U	ug/L	P423890	
		Selenium	0.20	U	ug/L	P423890	
		Silver	0.010	U	ug/L	P423890	
		Thallium	0.10	U	ug/L	P423890	
	SM 2340 B-2011	Hardness	5.2		mg/L	P423890	
2377039	EPA 8270E	Oxybenzone**	10	U	ng/L	P423751	
		Acetochlor	0.26	U	ng/L	P423751	
		Octinoxate**	21	U	ng/L	P423751	
		Alachlor	0.26	U	ng/L	P423751	
		Avobenzone**	100	U	ng/L	P423751	
		Ametryn	0.62	U	ng/L	P423751	
		Atrazine	0.26	U	ng/L	P423751	
		PBDE-47**	4.1	U	ng/L	P423751	
		Atrazine Desethyl	1.5	U	ng/L	P423751	
		PBDE-99**	5.1	U	ng/L	P423751	
		Azinphos Methyl	2.1	U	ng/L	P423751	
		Tri-o-cresyl Phosphate**	6.2	U	ng/L	P423751	
		Azoxystrobin	0.51	U	ng/L	P423751	

Field ID: G3NW0116

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2377039	EPA 8270E	Bromacil	0.51	U	ng/L	P423751	LCS, MS
		2-Ethylhexyl	12	U	ng/L	P423751	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.41	U	ng/L	P423751	
		Dechlorane Plus**	31	U	ng/L	P423751	
		Caffeine**	7.7	U	ng/L	P423751	
		Carbophenothion	0.21	U	ng/L	P423751	
		Carfentrazone Ethyl	0.10	U	ng/L	P423751	
		Chlorfenapyr	0.18	U	ng/L	P423751	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P423751	
		Chlorpyrifos Methyl	0.051	U	ng/L	P423751	
		Coumaphos	0.51	U	ng/L	P423751	
		Cyanazine	3.3	UJ	ng/L	P423751	
		Cyprodinil	0.10	U	ng/L	P423751	
		Demeton	1.5	U	ng/L	P423751	
		Diazinon	0.13	U	ng/L	P423751	
		Difenoconazole	0.62	U	ng/L	P423751	
		Dimethenamid	0.10	U	ng/L	P423751	
		Dimethomorph	0.18	U	ng/L	P423751	
		Disulfoton	0.51	U	ng/L	P423751	
		Dithiopyr	0.64	U	ng/L	P423751	
		EPTC	1.3	U	ng/L	P423751	
		Ethion	0.15	U	ng/L	P423751	
		Ethoprop	0.10	U	ng/L	P423751	
		Etridiazole	0.15	U	ng/L	P423751	
		Fenamiphos	0.51	U	ng/L	P423751	
		Fenbuconazole	0.13	U	ng/L	P423751	
		Fipronil	0.26	U	ng/L	P423751	
		Fipronil Desulfinyl**	0.13	U	ng/L	P423751	
		Fipronil Sulfide	0.15	U	ng/L	P423751	
		Fipronil Sulfone	0.15	U	ng/L	P423751	
		Fluazifop-P-butyl	0.10	U	ng/L	P423751	
		Fludioxonil	0.13	U	ng/L	P423751	
		Flumioxazin	4.6	U	ng/L	P423751	
		Flutolanil	0.10	U	ng/L	P423751	
		Fluxapyroxad	0.10	U	ng/L	P423751	
		Fonofos	0.21	U	ng/L	P423751	
		Hexazinone	0.51	U	ng/L	P423751	
		Imazalil	0.77	U	ng/L	P423751	
		Iprodione	0.62	U	ng/L	P423751	
		Loratadine**	0.36	U	ng/L	P423751	
		Malathion	0.36	U	ng/L	P423751	
		Metalaxyl	0.77	U	ng/L	P423751	
		Metolachlor	0.36	U	ng/L	P423751	
		Metribuzin	1.5	U	ng/L	P423751	

Field ID: G3NW0116

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2377039	EPA 8270E	Mevinphos	1.1	U	ng/L	P423751	
		Molinate	0.31	U	ng/L	P423751	
		Myclobutanil	0.26	U	ng/L	P423751	
		Naled	1.5	U	ng/L	P423751	
		Napropamide	0.41	U	ng/L	P423751	
		Norflurazon	0.51	U	ng/L	P423751	
		Oxadiazon	0.31	U	ng/L	P423751	
		Oxyfluorfen	0.15	U	ng/L	P423751	
		Parathion Ethyl	0.26	U	ng/L	P423751	
		Parathion Methyl	0.57	U	ng/L	P423751	
		Pendimethalin	1.0	U	ng/L	P423751	
		Phenytoin**	3.6	U	ng/L	P423751	
		Phorate	0.54	U	ng/L	P423751	
		Prodiamine	0.18	U	ng/L	P423751	
		Prometon	0.92	U	ng/L	P423751	
		Prometryn	0.21	U	ng/L	P423751	
		Pronamide	0.15	U	ng/L	P423751	
		Propanil	0.13	U	ng/L	P423751	
		Propargite	1.5	U	ng/L	P423751	
		Propiconazole	0.51	U	ng/L	P423751	
		Pyraflufen Ethyl	0.26	U	ng/L	P423751	
		Pyridaben	0.46	U	ng/L	P423751	
		Pyriproxyfen	0.13	U	ng/L	P423751	
		Simazine	0.51	U	ng/L	P423751	
		Stirophos	0.13	U	ng/L	P423751	
		Sulfentrazone	0.51	U	ng/L	P423751	
		Tebuconazole	0.51	U	ng/L	P423751	
		Terbufos	0.10	U	ng/L	P423751	
		Terbutylazine	0.44	U	ng/L	P423751	
		Thiobencarb	0.62	U	ng/L	P423751	
		Triadimefon	0.26	U	ng/L	P423751	

Ref. Method and Comment:

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired upon receipt.

EPA 8270E: MS accuracy for bromacil and norflurazon not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Non-Conformance Report

NCR ID: 9681

Event(s)

NW-DIST-2022-12-21-03

Job(s)

TLH-2022-12-21-61

Sample(s)

2377020

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Samples arrived late

Observation: Samples arrived late, samples received within the acceptable temperature range.

Resolution: Samples will be qualified as appropriate.

Authorized by/Date: Kyle Klug 1/5/2023

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P423837

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P423845

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423847

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423848

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423890

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: P423890

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	E	ug/L
Molybdenum	0.15	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423890

Component	Result	Code	Units
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: P424209

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424400

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424305

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424049

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P424014

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424134

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424135

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423849

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P423751

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P423751

Component	Result	Code	Units
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.62	U	ng/L
Dithiopyr	0.62	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	4.5	U	ng/L
Flumioxazin	4.5	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.35	U	ng/L
Loratadine	0.35	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	1.5	U	ng/L
Metribuzin	1.5	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P423751

Component	Result	Code	Units
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytoin	3.5	U	ng/L
Phenytoin	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P423751

Component	Result	Code	Units
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B

Batch ID: P423755

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: P423825

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.20	U	ug/L
Imazapyr	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P423825

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

Reference Method: SM 2320 B-2011
Batch ID: P424045

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

Reference Method: SM 2320 B-2011
Batch ID: P424167

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

Reference Method: SM 2540 C-2015
Batch ID: P424227

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P424117

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P424392

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P424182

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: P423837

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.3		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P423845

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.7		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423847

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423848

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423890

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	94.3		P	85 - 115
Iron	97.6		P	85 - 115
Magnesium	99.7		P	85 - 115
Potassium	94.6		P	85 - 115
Sodium	96.4		P	85 - 115
Strontium	102		P	85 - 115
Tin	98.4		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	98.6		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423890

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.5		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	103		P	85 - 115
Barium	104		P	85 - 115
Beryllium	94.7		P	85 - 115
Boron	97.3		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	97.7		P	85 - 115
Cobalt	104		P	85 - 115
Copper	106		P	85 - 115
Lead	95.0		P	85 - 115
Manganese	100		P	85 - 115
Molybdenum	102		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423890

