Chemical Analysis Report

TLH-ROC-2022-04-25-01

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

Event Description: **SCI Kits**
Request ID: **RQ-2022-01-03-58**
Customer: **TLH-ROC**
Project ID: **SMP**

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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant Date Certified: 17-MAY-2022 09:30

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: Double Bayou 800m upstream from Lake Wimico **Collection Date/Time: 04/25/2022 12:25**

Field ID: G2TLHR0003 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321846	DEP SOP: NU-094-1	Color (true)**	97		PCU	P412919	
	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P412917	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P413251	
		Sulfate	2.6		mg SO4/L	P413253	
	SM 2320 B-2011	Total Alkalinity	33		mg CaCO3/L	P413538	
	SM 2540 C-2011	TDS	80		mg/L	P413421	
	SM 2540 D-2011	TSS	4	I	mg/L	P413469	
	SM 4500-F- C-2011	Fluoride	0.053	I	mg F/L	P413543	
2321848	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P413110	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P413274	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.012		mg N/L	P413028	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P413050	
	SM 5310 B-2011	Organic Carbon	9.2		mg C/L	P413058	
2321850	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P412915	
2321856	EPA 8321B	2,4-D	0.0020	I	ug/L	P412902	
		Acesulfame K	0.10	U	ug/L	P412884	
		2,4,5-T	0.0040	U	ug/L	P412902	
		AMPA	0.10	U	ug/L	P412884	
		Acetaminophen	0.0080	U	ug/L	P412902	
		Endothall	0.25	U	ug/L	P412884	
		Acetamiprid	0.0020	U	ug/L	P412902	MS
		Glufosinate	0.10	U	ug/L	P412884	
		Glyphosate	0.10	U	ug/L	P412884	
		Afidopyropen	0.0020	U	ug/L	P412902	RPD
		Bentazon	8.0E-04	U	ug/L	P412902	
		Sucralose	0.80		ug/L	P412884	
		Benzovindiflupyr	0.0020	U	ug/L	P412902	
		Carbamazepine	8.0E-04	U	ug/L	P412902	
		Clothianidin	0.0020	U	ug/L	P412902	
		Dinotefuran	0.0020	U	ug/L	P412902	
		Diuron	0.0020	U	ug/L	P412902	MS
		Fenuron	0.032	U	ug/L	P412902	
		Fluridone	8.0E-04	U	ug/L	P412902	
		Imazapyr	0.011	I	ug/L	P412902	
		Hydrocodone	0.0020	U	ug/L	P412902	
		Ibuprofen	0.020	U	ug/L	P412902	
		Imidacloprid	0.0020	U	ug/L	P412902	
		Linuron	0.0040	U	ug/L	P412902	
		Mandestrobin	0.0020	U	ug/L	P412902	
		MCPP	0.0040	U	ug/L	P412902	
		Naproxen	0.0080	U	ug/L	P412902	
		Primidone	0.0040	U	ug/L	P412902	

Field ID: G2TLHR0003 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321856	EPA 8321B	Pyraclostrobin	0.0020	U	ug/L	P412902	
		Silvex	0.0040	U	ug/L	P412902	
		Thiamethoxam	0.0020	U	ug/L	P412902	
		Tolfenpyrad	0.0020	U	ug/L	P412902	
		Triclopyr	0.0040	U	ug/L	P412902	
2321858	EPA 200.7 Rev. 4.4	Calcium	10.1		mg/L	P412938	
		Iron	920		ug/L	P412938	
		Magnesium	2.36		mg/L	P412938	
		Potassium	1.4		mg/L	P412938	
		Sodium	8.1		mg/L	P412938	
		Strontium	30.7		ug/L	P412938	
		Tin	3.0	U	ug/L	P412938	
		Titanium	1.1	I	ug/L	P412938	
		Vanadium	2.0	U	ug/L	P412938	
		Zinc	5.0	U	ug/L	P412938	
	EPA 200.8 Rev. 5.4	Aluminum	41		ug/L	P412938	
		Antimony	0.050	U	ug/L	P412938	
		Arsenic	0.28		ug/L	P412938	
		Barium	15.6		ug/L	P412938	
		Beryllium	0.011	I	ug/L	P412938	
		Boron**	16.4		ug/L	P412938	
		Cadmium	0.020	U	ug/L	P412938	
		Chromium	0.40	U	ug/L	P412938	
		Cobalt	0.087		ug/L	P412938	
		Copper	0.55	I	ug/L	P412938	
		Lead	0.20	U	ug/L	P412938	
		Manganese	17.5		ug/L	P412938	
		Molybdenum	0.15	U	ug/L	P412938	
		Nickel	0.50	U	ug/L	P412938	
		Selenium	0.20	U	ug/L	P412938	
		Silver	0.010	U	ug/L	P412938	
		Thallium	0.10	U	ug/L	P412938	
	SM 2340 B-2011	Hardness	35.0		mg/L	P412938	
2321860	EPA 8270E	Acetochlor	0.24	U	ng/L	P413007	
		Alachlor	0.24	U	ng/L	P413007	
		Ametryn	0.57	U	ng/L	P413007	
		Atrazine	17		ng/L	P413007	
		Atrazine Desethyl	5.5	I	ng/L	P413007	
		Azinphos Methyl	1.9	U	ng/L	P413007	
		Azoxystrobin**	0.48	U	ng/L	P413007	
		Bromacil	0.48	U	ng/L	P413007	
		Butylate	0.38	U	ng/L	P413007	
		Caffeine**	16	I	ng/L	P413007	
		Carbophenothion	0.19	U	ng/L	P413007	
		Carfentrazone Ethyl**	0.095	U	ng/L	P413007	

Field ID: G2TLHR0003 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321860	EPA 8270E	Chlorfenapyr**	0.17	U	ng/L	P413007	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P413007	
		Chlorpyrifos Methyl	0.048	U	ng/L	P413007	
		Coumaphos**	0.48	U	ng/L	P413007	
		Cyanazine	3.1	U	ng/L	P413007	
		Cyprodinil**	0.095	U	ng/L	P413007	
		Demeton	1.4	U	ng/L	P413007	
		Diazinon	0.12	U	ng/L	P413007	
		Difenoconazole**	0.57	U	ng/L	P413007	
		Dimethenamid**	0.095	U	ng/L	P413007	
		Dimethomorph**	0.17	U	ng/L	P413007	
		Disulfoton	0.48	U	ng/L	P413007	
		Dithiopyr**	0.17	U	ng/L	P413007	
		EPTC	1.2	U	ng/L	P413007	
		Ethion	0.14	U	ng/L	P413007	
		Ethoprop	0.095	U	ng/L	P413007	
		Etridiazole**	0.14	U	ng/L	P413007	
		Fenamiphos	0.48	U	ng/L	P413007	
		Fenbuconazole**	0.12	U	ng/L	P413007	
		Fipronil	0.24	U	ng/L	P413007	
		Fipronil Desulfinyl**	0.23	I	ng/L	P413007	
		Fipronil Sulfide	0.14	UJ	ng/L	P413007	LCS
		Fipronil Sulfone	0.14	U	ng/L	P413007	
		Fluazifop-P-butyl**	0.095	U	ng/L	P413007	
		Fludioxonil**	0.12	U	ng/L	P413007	
		Flumioxazin**	1.7	U	ng/L	P413007	
		Flutolanil**	0.15	I	ng/L	P413007	
		Fluxapyroxad**	0.34	I	ng/L	P413007	
		Fonofos	0.19	U	ng/L	P413007	
		Hexazinone	0.48	U	ng/L	P413007	
		Imazalil**	0.71	U	ng/L	P413007	
		Iprodione**	0.57	U	ng/L	P413007	
		Loratadine**	0.095	U	ng/L	P413007	
		Malathion	0.33	U	ng/L	P413007	
		Metalaxyl	0.71	U	ng/L	P413007	
		Metolachlor	2.3		ng/L	P413007	
		Metribuzin	2.4	U	ng/L	P413007	
		Mevinphos	1.0	U	ng/L	P413007	
		Molinate	0.29	U	ng/L	P413007	
		Myclobutanil**	0.24	U	ng/L	P413007	
		Naled**	1.4	U	ng/L	P413007	
		Napropamide**	0.38	U	ng/L	P413007	
		Norflurazon	0.48	U	ng/L	P413007	
		Oxadiazon	2.0		ng/L	P413007	
		Oxyfluorfen**	0.14	U	ng/L	P413007	

Field ID: G2TLHR0003 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321860	EPA 8270E	Parathion Ethyl	0.24	U	ng/L	P413007	
		Parathion Methyl	0.52	U	ng/L	P413007	
		Pendimethalin	0.95	U	ng/L	P413007	
		Phenytoin**	3.3	U	ng/L	P413007	MS
		Phorate	0.50	U	ng/L	P413007	
		Prodiamine**	0.17	U	ng/L	P413007	
		Prometon	0.86	U	ng/L	P413007	
		Prometryn	0.19	U	ng/L	P413007	
		Pronamide**	0.14	U	ng/L	P413007	
		Propanil**	0.12	U	ng/L	P413007	
		Propargite**	1.4	U	ng/L	P413007	MS
		Propiconazole**	0.48	U	ng/L	P413007	
		Pyraflufen Ethyl**	0.24	U	ng/L	P413007	
		Pyridaben**	0.43	U	ng/L	P413007	
		Pyriproxyfen**	0.12	U	ng/L	P413007	
		Simazine	27		ng/L	P413007	
		Stirophos**	0.12	U	ng/L	P413007	
		Sulfentrazone**	0.83	I	ng/L	P413007	
		Tebuconazole**	0.48	U	ng/L	P413007	
		Terbufos	0.095	U	ng/L	P413007	
		Terbuthylazine	0.40	U	ng/L	P413007	
		Thiobencarb**	0.57	U	ng/L	P413007	
		Triadimefon**	0.24	U	ng/L	P413007	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked 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.

