

Chemical Analysis Report

CEN-DIST-2020-02-13-01

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

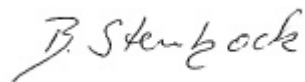
Event Description: **Lk Kiss (Mid Drain) + SCI**
Request ID: **RQ-2020-02-10-50**
Customer: **CEN-DIST**
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 06-MAR-2020 12:01



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: Lake Kissimmee (Mid Drain) @ Florida Trail

Collection Date/Time: 02/12/2020 13:11

Field ID: G4CE0183

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2157462	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P378900	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P379679	
		Sulfate	1.8		mg SO4/L	P379682	
	SM 2120 B-2011	Color (true)	230		PCU	P378905	
	SM 2320 B-2011	Total Alkalinity	8.2		mg CaCO3/L	P379406	
	SM 2540 C-2011	TDS	105		mg/L	P379528	
	SM 2540 D-2011	TSS	2	I	mg/L	P379341	
	SM 4500 F-C-2011	Fluoride	0.057	I	mg F/L	P379409	
2157463	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P379085	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.90		mg N/L	P379165	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P379547	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P379504	
	SM 5310 B-2011	Organic Carbon	26		mg C/L	P379078	
2157464	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P378913	
2157473	EPA 8321B	2,4-D	0.0020	U	ug/L	P379101	
		Acesulfame K**	0.10	UQ	ug/L	P379066	
		AMPA**	0.10	U	ug/L	P379066	
		Sucralose**	0.010	U	ug/L	P379066	
		Acetaminophen**	0.0080	U	ug/L	P379101	
		Acetamiprid**	0.0020	U	ug/L	P379101	
		Endothall**	0.25	UQ	ug/L	P379066	
		Glufosinate**	0.10	U	ug/L	P379066	
		Glyphosate**	0.10	U	ug/L	P379066	
		Afidopyropen**	0.0020	UJ	ug/L	P379101	
		Bentazon	8.0E-04	U	ug/L	P379101	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379101	
		Carbamazepine**	8.0E-04	U	ug/L	P379101	
		Clothianidin**	0.0020	U	ug/L	P379101	
		Dinotefuran**	0.0020	U	ug/L	P379101	
		Diuron	0.0020	U	ug/L	P379101	
		Fenuron	0.016	U	ug/L	P379101	
		Fluridone**	8.0E-04	U	ug/L	P379101	
		Imazapyr**	0.026		ug/L	P379101	
		Hydrocodone**	0.0020	U	ug/L	P379101	
		Ibuprofen**	0.020	U	ug/L	P379101	
		Imidacloprid	0.0020	U	ug/L	P379101	
		Linuron	0.0040	U	ug/L	P379101	
		Mandestrobin**	0.0020	UJ	ug/L	P379101	
		MCP	0.0020	U	ug/L	P379101	
		Naproxen**	0.0080	U	ug/L	P379101	
		Primidone**	0.0040	U	ug/L	P379101	
		Pyraclostrobin**	0.0020	U	ug/L	P379101	
		Thiamethoxam**	0.0020	U	ug/L	P379101	

Field ID: G4CE0183

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2157473	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379101	
		Triclopyr**	0.0040	U	ug/L	P379101	
2157474	EPA 200.7 Rev. 4.4	Barium	12.4		ug/L	P379025	
		Calcium	7.58		mg/L	P379025	
		Iron	710		ug/L	P379025	
		Magnesium	1.96		mg/L	P379025	
		Potassium	0.30	U	mg/L	P379025	
		Sodium	14.4		mg/L	P379025	
		Zinc	5.3	I	ug/L	P379025	
		Aluminum	246		ug/L	P379025	
	EPA 200.8 Rev. 5.4	Antimony	0.050	U	ug/L	P379025	
		Arsenic	0.40		ug/L	P379025	
		Boron**	27.5		ug/L	P379025	
		Cadmium	0.020	U	ug/L	P379025	
		Chromium	1.3	I	ug/L	P379025	
		Copper	0.52	I	ug/L	P379025	
		Lead	0.28	I	ug/L	P379025	
		Nickel	0.50	U	ug/L	P379025	
		Selenium	0.20	U	ug/L	P379025	
		Silver	0.010	U	ug/L	P379025	
		Thallium	0.10	U	ug/L	P379025	
		Acetochlor	0.24	U	ng/L	P379062	
2157487	EPA 8270E	Alachlor	0.24	U	ng/L	P379062	
		Ametryn	0.58	U	ng/L	P379062	
		Atrazine	2.4		ng/L	P379062	
		Atrazine Desethyl	1.4	U	ng/L	P379062	
		Azinphos Methyl	1.9	U	ng/L	P379062	
		Bromacil	0.48	U	ng/L	P379062	
		Butylate	0.38	U	ng/L	P379062	
		Carbophenothion	0.48	U	ng/L	P379062	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P379062	
		Chlorpyrifos Methyl	0.048	U	ng/L	P379062	
		Cyanazine	3.1	U	ng/L	P379062	
		Demeton	1.4	U	ng/L	P379062	
		Diazinon	0.12	U	ng/L	P379062	
		Dimethenamid**	0.096	U	ng/L	P379062	
		Disulfoton	0.48	U	ng/L	P379062	
		Dithiopyr**	0.099	I	ng/L	P379062	
		EPTC	1.2	U	ng/L	P379062	
		Ethion	0.14	U	ng/L	P379062	
		Ethoprop	0.096	U	ng/L	P379062	
		Fenamiphos	0.48	U	ng/L	P379062	
		Fipronil	0.24	U	ng/L	P379062	
		Fipronil Desulfinyl**	0.12	U	ng/L	P379062	
		Fipronil Sulfide	0.14	U	ng/L	P379062	