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Nickel	106		P	85 - 115
Selenium	106		P	85 - 115
Silver	103		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424209

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424400

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424305

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424049

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: P424014

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: P424134

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424135

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: P423849

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P423751

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	81.5		P	42 - 162
Acetochlor	88.5		P	69 - 123
Alachlor	79.3		P	65 - 118
Ametryn	111		P	58 - 141
Atrazine	101		P	73 - 118
Atrazine Desethyl	73.6		P	32 - 125
Avobenzone	115		P	40 - 203
Azinphos Methyl	133		P	36 - 197
Azoxystrobin	101		P	58 - 226
Bromacil	107		P	48 - 120
Butylate	57.8		P	27 - 85.0
Caffeine	98.8		P	40 - 137
Carbophenothion	100		P	54 - 132
Carfentrazone Ethyl	99.0		P	60 - 142
Chlorfenapyr	63.5		P	53 - 117
Chlorpyrifos Ethyl	83.1		P	59 - 116
Chlorpyrifos Methyl	89.8		P	66 - 119
Coumaphos	225		P	11 - 234
Cyanazine	264		F	61 - 248
Cyprodinil	95.2		P	50 - 147
Dechlorane Plus	105		P	47 - 182
Demeton	65.0		P	30 - 138
Diazinon	91.1		P	67 - 126
Difenoconazole	95.4		P	38 - 205
Dimethenamid	103		P	57 - 111
Dimethomorph	121		P	16 - 212
Disulfoton	69.3		P	46 - 126
Dithiopyr	85.2		P	62 - 115
EPTC	47.1		P	28 - 80.0
Ethion	68.8		P	24 - 122
Ethoprop	72.7		P	62 - 113
Etridiazole	43.2		P	28 - 92.0
Fenamiphos	103		P	57 - 128
Fenbuconazole	99.2		P	52 - 155
Fipronil	73.9		P	63 - 130
Fipronil Desulfinyl	101		P	61 - 130
Fipronil Sulfide	69.5		P	56 - 117
Fipronil Sulfone	99.7		P	52 - 118
Fluazifop-P-butyl	111		P	61 - 128
Fludioxonil	114		P	59 - 129
Flumioxazin	103		P	30 - 250
Flutolanil	106		P	53 - 127
Fluxapyroxad	92.4		P	42 - 132
Fonofos	77.6		P	61 - 110
Hexazinone	97.3		P	46 - 139
Imazalil	115		P	40 - 139
Iprodione	130		P	40 - 146
Loratadine	120		P	10 - 224
Malathion	86.0		P	61 - 135
Metalaxyl	115		P	58 - 121
Metolachlor	99.8		P	64 - 118
Metribuzin	96.4		P	45 - 245

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P423751

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Mevinphos	80.0		P	49 - 118
Molinate	57.1		P	42 - 92.0
Myclobutanil	80.2		P	55 - 127
Naled	111		P	10 - 114
Napropamide	51.5		P	39 - 121
Norflurazon	119		P	55 - 129
Octinoxate	76.2		P	26 - 166
Oxadiazon	76.4		P	54 - 115
Oxybenzone	71.6		P	49 - 135
Oxyfluorfen	74.8		P	64 - 139
Parathion Ethyl	93.6		P	70 - 111
Parathion Methyl	97.7		P	76 - 136
PBDE-47	76.5		P	41 - 148
PBDE-99	80.5		P	38 - 147
Pendimethalin	76.9		P	52 - 118
Phenytoin	25.6		P	10 - 162
Phorate	68.2		P	40 - 122
Prodiamine	86.5		P	26 - 141
Prometon	97.6		P	54 - 122
Prometryn	89.9		P	61 - 128
Pronamide	76.1		P	72 - 121
Propanil	111		P	45 - 144
Propargite	76.2		P	10 - 199
Propiconazole	79.5		P	56 - 127
Pyraflufen Ethyl	77.6		P	56 - 140
Pyridaben	117		P	26 - 211
Pyriproxyfen	106		P	33 - 194
Simazine	91.0		P	67 - 121
Stirophos	83.4		P	20 - 142
Sulfentrazone	60.4		P	21 - 144
Tebuconazole	77.8		P	10 - 122
Terbufos	80.7		P	60 - 129
Terbutylazine	89.9		P	69 - 113
Thiobencarb	102		P	51 - 120
Tri-o-cresyl Phosphate	80.8		P	49 - 150
Triadimefon	74.2		P	56 - 114

Reference Method: EPA 8321B

Batch ID: P423755

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	71.4		P	40 - 150
AMPA	90.8		P	40 - 150
Endothall	124		P	40 - 150
Glufosinate	106		P	40 - 150
Glyphosate	108		P	40 - 150
Sucralose	122		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P423825

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

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P423825

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	89.5		P	40 - 150
2,4,5-T	76.1		P	40 - 150
Acetaminophen	80.5		P	30 - 150
Acetamiprid	73.3		P	40 - 150
Afidopyropen	56.1		P	30 - 150
Bentazon	97.4		P	30 - 150
Benzovindiflupyr	79.9		P	40 - 150
Carbamazepine	90.0		P	40 - 150
Clothianidin	82.5		P	40 - 150
Dinotefuran	81.8		P	40 - 150
Diuron	90.9		P	40 - 150
Fenuron	93.9		P	40 - 150
Fluridone	89.2		P	40 - 150
Hydrocodone	86.1		P	40 - 150
Ibuprofen	91.6		P	40 - 150
Imazapyr	88.3		P	40 - 150
Imidacloprid	90.3		P	40 - 150
Linuron	68.5		P	40 - 150
Mandestrobin	88.3		P	40 - 150
MCPP	97.9		P	40 - 150
Naproxen	84.9		P	40 - 150
Primidone	85.2		P	40 - 150
Pyraclostrobin	76.5		P	40 - 150
Silvex	77.8		P	40 - 150
Thiamethoxam	87.8		P	40 - 150
Tolfenpyrad	48.0		P	30 - 150
Triclopyr	80.2		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P424045

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.6		P	94 - 106

Reference Method: SM 2320 B-2011

Batch ID: P424167

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.0		P	94 - 106

Reference Method: SM 2540 C-2015

Batch ID: P424227

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.9		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P424117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	88.6		P	85 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P424392

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P424182

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P423890

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2377032	Calcium	104	102	P/P	80 - 120
2377032	Iron	92.7	94.9	P/P	80 - 120
2377032	Magnesium	94.0	96.0	P/P	80 - 120
2377032	Potassium	89.3	91.2	P/P	80 - 120
2377032	Sodium	89.3	91.3	P/P	80 - 120
2377032	Strontium	101	102	P/P	80 - 120
2377032	Tin	93.9	95.1	P/P	80 - 120
2377032	Titanium	97.1	102	P/P	80 - 120
2377032	Vanadium	93.7	94.6	P/P	80 - 120
2377032	Zinc	101	100	P/P	80 - 120
2377096	Calcium	103		P	80 - 120
2377096	Iron	104		P	80 - 120
2377096	Magnesium	107		P	80 - 120
2377096	Potassium	96.9		P	80 - 120
2377096	Sodium	105		P	80 - 120
2377096	Strontium	112		P	80 - 120
2377096	Tin	104		P	80 - 120
2377096	Titanium	99.0		P	80 - 120
2377096	Vanadium	104		P	80 - 120
2377096	Zinc	98.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P423890