Sample Location: Horseshoe Creek 100m upstream from Intercoastal/Lake Wimico

Collection Date/Time: 04/25/2022 13:00

Field ID: G2TLHR0033

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321847	DEP SOP: NU-094-1	Color (true)**	83		PCU	P412919	
	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P412917	
	EPA 300.0 Rev. 2.1	Chloride	9.5		mg Cl/L	P413251	
		Sulfate	4.0		mg SO4/L	P413253	
	SM 2320 B-2011	Total Alkalinity	31		mg CaCO3/L	P413538	
	SM 2540 C-2011	TDS	78		mg/L	P413421	
	SM 2540 D-2011	TSS	3	I	mg/L	P413469	
	SM 4500-F- C-2011	Fluoride	0.056	I	mg F/L	P413543	
2321849	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P413110	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P413274	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P413028	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P413050	
	SM 5310 B-2011	Organic Carbon	6.9		mg C/L	P413058	
2321851	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P412915	
2321857	EPA 8321B	2,4-D	0.026		ug/L	P412902	
		Acesulfame K	0.10	U	ug/L	P412884	
		2,4,5-T	0.0040	U	ug/L	P412902	
		AMPA	0.10	U	ug/L	P412884	
		Acetaminophen	0.0080	U	ug/L	P412902	
		Endothall	0.25	U	ug/L	P412884	
		Acetamiprid	0.0020	U	ug/L	P412902	MS
		Glufosinate	0.10	U	ug/L	P412884	
		Glyphosate	0.10	U	ug/L	P412884	
		Afidopyropen	0.0020	U	ug/L	P412902	RPD
		Bentazon	8.0E-04	U	ug/L	P412902	
		Sucralose	0.65		ug/L	P412884	
		Benzovindiflupyr	0.0020	U	ug/L	P412902	
		Carbamazepine	8.0E-04	U	ug/L	P412902	
		Clothianidin	0.0020	U	ug/L	P412902	
		Dinotefuran	0.0020	U	ug/L	P412902	
		Diuron	0.0020	U	ug/L	P412902	MS
		Fenuron	0.032	U	ug/L	P412902	
		Fluridone	8.0E-04	U	ug/L	P412902	
		Imazapyr	0.013	I	ug/L	P412902	
		Hydrocodone	0.0020	U	ug/L	P412902	
		Ibuprofen	0.020	U	ug/L	P412902	
		Imidacloprid	0.0020	U	ug/L	P412902	
		Linuron	0.0040	U	ug/L	P412902	
		Mandestrobin	0.0020	U	ug/L	P412902	
		MCPP	0.0055	I	ug/L	P412902	
		Naproxen	0.0080	U	ug/L	P412902	
		Primidone	0.0040	U	ug/L	P412902	

Field ID: G2TLHR0033 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321857	EPA 8321B	Pyraclostrobin	0.0020	U	ug/L	P412902	
		Silvex	0.0040	U	ug/L	P412902	
		Thiamethoxam	0.0020	U	ug/L	P412902	
		Tolfenpyrad	0.0020	U	ug/L	P412902	
		Triclopyr	0.0040	U	ug/L	P412902	
2321859	EPA 200.7 Rev. 4.4	Calcium	11.2		mg/L	P412938	
		Iron	620		ug/L	P412938	
		Magnesium	2.37		mg/L	P412938	
		Potassium	1.7		mg/L	P412938	
		Sodium	8.0		mg/L	P412938	
		Strontium	31.4		ug/L	P412938	
		Tin	3.0	U	ug/L	P412938	
		Titanium	3.0	I	ug/L	P412938	
		Vanadium	2.0	U	ug/L	P412938	
		Zinc	5.0	U	ug/L	P412938	
	EPA 200.8 Rev. 5.4	Aluminum	178		ug/L	P412938	
		Antimony	0.051	I	ug/L	P412938	
		Arsenic	0.35		ug/L	P412938	
		Barium	15.4		ug/L	P412938	
		Beryllium	0.017	I	ug/L	P412938	
		Boron**	17.2		ug/L	P412938	
		Cadmium	0.020	U	ug/L	P412938	
		Chromium	0.40	U	ug/L	P412938	
		Cobalt	0.173		ug/L	P412938	
		Copper	0.71	I	ug/L	P412938	
		Lead	0.25	I	ug/L	P412938	
		Manganese	13.4		ug/L	P412938	
		Molybdenum	0.22	I	ug/L	P412938	
		Nickel	0.50	U	ug/L	P412938	
		Selenium	0.20	U	ug/L	P412938	
		Silver	0.010	U	ug/L	P412938	
		Thallium	0.10	U	ug/L	P412938	
	SM 2340 B-2011	Hardness	37.8		mg/L	P412938	
2321861	EPA 8270E	Acetochlor	0.26	U	ng/L	P413007	
		Alachlor	0.26	U	ng/L	P413007	
		Ametryn	0.61	U	ng/L	P413007	
		Atrazine	37		ng/L	P413007	
		Atrazine Desethyl	6.5		ng/L	P413007	
		Azinphos Methyl	2.0	U	ng/L	P413007	
		Azoxystrobin**	1.9	I	ng/L	P413007	
		Bromacil	0.51	U	ng/L	P413007	
		Butylate	0.41	U	ng/L	P413007	
		Caffeine**	17	I	ng/L	P413007	
		Carbophenothion	0.20	U	ng/L	P413007	
		Carfentrazone Ethyl**	0.10	U	ng/L	P413007	

Field ID: G2TLHR0033 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321861	EPA 8270E	Chlorfenapyr**	0.18	U	ng/L	P413007	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P413007	
		Chlorpyrifos Methyl	0.051	U	ng/L	P413007	
		Coumaphos**	0.51	U	ng/L	P413007	
		Cyanazine	3.3	U	ng/L	P413007	
		Cyprodinil**	0.10	U	ng/L	P413007	
		Demeton	1.5	U	ng/L	P413007	
		Diazinon	0.13	U	ng/L	P413007	
		Difenoconazole**	0.61	U	ng/L	P413007	
		Dimethenamid**	0.10	U	ng/L	P413007	
		Dimethomorph**	0.18	U	ng/L	P413007	
		Disulfoton	0.51	U	ng/L	P413007	
		Dithiopyr**	0.39	I	ng/L	P413007	
		EPTC	1.3	U	ng/L	P413007	
		Ethion	0.15	U	ng/L	P413007	
		Ethoprop	0.10	U	ng/L	P413007	
		Etridiazole**	0.15	U	ng/L	P413007	
		Fenamiphos	0.51	U	ng/L	P413007	
		Fenbuconazole**	0.13	U	ng/L	P413007	
		Fipronil	0.26	U	ng/L	P413007	
		Fipronil Desulfinyl**	0.29	I	ng/L	P413007	
		Fipronil Sulfide	0.15	UJ	ng/L	P413007	LCS
		Fipronil Sulfone	0.21	I	ng/L	P413007	
		Fluazifop-P-butyl**	0.10	U	ng/L	P413007	
		Fludioxonil**	0.13	U	ng/L	P413007	
		Flumioxazin**	1.8	U	ng/L	P413007	
		Flutolanil**	0.28	I	ng/L	P413007	
		Fluxapyroxad**	0.42		ng/L	P413007	
		Fonofos	0.20	U	ng/L	P413007	
		Hexazinone	0.51	U	ng/L	P413007	
		Imazalil**	0.77	U	ng/L	P413007	
		Iprodione**	0.61	U	ng/L	P413007	
		Loratadine**	0.10	U	ng/L	P413007	
		Malathion	0.36	U	ng/L	P413007	
		Metalaxyl	0.77	U	ng/L	P413007	
		Metolachlor	8.3		ng/L	P413007	
		Metribuzin	2.6	U	ng/L	P413007	
		Mevinphos	1.1	U	ng/L	P413007	
		Molinate	0.31	U	ng/L	P413007	
		Myclobutanil**	0.26	U	ng/L	P413007	
		Naled**	1.5	U	ng/L	P413007	
		Napropamide**	0.41	U	ng/L	P413007	
		Norflurazon	0.51	U	ng/L	P413007	
		Oxadiazon	5.6		ng/L	P413007	
		Oxyfluorfen**	0.15	U	ng/L	P413007	