Field ID: G4CE0183

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2157487	EPA 8270E	Fipronil Sulfone	0.14	U	ng/L	P379062	LCS, RPD
		Flumioxazin**	1.7	UJ	ng/L	P379062	
		Fonofos	0.19	U	ng/L	P379062	
		Hexazinone	0.68	I	ng/L	P379062	RPD
		Imazalil**	0.72	UJ	ng/L	P379062	
		Malathion	0.34	U	ng/L	P379062	
		Metalaxyl	0.72	U	ng/L	P379062	
		Metolachlor	0.48	U	ng/L	P379062	
		Metribuzin	3.1	U	ng/L	P379062	
		Mevinphos	0.48	U	ng/L	P379062	
		Molinate	0.29	U	ng/L	P379062	
		Norflurazon	0.48	U	ng/L	P379062	
		Oxadiazon**	0.22	I	ng/L	P379062	
		Parathion Ethyl	0.24	U	ng/L	P379062	
		Parathion Methyl	0.53	U	ng/L	P379062	
		Pendimethalin	0.96	U	ng/L	P379062	LCS
		Phorate	0.24	UJ	ng/L	P379062	
		Prodiamine**	0.17	U	ng/L	P379062	
		Prometon	0.87	U	ng/L	P379062	
		Prometryn	0.19	U	ng/L	P379062	
		Pronamide**	0.14	U	ng/L	P379062	
		Propiconazole**	0.48	U	ng/L	P379062	LCS
		Simazine	0.48	U	ng/L	P379062	
		Sulfentrazone**	0.48	UJ	ng/L	P379062	
		Tebuconazole**	0.48	U	ng/L	P379062	
		Terbufos	0.096	U	ng/L	P379062	
		Terbutylazine	0.41	U	ng/L	P379062	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

EPA 8321B: Q - Sample analyzed beyond holding time due to technical difficulties.

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: EPA 180.1 Rev. 2.0
Batch ID: P378900

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379025

Component	Result	Code	Units
Barium	1.0	U	ug/L
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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379025

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	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: P379679

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379682

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379085

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P379165

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P379547

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P379504

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P378913

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

Reference Method: EPA 8270E
 Batch ID: P379062

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Flumioxazin	1.8	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P379062

Component	Result	Code	Units
Imazalil	0.75	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P379066

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: P379101

Component	Result	Code	Units
2,4-D	0.0020	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P379101

Component	Result	Code	Units
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
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P378905

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P379406

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

Reference Method: SM 2540 C-2011
Batch ID: P379528

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379341

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P379409

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P379078

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	105		P	85 - 115
Iron	102		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	100		P	85 - 115
Sodium	101		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.3		P	85 - 115
Antimony	106		P	85 - 115
Arsenic	101		P	85 - 115
Boron	101		P	85 - 115
Cadmium	104		P	85 - 115
Chromium	99.6		P	85 - 115
Copper	98.8		P	85 - 115
Lead	98.2		P	85 - 115
Nickel	97.3		P	85 - 115
Selenium	96.6		P	85 - 115
Silver	103		P	85 - 115
Thallium	99.5		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379679

