

Chemical Analysis Report

NW-DIST-2022-03-18-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Rest Area Run Bioassessment**

Request ID: **RQ-2022-03-07-44**

Customer: **NW-DIST**

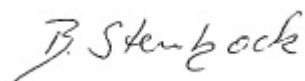
Project ID: **SMP**

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Date Certified: 11-APR-2022 18:28



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: Beaver Pond Creek

Collection Date/Time: 03/17/2022 11:45

Field ID: 33010066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2313272	DEP SOP: NU-094-1	Color (true)**	48	A	PCU	P411305	
	EPA 180.1 Rev. 2.0	Turbidity	22		NTU	P411313	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P411369	
		Sulfate	3.6		mg SO4/L	P411371	
	SM 2320 B-2011	Total Alkalinity	35		mg CaCO3/L	P411602	
	SM 2540 C-2011	TDS	89		mg/L	P411622	
	SM 2540 D-2011	TSS	16		mg/L	P411584	
	SM 4500 F-C-2011	Fluoride	0.045	I	mg F/L	P411605	
2313274	EPA 350.1 Rev. 2.0	Ammonia-N	0.15		mg N/L	P411554	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P411529	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.080		mg N/L	P411337	
	EPA 365.1 Rev. 2.0	Total-P	0.030		mg P/L	P411461	
	SM 5310 B-2011	Organic Carbon	9.3		mg C/L	P411474	
2313283	EPA 200.7 Rev. 4.4	Calcium	11.9		mg/L	P411324	
		Iron	3.13E+03		ug/L	P411324	
		Magnesium	2.46		mg/L	P411324	
		Potassium	2.8		mg/L	P411324	
		Sodium	8.6		mg/L	P411324	
		Strontium	31.4		ug/L	P411324	
		Tin	3.0	U	ug/L	P411324	
		Titanium	1.6	I	ug/L	P411324	
	EPA 200.8 Rev. 5.4	Vanadium	2.0	U	ug/L	P411324	
		Zinc	5.0	U	ug/L	P411324	
		Aluminum	190		ug/L	P411324	
		Antimony	0.050	U	ug/L	P411324	
		Arsenic	0.81		ug/L	P411324	
		Barium	17.2		ug/L	P411324	
		Beryllium	0.014	I	ug/L	P411324	
		Boron**	47.2		ug/L	P411324	
		Cadmium	0.020	U	ug/L	P411324	
		Chromium	0.55	I	ug/L	P411324	
		Cobalt	0.248		ug/L	P411324	
		Copper	0.48	I	ug/L	P411324	
		Lead	0.26	I	ug/L	P411324	
		Manganese	69.9		ug/L	P411324	
		Molybdenum	0.15	U	ug/L	P411324	
		Nickel	0.50	I	ug/L	P411324	
		Selenium	0.20	U	ug/L	P411324	
		Silver	0.010	U	ug/L	P411324	
		Thallium	0.10	U	ug/L	P411324	
	SM 2340B	Hardness	39.8		mg/L	P411324	

Ref. Method and Comment:

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Rest Area Run below Beaver Pond Creek

Collection Date/Time: 03/17/2022 11:00

Field ID: G5NW0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2313273	DEP SOP: NU-094-1	Color (true)**	43	A	PCU	P411304	
	EPA 180.1 Rev. 2.0	Turbidity	4.2	A	NTU	P411313	
	EPA 300.0 Rev. 2.1	Chloride	7.7		mg Cl/L	P411369	
		Sulfate	2.8		mg SO4/L	P411371	
	SM 2320 B-2011	Total Alkalinity	6.8		mg CaCO3/L	P411602	
	SM 2540 C-2011	TDS	33		mg/L	P411622	
	SM 2540 D-2011	TSS	2	I	mg/L	P411584	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P411605	
2313275	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P411554	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.24		mg N/L	P411768	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P411337	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P411461	
	SM 5310 B-2011	Organic Carbon	4.0		mg C/L	P411474	
2313277	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P411311	
2313282	EPA 8321B	2,4-D	0.0020	U	ug/L	P411316	
		Acesulfame K	0.10	U	ug/L	P411170	
		2,4,5-T	0.0040	U	ug/L	P411316	
		AMPA	0.10	U	ug/L	P411170	
		Acetaminophen	0.0080	U	ug/L	P411316	
		Acetamiprid	0.0020	U	ug/L	P411316	
		Endothall	0.25	U	ug/L	P411170	
		Glufosinate	0.10	U	ug/L	P411170	
		Glyphosate	0.10	U	ug/L	P411170	
		Afidopyropen	0.0020	U	ug/L	P411316	
		Bentazon	8.0E-04	U	ug/L	P411316	
		Sucralose	0.53		ug/L	P411170	
		Benzovindiflupyr	0.0020	U	ug/L	P411316	
		Carbamazepine	0.0014	I	ug/L	P411316	
		Clothianidin	0.0020	U	ug/L	P411316	
		Dinotefuran	0.0020	U	ug/L	P411316	
		Diuron	0.0020	U	ug/L	P411316	
		Fenuron	0.016	U	ug/L	P411316	
		Fluridone	8.0E-04	U	ug/L	P411316	
		Imazapyr	0.0040	U	ug/L	P411316	
		Hydrocodone	0.0020	U	ug/L	P411316	
		Ibuprofen	0.020	U	ug/L	P411316	
		Imidacloprid	0.011		ug/L	P411316	
		Linuron	0.0040	U	ug/L	P411316	
		Mandestrobin	0.0020	U	ug/L	P411316	
		MCP	0.0020	U	ug/L	P411316	
		Naproxen	0.0080	U	ug/L	P411316	
		Primidone	0.0040	UJ	ug/L	P411316	RPD
		Pyraclostrobin	0.0020	U	ug/L	P411316	

Field ID: G5NW0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2313282	EPA 8321B	Silvex	0.0040	U	ug/L	P411316	
		Thiamethoxam	0.0020	U	ug/L	P411316	
		Tolfenpyrad	0.0020	U	ug/L	P411316	
		Triclopyr	0.0040	U	ug/L	P411316	
2313284	EPA 200.7 Rev. 4.4	Calcium	3.34		mg/L	P411324	
		Iron	380		ug/L	P411324	
		Magnesium	1.22		mg/L	P411324	
		Potassium	1.0	I	mg/L	P411324	
		Sodium	4.7		mg/L	P411324	
		Strontium	14.0		ug/L	P411324	
		Tin	3.0	U	ug/L	P411324	
		Titanium	1.6	I	ug/L	P411324	
		Vanadium	2.0	U	ug/L	P411324	
		Zinc	5.0	U	ug/L	P411324	
	EPA 200.8 Rev. 5.4	Aluminum	143		ug/L	P411324	
		Antimony	0.050	U	ug/L	P411324	
		Arsenic	0.22		ug/L	P411324	
		Barium	19.7		ug/L	P411324	
		Beryllium	0.014	I	ug/L	P411324	
		Boron**	20.6		ug/L	P411324	
		Cadmium	0.020	U	ug/L	P411324	
		Chromium	0.40	U	ug/L	P411324	
		Cobalt	0.083		ug/L	P411324	
		Copper	0.40	U	ug/L	P411324	
		Lead	0.20	U	ug/L	P411324	
		Manganese	7.41		ug/L	P411324	
		Molybdenum	0.15	U	ug/L	P411324	
		Nickel	0.50	U	ug/L	P411324	
		Selenium	0.20	U	ug/L	P411324	
		Silver	0.010	U	ug/L	P411324	
		Thallium	0.10	U	ug/L	P411324	
	SM 2340B	Hardness	13.4		mg/L	P411324	
2313285	EPA 8270E	Oxybenzone**	9.9	U	ng/L	P411232	
		Acetochlor	0.25	U	ng/L	P411232	
		Octinoxate**	20	U	ng/L	P411232	
		Alachlor	0.25	U	ng/L	P411232	
		Avobenzone**	99	U	ng/L	P411232	
		Ametryn	0.59	U	ng/L	P411232	
		Atrazine	6.2		ng/L	P411232	
		Atrazine Desethyl	2.9	I	ng/L	P411232	
		Azinphos Methyl	2.0	U	ng/L	P411232	
		Azoxystrobin**	0.49	U	ng/L	P411232	
		Bromacil	0.49	U	ng/L	P411232	
		Butylate	0.39	U	ng/L	P411232	
		Caffeine**	7.5	I	ng/L	P411232	