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2377032	Aluminum	98.4	102	P/P	80 - 120
2377032	Antimony	104	107	P/P	80 - 120
2377032	Arsenic	102	104	P/P	80 - 120
2377032	Barium	104	106	P/P	80 - 120
2377032	Beryllium	97.3	102	P/P	80 - 120
2377032	Boron	98.3	99.8	P/P	80 - 120
2377032	Cadmium	105	108	P/P	80 - 120
2377032	Chromium	99.2	102	P/P	80 - 120
2377032	Cobalt	102	106	P/P	80 - 120
2377032	Copper	106	108	P/P	80 - 120
2377032	Lead	96.0	98.4	P/P	80 - 120
2377032	Manganese	101	104	P/P	80 - 120
2377032	Molybdenum	102	105	P/P	80 - 120
2377032	Nickel	104	107	P/P	80 - 120
2377032	Selenium	106	108	P/P	80 - 120
2377032	Silver	103	105	P/P	80 - 120
2377032	Thallium	103	106	P/P	80 - 120
2377096	Aluminum	101		P	80 - 120
2377096	Antimony	107		P	80 - 120
2377096	Arsenic	102		P	80 - 120
2377096	Barium	107		P	80 - 120
2377096	Beryllium	100		P	80 - 120
2377096	Boron	102		P	80 - 120
2377096	Cadmium	107		P	80 - 120
2377096	Chromium	103		P	80 - 120
2377096	Cobalt	105		P	80 - 120
2377096	Copper	109		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423890

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2377096	Lead	98.6		P	80 - 120
2377096	Manganese	106		P	80 - 120
2377096	Molybdenum	105		P	80 - 120
2377096	Nickel	108		P	80 - 120
2377096	Selenium	109		P	80 - 120
2377096	Silver	105		P	80 - 120
2377096	Thallium	104		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424209

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376969	Sulfate	95.4		P	90 - 110
2377150	Sulfate	95.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424400

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376969	Chloride	97.8		P	90 - 110
2377150	Chloride	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424305

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2377017	Ammonia-N	99.6	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424049

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376971	Kjeldahl Nitrogen	101	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P424014

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376951	NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376934	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424135

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2377087	Total-P	105	105	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P423849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376903	O-Phosphate-P	97.6	97.5	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P423751

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375943	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	79.6	86.8	P/P	26 - 165
2375943	Acetochlor	85.2	89.1	P/P	67 - 124
2375943	Alachlor	77.6	74.4	P/P	60 - 120
2375943	Ametryn	138	143	P/P	54 - 216
2375943	Atrazine	113	110	P/P	66 - 128
2375943	Atrazine Desethyl	65.7	72.0	P/P	15 - 122
2375943	Avobenzone	93.3	119	P/P	37 - 178
2375943	Azinphos Methyl	145	157	P/P	40 - 292
2375943	Azoxystrobin	109	126	P/P	35 - 220
2375943	Butylate	55.1	61.3	P/P	20 - 83.0
2375943	Caffeine	98.3	97.2	P/P	10 - 194
2375943	Carbophenothion	122	122	P/P	57 - 127
2375943	Carfentrazone Ethyl	108	109	P/P	51 - 141
2375943	Chlorfenapyr	80.2	80.9	P/P	46 - 111
2375943	Chlorpyrifos Ethyl	110	120	P/P	52 - 120
2375943	Chlorpyrifos Methyl	86.0	106	P/P	63 - 119
2375943	Coumaphos	217	222	P/P	10 - 228
2375943	Cyanazine	279	303	F/F	59 - 241
2375943	Cyprodinil	89.6	105	P/P	47 - 146
2375943	Dechlorane Plus	79.5	96.6	P/P	50 - 150
2375943	Demeton	70.7	79.6	P/P	40 - 136
2375943	Diazinon	99.6	119	P/P	69 - 132
2375943	Difenoconazole	192	140	P/P	57 - 258
2375943	Dimethenamid	86.3	87.3	P/P	54 - 110
2375943	Dimethomorph	109	167	P/P	28 - 210
2375943	Disulfoton	79.5	81.5	P/P	43 - 133
2375943	Dithiopyr	91.9	99.7	P/P	39 - 116
2375943	EPTC	48.7	55.8	P/P	20 - 78.0
2375943	Ethion	70.1	83.0	P/P	17 - 119
2375943	Ethoprop	84.1	112	P/P	66 - 120
2375943	Etridiazole	47.3	44.6	P/P	28 - 96.0
2375943	Fenamiphos	122	122	P/P	41 - 126
2375943	Fenbuconazole	113	131	P/P	42 - 169
2375943	Fipronil	100	91.2	P/P	61 - 132
2375943	Fipronil Desulfinyl	83.7	106	P/P	56 - 132
2375943	Fipronil Sulfide	99.3	78.4	P/P	48 - 119
2375943	Fipronil Sulfone	104	117	P/P	42 - 131
2375943	Fluazifop-P-butyl	117	130	P/P	53 - 131
2375943	Fludioxonil	107	125	P/P	56 - 127
2375943	Flumioxazin	205	204	P/P	19 - 300
2375943	Flutolanil	123	124	P/P	41 - 127
2375943	Fluxapyroxad	135	120	P/P	42 - 172
2375943	Fonofos	89.3	111	P/P	59 - 113
2375943	Hexazinone	105	116	P/P	66 - 122
2375943	Imazalil	111	117	P/P	21 - 283
2375943	Iprodione	108	104	P/P	43 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P423751

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375943	Loratadine	154	161	P/P	23 - 201
2375943	Malathion	106	111	P/P	58 - 136
2375943	Metalaxyl	103	101	P/P	55 - 120
2375943	Metolachlor	91.9	84.4	P/P	57 - 121
2375943	Metribuzin	99.0	117	P/P	58 - 294
2375943	Mevinphos	94.1	102	P/P	50 - 126
2375943	Molinate	68.9	76.2	P/P	42 - 93.0
2375943	Myclobutanil	121	123	P/P	55 - 125
2375943	Naled	113	132	P/P	18 - 200
2375943	Napropamide	63.2	65.9	P/P	39 - 110
2375943	Octinoxate	63.0	77.4	P/P	21 - 159
2375943	Oxadiazon	88.4	97.3	P/P	43 - 112
2375943	Oxybenzone	62.2	73.4	P/P	41 - 142
2375943	Oxyfluorfen	88.6	95.3	P/P	64 - 153
2375943	Parathion Ethyl	106	111	P/P	69 - 114
2375943	Parathion Methyl	105	137	P/P	79 - 139
2375943	PBDE-47	63.8	76.8	P/P	27 - 144
2375943	PBDE-99	68.3	81.0	P/P	18 - 150
2375943	Pendimethalin	116	123	P/P	50 - 139
2375943	Phenytol	72.1	59.6	P/P	10 - 146
2375943	Phorate	74.0	102	P/P	54 - 161
2375943	Prodiamine	94.0	104	P/P	30 - 161
2375943	Prometon	112	115	P/P	45 - 134
2375943	Prometryn	86.9	103	P/P	45 - 137
2375943	Pronamide	84.3	87.1	P/P	65 - 133
2375943	Propanil	99.2	123	P/P	49 - 142
2375943	Propargite	101	97.9	P/P	10 - 203
2375943	Propiconazole	106	105	P/P	38 - 146
2375943	Pyraflufen Ethyl	105	85.9	P/P	34 - 153
2375943	Pyridaben	112	128	P/P	12 - 192
2375943	Pyriproxyfen	105	120	P/P	33 - 180
2375943	Simazine	113	117	P/P	51 - 157
2375943	Stiropfos	108	105	P/P	10 - 128
2375943	Sulfentrazone	147	162	P/P	53 - 186
2375943	Tebuconazole	93.5	92.8	P/P	10 - 133
2375943	Terbufos	92.2	123	P/P	65 - 139
2375943	Terbuthylazine	86.6	89.6	P/P	66 - 117
2375943	Thiobencarb	99.0	102	P/P	51 - 119
2375943	Tri-o-cresyl Phosphate	66.5	79.7	P/P	31 - 144
2375943	Triadimefon	72.9	63.5	P/P	48 - 119