Field ID: G2TLHR0033 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321861	EPA 8270E	Parathion Ethyl	0.26	U	ng/L	P413007	
		Parathion Methyl	0.56	U	ng/L	P413007	
		Pendimethalin	1.0	U	ng/L	P413007	
		Phenytoin**	3.6	U	ng/L	P413007	MS
		Phorate	0.54	U	ng/L	P413007	
		Prodiamine**	0.18	U	ng/L	P413007	
		Prometon	0.92	U	ng/L	P413007	
		Prometryn	0.20	U	ng/L	P413007	
		Pronamide**	0.15	U	ng/L	P413007	
		Propanil**	0.13	U	ng/L	P413007	
		Propargite**	1.5	U	ng/L	P413007	MS
		Propiconazole**	0.51	U	ng/L	P413007	
		Pyraflufen Ethyl**	0.26	U	ng/L	P413007	
		Pyridaben**	0.46	U	ng/L	P413007	
		Pyriproxyfen**	0.13	U	ng/L	P413007	
		Simazine	39		ng/L	P413007	
		Stirophos**	0.13	U	ng/L	P413007	
		Sulfentrazone**	1.0	I	ng/L	P413007	
		Tebuconazole**	0.63	I	ng/L	P413007	
		Terbufos	0.10	U	ng/L	P413007	
		Terbuthylazine	0.43	U	ng/L	P413007	
		Thiobencarb**	0.61	U	ng/L	P413007	
		Triadimefon**	0.26	U	ng/L	P413007	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked 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: P412919

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412917

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P412938

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: P412938

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413251

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413253

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413110

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413274

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P413028

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413050

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P412915

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

Reference Method: EPA 8270E
Batch ID: P413007

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
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P413007

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P413007

Component	Result	Code	Units
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
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P413007

Component	Result	Code	Units
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
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
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B
Batch ID: P412884

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P412902

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	0.020	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	0.0040	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: P413538

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

Reference Method: SM 2540 C-2011
Batch ID: P413421

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P413469

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P413543

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P413058

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: P412919

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: P412917

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.9		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P412938

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	109		P	85 - 115
Iron	106		P	85 - 115
Magnesium	109		P	85 - 115
Potassium	104		P	85 - 115
Sodium	102		P	85 - 115
Strontium	98.0		P	85 - 115
Tin	103		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	97.5		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412938

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	99.6		P	85 - 115
Arsenic	101		P	85 - 115
Barium	103		P	85 - 115
Beryllium	95.6		P	85 - 115
Boron	104		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	97.4		P	85 - 115
Cobalt	99.3		P	85 - 115
Copper	97.0		P	85 - 115
Lead	97.0		P	85 - 115
Manganese	98.6		P	85 - 115
Molybdenum	97.7		P	85 - 115
Nickel	98.8		P	85 - 115
Selenium	102		P	85 - 115
Silver	100		P	85 - 115
Thallium	98.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413251

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413253

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413110

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413274

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P413028

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413050

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P412915

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

Reference Method: EPA 8270E
Batch ID: P413007

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	117		P	70 - 121
Alachlor	100		P	68 - 119
Ametryn	137		P	64 - 139
Atrazine	116		P	76 - 120
Atrazine Desethyl	97.6		P	44 - 126
Azinphos Methyl	111		P	43 - 192
Azoxystrobin	112		P	36 - 224
Bromacil	110		P	52 - 121
Butylate	63.3		P	28 - 91.0
Caffeine	93.3		P	50 - 134
Carbophenothion	118		P	56 - 129
Carfentrazone Ethyl	126		P	60 - 141
Chlorfenapyr	97.2		P	56 - 115
Chlorpyrifos Ethyl	99.3		P	60 - 118
Chlorpyrifos Methyl	93.5		P	68 - 119
Coumaphos	111		P	18 - 250

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P413007

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cyanazine	95.0		P	61 - 250
Cyprodinil	112		P	55 - 145
Demeton	71.0		P	30 - 159
Diazinon	107		P	70 - 123
Difenoconazole	127		P	49 - 204
Dimethenamid	106		P	64 - 115
Dimethomorph	104		P	12 - 219
Disulfoton	97.3		P	44 - 125
Dithiopyr	112		P	64 - 115
EPTC	53.8		P	28 - 86.0
Ethion	113		P	33 - 125
Ethoprop	106		P	64 - 116
Etridiazole	47.9		P	34 - 91.0
Fenamiphos	117		P	12 - 127
Fenbuconazole	115		P	59 - 151
Fipronil	113		P	67 - 129
Fipronil Desulfinyl	117		P	65 - 127
Fipronil Sulfide	130		F	61 - 116
Fipronil Sulfone	109		P	55 - 117
Fluazifop-P-butyl	120		P	62 - 127
Fludioxonil	118		P	62 - 128
Flumioxazin	123		P	33 - 250
Flutolanil	120		P	56 - 127
Fluxapyroxad	118		P	45 - 128
Fonofos	97.6		P	62 - 111
Hexazinone	120		P	46 - 139
Imazalil	89.0		P	38 - 142
Iprodione	123		P	47 - 135
Loratadine	111		P	10 - 244
Malathion	112		P	61 - 139
Metalaxyl	107		P	10 - 119
Metolachlor	107		P	65 - 118
Metribuzin	97.6		P	51 - 250
Mevinphos	99.6		P	53 - 121
Molinate	82.1		P	42 - 96.0
Myclobutanil	109		P	55 - 128
Naled	76.4		P	10 - 98.0
Napropamide	118		P	49 - 121
Norflurazon	111		P	61 - 126
Oxadiazon	97.7		P	59 - 116
Oxyfluorfen	112		P	64 - 137
Parathion Ethyl	106		P	70 - 112
Parathion Methyl	114		P	76 - 133
Pendimethalin	77.6		P	52 - 117
Phenytoin	83.5		P	10 - 199
Phorate	72.6		P	48 - 121
Prodiamine	84.9		P	26 - 142
Prometon	87.4		P	43 - 123
Prometryn	107		P	66 - 127
Pronamide	107		P	75 - 121
Propanil	141		P	45 - 150
Propargite	101		P	42 - 208

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P413007

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Propiconazole	117		P	60 - 125
Pyraflufen Ethyl	104		P	70 - 138
Pyridaben	107		P	35 - 245
Pyriproxyfen	103		P	30 - 149
Simazine	95.5		P	72 - 125
Stirophos	110		P	29 - 164
Sulfentrazone	117		P	21 - 139
Tebuconazole	105		P	10 - 115
Terbufos	95.4		P	60 - 123
Terbuthylazine	108		P	72 - 115
Thiobencarb	94.3		P	31 - 139
Triadimefon	106		P	65 - 116

Reference Method: EPA 8321B
Batch ID: P412884

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	99.2		P	40 - 150
AMPA	110		P	40 - 150
Endothall	96.3		P	40 - 150
Glufosinate	109		P	40 - 150
Glyphosate	98.2		P	40 - 150
Sucralose	94.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P412902

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	68.2		P	40 - 150
2,4,5-T	71.8		P	40 - 150
Acetaminophen	83.8		P	30 - 150
Acetamiprid	59.2		P	40 - 150
Afidopyropen	40.9		P	40 - 150
Bentazon	65.7		P	30 - 150
Benzovindiflupyr	71.0		P	40 - 150
Carbamazepine	58.7		P	40 - 150
Clothianidin	79.2		P	40 - 150
Dinotefuran	98.2		P	40 - 150
Diuron	70.9		P	40 - 150
Fenuron	81.3		P	40 - 150
Fluridone	68.5		P	40 - 150
Hydrocodone	91.3		P	40 - 150
Ibuprofen	60.6		P	40 - 150
Imazapyr	81.2		P	40 - 150
Imidacloprid	67.6		P	40 - 150
Linuron	56.7		P	40 - 150
Mandestrobin	60.2		P	40 - 150
MCPP	82.6		P	40 - 150
Naproxen	40.2		P	40 - 150
Primidone	83.1		P	40 - 150
Pyraclostrobin	65.1		P	40 - 150
Silvex	82.1		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P412902

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Thiamethoxam	78.4		P	40 - 150
Tolfenpyrad	40.5		P	30 - 150
Triclopyr	77.9		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P413538

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.3		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P413543

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P413058

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P412938

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321305	Calcium	97.1		P	80 - 120
2321305	Iron	107		P	80 - 120
2321305	Magnesium	109		P	80 - 120
2321305	Potassium	102		P	80 - 120
2321305	Sodium	96.7		P	80 - 120
2321305	Strontium	103		P	80 - 120
2321305	Tin	104		P	80 - 120
2321305	Titanium	101		P	80 - 120
2321305	Vanadium	97.5		P	80 - 120
2321305	Zinc	102		P	80 - 120
2321307	Calcium	103	109	P/P	80 - 120
2321307	Iron	104	111	P/P	80 - 120
2321307	Magnesium	105	113	P/P	80 - 120
2321307	Potassium	95.7	101	P/P	80 - 120
2321307	Sodium	98.2	103	P/P	80 - 120
2321307	Strontium	97.3	99.5	P/P	80 - 120
2321307	Tin	97.7	100	P/P	80 - 120
2321307	Titanium	98.9	102	P/P	80 - 120
2321307	Vanadium	92.4	95.0	P/P	80 - 120
2321307	Zinc	98.6	100	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412938