Field ID: G5NW0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2313285	EPA 8270E	Carbophenothion	0.20	U	ng/L	P411232	
		Carfentrazone Ethyl**	0.099	U	ng/L	P411232	
		Chlorfenapyr**	0.17	U	ng/L	P411232	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P411232	
		Chlorpyrifos Methyl	0.049	U	ng/L	P411232	
		Coumaphos**	0.49	U	ng/L	P411232	
		Cyanazine	3.2	U	ng/L	P411232	
		Cyprodinil**	0.099	U	ng/L	P411232	
		Demeton	1.5	U	ng/L	P411232	
		Diazinon	0.12	U	ng/L	P411232	
		Difenoconazole**	0.59	UJ	ng/L	P411232	RPD
		Dimethenamid**	0.099	U	ng/L	P411232	
		Dimethomorph**	0.17	UJ	ng/L	P411232	MS, RPD
		Disulfoton	0.49	U	ng/L	P411232	
		Dithiopyr**	0.17	U	ng/L	P411232	
		EPTC	1.2	U	ng/L	P411232	
		Ethion	0.15	U	ng/L	P411232	
		Ethoprop	0.099	U	ng/L	P411232	
		Etridiazole**	0.15	U	ng/L	P411232	
		Fenamiphos	0.49	U	ng/L	P411232	
		Fenbuconazole**	0.12	UJ	ng/L	P411232	RPD
		Fipronil	0.25	U	ng/L	P411232	
		Fipronil Desulfinyl**	0.12	U	ng/L	P411232	
		Fipronil Sulfide	0.15	U	ng/L	P411232	
		Fipronil Sulfone	0.50	I	ng/L	P411232	
		Fluazifop-P-butyl**	0.099	U	ng/L	P411232	
		Fludioxonil**	0.12	U	ng/L	P411232	
		Flumioxazin**	1.7	U	ng/L	P411232	
		Flutolanil**	0.099	U	ng/L	P411232	
		Fluxapyroxad**	0.099	U	ng/L	P411232	
		Fonofos	0.20	U	ng/L	P411232	
		Hexazinone	0.49	U	ng/L	P411232	
		Imazalil**	0.74	U	ng/L	P411232	
		Iprodione**	0.59	U	ng/L	P411232	
		Loratadine**	0.099	UJ	ng/L	P411232	MS, RPD
		Malathion	0.34	U	ng/L	P411232	
		Metalaxyl	0.74	U	ng/L	P411232	
		Metolachlor	0.34	U	ng/L	P411232	
		Metribuzin	2.5	U	ng/L	P411232	
		Mevinphos	1.0	U	ng/L	P411232	
		Molinate	0.30	U	ng/L	P411232	
		Myclobutanil**	0.25	U	ng/L	P411232	
		Naled**	1.5	U	ng/L	P411232	
		Napropamide**	0.39	U	ng/L	P411232	
		Norflurazon	0.49	U	ng/L	P411232	

Field ID: G5NW0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2313285	EPA 8270E	Oxadiazon	0.30	U	ng/L	P411232	
		Oxyfluorfen**	0.15	U	ng/L	P411232	
		Parathion Ethyl	0.25	U	ng/L	P411232	
		Parathion Methyl	0.54	U	ng/L	P411232	
		Pendimethalin	0.99	UJ	ng/L	P411232	RPD
		Phenytol**	3.4	UJ	ng/L	P411232	LCS, MS, RPD
		Phorate	0.52	U	ng/L	P411232	
		Prodiatone**	0.30	UJ	ng/L	P411232	CCV
		Prometon	0.89	U	ng/L	P411232	
		Prometryn	0.20	U	ng/L	P411232	
		Pronamide**	0.15	U	ng/L	P411232	
		Propanil**	0.12	U	ng/L	P411232	
		Propargite**	1.5	U	ng/L	P411232	
		Propiconazole**	0.49	U	ng/L	P411232	
		Pyraflufen Ethyl**	0.25	U	ng/L	P411232	
		Pyridaben**	0.44	U	ng/L	P411232	
		Pyriproxyfen**	0.12	U	ng/L	P411232	
		Simazine	0.49	U	ng/L	P411232	
		Stirophos**	0.12	UJ	ng/L	P411232	MS
		Sulfentrazone**	1.0	I	ng/L	P411232	
		Tebuconazole**	0.49	U	ng/L	P411232	
		Terbufos	0.099	U	ng/L	P411232	
		Terbutylazine	0.42	U	ng/L	P411232	
		Thiobencarb**	0.59	U	ng/L	P411232	
		Triadimefon**	0.25	U	ng/L	P411232	

Ref. Method and Comment:

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

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

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P411304

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P411305

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411313

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411324

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: P411324

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411369

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411371

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411554

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411529

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411768

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411337

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411461

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P411311

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

Reference Method: EPA 8270E
Batch ID: P411232

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411232

Component	Result	Code	Units
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
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
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411232

Component	Result	Code	Units
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	1.8	U	ng/L
Flumioxazin	1.8	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	0.10	U	ng/L
Loratadine	0.10	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	2.5	U	ng/L
Metribuzin	2.5	U	ng/L
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411232

Component	Result	Code	Units
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
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.30	U	ng/L
Prodiamine	0.30	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
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
Sulfentrazon	0.50	U	ng/L
Sulfentrazon	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411232

Component	Result	Code	Units
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B

Batch ID: P411170

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: P411316

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	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P411602

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

Reference Method: SM 2540 C-2011
Batch ID: P411622

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P411584

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P411605

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P411474

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: P411304

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.4		P	85 - 115

Reference Method: DEP SOP: NU-094-1
Batch ID: P411305

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.1		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411313

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411324

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	106		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	105		P	85 - 115
Sodium	107		P	85 - 115
Strontium	100		P	85 - 115
Tin	100		P	85 - 115
Titanium	99.9		P	85 - 115
Vanadium	93.7		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411324

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.6		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	101		P	85 - 115
Barium	106		P	85 - 115
Beryllium	92.3		P	85 - 115
Boron	104		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	95.9		P	85 - 115
Cobalt	98.2		P	85 - 115
Copper	95.1		P	85 - 115
Lead	98.3		P	85 - 115
Manganese	95.8		P	85 - 115
Molybdenum	99.6		P	85 - 115
Nickel	95.7		P	85 - 115
Selenium	99.8		P	85 - 115
Silver	100		P	85 - 115
Thallium	99.5		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411369

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411371

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411554

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411529

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411768

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411337

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: P411461

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P411311

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

Reference Method: EPA 8270E
Batch ID: P411232

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	101		P	70 - 121
Alachlor	92.5		P	68 - 119
Ametryn	72.7		P	64 - 139
Atrazine	98.4		P	76 - 120