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379682

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379085

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379165

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379547

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: P379504

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P378913

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

Reference Method: EPA 8270E
Batch ID: P379062

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	114	108	P/P	71 - 122
Alachlor	112	108	P/P	70 - 121
Ametryn	131	127	P/P	49 - 137
Atrazine	110	110	P/P	76 - 125
Atrazine Desethyl	101	96.9	P/P	31 - 144
Azinphos Methyl	145	142	P/P	67 - 150
Bromacil	83.5	79.4	P/P	36 - 121
Butylate	51.9	57.0	P/P	33 - 88.0
Carbophenothion	100	101	P/P	50 - 150
Chlorpyrifos Ethyl	99.3	102	P/P	73 - 117
Chlorpyrifos Methyl	98.4	103	P/P	68 - 121
Cyanazine	134	137	P/P	20 - 250
Demeton	89.1	73.8	P/P	30 - 123
Diazinon	107	101	P/P	70 - 128
Dimethenamid	111	105	P/P	66 - 122
Disulfoton	92.8	97.6	P/P	46 - 124
Dithiopyr	102	102	P/P	69 - 122
EPTC	56.1	54.2	P/P	31 - 90.0
Ethion	103	103	P/P	45 - 135
Ethoprop	101	96.1	P/P	59 - 118
Fenamiphos	102	106	P/P	30 - 136
Fipronil	110	109	P/P	57 - 127
Fipronil Desulfinyl	112	106	P/P	51 - 122
Fipronil Sulfide	89.1	93.1	P/P	57 - 119
Fipronil Sulfone	93.6	96.7	P/P	51 - 119
Flumioxazin	1.31	0.736	F/F	70 - 200
Fonofos	89.9	89.4	P/P	60 - 120
Hexazinone	111	107	P/P	57 - 142
Imazalil	78.5	130	P/P	50 - 150
Malathion	88.9	85.7	P/P	67 - 128
Metaxyl	117	113	P/P	21 - 148
Metolachlor	108	104	P/P	70 - 120
Metribuzin	149	146	P/P	20 - 253
Mevinphos	94.4	87.9	P/P	47 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P379062

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	83.6	72.9	P/P	41 - 99.0
Norflurazon	103	107	P/P	54 - 127
Oxadiazon	105	102	P/P	65 - 122
Parathion Ethyl	96.0	98.3	P/P	71 - 113
Parathion Methyl	103	101	P/P	73 - 129
Pendimethalin	89.8	90.4	P/P	63 - 130
Phorate	92.7	122	P/F	48 - 118
Prodiamine	66.3	60.5	P/P	20 - 144
Prometon	98.6	99.4	P/P	53 - 120
Prometryn	112	109	P/P	63 - 119
Pronamide	117	110	P/P	50 - 150
Propiconazole	103	108	P/P	50 - 150
Simazine	98.0	107	P/P	77 - 129
Sulfentrazone	28.8	30.4	F/F	50 - 150
Tebuconazole	88.9	82.8	P/P	20 - 118
Terbufos	84.2	86.9	P/P	61 - 119
Terbutylazine	108	106	P/P	75 - 119

Reference Method: EPA 8321B

Batch ID: P379066

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	79.0		P	40 - 150
AMPA	72.2		P	40 - 150
Endothall	93.4		P	40 - 150
Glufosinate	114		P	40 - 150
Glyphosate	103		P	40 - 140
Sucralose	106		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P379101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	124		P	30 - 160
Acetaminophen	89.8		P	30 - 160
Acetamiprid	90.8		P	30 - 160
Afidopyropen	81.6		P	30 - 160
Bentazon	91.8		P	30 - 160
Benzovindiflupyr	84.3		P	30 - 160
Carbamazepine	82.9		P	30 - 160
Clothianidin	95.8		P	30 - 160
Dinotefuran	91.3		P	30 - 160
Diuron	86.2		P	30 - 160
Fenuron	106		P	30 - 160
Fluridone	100		P	30 - 160
Hydrocodone	102		P	30 - 160
Ibuprofen	88.5		P	30 - 160
Imazapyr	89.8		P	30 - 160
Imidacloprid	95.5		P	30 - 160
Linuron	71.0		P	30 - 160
Mandestrobin	92.3		P	30 - 160
MCPP	130		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P379101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Naproxen	77.2		P	30 - 160
Primidone	98.2		P	30 - 160
Pyraclostrobin	82.6		P	30 - 160
Thiamethoxam	97.6		P	30 - 160
Tolfenpyrad	65.5		P	30 - 160
Triclopyr	100		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P378905

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

Reference Method: SM 2320 B-2011
Batch ID: P379406

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P379409

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P379078

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379025

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157510	Barium	103		P	80 - 120
2157510	Calcium	103		P	80 - 120
2157510	Iron	100		P	80 - 120
2157510	Magnesium	102		P	80 - 120
2157510	Potassium	103		P	80 - 120
2157510	Sodium	99.9		P	80 - 120
2157510	Zinc	102		P	80 - 120
2157530	Barium	103	104	P/P	80 - 120
2157530	Calcium	102	101	P/P	80 - 120
2157530	Iron	102	98.9	P/P	80 - 120
2157530	Magnesium	101	96.7	P/P	80 - 120
2157530	Potassium	98.0	94.5	P/P	80 - 120
2157530	Sodium	98.5	96.3	P/P	80 - 120
2157530	Zinc	102	103	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379025