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321305	Aluminum	103		P	80 - 120
2321305	Antimony	100		P	80 - 120
2321305	Arsenic	99.3		P	80 - 120
2321305	Barium	102		P	80 - 120
2321305	Beryllium	92.8		P	80 - 120
2321305	Boron	106		P	80 - 120
2321305	Cadmium	101		P	80 - 120
2321305	Chromium	99.7		P	80 - 120
2321305	Cobalt	97.7		P	80 - 120
2321305	Copper	95.6		P	80 - 120
2321305	Lead	98.5		P	80 - 120
2321305	Manganese	95.9		P	80 - 120
2321305	Molybdenum	97.9		P	80 - 120
2321305	Nickel	98.9		P	80 - 120
2321305	Selenium	113		P	80 - 120
2321305	Silver	100		P	80 - 120
2321305	Thallium	102		P	80 - 120
2321307	Aluminum	101	104	P/P	80 - 120
2321307	Antimony	96.0	96.8	P/P	80 - 120
2321307	Arsenic	97.8	99.1	P/P	80 - 120
2321307	Barium	100	102	P/P	80 - 120
2321307	Beryllium	88.7	90.9	P/P	80 - 120
2321307	Boron	103	104	P/P	80 - 120
2321307	Cadmium	96.9	98.4	P/P	80 - 120
2321307	Chromium	97.0	97.7	P/P	80 - 120
2321307	Cobalt	95.5	97.3	P/P	80 - 120
2321307	Copper	95.1	97.1	P/P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412938

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321307	Lead	96.0	95.6	P/P	80 - 120
2321307	Manganese	94.1	96.0	P/P	80 - 120
2321307	Molybdenum	94.5	95.9	P/P	80 - 120
2321307	Nickel	96.9	98.6	P/P	80 - 120
2321307	Selenium	111	113	P/P	80 - 120
2321307	Silver	96.7	99.6	P/P	80 - 120
2321307	Thallium	98.8	99.8	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413251

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321410	Chloride	98.0		P	90 - 110
2321550	Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413253

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321410	Sulfate	97.2		P	90 - 110
2321550	Sulfate	97.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321367	Ammonia-N	99.6	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413274

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321889	Kjeldahl Nitrogen	108	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P413028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321549	NO2NO3-N	93.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321490	Total-P	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P412915

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321875	O-Phosphate-P	97.4	98.2	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P413007

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321429	Acetochlor	98.4	92.8	P/P	65 - 124
2321429	Alachlor	88.9	81.6	P/P	61 - 121
2321429	Ametryn	66.7	63.8	P/P	52 - 216
2321429	Atrazine Desethyl	62.7	63.2	P/P	15 - 160
2321429	Azinphos Methyl	107	95.0	P/P	40 - 292
2321429	Azoxystrobin	120	118	P/P	12 - 242
2321429	Bromacil	81.3	86.3	P/P	54 - 167
2321429	Butylate	59.5	54.7	P/P	14 - 94.0
2321429	Caffeine	87.6	81.2	P/P	10 - 226
2321429	Carbophenothion	90.2	82.7	P/P	49 - 122
2321429	Carfentrazone Ethyl	93.1	80.8	P/P	53 - 138
2321429	Chlorfenapyr	83.2	76.9	P/P	50 - 150
2321429	Chlorpyrifos Ethyl	95.8	88.3	P/P	52 - 122
2321429	Chlorpyrifos Methyl	102	91.0	P/P	66 - 117
2321429	Coumaphos	85.0	81.9	P/P	50 - 220
2321429	Cyanazine	77.5	67.4	P/P	43 - 245
2321429	Cyprodinil	96.7	81.2	P/P	50 - 150
2321429	Demeton	88.0	81.0	P/P	43 - 188
2321429	Diazinon	98.1	90.0	P/P	69 - 131
2321429	Difenoconazole	103	104	P/P	34 - 231
2321429	Dimethenamid	85.7	74.8	P/P	55 - 118
2321429	Dimethomorph	134	128	P/P	50 - 150
2321429	Disulfoton	83.7	82.7	P/P	38 - 141
2321429	Dithiopyr	101	91.2	P/P	42 - 116
2321429	EPTC	39.3	36.7	P/P	18 - 85.0
2321429	Ethion	61.8	55.9	P/P	10 - 131
2321429	Ethoprop	91.3	85.7	P/P	65 - 129
2321429	Etridiazole	61.1	52.5	P/P	50 - 150
2321429	Fenamiphos	72.1	76.0	P/P	31 - 137
2321429	Fenbuconazole	88.9	75.9	P/P	57 - 160
2321429	Fipronil	96.5	84.4	P/P	62 - 132
2321429	Fipronil Desulfinyl	95.3	88.1	P/P	57 - 131
2321429	Fipronil Sulfide	97.2	84.7	P/P	15 - 138
2321429	Fipronil Sulfone	92.4	82.5	P/P	21 - 134
2321429	Fluazifop-P-butyl	108	95.7	P/P	54 - 133
2321429	Fludioxonil	96.1	83.9	P/P	58 - 127
2321429	Flumioxazin	133	128	P/P	33 - 300
2321429	Flutolanil	73.6	69.3	P/P	42 - 130
2321429	Fluxapyroxad	82.0	69.8	P/P	23 - 141
2321429	Fonofos	98.9	90.3	P/P	58 - 119
2321429	Hexazinone	96.7	89.0	P/P	68 - 172
2321429	Imazalil	252	213	P/P	48 - 283
2321429	Iprodione	84.8	79.6	P/P	38 - 140
2321429	Loratadine	119	121	P/P	50 - 150
2321429	Malathion	87.1	85.3	P/P	40 - 137
2321429	Metalaxyl	95.5	82.7	P/P	21 - 129
2321429	Metolachlor	89.6	79.5	P/P	55 - 122
2321429	Metribuzin	81.5	77.7	P/P	38 - 187
2321429	Mevinphos	93.7	89.3	P/P	54 - 134
2321429	Molinate	69.1	68.3	P/P	41 - 97.0
2321429	Myclobutanil	82.1	79.3	P/P	56 - 125
2321429	Naled	101	90.0	P/P	10 - 108

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P413007

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321429	Napropamide	83.3	75.2	P/P	50 - 150
2321429	Norflurazon	75.5	70.6	P/P	32 - 122
2321429	Oxadiazon	60.5	53.4	P/P	40 - 119
2321429	Oxyfluorfen	109	98.7	P/P	61 - 153
2321429	Parathion Ethyl	97.0	81.1	P/P	59 - 130
2321429	Parathion Methyl	100	93.1	P/P	65 - 155
2321429	Pendimethalin	102	87.4	P/P	49 - 138
2321429	Phenytoin	43.1	32.7	F/F	50 - 200
2321429	Phorate	95.2	83.5	P/P	54 - 161
2321429	Prodiamine	54.8	51.5	P/P	33 - 161
2321429	Prometon	75.9	69.6	P/P	48 - 140
2321429	Prometryn	84.0	73.7	P/P	55 - 134
2321429	Pronamide	97.1	86.2	P/P	66 - 137
2321429	Propanil	116	109	P/P	50 - 150
2321429	Propargite	43.6	41.3	F/F	50 - 200
2321429	Propiconazole	82.7	70.3	P/P	36 - 150
2321429	Pyraflufen Ethyl	71.9	65.3	P/P	50 - 150
2321429	Pyridaben	86.7	77.4	P/P	50 - 200
2321429	Pyriproxyfen	75.3	65.4	P/P	10 - 165
2321429	Simazine	85.5	78.4	P/P	57 - 145
2321429	Stirophos	61.8	55.7	P/P	50 - 150
2321429	Sulfentrazone	92.6	71.3	P/P	34 - 140
2321429	Tebuconazole	38.3	34.2	P/P	10 - 127
2321429	Terbufos	110	104	P/P	59 - 138
2321429	Terbuthylazine	94.6	87.7	P/P	68 - 119
2321429	Thiobencarb	79.1	72.5	P/P	50 - 150
2321429	Triadimefon	104	103	P/P	50 - 150

Reference Method: EPA 8321B
Batch ID: P412884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321562	Acesulfame K	95.6	96.3	P/P	40 - 150
2321562	AMPA	106	102	P/P	40 - 150
2321562	Endothall	96.2	95.1	P/P	40 - 150
2321562	Glufosinate	112	93.5	P/P	40 - 150
2321562	Glyphosate	83.0	79.7	P/P	40 - 150
2321562	Sucralose	97.2	95.8	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P412902