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P411232

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Atrazine Desethyl	56.6		P	44 - 126
Avobenzone	106		P	76 - 212
Azinphos Methyl	97.0		P	43 - 192
Azoxystrobin	93.6		P	36 - 224
Bromacil	60.6		P	52 - 121
Butylate	39.7		P	28 - 91.0
Caffeine	93.2		P	50 - 134
Carbophenothion	99.1		P	56 - 129
Carfentrazone Ethyl	85.2		P	60 - 141
Chlorfenapyr	103		P	56 - 115
Chlorpyrifos Ethyl	94.5		P	60 - 118
Chlorpyrifos Methyl	100		P	68 - 119
Coumaphos	110		P	18 - 250
Cyanazine	82.1		P	61 - 250
Cyprodinil	92.6		P	55 - 145
Demeton	75.2		P	30 - 159
Diazinon	96.9		P	70 - 123
Difenoconazole	94.8		P	49 - 204
Dimethenamid	82.5		P	64 - 115
Dimethomorph	155		P	12 - 219
Disulfoton	80.1		P	44 - 125
Dithiopyr	89.9		P	64 - 115
EPTC	49.3		P	28 - 86.0
Ethion	65.6		P	33 - 125
Ethoprop	88.7		P	64 - 116
Etridiazole	67.9		P	34 - 91.0
Fenamiphos	63.8		P	12 - 127
Fenbuconazole	64.1		P	59 - 151
Fipronil	94.4		P	67 - 129
Fipronil Desulfinyl	99.8		P	65 - 127
Fipronil Sulfide	85.7		P	61 - 116
Fipronil Sulfone	75.9		P	55 - 117
Fluazifop-P-butyl	112		P	62 - 127
Fludioxonil	74.6		P	62 - 128
Flumioxazin	81.9		P	33 - 250
Flutolanil	57.9		P	56 - 127
Fluxapyroxad	72.1		P	45 - 128
Fonofos	90.3		P	62 - 111
Hexazinone	83.4		P	46 - 139
Imazalil	66.5		P	38 - 142
Iprodione	73.2		P	47 - 135
Loratadine	119		P	10 - 244
Malathion	96.6		P	61 - 139
Metalaxyl	93.9		P	10 - 119
Metolachlor	92.9		P	65 - 118
Metribuzin	80.0		P	51 - 250
Mevinphos	82.1		P	53 - 121
Molinate	54.3		P	42 - 96.0
Myclobutanil	82.9		P	55 - 128
Naled	73.1		P	10 - 98.0
Napropamide	58.7		P	49 - 121
Norflurazon	78.9		P	61 - 126

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P411232

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Octinoxate	92.5		P	30 - 159
Oxadiazon	71.7		P	59 - 116
Oxybenzone	89.2		P	61 - 139
Oxyfluorfen	116		P	64 - 137
Parathion Ethyl	84.1		P	70 - 112
Parathion Methyl	93.0		P	76 - 133
Pendimethalin	103		P	52 - 117
Phenytol	9.03		F	10 - 199
Phorate	86.2		P	48 - 121
Prodiamine	33.1		P	26 - 142
Prometon	74.8		P	43 - 123
Prometryn	88.7		P	66 - 127
Pronamide	93.9		P	75 - 121
Propanil	97.9		P	45 - 150
Propargite	55.7		P	42 - 208
Propiconazole	72.2		P	60 - 125
Pyraflufen Ethyl	78.1		P	70 - 138
Pyridaben	97.7		P	35 - 245
Pyriproxyfen	76.3		P	30 - 149
Simazine	85.3		P	72 - 125
Stirophos	55.7		P	29 - 164
Sulfentrazone	32.2		P	21 - 139
Tebuconazole	45.9		P	10 - 115
Terbufos	113		P	60 - 123
Terbuthylazine	93.8		P	72 - 115
Thiobencarb	85.0		P	31 - 139
Triadimefon	92.2		P	65 - 116

Reference Method: EPA 8321B

Batch ID: P411170

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	94.1		P	40 - 150
AMPA	95.4		P	40 - 150
Endothall	93.2		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	95.1		P	40 - 150
Sucralose	86.4		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P411316

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	44.9		P	30 - 160
2,4,5-T	34.7		P	30 - 160
Acetaminophen	110		P	30 - 150
Acetamiprid	81.3		P	30 - 160
Afidopyropen	60.8		P	30 - 160
Bentazon	70.8		P	30 - 150
Benzovindiflupyr	90.5		P	30 - 160
Carbamazepine	61.0		P	30 - 160
Clothianidin	89.0		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P411316

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dinotefuran	112		P	30 - 160
Diuron	53.1		P	30 - 160
Fenuron	118		P	30 - 160
Fluridone	89.0		P	30 - 160
Hydrocodone	86.5		P	30 - 160
Ibuprofen	87.6		P	30 - 160
Imazapyr	90.1		P	30 - 160
Imidacloprid	78.1		P	30 - 160
Linuron	98.4		P	30 - 160
Mandestrobin	82.1		P	30 - 160
MCPP	52.0		P	30 - 160
Naproxen	46.5		P	30 - 160
Primidone	101		P	30 - 160
Pyraclostrobin	83.3		P	30 - 160
Silvex	31.1		P	30 - 160
Thiamethoxam	97.9		P	30 - 160
Tolfenpyrad	35.4		P	30 - 160
Triclopyr	34.0		P	30 - 160

Reference Method: SM 2320 B-2011

Batch ID: P411602

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.4		P	94 - 106

Reference Method: SM 4500 F-C-2011

Batch ID: P411605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.2		P	93 - 104

Reference Method: SM 5310 B-2011

Batch ID: P411474

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P411324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313175	Calcium	99.7		P	80 - 120
2313175	Iron	106	104	P/P	80 - 120
2313175	Magnesium	106	106	P/P	80 - 120
2313175	Potassium	103	102	P/P	80 - 120
2313175	Sodium	102	97.7	P/P	80 - 120
2313175	Strontium	102	99.4	P/P	80 - 120
2313175	Tin	103	103	P/P	80 - 120
2313175	Titanium	102	98.7	P/P	80 - 120
2313175	Vanadium	98.0	95.0	P/P	80 - 120
2313175	Zinc	104	101	P/P	80 - 120
2313176	Calcium	98.3		P	80 - 120
2313176	Iron	102		P	80 - 120
2313176	Magnesium	103		P	80 - 120
2313176	Potassium	101		P	80 - 120
2313176	Sodium	99.6		P	80 - 120
2313176	Strontium	98.3		P	80 - 120
2313176	Tin	99.4		P	80 - 120
2313176	Titanium	97.8		P	80 - 120
2313176	Vanadium	93.4		P	80 - 120
2313176	Zinc	98.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P411324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313175	Aluminum	115	119	P/P	80 - 120
2313175	Antimony	98.7	101	P/P	80 - 120
2313175	Arsenic	99.0	100	P/P	80 - 120
2313175	Barium	106	108	P/P	80 - 120
2313175	Beryllium	95.3	92.1	P/P	80 - 120
2313175	Boron	106	106	P/P	80 - 120
2313175	Cadmium	99.3	103	P/P	80 - 120
2313175	Chromium	96.3	100	P/P	80 - 120
2313175	Cobalt	96.1	98.4	P/P	80 - 120
2313175	Copper	95.1	97.2	P/P	80 - 120
2313175	Lead	98.4	100	P/P	80 - 120
2313175	Molybdenum	98.1	99.4	P/P	80 - 120
2313175	Nickel	95.1	97.1	P/P	80 - 120
2313175	Selenium	97.2	97.6	P/P	80 - 120
2313175	Silver	99.2	102	P/P	80 - 120
2313175	Thallium	101	105	P/P	80 - 120
2313176	Aluminum	110		P	80 - 120
2313176	Antimony	101		P	80 - 120
2313176	Arsenic	98.5		P	80 - 120
2313176	Barium	107		P	80 - 120
2313176	Beryllium	94.2		P	80 - 120
2313176	Boron	106		P	80 - 120
2313176	Cadmium	102		P	80 - 120
2313176	Chromium	98.2		P	80 - 120
2313176	Cobalt	95.4		P	80 - 120
2313176	Copper	93.9		P	80 - 120
2313176	Lead	98.6		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P411324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313176	Manganese	96.3		P	80 - 120
2313176	Molybdenum	99.6		P	80 - 120
2313176	Nickel	93.3		P	80 - 120
2313176	Selenium	98.9		P	80 - 120
2313176	Silver	101		P	80 - 120
2313176	Thallium	102		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P411369

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313153	Chloride	100		P	90 - 110
2313263	Chloride	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P411371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313153	Sulfate	99.8		P	90 - 110
2313263	Sulfate	99.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P411554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2314156	Ammonia-N	96.8	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P411768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313275	Kjeldahl Nitrogen	97.7	96.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P411337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313241	NO2NO3-N	97.5	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P411461

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313339	Total-P	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P411311

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313277	O-Phosphate-P	100	100	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P411232