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157510	Aluminum	96.0		P	80 - 120
2157510	Antimony	106		P	80 - 120
2157510	Arsenic	101		P	80 - 120
2157510	Boron	98.4		P	80 - 120
2157510	Cadmium	103		P	80 - 120
2157510	Chromium	101		P	80 - 120
2157510	Copper	99.2		P	80 - 120
2157510	Lead	99.0		P	80 - 120
2157510	Nickel	97.7		P	80 - 120
2157510	Selenium	97.7		P	80 - 120
2157510	Silver	101		P	80 - 120
2157510	Thallium	101		P	80 - 120
2157530	Aluminum	95.0	95.5	P/P	80 - 120
2157530	Antimony	105	104	P/P	80 - 120
2157530	Arsenic	98.9	99.3	P/P	80 - 120
2157530	Boron	100	101	P/P	80 - 120
2157530	Cadmium	106	103	P/P	80 - 120
2157530	Chromium	101	100	P/P	80 - 120
2157530	Copper	97.3	98.6	P/P	80 - 120
2157530	Lead	97.4	97.9	P/P	80 - 120
2157530	Nickel	96.0	99.0	P/P	80 - 120
2157530	Selenium	97.6	98.0	P/P	80 - 120
2157530	Silver	101	100	P/P	80 - 120
2157530	Thallium	98.6	99.6	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157356	Chloride	98.2		P	90 - 110
2157514	Chloride	97.5		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157356	Sulfate	97.6		P	90 - 110
2157514	Sulfate	98.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157517	Ammonia-N	98.5	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157389	Kjeldahl Nitrogen	97.3	96.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379547

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157563	NO2NO3-N	99.2	99.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379504

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157363	Total-P	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P378913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157518	O-Phosphate-P	98.1	98.6	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P379062

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157336	Acetochlor	107	105	P/P	68 - 126
2157336	Alachlor	108	105	P/P	66 - 125
2157336	Ametryn	131	123	P/P	31 - 182
2157336	Atrazine Desethyl	98.9	74.4	P/P	13 - 161
2157336	Azinphos Methyl	139	128	P/P	54 - 162
2157336	Bromacil	92.5	106	P/P	34 - 144
2157336	Butylate	69.5	71.1	P/P	16 - 92.0
2157336	Carbophenothion	87.4	94.8	P/P	50 - 150
2157336	Chlorpyrifos Ethyl	98.4	101	P/P	63 - 124
2157336	Chlorpyrifos Methyl	92.9	97.0	P/P	64 - 125
2157336	Cyanazine	143	134	P/P	13 - 245
2157336	Demeton	84.7	88.1	P/P	20 - 154
2157336	Diazinon	105	104	P/P	66 - 141
2157336	Dimethenamid	109	107	P/P	50 - 130
2157336	Disulfoton	79.7	92.0	P/P	55 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P379062

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157336	Dithiopyr	103	104	P/P	66 - 122
2157336	EPTC	54.8	65.7	P/P	15 - 93.0
2157336	Ethion	88.4	103	P/P	15 - 148
2157336	Ethoprop	93.7	98.8	P/P	59 - 126
2157336	Fenamiphos	116	94.3	P/P	39 - 137
2157336	Fipronil	106	106	P/P	47 - 131
2157336	Fipronil Desulfinyl	107	110	P/P	43 - 121
2157336	Fipronil Sulfide	88.8	96.3	P/P	29 - 134
2157336	Fipronil Sulfone	88.2	95.0	P/P	19 - 131
2157336	Flumioxazin	196	191	P/P	70 - 200
2157336	Fonofos	85.3	89.5	P/P	62 - 128
2157336	Hexazinone	117	112	P/P	58 - 154
2157336	Imazalil	105	88.7	P/P	50 - 150
2157336	Malathion	104	112	P/P	54 - 135
2157336	Metalaxyl	117	114	P/P	46 - 136
2157336	Metolachlor	109	102	P/P	62 - 126
2157336	Metribuzin	153	152	P/P	44 - 277
2157336	Mevinphos	91.9	95.1	P/P	44 - 135
2157336	Molinate	77.1	87.4	P/P	31 - 104
2157336	Norflurazon	107	105	P/P	32 - 134
2157336	Oxadiazon	101	104	P/P	55 - 123
2157336	Parathion Ethyl	91.8	95.7	P/P	67 - 120
2157336	Parathion Methyl	95.7	97.5	P/P	70 - 140
2157336	Pendimethalin	87.8	95.3	P/P	59 - 145
2157336	Phorate	113	97.6	P/P	52 - 127
2157336	Prodiamine	63.5	67.8	P/P	11 - 157
2157336	Prometon	98.9	102	P/P	55 - 130
2157336	Prometryn	110	111	P/P	55 - 127
2157336	Pronamide	118	119	P/P	50 - 150
2157336	Propiconazole	108	109	P/P	50 - 150
2157336	Simazine	107	108	P/P	58 - 159
2157336	Sulfentrazone	115	109	P/P	50 - 150
2157336	Tebuconazole	84.3	84.3	P/P	10 - 122
2157336	Terbufos	93.1	97.7	P/P	65 - 131
2157336	Terbutylazine	109	109	P/P	63 - 131