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321475	2,4-D	56.7	54.2	P/P	40 - 150
2321475	2,4,5-T	73.4	72.9	P/P	40 - 150
2321475	Acetaminophen	116	109	P/P	30 - 150
2321475	Acetamiprid	30.5	23.6	F/F	40 - 150
2321475	Afidopyropen	60.3	43.2	P/P	40 - 150
2321475	Benzovindiflupyr	46.4	46.2	P/P	40 - 150
2321475	Carbamazepine	46.7	45.9	P/P	40 - 150
2321475	Clothianidin	57.7	57.2	P/P	40 - 150
2321475	Dinotefuran	93.5	92.2	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P412902

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321475	Diuron	37.5	36.7	F/F	40 - 150
2321475	Fenuron	45.9	46.3	P/P	40 - 150
2321475	Fluridone	45.6	45.2	P/P	40 - 150
2321475	Hydrocodone	42.9	43.1	P/P	40 - 150
2321475	Ibuprofen	54.4	47.8	P/P	40 - 150
2321475	Imidacloprid	43.2	44.2	P/P	40 - 150
2321475	Linuron	44.7	43.8	P/P	40 - 150
2321475	Mandestrobin	49.5	50.6	P/P	40 - 150
2321475	MCPP	91.3	86.3	P/P	40 - 150
2321475	Naproxen	42.1	43.9	P/P	40 - 150
2321475	Primidone	54.6	53.5	P/P	40 - 150
2321475	Pyraclostrobin	62.9	62.7	P/P	40 - 150
2321475	Silvex	83.3	80.6	P/P	40 - 150
2321475	Thiamethoxam	40.9	42.0	P/P	40 - 150
2321475	Tolfenpyrad	36.0	33.7	P/P	30 - 150
2321475	Triclopyr	75.6	71.1	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P413543

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321899	Fluoride	98.7	98.0	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P413058

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321328	Organic Carbon	99.1	101	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P412919

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321935	Color (true)	1.37	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412917

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321936	Turbidity	2.82	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P412938

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321307	Calcium	4.50	Spike	P	0 - 20
2321307	Iron	6.28	Spike	P	0 - 20
2321307	Magnesium	5.65	Spike	P	0 - 20
2321307	Potassium	4.90	Spike	P	0 - 20
2321307	Sodium	3.11	Spike	P	0 - 20
2321307	Strontium	2.21	Spike	P	0 - 20
2321307	Tin	2.35	Spike	P	0 - 20
2321307	Titanium	2.56	Spike	P	0 - 20
2321307	Vanadium	2.76	Spike	P	0 - 20
2321307	Zinc	1.71	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412938

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321307	Aluminum	2.67	Spike	P	0 - 20
2321307	Antimony	0.859	Spike	P	0 - 20
2321307	Arsenic	1.34	Spike	P	0 - 20
2321307	Barium	1.34	Spike	P	0 - 20
2321307	Beryllium	1.99	Spike	P	0 - 20
2321307	Boron	0.837	Spike	P	0 - 20
2321307	Cadmium	1.54	Spike	P	0 - 20
2321307	Chromium	0.761	Spike	P	0 - 20
2321307	Cobalt	1.77	Spike	P	0 - 20
2321307	Copper	2.10	Spike	P	0 - 20
2321307	Lead	0.403	Spike	P	0 - 20
2321307	Manganese	1.13	Spike	P	0 - 20
2321307	Molybdenum	1.39	Spike	P	0 - 20
2321307	Nickel	1.67	Spike	P	0 - 20
2321307	Selenium	1.99	Spike	P	0 - 20
2321307	Silver	2.95	Spike	P	0 - 20
2321307	Thallium	1.03	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413251

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321410	Chloride	0.248	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321367	Ammonia-N	1.70	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413274

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321889	Kjeldahl Nitrogen	3.16	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P413028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321549	NO2NO3-N	0.190	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321490	Total-P	0.683	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P412915

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321875	O-Phosphate-P	0.818	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P413007

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321429	Acetochlor	5.91	Spike	P	0 - 27
2321429	Alachlor	8.54	Spike	P	0 - 27
2321429	Ametryn	4.42	Spike	P	0 - 34
2321429	Atrazine	11.4	Spike	P	0 - 41
2321429	Atrazine Desethyl	0.699	Spike	P	0 - 38
2321429	Azinphos Methyl	12.0	Spike	P	0 - 62
2321429	Azoxystrobin	1.48	Spike	P	0 - 32
2321429	Bromacil	5.88	Spike	P	0 - 30
2321429	Butylate	8.45	Spike	P	0 - 59

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P413007

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321429	Caffeine	7.50	Spike	P	0 - 60
2321429	Carbophenothion	8.75	Spike	P	0 - 25
2321429	Carfentrazone Ethyl	14.2	Spike	P	0 - 26
2321429	Chlorfenapyr	7.86	Spike	P	0 - 30
2321429	Chlorpyrifos Ethyl	8.06	Spike	P	0 - 27
2321429	Chlorpyrifos Methyl	11.0	Spike	P	0 - 26
2321429	Coumaphos	3.67	Spike	P	0 - 30
2321429	Cyanazine	13.9	Spike	P	0 - 58
2321429	Cyprodinil	17.4	Spike	P	0 - 30
2321429	Demeton	8.22	Spike	P	0 - 25
2321429	Diazinon	8.58	Spike	P	0 - 29
2321429	Difenoconazole	1.61	Spike	P	0 - 25
2321429	Dimethenamid	13.5	Spike	P	0 - 30
2321429	Dimethomorph	4.08	Spike	P	0 - 30
2321429	Disulfoton	1.19	Spike	P	0 - 33
2321429	Dithiopyr	10.0	Spike	P	0 - 22
2321429	EPTC	6.75	Spike	P	0 - 38
2321429	Ethion	10.0	Spike	P	0 - 79
2321429	Ethoprop	6.28	Spike	P	0 - 23
2321429	Etridiazole	15.2	Spike	P	0 - 30
2321429	Fenamiphos	5.22	Spike	P	0 - 58
2321429	Fenbuconazole	15.7	Spike	P	0 - 37
2321429	Fipronil	13.4	Spike	P	0 - 33
2321429	Fipronil Desulfinyl	7.87	Spike	P	0 - 26
2321429	Fipronil Sulfide	13.7	Spike	P	0 - 37
2321429	Fipronil Sulfone	10.1	Spike	P	0 - 50
2321429	Fluazifop-P-butyl	12.5	Spike	P	0 - 24
2321429	Fludioxonil	13.6	Spike	P	0 - 26
2321429	Flumioxazin	4.25	Spike	P	0 - 37
2321429	Flutolanil	5.74	Spike	P	0 - 26
2321429	Fluxapyroxad	16.1	Spike	P	0 - 34
2321429	Fonofos	9.14	Spike	P	0 - 27
2321429	Hexazinone	8.38	Spike	P	0 - 36
2321429	Imazalil	16.9	Spike	P	0 - 65
2321429	Iprodione	6.27	Spike	P	0 - 33
2321429	Loratadine	1.50	Spike	P	0 - 30
2321429	Malathion	2.09	Spike	P	0 - 44
2321429	Metalaxyl	14.4	Spike	P	0 - 38
2321429	Metolachlor	11.9	Spike	P	0 - 36
2321429	Metribuzin	4.84	Spike	P	0 - 63
2321429	Mevinphos	4.81	Spike	P	0 - 26
2321429	Molinate	1.19	Spike	P	0 - 40
2321429	Myclobutanil	3.48	Spike	P	0 - 21
2321429	Naled	11.9	Spike	P	0 - 26
2321429	Napropamide	10.3	Spike	P	0 - 30
2321429	Norflurazon	6.64	Spike	P	0 - 24
2321429	Oxadiazon	8.64	Spike	P	0 - 27
2321429	Oxyfluorfen	9.69	Spike	P	0 - 24
2321429	Parathion Ethyl	17.9	Spike	P	0 - 28
2321429	Parathion Methyl	7.26	Spike	P	0 - 27
2321429	Pendimethalin	15.6	Spike	P	0 - 31

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P413007

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321429	Phenytoin	27.4	Spike	P	0 - 30
2321429	Phorate	13.1	Spike	P	0 - 27
2321429	Prodiamine	6.29	Spike	P	0 - 52
2321429	Prometon	8.69	Spike	P	0 - 31
2321429	Prometryn	13.1	Spike	P	0 - 28
2321429	Pronamide	11.9	Spike	P	0 - 26
2321429	Propanil	6.70	Spike	P	0 - 30
2321429	Propargite	5.34	Spike	P	0 - 30
2321429	Propiconazole	16.2	Spike	P	0 - 31
2321429	Pyraflufen Ethyl	9.74	Spike	P	0 - 30
2321429	Pyridaben	11.3	Spike	P	0 - 30
2321429	Pyriproxyfen	14.1	Spike	P	0 - 50
2321429	Simazine	8.75	Spike	P	0 - 29
2321429	Stirophos	10.4	Spike	P	0 - 30
2321429	Sulfentrazone	15.3	Spike	P	0 - 33
2321429	Tebuconazole	11.3	Spike	P	0 - 44
2321429	Terbufos	5.41	Spike	P	0 - 29
2321429	Terbuthylazine	7.60	Spike	P	0 - 27
2321429	Thiobencarb	8.78	Spike	P	0 - 30
2321429	Triadimefon	1.26	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P412884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321562	Acesulfame K	0.663	Spike	P	0 - 30
2321562	AMPA	4.34	Spike	P	0 - 30
2321562	Endothall	1.10	Spike	P	0 - 30
2321562	Glufosinate	18.3	Spike	P	0 - 30
2321562	Glyphosate	4.13	Spike	P	0 - 30
2321562	Sucralose	1.43	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P412902