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313285	Acetochlor	112	124	P/P	65 - 124
2313285	Alachlor	91.0	105	P/P	61 - 121
2313285	Ametryn	93.5	91.3	P/P	52 - 216
2313285	Atrazine Desethyl	53.8	60.6	P/P	15 - 160
2313285	Avobenzone	91.2	96.6	P/P	59 - 206
2313285	Azinphos Methyl	107	137	P/P	40 - 292
2313285	Azoxystrobin	99.0	129	P/P	12 - 242
2313285	Bromacil	87.7	88.8	P/P	54 - 167
2313285	Butylate	48.2	51.3	P/P	14 - 94.0
2313285	Caffeine	101	85.2	P/P	10 - 226
2313285	Carbophenothion	94.7	95.1	P/P	49 - 122
2313285	Carfentrazone Ethyl	92.1	99.9	P/P	53 - 138
2313285	Chlorfenapyr	85.7	91.3	P/P	50 - 150
2313285	Chlorpyrifos Ethyl	78.9	86.6	P/P	52 - 122
2313285	Chlorpyrifos Methyl	96.3	95.1	P/P	66 - 117
2313285	Coumaphos	90.6	92.1	P/P	50 - 220
2313285	Cyanazine	86.8	85.9	P/P	43 - 245
2313285	Cyprodinil	105	93.8	P/P	50 - 150
2313285	Demeton	81.7	80.4	P/P	43 - 188
2313285	Diazinon	107	111	P/P	69 - 131
2313285	Difenoconazole	104	76.7	P/P	34 - 231
2313285	Dimethenamid	90.8	95.3	P/P	55 - 118
2313285	Dimethomorph	140	225	P/F	50 - 150
2313285	Disulfoton	73.4	76.0	P/P	38 - 141
2313285	Dithiopyr	86.7	90.9	P/P	42 - 116
2313285	EPTC	50.6	55.4	P/P	18 - 85.0
2313285	Ethion	77.3	48.7	P/P	10 - 131
2313285	Ethoprop	88.3	92.4	P/P	65 - 129
2313285	Etridiazole	78.5	95.9	P/P	50 - 150
2313285	Fenamiphos	68.7	74.3	P/P	31 - 137
2313285	Fenbuconazole	73.7	112	P/P	57 - 160
2313285	Fipronil	98.5	112	P/P	62 - 132
2313285	Fipronil Desulfinyl	99.5	106	P/P	57 - 131
2313285	Fipronil Sulfide	85.0	87.9	P/P	15 - 138
2313285	Fipronil Sulfone	64.6	59.8	P/P	21 - 134
2313285	Fluazifop-P-butyl	102	101	P/P	54 - 133
2313285	Fludioxonil	92.5	98.5	P/P	58 - 127
2313285	Flumioxazin	118	145	P/P	33 - 300
2313285	Flutolanil	58.7	72.4	P/P	42 - 130
2313285	Fluxapyroxad	76.5	85.0	P/P	23 - 141
2313285	Fonofos	83.1	93.7	P/P	58 - 119
2313285	Hexazinone	91.7	85.8	P/P	68 - 172
2313285	Imazalil	80.9	109	P/P	48 - 283
2313285	Iprodione	87.0	97.8	P/P	38 - 140
2313285	Loratadine	112	209	P/F	50 - 150
2313285	Malathion	82.1	83.5	P/P	40 - 137
2313285	Metalaxyl	86.8	90.3	P/P	21 - 129
2313285	Metolachlor	91.1	105	P/P	55 - 122
2313285	Metribuzin	75.9	80.6	P/P	38 - 187
2313285	Mevinphos	92.2	93.4	P/P	54 - 134
2313285	Molinate	63.5	68.9	P/P	41 - 97.0
2313285	Myclobutanil	80.0	79.0	P/P	56 - 125

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P411232

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313285	Naled	69.3	73.7	P/P	10 - 108
2313285	Napropamide	69.1	78.8	P/P	50 - 150
2313285	Norflurazon	71.1	63.0	P/P	32 - 122
2313285	Octinoxate	98.0	100	P/P	25 - 150
2313285	Oxadiazon	69.8	80.8	P/P	40 - 119
2313285	Oxybenzone	88.7	92.3	P/P	59 - 147
2313285	Oxyfluorfen	127	128	P/P	61 - 153
2313285	Parathion Ethyl	86.6	86.1	P/P	59 - 130
2313285	Parathion Methyl	124	115	P/P	65 - 155
2313285	Pendimethalin	119	83.7	P/P	49 - 138
2313285	Phenytol	31.4	13.2	F/F	50 - 200
2313285	Phorate	85.9	88.9	P/P	54 - 161
2313285	Prodiamine	49.4	50.5	P/P	33 - 161
2313285	Prometon	80.7	80.0	P/P	48 - 140
2313285	Prometryn	84.0	85.7	P/P	55 - 134
2313285	Pronamide	101	111	P/P	66 - 137
2313285	Propanil	119	113	P/P	50 - 150
2313285	Propargite	66.5	51.0	P/P	50 - 200
2313285	Propiconazole	70.3	57.1	P/P	36 - 150
2313285	Pyraflufen Ethyl	71.7	65.1	P/P	50 - 150
2313285	Pyridaben	87.4	93.6	P/P	50 - 200
2313285	Pyriproxyfen	83.1	86.7	P/P	10 - 165
2313285	Simazine	93.2	120	P/P	57 - 145
2313285	Stirophos	55.6	43.7	P/F	50 - 150
2313285	Sulfentrazone	97.7	114	P/P	34 - 140
2313285	Tebuconazole	55.7	41.9	P/P	10 - 127
2313285	Terbufos	109	109	P/P	59 - 138
2313285	Terbuthylazine	100	109	P/P	68 - 119
2313285	Thiobencarb	80.7	85.9	P/P	50 - 150
2313285	Triadimefon	97.1	94.0	P/P	50 - 150

Reference Method: EPA 8321B
Batch ID: P411170

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312858	Acesulfame K	82.9	83.1	P/P	40 - 150
2312858	AMPA	95.4	102	P/P	40 - 150
2312858	Endothall	102	106	P/P	40 - 150
2312858	Glufosinate	84.3	93.3	P/P	40 - 150
2312858	Glyphosate	84.4	88.7	P/P	40 - 150
2312858	Sucralose	80.9	95.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P411316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313282	2,4-D	39.9	50.3	P/P	30 - 160
2313282	2,4,5-T	34.9	41.3	P/P	30 - 160
2313282	Acetaminophen	123	128	P/P	30 - 150
2313282	Acetamiprid	58.9	65.4	P/P	30 - 160
2313282	Afidopyropen	38.9	42.2	P/P	30 - 160
2313282	Bentazon	81.1	81.4	P/P	30 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P411316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313282	Benzovindiflupyr	87.5	88.1	P/P	30 - 160
2313282	Carbamazepine	76.8	74.7	P/P	30 - 160
2313282	Clothianidin	108	104	P/P	30 - 160
2313282	Dinotefuran	130	119	P/P	30 - 160
2313282	Diuron	50.7	53.4	P/P	30 - 160
2313282	Fenuron	111	141	P/P	30 - 160
2313282	Fluridone	102	103	P/P	30 - 160
2313282	Hydrocodone	102	97.6	P/P	30 - 160
2313282	Ibuprofen	102	110	P/P	30 - 160
2313282	Imazapyr	111	104	P/P	30 - 160
2313282	Imidacloprid	122	112	P/P	30 - 160
2313282	Linuron	107	113	P/P	30 - 160
2313282	Mandestrobin	96.2	90.6	P/P	30 - 160
2313282	MCPP	55.5	61.8	P/P	30 - 160
2313282	Naproxen	44.8	59.0	P/P	30 - 160
2313282	Primidone	111	79.9	P/P	30 - 160
2313282	Pyraclostrobin	99.7	96.1	P/P	30 - 160
2313282	Silvex	34.8	39.5	P/P	30 - 160
2313282	Thiamethoxam	124	123	P/P	30 - 160
2313282	Tolfenpyrad	54.3	55.7	P/P	30 - 160
2313282	Triclopyr	30.2	33.4	P/P	30 - 160

Reference Method: SM 4500 F-C-2011

Batch ID: P411605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313867	Fluoride	96.0	94.1	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P411474

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2313160	Organic Carbon	95.3	98.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P411304

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313273	Color (true)	0.966	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P411305

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313272	Color (true)	2.54	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411313