Reference Method: EPA 8321B
Batch ID: P423755

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376518	Acesulfame K	46.9	41.6	P/P	40 - 150
2376518	AMPA	87.8	90.6	P/P	40 - 150
2376518	Endothall	157	155	F/F	40 - 150
2376518	Glufosinate	124	124	P/P	40 - 150
2376518	Glyphosate	117	105	P/P	40 - 150
2376518	Sucralose	97.1	101	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P423825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376968	2,4-D	97.0	75.4	P/P	40 - 150
2376968	2,4,5-T	78.5	60.9	P/P	40 - 150
2376968	Acetaminophen	90.3	86.6	P/P	30 - 150
2376968	Acetamiprid	86.9	68.8	P/P	40 - 150
2376968	Afidopyropen	66.9	53.4	P/P	30 - 150
2376968	Bentazon	58.1	64.0	P/P	30 - 150
2376968	Benzovindiflupyr	92.2	79.0	P/P	40 - 150
2376968	Carbamazepine	84.1	77.4	P/P	40 - 150
2376968	Clothianidin	105	90.9	P/P	40 - 150
2376968	Dinotefuran	102	89.8	P/P	40 - 150
2376968	Diuron	85.1	73.9	P/P	40 - 150
2376968	Fenuron	93.1	83.3	P/P	40 - 150
2376968	Fluridone	81.6	78.4	P/P	40 - 150
2376968	Hydrocodone	98.1	84.1	P/P	40 - 150
2376968	Ibuprofen	92.2	80.3	P/P	40 - 150
2376968	Imazapyr	120	105	P/P	40 - 150
2376968	Imidacloprid	143	114	P/P	40 - 150
2376968	Linuron	78.9	71.1	P/P	40 - 150
2376968	Mandestrobin	96.1	85.6	P/P	40 - 150
2376968	MCCP	102	79.0	P/P	40 - 150
2376968	Naproxen	83.4	74.0	P/P	40 - 150
2376968	Primidone	114	98.2	P/P	40 - 150
2376968	Pyraclostrobin	85.3	76.7	P/P	40 - 150
2376968	Silvex	79.8	69.7	P/P	40 - 150
2376968	Thiamethoxam	116	98.4	P/P	40 - 150
2376968	Tolfenpyrad	56.2	52.1	P/P	30 - 150
2376968	Triclopyr	80.2	61.1	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P424392

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2377380	Fluoride	96.4	97.0	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P424182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2377374	Organic Carbon	97.4	96.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P423837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376933	Color (true)	1.08	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P423845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376995	Color (true)	1.98	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2377016	Turbidity	2.18	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423848

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376906	Turbidity	5.24	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423890

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2377032	Calcium	1.86	Spike	P	0 - 20
2377032	Iron	2.26	Spike	P	0 - 20
2377032	Magnesium	1.88	Spike	P	0 - 20
2377032	Potassium	1.85	Spike	P	0 - 20
2377032	Sodium	1.62	Spike	P	0 - 20
2377032	Strontium	1.79	Spike	P	0 - 20
2377032	Tin	1.37	Spike	P	0 - 20
2377032	Titanium	5.15	Spike	P	0 - 20
2377032	Vanadium	1.04	Spike	P	0 - 20
2377032	Zinc	0.697	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423890

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2377032	Aluminum	2.65	Spike	P	0 - 20
2377032	Antimony	2.10	Spike	P	0 - 20
2377032	Arsenic	2.38	Spike	P	0 - 20
2377032	Barium	2.42	Spike	P	0 - 20
2377032	Beryllium	4.14	Spike	P	0 - 20
2377032	Boron	1.49	Spike	P	0 - 20
2377032	Cadmium	2.68	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P423890

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2377032	Chromium	2.71	Spike	P	0 - 20
2377032	Cobalt	3.35	Spike	P	0 - 20
2377032	Copper	1.89	Spike	P	0 - 20
2377032	Lead	2.47	Spike	P	0 - 20
2377032	Manganese	2.58	Spike	P	0 - 20
2377032	Molybdenum	2.81	Spike	P	0 - 20
2377032	Nickel	2.55	Spike	P	0 - 20
2377032	Selenium	2.31	Spike	P	0 - 20
2377032	Silver	1.55	Spike	P	0 - 20
2377032	Thallium	2.93	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P424209

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376969	Sulfate	1.76	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P424400

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376969	Chloride	0.284	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P424305

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2377017	Ammonia-N	1.49	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P424049

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376971	Kjeldahl Nitrogen	1.00	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P424014

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376951	NO2NO3-N	0.663	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P424134

Replicated

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P424134

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376934	Total-P	0.0240	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P424135

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2377087	Total-P	0.499	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P423849

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376903	O-Phosphate-P	0.103	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P423751

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375943	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	8.66	Spike	P	0 - 37
2375943	Acetochlor	4.53	Spike	P	0 - 28
2375943	Alachlor	4.22	Spike	P	0 - 30
2375943	Ametryn	3.80	Spike	P	0 - 32
2375943	Atrazine	1.82	Spike	P	0 - 41
2375943	Atrazine Desethyl	9.09	Spike	P	0 - 36
2375943	Avobenzone	24.4	Spike	P	0 - 36
2375943	Azinphos Methyl	7.69	Spike	P	0 - 75
2375943	Azoxystrobin	14.4	Spike	P	0 - 39
2375943	Bromacil	14.5	Spike	P	0 - 33
2375943	Butylate	10.7	Spike	P	0 - 44
2375943	Caffeine	1.08	Spike	P	0 - 74
2375943	Carbophenothion	0.388	Spike	P	0 - 25
2375943	Carfentrazone Ethyl	0.720	Spike	P	0 - 27
2375943	Chlorfenapyr	0.885	Spike	P	0 - 24
2375943	Chlorpyrifos Ethyl	8.69	Spike	P	0 - 26
2375943	Chlorpyrifos Methyl	20.6	Spike	P	0 - 26
2375943	Coumaphos	2.20	Spike	P	0 - 28
2375943	Cyanazine	8.25	Spike	P	0 - 48
2375943	Cyprodinil	15.6	Spike	P	0 - 29
2375943	Dechlorane Plus	19.4	Spike	P	0 - 30
2375943	Demeton	11.9	Spike	P	0 - 33
2375943	Diazinon	17.5	Spike	P	0 - 29
2375943	Difenoconazole	31.6	Spike	P	0 - 34
2375943	Dimethenamid	1.18	Spike	P	0 - 39
2375943	Dimethomorph	42.2	Spike	P	0 - 51
2375943	Disulfoton	2.53	Spike	P	0 - 30
2375943	Dithiopyr	8.10	Spike	P	0 - 26
2375943	EPTC	13.5	Spike	P	0 - 43
2375943	Ethion	16.8	Spike	P	0 - 79