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321475	2,4-D	3.97	Spike	P	0 - 30
2321475	2,4,5-T	0.644	Spike	P	0 - 30
2321475	Acetaminophen	5.98	Spike	P	0 - 30
2321475	Acetamiprid	25.7	Spike	P	0 - 30
2321475	Afidopyropen	32.9	Spike	F	0 - 30
2321475	Bentazon	0.652	Spike	P	0 - 30
2321475	Benzovindiflupyr	0.547	Spike	P	0 - 30
2321475	Carbamazepine	1.68	Spike	P	0 - 30
2321475	Clothianidin	0.790	Spike	P	0 - 30
2321475	Dinotefuran	1.43	Spike	P	0 - 30
2321475	Diuron	2.23	Spike	P	0 - 30
2321475	Fenuron	0.728	Spike	P	0 - 30
2321475	Fluridone	0.640	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P412902

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321475	Hydrocodone	0.664	Spike	P	0 - 30
2321475	Ibuprofen	12.9	Spike	P	0 - 30
2321475	Imazapyr	0.285	Spike	P	0 - 30
2321475	Imidacloprid	2.41	Spike	P	0 - 30
2321475	Linuron	1.93	Spike	P	0 - 30
2321475	Mandestrobin	2.21	Spike	P	0 - 30
2321475	MCPP	5.70	Spike	P	0 - 30
2321475	Naproxen	4.02	Spike	P	0 - 30
2321475	Primidone	2.04	Spike	P	0 - 30
2321475	Pyraclostrobin	0.253	Spike	P	0 - 30
2321475	Silvex	3.38	Spike	P	0 - 30
2321475	Thiamethoxam	2.76	Spike	P	0 - 30
2321475	Tolfenpyrad	6.67	Spike	P	0 - 30
2321475	Triclopyr	6.10	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P413538

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321899	Total Alkalinity	3.13	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P413421

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321969	TDS	3.66	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P413543

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321899	Fluoride	0.492	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P413058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321328	Organic Carbon	1.50	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2321856
Field Sample ID: G2TLHR0003

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	65.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	121	P	30 - 160
EPA 8321B	Carbamazepine-d10	42.7	P	30 - 160
EPA 8321B	Diuron-d6	32.4	P	30 - 160
EPA 8321B	Endothall-d6	91.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	55.9	P	30 - 160
EPA 8321B	Primidone-d5	68.1	P	30 - 160
EPA 8321B	Sucralose-d6	91.3	P	30 - 160

Lab Sample ID: 2321857
Field Sample ID: G2TLHR0033

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	71.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	123	P	30 - 160
EPA 8321B	Carbamazepine-d10	46.9	P	30 - 160
EPA 8321B	Diuron-d6	35.9	P	30 - 160
EPA 8321B	Endothall-d6	92.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	83.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	62.8	P	30 - 160
EPA 8321B	Primidone-d5	66.6	P	30 - 160
EPA 8321B	Sucralose-d6	94.5	P	30 - 160

Lab Sample ID: 2321860
Field Sample ID: G2TLHR0003

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	66.3	P	20 - 200
EPA 8270E	Simazine-d10	109	P	71 - 140
EPA 8270E	Terbufos-d10	105	P	62 - 131

Lab Sample ID: 2321861
Field Sample ID: G2TLHR0033

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	69.3	P	20 - 200
EPA 8270E	Simazine-d10	104	P	71 - 140
EPA 8270E	Terbufos-d10	96.7	P	62 - 131

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A111698
Included Lab Sample IDs: 2321850, 2321851

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.2	99.5	P/P	90 - 110
O-Phosphate-P	99.5	99.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A111700
Included Lab Sample IDs: 2321846, 2321847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1
Run ID: A111702
Included Lab Sample IDs: 2321846, 2321847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	99.2	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A111715
Included Lab Sample IDs: 2321846, 2321847

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A111756
Included Lab Sample IDs: 2321848, 2321849

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

Reference Method: SM 5310 B-2011
Run ID: A111772
Included Lab Sample IDs: 2321848, 2321849

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A111801
Included Lab Sample IDs: 2321848, 2321849

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	98.9	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A111832
Included Lab Sample IDs: 2321858, 2321859

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A111832
Included Lab Sample IDs: 2321858, 2321859

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	101	P/P	90 - 110
Antimony	102	102	P/P	90 - 110
Arsenic	101	100	P/P	90 - 110
Barium	99.6	99.2	P/P	90 - 110
Beryllium	95.2	94.9	P/P	90 - 110
Boron	103	105	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Chromium	100	101	P/P	90 - 110
Cobalt	98.4	98.8	P/P	90 - 110
Copper	97.1	96.8	P/P	90 - 110
Lead	99.5	100	P/P	90 - 110
Manganese	99.4	100	P/P	90 - 110
Molybdenum	97.2	96.9	P/P	90 - 110
Nickel	98.2	98.3	P/P	90 - 110
Selenium	98.8	101	P/P	90 - 110
Silver	102	103	P/P	90 - 110
Thallium	95.5	96.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A111853
Included Lab Sample IDs: 2321858, 2321859

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	104	P/P	90 - 110
Iron	101	104	P/P	90 - 110
Magnesium	102	104	P/P	90 - 110
Potassium	99.2	102	P/P	90 - 110
Sodium	98.6	101	P/P	90 - 110
Strontium	93.6	96.7	P/P	90 - 110
Tin	99.5	104	P/P	90 - 110
Titanium	100	102	P/P	90 - 110
Vanadium	100	102	P/P	90 - 110
Zinc	100	103	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A111866
Included Lab Sample IDs: 2321856, 2321857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	104	99.2	P/P	60 - 160
Sucralose	96.2	95.6	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A111868
Included Lab Sample IDs: 2321856, 2321857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	114	109	P/P	60 - 160
Endothall	95.9	91.3	P/P	60 - 160
Glufosinate	109	102	P/P	60 - 160
Glyphosate	95.6	94.5	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A111876
Included Lab Sample IDs: 2321856, 2321857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	104	88.1	P/P	50 - 150
2,4-D	88.1	66.5	P/P	50 - 150
2,4,5-T	84.9	99.4	P/P	50 - 150
2,4,5-T	99.4	81.4	P/P	50 - 150
Acetaminophen	106	110	P/P	60 - 160
Acetaminophen	110	92.4	P/P	60 - 160
Acetamiprid	113	113	P/P	50 - 150
Acetamiprid	113	109	P/P	50 - 150
Afidopyropen	85.0	91.0	P/P	50 - 150
Afidopyropen	91.0	85.6	P/P	50 - 150
Bentazon	97.3	111	P/P	50 - 160
Bentazon	97.9	97.3	P/P	50 - 160
Benzovindiflupyr	111	112	P/P	50 - 150
Benzovindiflupyr	112	107	P/P	50 - 150
Carbamazepine	103	109	P/P	60 - 150
Carbamazepine	109	106	P/P	60 - 150
Clothianidin	107	109	P/P	60 - 150
Clothianidin	109	91.1	P/P	60 - 150
Dinotefuran	109	109	P/P	50 - 150
Dinotefuran	109	106	P/P	50 - 150
Diuron	108	109	P/P	60 - 160
Diuron	108	108	P/P	60 - 160
Fenuron	105	107	P/P	60 - 150
Fenuron	107	108	P/P	60 - 150
Fluridone	106	108	P/P	60 - 160
Fluridone	108	106	P/P	60 - 160
Hydrocodone	107	109	P/P	60 - 150
Hydrocodone	109	104	P/P	60 - 150
Ibuprofen	114	95.7	P/P	50 - 160
Ibuprofen	95.7	92.1	P/P	50 - 160
Imazapyr	102	101	P/P	50 - 150
Imazapyr	111	102	P/P	50 - 150
Imidacloprid	109	112	P/P	60 - 150
Imidacloprid	112	100	P/P	60 - 150
Linuron	109	107	P/P	60 - 150
Linuron	99.6	109	P/P	60 - 150
Mandestrobin	108	104	P/P	50 - 150
Mandestrobin	109	108	P/P	50 - 150
MCPP	93.2	80.9	P/P	50 - 150
MCPP	93.5	93.2	P/P	50 - 150
Naproxen	79.8	86.8	P/P	50 - 160
Naproxen	86.8	83.3	P/P	50 - 160
Primidone	100	99.9	P/P	60 - 150
Primidone	99.9	87.4	P/P	60 - 150
Pyraclostrobin	105	104	P/P	60 - 150
Pyraclostrobin	105	105	P/P	60 - 150
Silvex	102	75.3	P/P	50 - 150
Silvex	99.9	102	P/P	50 - 150
Thiamethoxam	112	115	P/P	50 - 150
Thiamethoxam	115	99.6	P/P	50 - 150
Tolfenpyrad	98.1	99.3	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A111876
Included Lab Sample IDs: 2321856, 2321857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tolfenpyrad	99.3	75.4	P/P	60 - 150
Triclopyr	100	99.5	P/P	50 - 150
Triclopyr	99.5	75.1	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A111898
Included Lab Sample IDs: 2321859