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313273	Turbidity	11.3	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313175	Calcium	1.72	Spike	P	0 - 20
2313175	Iron	1.42	Spike	P	0 - 20
2313175	Magnesium	0.550	Spike	P	0 - 20
2313175	Potassium	0.994	Spike	P	0 - 20
2313175	Sodium	2.40	Spike	P	0 - 20
2313175	Strontium	2.71	Spike	P	0 - 20
2313175	Tin	0.371	Spike	P	0 - 20
2313175	Titanium	2.82	Spike	P	0 - 20
2313175	Vanadium	3.15	Spike	P	0 - 20
2313175	Zinc	2.70	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313175	Aluminum	3.34	Spike	P	0 - 20
2313175	Antimony	2.00	Spike	P	0 - 20
2313175	Arsenic	1.37	Spike	P	0 - 20
2313175	Barium	2.01	Spike	P	0 - 20
2313175	Beryllium	3.14	Spike	P	0 - 20
2313175	Boron	0.359	Spike	P	0 - 20
2313175	Cadmium	3.69	Spike	P	0 - 20
2313175	Chromium	3.65	Spike	P	0 - 20
2313175	Cobalt	2.34	Spike	P	0 - 20
2313175	Copper	2.18	Spike	P	0 - 20
2313175	Lead	1.75	Spike	P	0 - 20
2313175	Manganese	2.67	Spike	P	0 - 20
2313175	Molybdenum	1.30	Spike	P	0 - 20
2313175	Nickel	2.09	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313175	Selenium	0.336	Spike	P	0 - 20
2313175	Silver	2.36	Spike	P	0 - 20
2313175	Thallium	3.20	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411369

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313153	Chloride	0.134	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313153	Sulfate	0.689	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314156	Ammonia-N	2.19	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411529

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313098	Kjeldahl Nitrogen	4.76	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313275	Kjeldahl Nitrogen	1.41	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313241	NO2NO3-N	0.512	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411461

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: P411461

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313339	Total-P	0.449	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P411311

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313277	O-Phosphate-P	0.399	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P411232

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313285	Acetochlor	10.4	Spike	P	0 - 27
2313285	Alachlor	14.2	Spike	P	0 - 27
2313285	Ametryn	2.44	Spike	P	0 - 34
2313285	Atrazine	4.69	Spike	P	0 - 41
2313285	Atrazine Desethyl	8.97	Spike	P	0 - 38
2313285	Avobenzone	5.72	Spike	P	0 - 30
2313285	Azinphos Methyl	24.7	Spike	P	0 - 62
2313285	Azoxystrobin	26.2	Spike	P	0 - 32
2313285	Bromacil	1.23	Spike	P	0 - 30
2313285	Butylate	6.22	Spike	P	0 - 59
2313285	Caffeine	13.8	Spike	P	0 - 60
2313285	Carbophenothion	0.470	Spike	P	0 - 25
2313285	Carfentrazone Ethyl	8.13	Spike	P	0 - 26
2313285	Chlorfenapyr	6.33	Spike	P	0 - 30
2313285	Chlorpyrifos Ethyl	9.27	Spike	P	0 - 27
2313285	Chlorpyrifos Methyl	1.18	Spike	P	0 - 26
2313285	Coumaphos	1.73	Spike	P	0 - 30
2313285	Cyanazine	1.05	Spike	P	0 - 58
2313285	Cyprodinil	11.2	Spike	P	0 - 30
2313285	Demeton	1.60	Spike	P	0 - 25
2313285	Diazinon	3.82	Spike	P	0 - 29
2313285	Difenoconazole	29.9	Spike	F	0 - 25
2313285	Dimethenamid	4.85	Spike	P	0 - 30
2313285	Dimethomorph	46.8	Spike	F	0 - 30
2313285	Disulfoton	3.46	Spike	P	0 - 33
2313285	Dithiopyr	4.65	Spike	P	0 - 22
2313285	EPTC	8.98	Spike	P	0 - 38
2313285	Ethion	45.3	Spike	P	0 - 79
2313285	Ethoprop	4.50	Spike	P	0 - 23
2313285	Etridiazole	19.9	Spike	P	0 - 30
2313285	Fenamiphos	7.91	Spike	P	0 - 58
2313285	Fenbuconazole	41.4	Spike	F	0 - 37
2313285	Fipronil	13.1	Spike	P	0 - 33
2313285	Fipronil Desulfinyl	6.39	Spike	P	0 - 26
2313285	Fipronil Sulfide	3.41	Spike	P	0 - 37
2313285	Fipronil Sulfone	5.52	Spike	P	0 - 50
2313285	Fluazifop-P-butyl	0.416	Spike	P	0 - 24

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P411232

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313285	Fludioxonil	6.31	Spike	P	0 - 26
2313285	Flumioxazin	20.9	Spike	P	0 - 37
2313285	Flutolanil	21.0	Spike	P	0 - 26
2313285	Fluxapyroxad	10.5	Spike	P	0 - 34
2313285	Fonofos	12.0	Spike	P	0 - 27
2313285	Hexazinone	6.68	Spike	P	0 - 36
2313285	Imazalil	29.3	Spike	P	0 - 65
2313285	Iprodione	11.7	Spike	P	0 - 33
2313285	Loratadine	60.4	Spike	F	0 - 30
2313285	Malathion	1.71	Spike	P	0 - 44
2313285	Metalaxyl	3.89	Spike	P	0 - 38
2313285	Metolachlor	14.5	Spike	P	0 - 36
2313285	Metribuzin	5.93	Spike	P	0 - 63
2313285	Mevinphos	1.20	Spike	P	0 - 26
2313285	Molinate	8.24	Spike	P	0 - 40
2313285	Myclobutanil	1.23	Spike	P	0 - 21
2313285	Naled	6.16	Spike	P	0 - 26
2313285	Napropamide	13.2	Spike	P	0 - 30
2313285	Norflurazon	12.1	Spike	P	0 - 24
2313285	Octinoxate	2.06	Spike	P	0 - 30
2313285	Oxadiazon	14.6	Spike	P	0 - 27
2313285	Oxybenzone	3.93	Spike	P	0 - 30
2313285	Oxyfluorfen	0.971	Spike	P	0 - 24
2313285	Parathion Ethyl	0.638	Spike	P	0 - 28
2313285	Parathion Methyl	7.70	Spike	P	0 - 27
2313285	Pendimethalin	34.7	Spike	F	0 - 31
2313285	Phenytoin	81.4	Spike	F	0 - 30
2313285	Phorate	3.51	Spike	P	0 - 27
2313285	Prodiamine	2.12	Spike	P	0 - 52
2313285	Prometon	0.884	Spike	P	0 - 31
2313285	Prometryn	1.96	Spike	P	0 - 28
2313285	Pronamide	9.56	Spike	P	0 - 26
2313285	Propanil	5.47	Spike	P	0 - 30
2313285	Propargite	26.4	Spike	P	0 - 30
2313285	Propiconazole	20.8	Spike	P	0 - 31
2313285	Pyraflufen Ethyl	9.72	Spike	P	0 - 30
2313285	Pyridaben	6.83	Spike	P	0 - 30
2313285	Pyriproxyfen	4.19	Spike	P	0 - 50
2313285	Simazine	25.2	Spike	P	0 - 29
2313285	Stirophos	24.0	Spike	P	0 - 30
2313285	Sulfentrazone	13.8	Spike	P	0 - 33
2313285	Tebuconazole	28.2	Spike	P	0 - 44
2313285	Terbufos	0.838	Spike	P	0 - 29
2313285	Terbutylazine	8.73	Spike	P	0 - 27
2313285	Thiobencarb	6.31	Spike	P	0 - 30
2313285	Triadimefon	3.24	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P411170

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2312858	Acesulfame K	0.268	Spike	P	0 - 30
2312858	AMPA	6.92	Spike	P	0 - 30
2312858	Endothall	3.00	Spike	P	0 - 30
2312858	Glufosinate	10.1	Spike	P	0 - 30
2312858	Glyphosate	5.02	Spike	P	0 - 30
2312858	Sucralose	15.9	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P411316