Reference Method: EPA 8321B
Batch ID: P379066

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157328	Acesulfame K	76.9	79.0	P/P	40 - 150
2157328	AMPA	79.5	75.9	P/P	40 - 150
2157328	Endothall	55.1	60.7	P/P	40 - 150
2157328	Glufosinate	111	121	P/P	40 - 150
2157328	Glyphosate	124	123	P/P	40 - 140
2157328	Sucralose	111	108	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157454	2,4-D	111	121	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P379101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157454	Acetaminophen	79.8	93.7	P/P	30 - 160
2157454	Acetamiprid	84.8	89.3	P/P	30 - 160
2157454	Afidopyropen	90.2	94.7	P/P	30 - 160
2157454	Bentazon	69.9	76.9	P/P	30 - 160
2157454	Benzovindiflupyr	74.6	72.0	P/P	30 - 160
2157454	Carbamazepine	80.3	81.5	P/P	30 - 160
2157454	Clothianidin	95.3	98.4	P/P	30 - 160
2157454	Dinotefuran	93.8	101	P/P	30 - 160
2157454	Diuron	69.8	72.5	P/P	30 - 160
2157454	Fenuron	98.1	106	P/P	30 - 160
2157454	Fluridone	80.2	84.4	P/P	30 - 160
2157454	Hydrocodone	87.3	90.7	P/P	30 - 160
2157454	Ibuprofen	73.4	65.4	P/P	30 - 160
2157454	Imazapyr	77.3	94.4	P/P	30 - 160
2157454	Imidacloprid	155	159	P/P	30 - 160
2157454	Linuron	59.4	58.9	P/P	30 - 160
2157454	Mandestrobin	80.7	82.6	P/P	30 - 160
2157454	MCCP	138	143	P/P	30 - 160
2157454	Naproxen	69.8	74.7	P/P	30 - 160
2157454	Primidone	94.4	99.2	P/P	30 - 160
2157454	Pyraclostrobin	65.8	70.6	P/P	30 - 160
2157454	Thiamethoxam	130	135	P/P	30 - 160
2157454	Tolfenpyrad	48.3	49.8	P/P	30 - 160
2157454	Triclopyr	99.6	105	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P379409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157235	Fluoride	97.8	98.9	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P379078

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157361	Organic Carbon	98.0	96.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P378900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157497	Turbidity	10.3	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157530	Barium	1.08	Spike	P	0 - 20
2157530	Calcium	0.865	Spike	P	0 - 20
2157530	Iron	3.15	Spike	P	0 - 20
2157530	Magnesium	3.16	Spike	P	0 - 20
2157530	Potassium	2.62	Spike	P	0 - 20
2157530	Sodium	1.38	Spike	P	0 - 20
2157530	Zinc	1.32	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157530	Aluminum	0.425	Spike	P	0 - 20
2157530	Antimony	1.09	Spike	P	0 - 20
2157530	Arsenic	0.391	Spike	P	0 - 20
2157530	Boron	0.541	Spike	P	0 - 20
2157530	Cadmium	2.46	Spike	P	0 - 20
2157530	Chromium	0.603	Spike	P	0 - 20
2157530	Copper	1.34	Spike	P	0 - 20
2157530	Lead	0.444	Spike	P	0 - 20
2157530	Nickel	3.02	Spike	P	0 - 20
2157530	Selenium	0.390	Spike	P	0 - 20
2157530	Silver	0.565	Spike	P	0 - 20
2157530	Thallium	1.01	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157356	Chloride	0.165	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157356	Sulfate	0.0877	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157517	Ammonia-N	0.513	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157389	Kjeldahl Nitrogen	0.484	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379547

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157563	NO2NO3-N	0.489	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379504