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P423751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375943	Ethoprop	28.7	Spike	P	0 - 29
2375943	Etridiazole	6.05	Spike	P	0 - 33
2375943	Fenamiphos	0.00973	Spike	P	0 - 40
2375943	Fenbuconazole	15.0	Spike	P	0 - 74
2375943	Fipronil	8.10	Spike	P	0 - 29
2375943	Fipronil Desulfinyl	23.5	Spike	P	0 - 32
2375943	Fipronil Sulfide	21.4	Spike	P	0 - 30
2375943	Fipronil Sulfone	8.99	Spike	P	0 - 33
2375943	Fluazifop-P-butyl	10.6	Spike	P	0 - 38
2375943	Fludioxonil	15.4	Spike	P	0 - 29
2375943	Flumioxazin	0.675	Spike	P	0 - 51
2375943	Flutolanil	0.696	Spike	P	0 - 25
2375943	Fluxapyroxad	12.0	Spike	P	0 - 45
2375943	Fonofos	22.1	Spike	P	0 - 27
2375943	Hexazinone	8.63	Spike	P	0 - 30
2375943	Imazalil	5.31	Spike	P	0 - 100
2375943	Iprodione	4.09	Spike	P	0 - 33
2375943	Loratadine	4.75	Spike	P	0 - 56
2375943	Malathion	4.26	Spike	P	0 - 37
2375943	Metalaxyl	1.17	Spike	P	0 - 40
2375943	Metolachlor	5.45	Spike	P	0 - 29
2375943	Metribuzin	16.3	Spike	P	0 - 45
2375943	Mevinphos	8.06	Spike	P	0 - 29
2375943	Molinate	10.1	Spike	P	0 - 33
2375943	Myclobutanil	1.65	Spike	P	0 - 26
2375943	Naled	15.7	Spike	P	0 - 37
2375943	Napropamide	4.12	Spike	P	0 - 44
2375943	Norflurazon	13.3	Spike	P	0 - 30
2375943	Octinoxate	20.6	Spike	P	0 - 45
2375943	Oxadiazon	9.57	Spike	P	0 - 28
2375943	Oxybenzone	16.6	Spike	P	0 - 46
2375943	Oxyfluorfen	7.27	Spike	P	0 - 28
2375943	Parathion Ethyl	4.61	Spike	P	0 - 31
2375943	Parathion Methyl	26.7	Spike	P	0 - 29
2375943	PBDE-47	18.5	Spike	P	0 - 36
2375943	PBDE-99	17.1	Spike	P	0 - 40
2375943	Pendimethalin	5.84	Spike	P	0 - 33
2375943	Phenytoin	18.9	Spike	P	0 - 100
2375943	Phorate	31.6	Spike	P	0 - 36
2375943	Prodiamine	9.15	Spike	P	0 - 71
2375943	Prometon	2.56	Spike	P	0 - 36
2375943	Prometryn	17.3	Spike	P	0 - 28
2375943	Pronamide	3.29	Spike	P	0 - 24
2375943	Propanil	21.2	Spike	P	0 - 28
2375943	Propargite	3.46	Spike	P	0 - 43
2375943	Propiconazole	1.04	Spike	P	0 - 33
2375943	Pyraflufen Ethyl	20.2	Spike	P	0 - 29
2375943	Pyridaben	13.9	Spike	P	0 - 30
2375943	Pyriproxyfen	14.0	Spike	P	0 - 79
2375943	Simazine	2.79	Spike	P	0 - 29
2375943	Stirophos	2.79	Spike	P	0 - 61

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P423751

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375943	Sulfentrazone	8.78	Spike	P	0 - 33
2375943	Tebuconazole	0.717	Spike	P	0 - 69
2375943	Terbufos	28.3	Spike	P	0 - 29
2375943	Terbuthylazine	3.43	Spike	P	0 - 32
2375943	Thiobencarb	3.17	Spike	P	0 - 26
2375943	Tri-o-cresyl Phosphate	18.0	Spike	P	0 - 33
2375943	Triadimefon	13.8	Spike	P	0 - 28

Reference Method: EPA 8321B

Batch ID: P423755

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376518	Acesulfame K	11.9	Spike	P	0 - 30
2376518	AMPA	3.18	Spike	P	0 - 30
2376518	Endothall	0.989	Spike	P	0 - 30
2376518	Glufosinate	0.519	Spike	P	0 - 30
2376518	Glyphosate	10.6	Spike	P	0 - 30
2376518	Sucralose	4.08	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P423825

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376968	2,4-D	25.1	Spike	P	0 - 30
2376968	2,4,5-T	25.3	Spike	P	0 - 30
2376968	Acetaminophen	4.21	Spike	P	0 - 30
2376968	Acetamiprid	23.2	Spike	P	0 - 30
2376968	Afidopyropen	22.4	Spike	P	0 - 30
2376968	Bentazon	7.43	Spike	P	0 - 30
2376968	Benzovindiflupyr	15.4	Spike	P	0 - 30
2376968	Carbamazepine	7.84	Spike	P	0 - 30
2376968	Clothianidin	12.4	Spike	P	0 - 30
2376968	Dinotefuran	13.0	Spike	P	0 - 30
2376968	Diuron	14.0	Spike	P	0 - 30
2376968	Fenuron	11.1	Spike	P	0 - 30
2376968	Fluridone	3.90	Spike	P	0 - 30
2376968	Hydrocodone	15.5	Spike	P	0 - 30
2376968	Ibuprofen	13.8	Spike	P	0 - 30
2376968	Imazapyr	12.8	Spike	P	0 - 30
2376968	Imidacloprid	18.2	Spike	P	0 - 30
2376968	Linuron	10.3	Spike	P	0 - 30
2376968	Mandestrobin	11.5	Spike	P	0 - 30
2376968	MCPP	25.6	Spike	P	0 - 30
2376968	Naproxen	12.0	Spike	P	0 - 30
2376968	Primidone	14.2	Spike	P	0 - 30
2376968	Pyraclostrobin	10.7	Spike	P	0 - 30
2376968	Silvex	13.5	Spike	P	0 - 30
2376968	Thiamethoxam	16.5	Spike	P	0 - 30
2376968	Tolfenpyrad	7.49	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P423825

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376968	Triclopyr	27.0	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P424045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376296	Total Alkalinity	0.484	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P424167

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2377457	Total Alkalinity	0.646	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P424227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376970	TDS	5.76	Sample	P	0 - 10

Reference Method: SM 2540 D-2015
Batch ID: P424117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376970	TSS	6.06	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P424392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2377380	Fluoride	0.500	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P424182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2377374	Organic Carbon	0.325	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2377026

Field Sample ID: G3NW0227

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	108	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.7	P	30 - 160
EPA 8321B	Diuron-d6	86.6	P	30 - 160
EPA 8321B	Endothall-d6	124	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	104	P	30 - 160
EPA 8321B	Ibuprofen-d3	89.3	P	30 - 160
EPA 8321B	Primidone-d5	94.1	P	30 - 160
EPA 8321B	Sucralose-d6	74.8	P	30 - 160

Lab Sample ID: 2377027

Field Sample ID: G3NW0116

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	79.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	88.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.7	P	30 - 160
EPA 8321B	Diuron-d6	83.2	P	30 - 160
EPA 8321B	Endothall-d6	123	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	30 - 160
EPA 8321B	Ibuprofen-d3	67.8	P	30 - 160
EPA 8321B	Primidone-d5	81.6	P	30 - 160
EPA 8321B	Sucralose-d6	69.8	P	30 - 160

Lab Sample ID: 2377038

Field Sample ID: G3NW0227

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	74.4	P	20 - 200
EPA 8270E	Simazine-d10	111	P	62 - 142
EPA 8270E	Terbufos-d10	119	P	58 - 132
EPA 8270E	Terphenyl-d14	78.6	P	52 - 137

Lab Sample ID: 2377039

Field Sample ID: G3NW0116

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	56.3	P	20 - 200
EPA 8270E	Simazine-d10	95.9	P	62 - 142
EPA 8270E	Terbufos-d10	96.7	P	58 - 132
EPA 8270E	Terphenyl-d14	74.7	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A116599

Included Lab Sample IDs: 2377016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A116605

Included Lab Sample IDs: 2377015

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.3	98.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A116606

Included Lab Sample IDs: 2377015, 2377016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A116607

Included Lab Sample IDs: 2377019, 2377020

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A116624

Included Lab Sample IDs: 2377026, 2377027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.7	82.7	P/P	60 - 160
Sucralose	117	129	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A116625

Included Lab Sample IDs: 2377026, 2377027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	100	104	P/P	60 - 160
Endothall	125	118	P/P	60 - 160
Glufosinate	97.9	92.8	P/P	60 - 160
Glyphosate	104	101	P/P	60 - 160

Reference Method: EPA 8270E

Run ID: A116648

Included Lab Sample IDs: 2377038, 2377039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	101		P	80 - 120
Avobenzone	109		P	80 - 120
Dechlorane Plus	101		P	80 - 120
Octinoxate	91.7		P	80 - 120
Oxybenzone	92.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A116648