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molybdenum	97.8	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A111924
Included Lab Sample IDs: 2321848, 2321849

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

Reference Method: SM 2320 B-2011
Run ID: A111984
Included Lab Sample IDs: 2321846, 2321847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.9	95.0	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A111984
Included Lab Sample IDs: 2321846, 2321847

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A112015
Included Lab Sample IDs: 2321848, 2321849

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.1	96.2	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A112025
Included Lab Sample IDs: 2321860, 2321861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	92.4		P	80 - 120
Alachlor	99.4		P	80 - 120
Ametryn	97.9		P	80 - 120
Atrazine	98.9		P	80 - 120
Atrazine Desethyl	111		P	80 - 120
Azinphos Methyl	96.8		P	80 - 120
Azoxystrobin	103		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A112025
Included Lab Sample IDs: 2321860, 2321861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	96.1		P	80 - 120
Butylate	103		P	80 - 120
Caffeine	107		P	80 - 120
Carbophenothion	89.8		P	80 - 120
Carfentrazone Ethyl	90.4		P	80 - 120
Chlorfenapyr	86.5		P	80 - 120
Chlorpyrifos Ethyl	93.3		P	80 - 120
Chlorpyrifos Methyl	85.2		P	80 - 120
Coumaphos	92.5		P	80 - 120
Cyanazine	91.1		P	80 - 120
Cyprodinil	96.8		P	80 - 120
Demeton	96.5		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	85.2		P	80 - 120
Dimethenamid	91.5		P	80 - 120
Dimethomorph	95.5		P	80 - 120
Disulfoton	97.9		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	97.7		P	80 - 120
Ethion	86.4		P	80 - 120
Ethoprop	98.9		P	80 - 120
Etridiazole	102		P	80 - 120
Fenamiphos	98.7		P	80 - 120
Fenbuconazole	98.0		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	97.2		P	80 - 120
Fipronil Sulfide	116		P	80 - 120
Fipronil Sulfone	88.3		P	80 - 120
Fluazifop-P-butyl	100		P	80 - 120
Fludioxonil	90.5		P	80 - 120
Flumioxazin	109		P	80 - 120
Flutolanil	102		P	80 - 120
Fluxapyroxad	91.4		P	80 - 120
Fonofos	109		P	80 - 120
Hexazinone	100		P	80 - 120
Imazalil	88.9		P	80 - 120
Iprodione	93.4		P	80 - 120
Loratadine	112		P	80 - 120
Malathion	90.0		P	80 - 120
Metalaxyl	94.7		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	103		P	80 - 120
Mevinphos	98.2		P	80 - 120
Molinate	106		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	97.6		P	80 - 120
Napropamide	97.3		P	80 - 120
Norflurazon	93.8		P	80 - 120
Oxadiazon	98.8		P	80 - 120
Oxyfluorfen	90.1		P	80 - 120
Parathion Ethyl	105		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A112025
Included Lab Sample IDs: 2321860, 2321861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Parathion Methyl	98.6		P	80 - 120
Pendimethalin	104		P	80 - 120
Phenytoin	93.9		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	90.1		P	80 - 120
Prometon	91.1		P	80 - 120
Prometryn	98.7		P	80 - 120
Pronamide	103		P	80 - 120
Propanil	103		P	80 - 120
Propargite	99.4		P	80 - 120
Propiconazole	88.1		P	80 - 120
Pyraflufen Ethyl	98.1		P	80 - 120
Pyridaben	94.4		P	80 - 120
Pyriproxyfen	105		P	80 - 120
Simazine	88.9		P	80 - 120
Stirophos	88.4		P	80 - 120
Sulfentrazone	91.3		P	80 - 120
Tebuconazole	98.9		P	80 - 120
Terbufos	95.9		P	80 - 120
Terbuthylazine	103		P	80 - 120
Thiobencarb	109		P	80 - 120
Triadimefon	98.2		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision		
						LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	97.1					1.37	
EPA 180.1 Rev. 2.0	Turbidity	95.9					2.82	
EPA 200.7 Rev. 4.4	Calcium	109	97.1	103	109			4.50
	Iron	106	107	104	111			6.28
	Magnesium	109	109	105	113			5.65
	Potassium	104	102	95.7	101			4.90
	Sodium	102	96.7	98.2	103			3.11
	Strontium	98.0	103	97.3	99.5			2.21
	Tin	103	104	97.7	100			2.35
	Titanium	103	101	98.9	102			2.56
	Vanadium	97.5	97.5	92.4	95.0			2.76
	Zinc	102	102	98.6	100			1.71
EPA 200.8 Rev. 5.4	Aluminum	101	101	104	103			2.67
	Antimony	99.6	96.0	96.8	100			0.859
	Arsenic	101	97.8	99.1	99.3			1.34
	Barium	103	100	102	102			1.34
	Beryllium	95.6	88.7	90.9	92.8			1.99
	Boron	104	103	104	106			0.837
	Cadmium	101	96.9	98.4	101			1.54
	Chromium	97.4	97.0	97.7	99.7			0.761
	Cobalt	99.3	95.5	97.3	97.7			1.77
	Copper	97.0	95.1	97.1	95.6			2.10
	Lead	97.0	96.0	95.6	98.5			0.403
	Manganese	98.6	94.1	96.0	95.9			1.13
	Molybdenum	97.7	94.5	95.9	97.9			1.39
	Nickel	98.8	96.9	98.6	98.9			1.67
	Selenium	102	111	113	113			1.99
	Silver	100	96.7	99.6	100			2.95
	Thallium	98.0	98.8	99.8	102			1.03
EPA 300.0 Rev. 2.1	Chloride	99.1	98.0	97.6			0.248	
	Sulfate	98.0	97.2	97.4				
EPA 350.1 Rev. 2.0	Ammonia-N	96.6	99.6	97.6				1.70
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	108	102				3.16
EPA 353.2 Rev. 2.0	NO2NO3-N	98.0	93.5					0.190
EPA 365.1 Rev. 2.0	Total-P	101	104	103				0.683
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	97.4	98.2				0.818
EPA 8270E	Acetochlor	117	98.4	92.8				5.91
	Alachlor	100	88.9	81.6				8.54
	Ametryn	137	66.7	63.8				4.42
	Atrazine	116						11.4
	Atrazine Desethyl	97.6	62.7	63.2				0.699
	Azinphos Methyl	111	107	95.0				12.0
	Azoxystrobin	112	120	118				1.48
	Bromacil	110	81.3	86.3				5.88
	Butylate	63.3	59.5	54.7				8.45
	Caffeine	93.3	87.6	81.2				7.50
	Carbophenothion	118	90.2	82.7				8.75
	Carfentrazone Ethyl	126	93.1	80.8				14.2
	Chlorfenapyr	97.2	83.2	76.9				7.86
	Chlorpyrifos Ethyl	99.3	95.8	88.3				8.06
	Chlorpyrifos Methyl	93.5	102	91.0				11.0
	Coumaphos	111	85.0	81.9				3.67
	Cyanazine	95.0	77.5	67.4				13.9
	Cyprodinil	112	96.7	81.2				17.4

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Demeton	71.0	88.0	81.0			8.22
	Diazinon	107	98.1	90.0			8.58
	Difenoconazole	127	103	104			1.61
	Dimethenamid	106	85.7	74.8			13.5
	Dimethomorph	104	134	128			4.08
	Disulfoton	97.3	83.7	82.7			1.19
	Dithiopyr	112	101	91.2			10.0
	EPTC	53.8	39.3	36.7			6.75
	Ethion	113	61.8	55.9			10.0
	Ethoprop	106	91.3	85.7			6.28
	Etridiazole	47.9	61.1	52.5			15.2
	Fenamiphos	117	72.1	76.0			5.22
	Fenbuconazole	115	88.9	75.9			15.7
	Fipronil	113	96.5	84.4			13.4
	Fipronil Desulfinyl	117	95.3	88.1			7.87
	Fipronil Sulfide	130	97.2	84.7			13.7
	Fipronil Sulfone	109	92.4	82.5			10.1
	Fluazifop-P-butyl	120	108	95.7			12.5
	Fludioxonil	118	96.1	83.9			13.6
	Flumioxazin	123	133	128			4.25
	Flutolanil	120	73.6	69.3			5.74
	Fluxapyroxad	118	82.0	69.8			16.1
	Fonofos	97.6	98.9	90.3			9.14
	Hexazinone	120	96.7	89.0			8.38
	Imazalil	89.0	252	213			16.9
	Iprodione	123	84.8	79.6			6.27
	Loratadine	111	119	121			1.50
	Malathion	112	87.1	85.3			2.09
	Metalaxyl	107	95.5	82.7			14.4
	Metolachlor	107	89.6	79.5			11.9
	Metribuzin	97.6	81.5	77.7			4.84
	Mevinphos	99.6	93.7	89.3			4.81
	Molinate	82.1	69.1	68.3			1.19
	Myclobutanil	109	82.1	79.3			3.48
	Naled	76.4	101	90.0			11.9
	Napropamide	118	83.3	75.2			10.3
	Norflurazon	111	75.5	70.6			6.64
	Oxadiazon	97.7	60.5	53.4			8.64
	Oxyfluorfen	112	109	98.7			9.69
	Parathion Ethyl	106	97.0	81.1			17.9
	Parathion Methyl	114	100	93.1			7.26
	Pendimethalin	77.6	102	87.4			15.6
	Phenytoin	83.5	43.1	32.7			27.4
	Phorate	72.6	95.2	83.5			13.1
	Prodiamine	84.9	54.8	51.5			6.29
	Prometon	87.4	75.9	69.6			8.69
	Prometryn	107	84.0	73.7			13.1
	Pronamide	107	97.1	86.2			11.9
	Propanil	141	116	109			6.70
	Propargite	101	43.6	41.3			5.34
	Propiconazole	117	82.7	70.3			16.2
	Pyraflufen Ethyl	104	71.9	65.3			9.74
	Pyridaben	107	86.7	77.4			11.3
	Pyriproxyfen	103	75.3	65.4			14.1