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313282	2,4-D	23.0	Spike	P	0 - 30
2313282	2,4,5-T	16.6	Spike	P	0 - 30
2313282	Acetaminophen	3.87	Spike	P	0 - 30
2313282	Acetamiprid	10.4	Spike	P	0 - 30
2313282	Afidopyropen	8.06	Spike	P	0 - 30
2313282	Bentazon	0.338	Spike	P	0 - 30
2313282	Benzovindiflupyr	0.652	Spike	P	0 - 30
2313282	Carbamazepine	2.58	Spike	P	0 - 30
2313282	Clothianidin	3.40	Spike	P	0 - 30
2313282	Dinotefuran	8.20	Spike	P	0 - 30
2313282	Diuron	5.19	Spike	P	0 - 30
2313282	Fenuron	23.9	Spike	P	0 - 30
2313282	Fluridone	1.48	Spike	P	0 - 30
2313282	Hydrocodone	4.46	Spike	P	0 - 30
2313282	Ibuprofen	7.47	Spike	P	0 - 30
2313282	Imazapyr	5.86	Spike	P	0 - 30
2313282	Imidacloprid	7.48	Spike	P	0 - 30
2313282	Linuron	6.02	Spike	P	0 - 30
2313282	Mandestrobin	5.97	Spike	P	0 - 30
2313282	MCPP	10.7	Spike	P	0 - 30
2313282	Naproxen	27.4	Spike	P	0 - 30
2313282	Primidone	32.3	Spike	F	0 - 30
2313282	Pyraclostrobin	3.73	Spike	P	0 - 30
2313282	Silvex	12.6	Spike	P	0 - 30
2313282	Thiamethoxam	0.895	Spike	P	0 - 30
2313282	Tolfenpyrad	2.55	Spike	P	0 - 30
2313282	Triclopyr	9.98	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
 Batch ID: P411602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313867	Total Alkalinity	0.862	Sample	P	0 - 5.2

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P411622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313265	TDS	5.04	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P411584

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313265	TSS	6.06	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P411605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313867	Fluoride	0.973	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P411474

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2313160	Organic Carbon	2.51	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2313282
Field Sample ID: G5NW0068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	48.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.0	P	30 - 160
EPA 8321B	Diuron-d6	61.9	P	30 - 160
EPA 8321B	Endothall-d6	94.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	94.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	56.7	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	78.5	P	30 - 160

Lab Sample ID: 2313285
Field Sample ID: G5NW0068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	61.2	P	20 - 200
EPA 8270E	Simazine-d10	107	P	71 - 140
EPA 8270E	Terbufos-d10	107	P	62 - 131
EPA 8270E	Terphenyl-d14	93.7	P	55 - 108

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A111030

Included Lab Sample IDs: 2313272, 2313273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	85 - 115
Color (true)	99.3	100	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A111033

Included Lab Sample IDs: 2313277

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A111034

Included Lab Sample IDs: 2313272, 2313273

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111053

Included Lab Sample IDs: 2313274, 2313275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	98.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A111067

Included Lab Sample IDs: 2313283, 2313284

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.0	99.0	P/P	90 - 110
Antimony	97.3	97.3	P/P	90 - 110
Arsenic	97.5	97.6	P/P	90 - 110
Beryllium	93.9	93.9	P/P	90 - 110
Boron	104	103	P/P	90 - 110
Cadmium	99.8	100	P/P	90 - 110
Chromium	97.0	97.9	P/P	90 - 110
Cobalt	93.9	95.2	P/P	90 - 110
Copper	93.3	93.7	P/P	90 - 110
Lead	97.5	97.2	P/P	90 - 110
Manganese	95.8	97.0	P/P	90 - 110
Molybdenum	98.2	97.7	P/P	90 - 110
Nickel	92.3	93.1	P/P	90 - 110
Selenium	98.5	98.7	P/P	90 - 110
Silver	98.2	98.5	P/P	90 - 110
Thallium	100	99.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A111070

Included Lab Sample IDs: 2313272, 2313273

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A111070

Included Lab Sample IDs: 2313272, 2313273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111076

Included Lab Sample IDs: 2313282

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	95.3	92.3	P/P	60 - 160
Endothall	99.1	97.4	P/P	60 - 160
Glufosinate	97.0	99.2	P/P	60 - 160
Glyphosate	95.2	97.4	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A111077

Included Lab Sample IDs: 2313282

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	101	P/P	60 - 160
Sucralose	91.0	96.1	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A111091

Included Lab Sample IDs: 2313283, 2313284

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

Reference Method: SM 5310 B-2011

Run ID: A111102

Included Lab Sample IDs: 2313274, 2313275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.2	94.8	P/P	90 - 110
Organic Carbon	95.2	95.0	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A111106

Included Lab Sample IDs: 2313285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	105		P	80 - 120
Alachlor	107		P	80 - 120
Ametryn	111		P	80 - 120
Atrazine	98.6		P	80 - 120
Atrazine Desethyl	97.8		P	80 - 120
Azinphos Methyl	94.2		P	80 - 120
Azoxystrobin	97.0		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	93.8		P	80 - 120
Caffeine	94.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111106
Included Lab Sample IDs: 2313285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbophenothion	107		P	80 - 120
Carfentrazone Ethyl	113		P	80 - 120
Chlorfenapyr	101		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	110		P	80 - 120
Coumaphos	107		P	80 - 120
Cyanazine	94.8		P	80 - 120
Cyprodinil	106		P	80 - 120
Demeton	102		P	80 - 120
Diazinon	109		P	80 - 120
Dimethenamid	109		P	80 - 120
Dimethomorph	100		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	114		P	80 - 120
EPTC	101		P	80 - 120
Ethion	100		P	80 - 120
Ethoprop	105		P	80 - 120
Etridiazole	104		P	80 - 120
Fenamiphos	100		P	80 - 120
Fenbuconazole	91.6		P	80 - 120
Fipronil	104		P	80 - 120
Fipronil Desulfinyl	119		P	80 - 120
Fipronil Sulfide	120		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fludioxonil	111		P	80 - 120
Flumioxazin	88.6		P	80 - 120
Flutolanil	104		P	80 - 120
Fluxapyroxad	119		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	103		P	80 - 120
Imazalil	115		P	80 - 120
Iprodione	102		P	80 - 120
Loratadine	100		P	80 - 120
Malathion	98.6		P	80 - 120
Metaxyl	106		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	96.4		P	80 - 120
Mevinphos	107		P	80 - 120
Molinate	99.1		P	80 - 120
Myclobutanil	105		P	80 - 120
Naled	104		P	80 - 120
Napropamide	107		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	108		P	80 - 120
Oxyfluorfen	111		P	80 - 120
Parathion Ethyl	98.4		P	80 - 120
Parathion Methyl	104		P	80 - 120
Pendimethalin	107		P	80 - 120
Phenytoin	90.1		P	80 - 120
Phorate	108		P	80 - 120
Prometon	92.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111106
Included Lab Sample IDs: 2313285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prometryn	110		P	80 - 120
Pronamide	103		P	80 - 120
Propanil	113		P	80 - 120
Propargite	94.9		P	80 - 120
Propiconazole	104		P	80 - 120
Pyraflufen Ethyl	106		P	80 - 120
Pyridaben	98.2		P	80 - 120
Pyriproxyfen	101		P	80 - 120
Simazine	102		P	80 - 120
Stirophos	92.4		P	80 - 120
Sulfentrazone	114		P	80 - 120
Tebuconazole	95.0		P	80 - 120
Terbufos	108		P	80 - 120
Terbuthylazine	108		P	80 - 120
Thiobencarb	102		P	80 - 120
Triadimefon	105		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A111123
Included Lab Sample IDs: 2313283, 2313284

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	98.5	P/P	90 - 110
Iron	101	99.8	P/P	90 - 110
Magnesium	101	99.6	P/P	90 - 110
Potassium	103	102	P/P	90 - 110
Sodium	99.9	99.5	P/P	90 - 110
Strontium	95.9	93.4	P/P	90 - 110
Tin	98.4	94.5	P/P	90 - 110
Titanium	96.3	93.5	P/P	90 - 110
Vanadium	96.6	93.7	P/P	90 - 110
Zinc	101	96.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A111133
Included Lab Sample IDs: 2313274, 2313275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.4	97.8	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A111156
Included Lab Sample IDs: 2313272, 2313273