Included Lab Sample IDs: 2377038, 2377039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PBDE-47	95.8		P	80 - 120
PBDE-99	99.6		P	80 - 120
Tri-o-cresyl Phosphate	94.8		P	80 - 120

Reference Method: EPA 8270E

Run ID: A116658

Included Lab Sample IDs: 2377038, 2377039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	89.9		P	80 - 120
Alachlor	96.2		P	80 - 120
Ametryn	97.6		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	111		P	80 - 120
Azinphos Methyl	84.7		P	80 - 120
Azoxystrobin	90.3		P	80 - 120
Bromacil	115		P	80 - 120
Butylate	99.9		P	80 - 120
Caffeine	98.8		P	80 - 120
Carbophenothion	110		P	80 - 120
Chlorfenapyr	97.6		P	80 - 120
Chlorpyrifos Ethyl	118		P	80 - 120
Chlorpyrifos Methyl	88.4		P	80 - 120
Coumaphos	89.3		P	80 - 120
Cyprodinil	99.3		P	80 - 120
Demeton	87.3		P	80 - 120
Diazinon	90.2		P	80 - 120
Difenoconazole	84.4		P	80 - 120
Dimethenamid	108		P	80 - 120
Dimethomorph	82.6		P	80 - 120
Disulfoton	87.9		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	105		P	80 - 120
Ethion	98.9		P	80 - 120
Ethoprop	119		P	80 - 120
Etridiazole	83.7		P	80 - 120
Fenamiphos	108		P	80 - 120
Fenbuconazole	83.6		P	80 - 120
Fipronil	114		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	101		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fluazifop-P-butyl	113		P	80 - 120
Fludioxonil	102		P	80 - 120
Flumioxazin	112		P	80 - 120
Flutolanil	107		P	80 - 120
Fluxapyroxad	92.2		P	80 - 120
Fonofos	97.8		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	115		P	80 - 120
Iprodione	93.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A116658

Included Lab Sample IDs: 2377038, 2377039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Loratadine	86.9		P	80 - 120
Malathion	100		P	80 - 120
Metalaxyl	120		P	80 - 120
Metolachlor	120		P	80 - 120
Metribuzin	104		P	80 - 120
Molinate	94.5		P	80 - 120
Myclobutanil	95.0		P	80 - 120
Naled	118		P	80 - 120
Napropamide	87.1		P	80 - 120
Norflurazon	118		P	80 - 120
Oxadiazon	99.6		P	80 - 120
Oxyfluorfen	87.3		P	80 - 120
Parathion Ethyl	93.4		P	80 - 120
Parathion Methyl	81.6		P	80 - 120
Pendimethalin	109		P	80 - 120
Phenytoin	115		P	80 - 120
Phorate	119		P	80 - 120
Prodiamine	106		P	80 - 120
Prometon	90.1		P	80 - 120
Prometryn	112		P	80 - 120
Pronamide	80.8		P	80 - 120
Propanil	100		P	80 - 120
Propargite	108		P	80 - 120
Propiconazole	117		P	80 - 120
Pyraflufen Ethyl	97.8		P	80 - 120
Pyridaben	81.9		P	80 - 120
Pyriproxyfen	88.3		P	80 - 120
Simazine	108		P	80 - 120
Stirophos	102		P	80 - 120
Sulfentrazone	100		P	80 - 120
Tebuconazole	108		P	80 - 120
Terbufos	92.8		P	80 - 120
Terbuthylazine	106		P	80 - 120
Thiobencarb	106		P	80 - 120
Triadimefon	114		P	80 - 120

Reference Method: EPA 8270E

Run ID: A116679

Included Lab Sample IDs: 2377038, 2377039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carfentrazone Ethyl	92.2		P	80 - 120
Cyanazine	97.5		P	80 - 120
Mevinphos	93.5		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A116681

Included Lab Sample IDs: 2377017, 2377018

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	105	106	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A116697

Included Lab Sample IDs: 2377016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.6	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A116714

Included Lab Sample IDs: 2377026, 2377027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.6	91.5	P/P	50 - 150
2,4,5-T	111	105	P/P	50 - 150
Acetaminophen	105	104	P/P	60 - 160
Acetamiprid	101	98.9	P/P	50 - 150
Afidopyropen	80.8	95.5	P/P	50 - 150
Bentazon	118	111	P/P	50 - 160
Benzovindiflupyr	97.5	107	P/P	50 - 150
Carbamazepine	113	108	P/P	60 - 150
Clothianidin	92.1	94.7	P/P	60 - 150
Dinotefuran	93.8	95.9	P/P	50 - 150
Diuron	119	120	P/P	60 - 160
Fenuron	94.9	98.6	P/P	60 - 150
Fluridone	102	99.5	P/P	60 - 160
Hydrocodone	105	97.4	P/P	60 - 150
Ibuprofen	147	72.1	P/P	50 - 160
Imazapyr	94.9	99.1	P/P	50 - 150
Imidacloprid	103	97.2	P/P	60 - 150
Linuron	93.8	85.1	P/P	60 - 150
Mandestrobin	106	102	P/P	50 - 150
MCPP	105	95.9	P/P	50 - 150
Naproxen	150	99.9	P/P	50 - 160
Primidone	112	110	P/P	60 - 150
Pyraclostrobin	112	111	P/P	60 - 150
Silvex	106	104	P/P	50 - 150
Thiamethoxam	94.6	93.0	P/P	50 - 150
Tolfenpyrad	103	98.7	P/P	60 - 150
Triclopyr	113	97.2	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A116716

Included Lab Sample IDs: 2377015, 2377016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	96.2	101	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A116751

Included Lab Sample IDs: 2377015

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.5	95.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A116757

Included Lab Sample IDs: 2377017, 2377018

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A116758

Included Lab Sample IDs: 2377017, 2377018

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.9	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116779

Included Lab Sample IDs: 2377017, 2377018

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A116809

Included Lab Sample IDs: 2377017, 2377018

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.0	98.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A116833

Included Lab Sample IDs: 2377015, 2377016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.5	102	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A116836

Included Lab Sample IDs: 2377015, 2377016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.5	99.1	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A116904

Included Lab Sample IDs: 2377031, 2377032

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	105	91.0	P/P	90 - 110
Potassium	108	97.5	P/P	90 - 110
Sodium	105	93.0	P/P	90 - 110
Strontium	99.2	98.4	P/P	90 - 110
Tin	97.2	93.3	P/P	90 - 110
Titanium	100	97.8	P/P	90 - 110
Vanadium	97.5	94.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116912

Included Lab Sample IDs: 2377031, 2377032

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	105	109	P/P	90 - 110
Antimony	109	109	P/P	90 - 110
Barium	103	105	P/P	90 - 110
Barium	105	105	P/P	90 - 110
Beryllium	102	106	P/P	90 - 110
Beryllium	106	106	P/P	90 - 110
Boron	95.1	96.7	P/P	90 - 110
Boron	96.7	101	P/P	90 - 110
Cadmium	104	108	P/P	90 - 110
Cadmium	108	107	P/P	90 - 110
Chromium	103	102	P/P	90 - 110
Chromium	98.0	103	P/P	90 - 110
Cobalt	106	106	P/P	90 - 110
Cobalt	106	104	P/P	90 - 110
Copper	108	109	P/P	90 - 110
Copper	109	107	P/P	90 - 110
Lead	96.0	98.3	P/P	90 - 110
Lead	98.3	98.1	P/P	90 - 110
Manganese	102	106	P/P	90 - 110
Manganese	106	104	P/P	90 - 110
Molybdenum	103	106	P/P	90 - 110
Molybdenum	106	106	P/P	90 - 110
Nickel	108	108	P/P	90 - 110
Nickel	108	106	P/P	90 - 110
Selenium	105	110	P/P	90 - 110
Selenium	110	110	P/P	90 - 110
Silver	105	108	P/P	90 - 110
Silver	108	108	P/P	90 - 110
Thallium	103	107	P/P	90 - 110
Thallium	107	106	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A116924