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Simazine	95.5	85.5	78.4			8.75
	Stirophos	110	61.8	55.7			10.4
	Sulfentrazone	117	92.6	71.3			15.3
	Tebuconazole	105	38.3	34.2			11.3
	Terbufos	95.4	110	104			5.41
	Terbuthylazine	108	94.6	87.7			7.60
	Thiobencarb	94.3	79.1	72.5			8.78
	Triadimefon	106	104	103			1.26
EPA 8321B	2,4-D	68.2	56.7	54.2			3.97
	2,4,5-T	71.8	73.4	72.9			0.644
	Acesulfame K	99.2	95.6	96.3			0.663
	Acetaminophen	83.8	116	109			5.98
	Acetamiprid	59.2	30.5	23.6			25.7
	Afidopyropen	40.9	60.3	43.2			32.9
	AMPA	110	106	102			4.34
	Bentazon	65.7					0.652
	Benzovindiflupyr	71.0	46.4	46.2			0.547
	Carbamazepine	58.7	46.7	45.9			1.68
	Clothianidin	79.2	57.7	57.2			0.790
	Dinotefuran	98.2	93.5	92.2			1.43
	Diuron	70.9	37.5	36.7			2.23
	Endothall	96.3	96.2	95.1			1.10
	Fenuron	81.3	45.9	46.3			0.728
	Fluridone	68.5	45.6	45.2			0.640
	Glufosinate	109	112	93.5			18.3
	Glyphosate	98.2	83.0	79.7			4.13
	Hydrocodone	91.3	42.9	43.1			0.664
	Ibuprofen	60.6	54.4	47.8			12.9
	Imazapyr	81.2					0.285
	Imidacloprid	67.6	43.2	44.2			2.41
	Linuron	56.7	44.7	43.8			1.93
	Mandestrobin	60.2	49.5	50.6			2.21
	MCPP	82.6	91.3	86.3			5.70
	Naproxen	40.2	42.1	43.9			4.02
	Primidone	83.1	54.6	53.5			2.04
	Pyraclostrobin	65.1	62.9	62.7			0.253
	Silvex	82.1	83.3	80.6			3.38
	Sucralose	94.0	97.2	95.8			1.43
	Thiamethoxam	78.4	40.9	42.0			2.76
	Tolfenpyrad	40.5	36.0	33.7			6.67
	Triclopyr	77.9	75.6	71.1			6.10
SM 2320 B-2011	Total Alkalinity	98.3				3.13	
SM 2540 C-2011	TDS					3.66	
SM 4500-F- C-2011	Fluoride	99.8	98.7	98.0			0.492
SM 5310 B-2011	Organic Carbon	95.6	99.1	101			1.50

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2321846, 2321847
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2321846, 2321847
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2321858, 2321859

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2321858, 2321859
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2321846, 2321847
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2321846, 2321847
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2321848, 2321849
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2321848, 2321849
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2321848, 2321849
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2321848, 2321849
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2321850, 2321851
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2321860, 2321861
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2321856, 2321857
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2321846, 2321847
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2321858, 2321859
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2321846, 2321847
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2321846, 2321847
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2321846, 2321847
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2321848, 2321849

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	04/25/2022			04/26/2022 16:03	Anna M. Plaviak	2321846
	04/25/2022			04/26/2022 16:04	Anna M. Plaviak	2321847
EPA 180.1 Rev. 2.0	04/25/2022			04/26/2022 14:25	Khloe J Berg	2321846
	04/25/2022			04/26/2022 14:26	Khloe J Berg	2321847
EPA 200.7 Rev. 4.4	04/25/2022	04/27/2022 11:05	Megan Whitefoot	05/03/2022 01:40	McKinley C Carter	2321858
	04/25/2022	04/27/2022 11:05	Megan Whitefoot	05/03/2022 01:46	McKinley C Carter	2321859
EPA 200.8 Rev. 5.4	04/25/2022	04/27/2022 11:05	Megan Whitefoot	04/29/2022 22:22	Emily M Philpot	2321858
	04/25/2022	04/27/2022 11:05	Megan Whitefoot	04/29/2022 22:31	Emily M Philpot	2321859
	04/25/2022	04/27/2022 11:05	Megan Whitefoot	05/03/2022 16:36	Emily M Philpot	2321859
EPA 300.0 Rev. 2.1	04/25/2022			04/29/2022 19:54	James L Waggerby	2321846
	04/25/2022			04/29/2022 20:06	James L Waggerby	2321847
EPA 350.1 Rev. 2.0	04/25/2022			04/29/2022 09:34	Judith K. Clark	2321848
	04/25/2022			04/29/2022 09:35	Judith K. Clark	2321849
EPA 351.2 Rev. 2.0	04/25/2022	05/04/2022 15:46	Alexandra J Mattheus	05/09/2022 17:56	Samantha L Bates	2321848
	04/25/2022	05/04/2022 15:46	Alexandra J Mattheus	05/09/2022 17:58	Samantha L Bates	2321849
EPA 353.2 Rev. 2.0	04/25/2022			04/28/2022 10:27	Beverly Y. Sanders	2321848
	04/25/2022			04/28/2022 10:28	Beverly Y. Sanders	2321849
EPA 365.1 Rev. 2.0	04/25/2022	04/29/2022 13:00	Simonne.V. Calhoun	05/03/2022 14:47	James L Waggerby	2321848
	04/25/2022	04/29/2022 13:00	Simonne.V. Calhoun	05/03/2022 14:48	James L Waggerby	2321849
EPA 365.1 Rev. 2.0 dissolved	04/25/2022			04/26/2022 15:58	Nathaniel J Jones	2321850
	04/25/2022			04/26/2022 16:04	Nathaniel J Jones	2321851
EPA 8270E	04/25/2022	04/28/2022 08:00	Rasheda Ghaffari	05/03/2022 18:48	Vandana T. Nagar	2321860
	04/25/2022	04/28/2022 08:00	Rasheda Ghaffari	05/03/2022 19:14	Vandana T. Nagar	2321861
EPA 8321B	04/25/2022	04/27/2022 09:00	Hoor Shaik	04/28/2022 13:59	Juyoung Kim	2321856
	04/25/2022	04/27/2022 09:00	Hoor Shaik	04/28/2022 14:34	Juyoung Kim	2321857
	04/25/2022	04/27/2022 11:00	Manjita Shrestha	04/27/2022 15:35	Manjita Shrestha	2321856
	04/25/2022	04/27/2022 11:00	Manjita Shrestha	04/27/2022 15:48	Manjita Shrestha	2321857
	04/25/2022	04/27/2022 11:00	Manjita Shrestha	04/28/2022 08:05	Manjita Shrestha	2321856
	04/25/2022	04/27/2022 11:00	Manjita Shrestha	04/28/2022 08:20	Manjita Shrestha	2321857
SM 2320 B-2011	04/25/2022			05/03/2022 02:50	Dale L. Simmons	2321846
	04/25/2022			05/03/2022 03:02	Dale L. Simmons	2321847
SM 2340 B-2011	04/25/2022			05/03/2022 01:40	McKinley C Carter	2321858
	04/25/2022			05/03/2022 01:46	McKinley C Carter	2321859
SM 2540 C-2011	04/25/2022			04/29/2022 15:42	Yijie Li	2321846, 2321847
SM 2540 D-2011	04/25/2022			04/29/2022 15:42	Yijie Li	2321846, 2321847
SM 4500-F- C-2011	04/25/2022			05/03/2022 02:50	Dale L. Simmons	2321846
	04/25/2022			05/03/2022 03:02	Dale L. Simmons	2321847
SM 5310 B-2011	04/25/2022			04/28/2022 06:05	Khloe J Berg	2321848
	04/25/2022			04/28/2022 06:18	Khloe J Berg	2321849