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157363	Total-P	0.561	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P378913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157518	O-Phosphate-P	0.508	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P379062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157336	Acetochlor	1.96	Spike	P	0 - 30
2157336	Alachlor	2.68	Spike	P	0 - 30
2157336	Ametryn	6.43	Spike	P	0 - 30
2157336	Atrazine	0.514	Spike	P	0 - 30
2157336	Atrazine Desethyl	24.2	Spike	P	0 - 30
2157336	Azinphos Methyl	7.98	Spike	P	0 - 30
2157336	Bromacil	10.9	Spike	P	0 - 30
2157336	Butylate	2.20	Spike	P	0 - 30
2157336	Carbophenothion	8.10	Spike	P	0 - 30
2157336	Chlorpyrifos Ethyl	2.67	Spike	P	0 - 30
2157336	Chlorpyrifos Methyl	4.33	Spike	P	0 - 30
2157336	Cyanazine	7.20	Spike	P	0 - 30
2157336	Demeton	3.92	Spike	P	0 - 30
2157336	Diazinon	0.896	Spike	P	0 - 30
2157336	Dimethenamid	2.28	Spike	P	0 - 30
2157336	Disulfoton	14.3	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P379062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157336	Dithiopyr	1.04	Spike	P	0 - 30
2157336	EPTC	18.1	Spike	P	0 - 30
2157336	Ethion	15.1	Spike	P	0 - 30
2157336	Ethoprop	5.30	Spike	P	0 - 30
2157336	Fenamiphos	20.8	Spike	P	0 - 30
2157336	Fipronil	0.312	Spike	P	0 - 30
2157336	Fipronil Desulfinyl	3.12	Spike	P	0 - 30
2157336	Fipronil Sulfide	8.09	Spike	P	0 - 30
2157336	Fipronil Sulfone	4.82	Spike	P	0 - 30
2157336	Flumioxazin	2.79	Spike	P	0 - 30
2157336	Fonofos	4.73	Spike	P	0 - 30
2157336	Hexazinone	2.43	Spike	P	0 - 30
2157336	Imazalil	16.4	Spike	P	0 - 30
2157336	Malathion	7.45	Spike	P	0 - 30
2157336	Metalaxyl	2.70	Spike	P	0 - 30
2157336	Metolachlor	5.29	Spike	P	0 - 30
2157336	Metribuzin	0.446	Spike	P	0 - 30
2157336	Mevinphos	3.36	Spike	P	0 - 30
2157336	Molinate	12.6	Spike	P	0 - 30
2157336	Norflurazon	1.38	Spike	P	0 - 30
2157336	Oxadiazon	3.72	Spike	P	0 - 30
2157336	Parathion Ethyl	4.15	Spike	P	0 - 30
2157336	Parathion Methyl	1.84	Spike	P	0 - 30
2157336	Pendimethalin	8.12	Spike	P	0 - 30
2157336	Phorate	14.8	Spike	P	0 - 30
2157336	Prodiamine	6.45	Spike	P	0 - 30
2157336	Prometon	3.48	Spike	P	0 - 30
2157336	Prometryn	1.60	Spike	P	0 - 30
2157336	Pronamide	0.361	Spike	P	0 - 30
2157336	Propiconazole	1.50	Spike	P	0 - 30
2157336	Simazine	0.682	Spike	P	0 - 30
2157336	Sulfentrazone	4.80	Spike	P	0 - 30
2157336	Tebuconazole	0.0991	Spike	P	0 - 30
2157336	Terbufos	4.85	Spike	P	0 - 30
2157336	Terbuthylazine	0.147	Spike	P	0 - 30
LFB	Acetochlor	5.44	LCS	P	0 - 30
LFB	Alachlor	3.91	LCS	P	0 - 30
LFB	Ametryn	3.36	LCS	P	0 - 30
LFB	Atrazine	0.105	LCS	P	0 - 30
LFB	Atrazine Desethyl	3.84	LCS	P	0 - 30
LFB	Azinphos Methyl	1.56	LCS	P	0 - 30
LFB	Bromacil	4.98	LCS	P	0 - 30
LFB	Butylate	9.23	LCS	P	0 - 30
LFB	Carbophenothion	1.40	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.13	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	4.14	LCS	P	0 - 30