Included Lab Sample IDs: 2377031, 2377032

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	103	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Zinc	97.4	99.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116934

Included Lab Sample IDs: 2377031, 2377032

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	97.3	95.4	P/P	90 - 110
Arsenic	98.1	97.3	P/P	90 - 110

Quality Assurance Report

Calibration Verification

* 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 SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	98.3				1.08	
	Color (true)	97.7				1.98	
EPA 180.1 Rev. 2.0	Turbidity	102				2.18	
	Turbidity	102				5.24	
EPA 200.7 Rev. 4.4	Calcium	94.3	104	102	103		1.86
	Iron	97.6	92.7	94.9	104		2.26
	Magnesium	99.7	94.0	96.0	107		1.88
	Potassium	94.6	96.9	89.3	91.2		1.85
	Sodium	96.4	89.3	91.3	105		1.62
	Strontium	102	101	102	112		1.79
	Tin	98.4	93.9	95.1	104		1.37
	Titanium	103	99.0	97.1	102		5.15
	Vanadium	98.6	93.7	94.6	104		1.04
	Zinc	102	101	100	98.5		0.697
EPA 200.8 Rev. 5.4	Aluminum	98.5	98.4	102	101		2.65
	Antimony	104	104	107	107		2.10
	Arsenic	103	102	104	102		2.38
	Barium	104	104	106	107		2.42
	Beryllium	94.7	97.3	102	100		4.14
	Boron	97.3	98.3	99.8	102		1.49
	Cadmium	103	105	108	107		2.68
	Chromium	97.7	99.2	102	103		2.71
	Cobalt	104	102	106	105		3.35
	Copper	106	106	108	109		1.89
	Lead	95.0	96.0	98.4	98.6		2.47
	Manganese	100	101	104	106		2.58
	Molybdenum	102	102	105	105		2.81
	Nickel	106	104	107	108		2.55
	Selenium	106	106	108	109		2.31
	Silver	103	103	105	105		1.55
	Thallium	101	103	106	104		2.93
EPA 300.0 Rev. 2.1	Chloride	102	97.8	100		0.284	
	Sulfate	96.6	95.4	95.4		1.76	
EPA 350.1 Rev. 2.0	Ammonia-N	95.6	99.6	98.0			1.49
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	101	99.3			1.00
EPA 353.2 Rev. 2.0	NO2NO3-N	104	98.5				0.663
EPA 365.1 Rev. 2.0	Total-P	102	104	104			0.0240
	Total-P	103	105	105			0.499
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.4	97.6	97.5			0.103
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	81.5	79.6	86.8			8.66
	Acetochlor	88.5	85.2	89.1			4.53
	Alachlor	79.3	77.6	74.4			4.22
	Ametryn	111	138	143			3.80
	Atrazine	101	113	110			1.82
	Atrazine Desethyl	73.6	65.7	72.0			9.09
	Avobenzone	115	93.3	119			24.4
	Azinphos Methyl	133	145	157			7.69
	Azoxystrobin	101	109	126			14.4
	Bromacil	107					14.5
	Butylate	57.8	55.1	61.3			10.7
	Caffeine	98.8	98.3	97.2			1.08
	Carbophenothion	100	122	122			0.388

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Carfentrazone Ethyl	99.0	108	109			0.720
	Chlorfenapyr	63.5	80.2	80.9			0.885
	Chlorpyrifos Ethyl	83.1	110	120			8.69
	Chlorpyrifos Methyl	89.8	86.0	106			20.6
	Coumaphos	225	217	222			2.20
	Cyanazine	264	279	303			8.25
	Cyprodinil	95.2	89.6	105			15.6
	Dechlorane Plus	105	79.5	96.6			19.4
	Demeton	65.0	70.7	79.6			11.9
	Diazinon	91.1	99.6	119			17.5
	Difenoconazole	95.4	192	140			31.6
	Dimethenamid	103	86.3	87.3			1.18
	Dimethomorph	121	109	167			42.2
	Disulfoton	69.3	79.5	81.5			2.53
	Dithiopyr	85.2	91.9	99.7			8.10
	EPTC	47.1	48.7	55.8			13.5
	Ethion	68.8	70.1	83.0			16.8
	Ethoprop	72.7	84.1	112			28.7
	Etridiazole	43.2	47.3	44.6			6.05
	Fenamiphos	103	122	122			0.0097
	Fenbuconazole	99.2	113	131			15.0
	Fipronil	73.9	100	91.2			8.10
	Fipronil Desulfinyl	101	83.7	106			23.5
	Fipronil Sulfide	69.5	99.3	78.4			21.4
	Fipronil Sulfone	99.7	104	117			8.99
	Fluazifop-P-butyl	111	117	130			10.6
	Fludioxonil	114	107	125			15.4
	Flumioxazin	103	205	204			0.675
	Flutolanil	106	123	124			0.696
	Fluxapyroxad	92.4	135	120			12.0
	Fonofos	77.6	89.3	111			22.1
	Hexazinone	97.3	105	116			8.63
	Imazalil	115	111	117			5.31
	Iprodione	130	108	104			4.09
	Loratadine	120	154	161			4.75
	Malathion	86.0	106	111			4.26
	Metalaxyl	115	103	101			1.17
	Metolachlor	99.8	91.9	84.4			5.45
	Metribuzin	96.4	99.0	117			16.3
	Mevinphos	80.0	94.1	102			8.06
	Molinate	57.1	68.9	76.2			10.1
	Myclobutanil	80.2	121	123			1.65
	Naled	111	113	132			15.7
	Napropamide	51.5	63.2	65.9			4.12
	Norflurazon	119					13.3
	Octinoxate	76.2	63.0	77.4			20.6
	Oxadiazon	76.4	88.4	97.3			9.57
	Oxybenzone	71.6	62.2	73.4			16.6
	Oxyfluorfen	74.8	88.6	95.3			7.27
	Parathion Ethyl	93.6	106	111			4.61
	Parathion Methyl	97.7	105	137			26.7
	PBDE-47	76.5	63.8	76.8			18.5
	PBDE-99	80.5	68.3	81.0			17.1
	Pendimethalin	76.9	116	123			5.84

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision SMP	MS
						LCS	
EPA 8270E	Phenytain	25.6		72.1	59.6		18.9
	Phorate	68.2		74.0	102		31.6
	Prodiamine	86.5		94.0	104		9.15
	Prometon	97.6		112	115		2.56
	Prometryn	89.9		86.9	103		17.3
	Pronamide	76.1		84.3	87.1		3.29
	Propanil	111		99.2	123		21.2
	Propargite	76.2		101	97.9		3.46
	Propiconazole	79.5		106	105		1.04
	Pyraflufen Ethyl	77.6		105	85.9		20.2
	Pyridaben	117		112	128		13.9
	Pyriproxyfen	106		105	120		14.0
	Simazine	91.0		113	117		2.79
	Stirophos	83.4		108	105		2.79
	Sulfentrazone	60.4		147	162		8.78
	Tebuconazole	77.8		93.5	92.8		0.717
	Terbufos	80.7		92.2	123		28.3
	Terbuthylazine	89.9		86.6	89.6		3.43
	Thiobencarb	102		99.0	102		3.17
	Tri-o-cresyl Phosphate	80.8		66.5	79.7		18.0
EPA 8321B	Triadimefon	74.2		72.9	63.5		13.8
	2,4-D	89.5		97.0	75.4		25.1
	2,4,5-T	76.1		78.5	60.9		25.3
	Acesulfame K	71.4		46.9	41.6		11.9
	Acetaminophen	80.5		90.3	86.6		4.21
	Acetamiprid	73.3		86.9	68.8		23.2
	Afidopyropen	56.1		66.9	53.4		22.4
	AMPA	90.8		87.8	90.6		3.18
	Bentazon	97.4		58.1	64.0		7.43
	Benzovindiflupyr	79.9		92.2	79.0		15.4
	Carbamazepine	90.0		84.1	77.4		7.84
	Clothianidin	82.5		105	90.9		12.4
	Dinotefuran	81.8		102	89.8		13.0
	Diuron	90.9		85.1	73.9		14.0
	Endothall	124		157	155		0.989
	Fenuron	93.9		93.1	83.3		11.1
	Fluridone	89.2		81.6	78.4		3.90
	Glufosinate	106		124	124		0.519
	Glyphosate	108		117	105		10.6
	Hydrocodone	86.1		98.1	84.1		15.5
	Ibuprofen	91.6		92.2	80.3		13.8
	Imazapyr	88.3		120	105		12.8
	Imidacloprid	90.3		143	114		18.2
	Linuron	68.5		78.9	71.1		10.3
	Mandestrobin	88.3		96.1	85.6		11.5
	MCPP	97.9		102	79.0		25.6
	Naproxen	84.9		83.4	74.0		12.0
	Primidone	85.2		114	98.2		14.2
	Pyraclostrobin	76.5		85.3	76.7		10.7
	Silvex	77.8		79.8	69.7		13.5
	Sucralose	122		97.1	101		4.08
	Thiamethoxam	87.8		116	98.4		16.5
	Tolfenpyrad	48.0		56.2	52.1		7.49
	Triclopyr	80.2		80.2	61.1		27.0