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

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A111156

Included Lab Sample IDs: 2313272, 2313273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111163

Included Lab Sample IDs: 2313274, 2313275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	100	P/P	90 - 110
Total-P	101	99.8	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A111176

Included Lab Sample IDs: 2313285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Difenoconazole	93.0		P	80 - 120
Fluazifop-P-butyl	101		P	80 - 120
Prodiamine	122*		F	80 - 120

Reference Method: EPA 8321B

Run ID: A111189

Included Lab Sample IDs: 2313282

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	75.9	61.4	P/P	50 - 150
2,4,5-T	98.6	70.6	P/P	50 - 150
Acetaminophen	141	123	P/P	60 - 160
Acetamiprid	101	103	P/P	50 - 150
Afidopyropen	96.2	63.6	P/P	50 - 150
Bentazon	70.1	68.2	P/P	50 - 160
Benzovindiflupyr	118	124	P/P	50 - 160
Carbamazepine	82.0	85.9	P/P	60 - 150
Clothianidin	104	99.8	P/P	60 - 150
Dinotefuran	126	121	P/P	50 - 150
Diuron	66.6	62.0	P/P	60 - 160
Fenuron	109	94.8	P/P	60 - 150
Fluridone	108	114	P/P	60 - 160
Hydrocodone	109	112	P/P	60 - 150
Ibuprofen	106	71.1	P/P	50 - 160
Imazapyr	106	104	P/P	50 - 150
Imidacloprid	98.3	85.7	P/P	60 - 150
Linuron	99.0	114	P/P	60 - 150
Mandestrobin	94.9	99.3	P/P	50 - 150
MCPP	85.0	75.7	P/P	50 - 150
Naproxen	65.7	68.9	P/P	50 - 160
Primidone	103	96.3	P/P	60 - 150
Pyraclostrobin	114	129	P/P	60 - 150
Silvex	90.9	78.3	P/P	50 - 150
Thiamethoxam	123	95.0	P/P	50 - 150
Tolfenpyrad	124	115	P/P	60 - 150
Triclopyr	72.6	90.9	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111196

Included Lab Sample IDs: 2313274

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.5	92.8	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A111263

Included Lab Sample IDs: 2313285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Avobenzone	104		P	80 - 120
Octinoxate	94.9		P	80 - 120
Oxybenzone	103		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111296

Included Lab Sample IDs: 2313275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.5	100	P/P	90 - 110

* 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)	99.4				0.966	
	Color (true)	97.1				2.54	
EPA 180.1 Rev. 2.0	Turbidity	96.6				11.3	
EPA 200.7 Rev. 4.4	Calcium	103	99.7	98.3			1.72
	Iron	106	106	104	102		1.42
	Magnesium	107	106	106	103		0.550
	Potassium	105	103	102	101		0.994
	Sodium	107	102	97.7	99.6		2.40
	Strontium	100	102	99.4	98.3		2.71
	Tin	100	103	103	99.4		0.371
	Titanium	99.9	102	98.7	97.8		2.82
	Vanadium	93.7	98.0	95.0	93.4		3.15
	Zinc	101	104	101	98.3		2.70
EPA 200.8 Rev. 5.4	Aluminum	99.6	115	119	110		3.34
	Antimony	101	98.7	101	101		2.00
	Arsenic	101	99.0	100	98.5		1.37
	Barium	106	106	108	107		2.01
	Beryllium	92.3	95.3	92.1	94.2		3.14
	Boron	104	106	106	106		0.359
	Cadmium	101	99.3	103	102		3.69
	Chromium	95.9	96.3	100	98.2		3.65
	Cobalt	98.2	96.1	98.4	95.4		2.34
	Copper	95.1	95.1	97.2	93.9		2.18
	Lead	98.3	98.4	100	98.6		1.75
	Manganese	95.8	96.3				2.67
	Molybdenum	99.6	98.1	99.4	99.6		1.30
	Nickel	95.7	95.1	97.1	93.3		2.09
	Selenium	99.8	97.2	97.6	98.9		0.336
	Silver	100	99.2	102	101		2.36
	Thallium	99.5	101	105	102		3.20
EPA 300.0 Rev. 2.1	Chloride	100	100	99.5		0.134	
	Sulfate	101	99.8	99.6		0.689	
EPA 350.1 Rev. 2.0	Ammonia-N	95.8	96.8	99.2			2.19
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102					4.76
	Kjeldahl Nitrogen	110	97.7	96.1			1.41
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	97.5	98.0			0.512
EPA 365.1 Rev. 2.0	Total-P	99.8	102	101			0.449
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3	100	100			0.399
EPA 8270E	Acetochlor	101	112	124			10.4
	Alachlor	92.5	91.0	105			14.2
	Ametryn	72.7	93.5	91.3			2.44
	Atrazine	98.4					4.69
	Atrazine Desethyl	56.6	53.8	60.6			8.97
	Avobenzone	106	91.2	96.6			5.72
	Azinphos Methyl	97.0	107	137			24.7
	Azoxystrobin	93.6	99.0	129			26.2
	Bromacil	60.6	87.7	88.8			1.23
	Butylate	39.7	48.2	51.3			6.22
	Caffeine	93.2	101	85.2			13.8
	Carbophenothion	99.1	94.7	95.1			0.470
	Carfentrazone Ethyl	85.2	92.1	99.9			8.13
	Chlorfenapyr	103	85.7	91.3			6.33
	Chlorpyrifos Ethyl	94.5	78.9	86.6			9.27
	Chlorpyrifos Methyl	100	96.3	95.1			1.18

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Coumaphos	110	90.6	92.1		1.73
	Cyanazine	82.1	86.8	85.9		1.05
	Cyprodinil	92.6	105	93.8		11.2
	Demeton	75.2	81.7	80.4		1.60
	Diazinon	96.9	107	111		3.82
	Difenoconazole	94.8	104	76.7		29.9
	Dimethenamid	82.5	90.8	95.3		4.85
	Dimethomorph	155	140	225		46.8
	Disulfoton	80.1	73.4	76.0		3.46
	Dithiopyr	89.9	86.7	90.9		4.65
	EPTC	49.3	50.6	55.4		8.98
	Ethion	65.6	77.3	48.7		45.3
	Ethoprop	88.7	88.3	92.4		4.50
	Etridiazole	67.9	78.5	95.9		19.9
	Fenamiphos	63.8	68.7	74.3		7.91
	Fenbuconazole	64.1	73.7	112		41.4
	Fipronil	94.4	98.5	112		13.1
	Fipronil Desulfinyl	99.8	99.5	106		6.39
	Fipronil Sulfide	85.7	85.0	87.9		3.41
	Fipronil Sulfone	75.9	64.6	59.8		5.52
	Fluazifop-P-butyl	112	102	101		0.416
	Fludioxonil	74.6	92.5	98.5		6.31
	Flumioxazin	81.9	118	145		20.9
	Flutolanil	57.9	58.7	72.4		21.0
	Fluxapyroxad	72.1	76.5	85.0		10.5
	Fonofos	90.3	83.1	93.7		12.0
	Hexazinone	83.4	91.7	85.8		6.68
	Imazalil	66.5	80.9	109		29.3
	Iprodione	73.2	87.0	97.8		11.7
	Loratadine	119	112	209		60.4
	Malathion	96.6	82.1	83.5		1.71
	Metalaxyl	93.9	86.8	90.3		3.89
	Metolachlor	92.9	91.1	105		14.5
	Metribuzin	80.0	75.9	80.6		5.93
	Mevinphos	82.1	92.2	93.4		1.20
	Molinate	54.3	63.5	68.9		8.24
	Myclobutanil	82.9	80.0	79.0		1.23
	Naled	73.1	69.3	73.7		6.16
	Napropamide	58.7	69.1	78.8		13.2
	Norflurazon	78.9	71.1	63.0		12.1
	Octinoxate	92.5	98.0	100		2.06
	Oxadiazon	71.7	69.8	80.8		14.6
	Oxybenzone	89.2	88.7	92.3		3.93
	Oxyfluorfen	116	127	128		0.971
	Parathion Ethyl	84.1	86.6	86.1		0.638
	Parathion Methyl	93.0	124	115		7.70
	Pendimethalin	103	119	83.7		34.7
	Phenytoin	9.03	31.4	13.2		81.4
	Phorate	86.2	85.9	88.9		3.51
	Prodiamine	33.1	49.4	50.5		2.12
	Prometon	74.8	80.7	80.0		0.884
	Prometryn	88.7	84.0	85.7		1.96
	Pronamide	93.9	101	111		9.56
	Propanil	97.9	119	113		5.47