LFB	Cyanazine	2.57	LCS	P	0 - 30
LFB	Demeton	18.7	LCS	P	0 - 30
LFB	Diazinon	6.54	LCS	P	0 - 30
LFB	Dimethenamid	5.44	LCS	P	0 - 30
LFB	Disulfoton	5.09	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P379062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	0.365	LCS	P	0 - 30
LFB	EPTC	3.39	LCS	P	0 - 30
LFB	Ethion	0.327	LCS	P	0 - 30
LFB	Ethoprop	4.57	LCS	P	0 - 30
LFB	Fenamiphos	3.57	LCS	P	0 - 30
LFB	Fipronil	0.948	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	5.23	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.39	LCS	P	0 - 30
LFB	Fipronil Sulfone	3.24	LCS	P	0 - 30
LFB	Flumioxazin	56.1	LCS	F	0 - 30
LFB	Fonofos	0.583	LCS	P	0 - 30
LFB	Hexazinone	3.39	LCS	P	0 - 30
LFB	Imazalil	49.7	LCS	F	0 - 30
LFB	Malathion	3.69	LCS	P	0 - 30
LFB	Metaxyl	3.47	LCS	P	0 - 30
LFB	Metolachlor	4.24	LCS	P	0 - 30
LFB	Metribuzin	2.12	LCS	P	0 - 30
LFB	Mevinphos	7.12	LCS	P	0 - 30
LFB	Molinate	13.7	LCS	P	0 - 30
LFB	Norflurazon	3.03	LCS	P	0 - 30
LFB	Oxadiazon	2.42	LCS	P	0 - 30
LFB	Parathion Ethyl	2.39	LCS	P	0 - 30
LFB	Parathion Methyl	1.26	LCS	P	0 - 30
LFB	Pendimethalin	0.646	LCS	P	0 - 30
LFB	Phorate	26.9	LCS	P	0 - 30
LFB	Prodiamine	9.16	LCS	P	0 - 30
LFB	Prometon	0.777	LCS	P	0 - 30
LFB	Prometryn	2.33	LCS	P	0 - 30
LFB	Pronamide	5.75	LCS	P	0 - 30
LFB	Propiconazole	4.39	LCS	P	0 - 30
LFB	Simazine	8.59	LCS	P	0 - 30
LFB	Sulfentrazone	5.20	LCS	P	0 - 30
LFB	Tebuconazole	7.00	LCS	P	0 - 30
LFB	Terbufos	3.12	LCS	P	0 - 30
LFB	Terbutylazine	1.89	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P379066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157328	Acesulfame K	2.70	Spike	P	0 - 30
2157328	AMPA	4.71	Spike	P	0 - 30
2157328	Endothall	9.55	Spike	P	0 - 30
2157328	Glufosinate	8.16	Spike	P	0 - 30
2157328	Glyphosate	1.13	Spike	P	0 - 30
2157328	Sucralose	2.78	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P379101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157454	2,4-D	6.59	Spike	P	0 - 30
2157454	Acetaminophen	16.1	Spike	P	0 - 30
2157454	Acetamiprid	5.22	Spike	P	0 - 30
2157454	Afidopyropen	4.93	Spike	P	0 - 30
2157454	Bentazon	9.50	Spike	P	0 - 30
2157454	Benzovindiflupyr	3.62	Spike	P	0 - 30
2157454	Carbamazepine	1.45	Spike	P	0 - 30
2157454	Clothianidin	3.20	Spike	P	0 - 30
2157454	Dinotefuran	7.39	Spike	P	0 - 30
2157454	Diuron	3.78	Spike	P	0 - 30
2157454	Fenuron	8.16	Spike	P	0 - 30
2157454	Fluridone	5.09	Spike	P	0 - 30
2157454	Hydrocodone	3.83	Spike	P	0 - 30
2157454	Ibuprofen	11.5	Spike	P	0 - 30
2157454	Imazapyr	19.8	Spike	P	0 - 30
2157454	Imidacloprid	2.61	Spike	P	0 - 30
2157454	Linuron	0.981	Spike	P	0 - 30
2157454	Mandestrobin	2.23	Spike	P	0 - 30
2157454	MCPP	2.72	Spike	P	0 - 30
2157454	Naproxen	6.85	Spike	P	0 - 30
2157454	Primidone	4.96	Spike	P	0 - 30
2157454	Pyraclostrobin	7.05	Spike	P	0 - 30
2157454	Thiamethoxam	4.34	Spike	P	0 - 30
2157454	Tolfenpyrad	3.17	Spike	P	0 - 30
2157454	Triclopyr	5.68	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P378905