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 2320 B-2011	Total Alkalinity	98.6			0.484	
	Total Alkalinity	95.0			0.646	
SM 2540 C-2015	TDS	96.9			5.76	
SM 2540 D-2015	TSS	88.6			6.06	
SM 4500-F- C-2011	Fluoride	95.9	96.4	97.0		0.500
SM 5310 B-2011	Organic Carbon	96.6	97.4	96.8		0.325

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2377015, 2377016
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2377015, 2377016
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2377031, 2377032
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2377031, 2377032
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2377015, 2377016
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2377015, 2377016
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2377017, 2377018
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2377017, 2377018
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2377017, 2377018
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2377017, 2377018
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2377019, 2377020
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2377038, 2377039
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2377038, 2377039
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2377026, 2377027
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2377015, 2377016
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2377031, 2377032
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2377015, 2377016
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2377015, 2377016
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2377015, 2377016
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2377017, 2377018

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	12/21/2022			12/21/2022 11:20	Alexis Price	2377016
	12/21/2022			12/21/2022 14:56	Alexis Price	2377015
EPA 180.1 Rev. 2.0	12/21/2022			12/21/2022 11:15	Anna M. Plaviak	2377016
	12/21/2022			12/21/2022 15:03	Anna M. Plaviak	2377015
EPA 200.7 Rev. 4.4	12/21/2022	12/22/2022 10:55	George D Taylor	01/13/2023 20:34	McKinley C Carter	2377031
	12/21/2022	12/22/2022 10:55	George D Taylor	01/13/2023 20:40	McKinley C Carter	2377032
EPA 200.8 Rev. 5.4	12/21/2022	12/22/2022 10:55	George D Taylor	01/17/2023 14:05	McKinley C Carter	2377031
	12/21/2022	12/22/2022 10:55	George D Taylor	01/17/2023 14:12	McKinley C Carter	2377032
	12/21/2022	12/22/2022 10:55	George D Taylor	01/14/2023 02:58	Emily M Philpot	2377032
	12/21/2022	12/22/2022 10:55	George D Taylor	01/14/2023 04:24	Emily M Philpot	2377031
	12/21/2022	12/22/2022 10:55	George D Taylor	01/17/2023 14:25	Megan Whitefoot	2377032
	12/21/2022	12/22/2022 10:55	George D Taylor	01/17/2023 15:24	Megan Whitefoot	2377031
EPA 300.0 Rev. 2.1	12/21/2022			01/05/2023 21:07	Anna M. Plaviak	2377015
	12/21/2022			01/05/2023 21:22	Anna M. Plaviak	2377016
	12/21/2022			01/10/2023 16:01	Anna M. Plaviak	2377015
	12/21/2022			01/10/2023 16:16	Anna M. Plaviak	2377016
EPA 350.1 Rev. 2.0	12/21/2022			01/09/2023 15:07	Ping Hua	2377017
	12/21/2022			01/09/2023 15:13	Ping Hua	2377018
EPA 351.2 Rev. 2.0	12/21/2022	01/03/2023 13:30	Simonne.V. Calhoun	01/05/2023 13:14	Samantha L Bates	2377017
	12/21/2022	01/03/2023 13:30	Simonne.V. Calhoun	01/05/2023 13:16	Samantha L Bates	2377018
EPA 353.2 Rev. 2.0	12/21/2022			12/29/2022 10:58	Beverly Y. Sanders	2377017
	12/21/2022			12/29/2022 10:59	Beverly Y. Sanders	2377018
EPA 365.1 Rev. 2.0	12/21/2022	01/05/2023 13:37	Adam P Silver	01/06/2023 14:52	James L Waggeberby	2377017
	12/21/2022	01/05/2023 13:37	Adam P Silver	01/06/2023 14:56	James L Waggeberby	2377018
EPA 365.1 Rev. 2.0 dissolved	12/21/2022			12/21/2022 15:12	Elise M. Gillis	2377019
	12/21/2022			12/21/2022 15:13	Elise M. Gillis	2377020
EPA 8270E	12/21/2022	12/21/2022 13:00	Fe-Val Siddell	12/22/2022 22:33	Arthur Maknenko	2377038
	12/21/2022	12/21/2022 13:00	Fe-Val Siddell	12/22/2022 22:59	Arthur Maknenko	2377039
	12/21/2022	12/21/2022 13:00	Fe-Val Siddell	12/23/2022 22:23	Michael Poppell	2377038
	12/21/2022	12/21/2022 13:00	Fe-Val Siddell	12/23/2022 22:53	Michael Poppell	2377039
	12/21/2022	12/21/2022 13:00	Fe-Val Siddell	12/29/2022 01:48	Michael Poppell	2377038
	12/21/2022	12/21/2022 13:00	Fe-Val Siddell	12/29/2022 02:14	Michael Poppell	2377039
EPA 8321B	12/21/2022	12/21/2022 13:45	Umesh Chiluwal	12/21/2022 19:00	Umesh Chiluwal	2377026
	12/21/2022	12/21/2022 13:45	Umesh Chiluwal	12/21/2022 19:14	Umesh Chiluwal	2377027
	12/21/2022	12/21/2022 13:45	Umesh Chiluwal	12/22/2022 05:05	Umesh Chiluwal	2377026
	12/21/2022	12/21/2022 13:45	Umesh Chiluwal	12/22/2022 05:18	Umesh Chiluwal	2377027
	12/21/2022	12/22/2022 09:30	June Rhew	01/03/2023 22:35	Juyoung Kim	2377026
	12/21/2022	12/22/2022 09:30	June Rhew	01/03/2023 22:54	Juyoung Kim	2377027
SM 2320 B-2011	12/21/2022			01/05/2023 06:50	Dale L. Simmons	2377015
	12/21/2022			12/29/2022 22:26	Dale L. Simmons	2377016

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2340 B-2011	12/21/2022			01/17/2023 14:05	McKinley C Carter	2377031
	12/21/2022			01/17/2023 14:12	McKinley C Carter	2377032
SM 2540 C-2015	12/21/2022			12/22/2022 16:12	Yijie Li	2377015, 2377016
SM 2540 D-2015	12/21/2022			12/22/2022 16:12	Yijie Li	2377015, 2377016
SM 4500-F- C-2011	12/21/2022			01/10/2023 18:36	Dale L. Simmons	2377015
	12/21/2022			01/10/2023 18:42	Dale L. Simmons	2377016
SM 5310 B-2011	12/21/2022			01/05/2023 16:58	Khloe J Berg	2377017
	12/21/2022			01/05/2023 17:11	Khloe J Berg	2377018