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Propargite	55.7	66.5	51.0			26.4
	Propiconazole	72.2	70.3	57.1			20.8
	Pyraflufen Ethyl	78.1	71.7	65.1			9.72
	Pyridaben	97.7	87.4	93.6			6.83
	Pyriproxyfen	76.3	83.1	86.7			4.19
	Simazine	85.3	93.2	120			25.2
	Stirophos	55.7	55.6	43.7			24.0
	Sulfentrazone	32.2	97.7	114			13.8
	Tebuconazole	45.9	55.7	41.9			28.2
	Terbufos	113	109	109			0.838
	Terbutylazine	93.8	100	109			8.73
	Thiobencarb	85.0	80.7	85.9			6.31
	Triadimefon	92.2	97.1	94.0			3.24
	2,4-D	44.9	39.9	50.3			23.0
EPA 8321B	2,4,5-T	34.7	34.9	41.3			16.6
	Acesulfame K	94.1	82.9	83.1			0.268
	Acetaminophen	110	123	128			3.87
	Acetamiprid	81.3	58.9	65.4			10.4
	Afidopyropen	60.8	38.9	42.2			8.06
	AMPA	95.4	95.4	102			6.92
	Bentazon	70.8	81.1	81.4			0.338
	Benzovindiflupyr	90.5	87.5	88.1			0.652
	Carbamazepine	61.0	76.8	74.7			2.58
	Clothianidin	89.0	108	104			3.40
	Dinotefuran	112	130	119			8.20
	Diuron	53.1	50.7	53.4			5.19
	Endothall	93.2	102	106			3.00
	Fenuron	118	111	141			23.9
	Fluridone	89.0	102	103			1.48
	Glufosinate	101	84.3	93.3			10.1
	Glyphosate	95.1	84.4	88.7			5.02
	Hydrocodone	86.5	102	97.6			4.46
	Ibuprofen	87.6	102	110			7.47
	Imazapyr	90.1	111	104			5.86
	Imidacloprid	78.1	122	112			7.48
	Linuron	98.4	107	113			6.02
	Mandestrobin	82.1	96.2	90.6			5.97
	MCP	52.0	55.5	61.8			10.7
	Naproxen	46.5	44.8	59.0			27.4
	Primidone	101	111	79.9			32.3
	Pyraclostrobin	83.3	99.7	96.1			3.73
	Silvex	31.1	34.8	39.5			12.6
	Sucralose	86.4	80.9	95.0			15.9
	Thiamethoxam	97.9	124	123			0.895
	Tolfenpyrad	35.4	54.3	55.7			2.55
	Triclopyr	34.0	30.2	33.4			9.98
SM 2320 B-2011	Total Alkalinity	98.4				0.862	
SM 2540 C-2011	TDS					5.04	
SM 2540 D-2011	TSS					6.06	
SM 4500 F-C-2011	Fluoride	97.2	96.0	94.1			0.973
SM 5310 B-2011	Organic Carbon	96.0	95.3	98.3			2.51

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2313272, 2313273
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2313272, 2313273
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2313283, 2313284
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2313283, 2313284
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2313272, 2313273
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2313272, 2313273
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2313274, 2313275
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2313274, 2313275
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2313274, 2313275
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2313274, 2313275
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2313277
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2313285
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2313285
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2313282
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2313272, 2313273
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2313283, 2313284
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2313272, 2313273
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2313272, 2313273
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2313272, 2313273
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2313274, 2313275

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	03/18/2022			03/18/2022 15:43	Samantha L Bates	2313273
	03/18/2022			03/18/2022 15:47	Samantha L Bates	2313272
EPA 180.1 Rev. 2.0	03/18/2022			03/18/2022 14:53	Khloe J Berg	2313273
	03/18/2022			03/18/2022 15:02	Khloe J Berg	2313272
EPA 200.7 Rev. 4.4	03/18/2022	03/21/2022 10:26	Megan Whitefoot	03/23/2022 21:12	Josef B Mick	2313283
	03/18/2022	03/21/2022 10:26	Megan Whitefoot	03/23/2022 21:20	Josef B Mick	2313284
EPA 200.8 Rev. 5.4	03/18/2022	03/21/2022 10:26	Megan Whitefoot	03/22/2022 05:22	Emily M Philpot	2313283
	03/18/2022	03/21/2022 10:26	Megan Whitefoot	03/22/2022 05:31	Emily M Philpot	2313284
	03/18/2022	03/21/2022 10:26	Megan Whitefoot	03/22/2022 14:41	Alexander Thompson	2313283
	03/18/2022	03/21/2022 10:26	Megan Whitefoot	03/22/2022 14:47	Alexander Thompson	2313284
EPA 300.0 Rev. 2.1	03/18/2022			03/22/2022 03:42	James L Waggeberby	2313272
	03/18/2022			03/22/2022 03:54	James L Waggeberby	2313273
EPA 350.1 Rev. 2.0	03/18/2022			03/24/2022 13:41	Judith K. Clark	2313274
	03/18/2022			03/24/2022 13:42	Judith K. Clark	2313275
EPA 351.2 Rev. 2.0	03/18/2022	03/25/2022 10:06	Samantha L Bates	03/28/2022 13:51	Alexandra J Mattheus	2313274
	03/18/2022	03/31/2022 11:24	Samantha L Bates	04/04/2022 12:24	Alexandra J Mattheus	2313275
EPA 353.2 Rev. 2.0	03/18/2022			03/21/2022 10:18	Beverly Y. Sanders	2313274
	03/18/2022			03/21/2022 10:19	Beverly Y. Sanders	2313275
EPA 365.1 Rev. 2.0	03/18/2022	03/23/2022 17:20	Simonne.V. Calhoun	03/25/2022 15:09	James L Waggeberby	2313274
	03/18/2022	03/23/2022 17:20	Simonne.V. Calhoun	03/25/2022 15:46	James L Waggeberby	2313275
EPA 365.1 Rev. 2.0 dissolved	03/18/2022			03/18/2022 17:22	James L Waggeberby	2313277
EPA 8270E	03/18/2022	03/21/2022 08:30	Fe-Val Siddell	03/22/2022 20:10	Michael Poppell	2313285
	03/18/2022	03/21/2022 08:30	Fe-Val Siddell	03/25/2022 16:06	Michael Poppell	2313285
	03/18/2022	03/21/2022 08:30	Fe-Val Siddell	03/30/2022 22:00	Lipi Saha	2313285
EPA 8321B	03/18/2022	03/21/2022 08:30	June Rhew	03/26/2022 00:01	Juyoung Kim	2313282
	03/18/2022	03/21/2022 12:00	Manjita Shrestha	03/21/2022 17:51	Manjita Shrestha	2313282
	03/18/2022	03/21/2022 12:00	Manjita Shrestha	03/21/2022 20:02	Manjita Shrestha	2313282
SM 2320 B-2011	03/18/2022			03/24/2022 23:49	Dale L. Simmons	2313272
	03/18/2022			03/24/2022 23:59	Dale L. Simmons	2313273
SM 2340B	03/18/2022			03/23/2022 21:12	Josef B Mick	2313283
	03/18/2022			03/23/2022 21:20	Josef B Mick	2313284
SM 2540 C-2011	03/18/2022			03/23/2022 14:22	Yijie Li	2313272, 2313273
SM 2540 D-2011	03/18/2022			03/23/2022 14:22	Yijie Li	2313272, 2313273
SM 4500 F-C-2011	03/18/2022			03/24/2022 23:49	Dale L. Simmons	2313272
	03/18/2022			03/24/2022 23:59	Dale L. Simmons	2313273
SM 5310 B-2011	03/18/2022			03/22/2022 19:17	Khloe J Berg	2313275
	03/18/2022			03/23/2022 00:31	Khloe J Berg	2313274