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157502	Color (true)	0.884	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P379406

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157235	Total Alkalinity	0.763	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P379528

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157572	TDS	3.96	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P379409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157235	Fluoride	1.00	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P379078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157361	Organic Carbon	0.861	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2157473
Field Sample ID: G4CE0183

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	99.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	95.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	74.0	P	30 - 160
EPA 8321B	Diuron-d6	58.8	P	30 - 160
EPA 8321B	Endothall-d6	121	P	30 - 160
EPA 8321B	Endothall-d6	121	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	118	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	118	P	30 - 160
EPA 8321B	Ibuprofen-d3	59.7	P	30 - 160
EPA 8321B	Primidone-d5	76.2	P	30 - 160
EPA 8321B	Sucralose-d6	117	P	30 - 160
EPA 8321B	Sucralose-d6	117	P	30 - 160

Lab Sample ID: 2157487
Field Sample ID: G4CE0183

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	107	P	72 - 135
EPA 8270E	Terbufos-d10	72.9	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A37839

Included Lab Sample IDs: 2157474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	101	103	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A97527

Included Lab Sample IDs: 2157462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A97528

Included Lab Sample IDs: 2157462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A97529

Included Lab Sample IDs: 2157464

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.0	97.2	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A97590

Included Lab Sample IDs: 2157463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	98.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97592

Included Lab Sample IDs: 2157463

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A97692

Included Lab Sample IDs: 2157463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.1	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A97693

Included Lab Sample IDs: 2157474

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

Quality Assurance Report

Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A97693

Included Lab Sample IDs: 2157474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	102	101	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Potassium	98.7	98.9	P/P	90 - 110
Sodium	99.3	100	P/P	90 - 110
Zinc	103	103	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A97710

Included Lab Sample IDs: 2157473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.6	102	P/P	50 - 150
Acetaminophen	105	104	P/P	60 - 160
Acetamiprid	110	108	P/P	50 - 150
Afidopyropen	107	107	P/P	50 - 150
Bentazon	113	108	P/P	50 - 160
Benzovindiflupyr	106	106	P/P	50 - 150
Carbamazepine	112	94.5	P/P	60 - 150
Clothianidin	103	96.6	P/P	60 - 150
Dinotefuran	102	105	P/P	50 - 150
Diuron	119	117	P/P	60 - 150
Fenuron	110	104	P/P	60 - 150
Fluridone	106	107	P/P	60 - 160
Hydrocodone	74.4	102	P/P	60 - 150
Ibuprofen	101	94.8	P/P	50 - 160
Imazapyr	98.8	93.9	P/P	50 - 150
Imidacloprid	88.0	97.7	P/P	60 - 150
Linuron	89.9	93.2	P/P	60 - 150
Mandestrobin	104	102	P/P	50 - 150
MCPP	97.8	92.8	P/P	50 - 150
Naproxen	130	128	P/P	50 - 160
Primidone	94.2	99.7	P/P	60 - 150
Pyraclostrobin	104	102	P/P	60 - 150
Thiamethoxam	101	99.4	P/P	50 - 150
Tolfenpyrad	103	101	P/P	60 - 150
Triclopyr	104	102	P/P	50 - 150

Reference Method: SM 2320 B-2011

Run ID: A97738

Included Lab Sample IDs: 2157462

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

Reference Method: SM 4500 F-C-2011

Run ID: A97738

Included Lab Sample IDs: 2157462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A97758

Included Lab Sample IDs: 2157463

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

Reference Method: EPA 8270E

Run ID: A97761

Included Lab Sample IDs: 2157487

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine	103		P	80 - 120
Atrazine Desethyl	103		P	80 - 120
Azinphos Methyl	92.6		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	97.2		P	80 - 120
Carbophenothion	97.8		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	98.3		P	80 - 120
Cyanazine	106		P	80 - 120
Demeton	96.3		P	80 - 120
Diazinon	105		P	80 - 120
Dimethenamid	103		P	80 - 120
Disulfoton	100		P	80 - 120
Dithiopyr	105		P	80 - 120
EPTC	100		P	80 - 120
Ethion	96.2		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	98.1		P	80 - 120
Fipronil	102		P	80 - 120
Fipronil Desulfinyl	106		P	80 - 120
Fipronil Sulfide	99.7		P	80 - 120
Fipronil Sulfone	98.5		P	80 - 120
Flumioxazin	95.4		P	80 - 120
Fonofos	98.0		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	97.8		P	80 - 120
Malathion	98.6		P	80 - 120
Metaxyl	101		P	80 - 120
Metolachlor	108		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	98.1		P	80 - 120
Molinate	98.9		P	80 - 120
Norflurazon	105		P	80 - 120
Oxadiazon	109		P	80 - 120
Parathion Ethyl	99.0		P	80 - 120
Parathion Methyl	94.2		P	80 - 120
Pendimethalin	97.5		P	80 - 120
Phorate	100		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	104		P	80 - 120
Prometryn	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A97761

Included Lab Sample IDs: 2157487

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pronamide	92.9		P	80 - 120
Propiconazole	104		P	80 - 120
Simazine	96.6		P	80 - 120
Sulfentrazone	100		P	80 - 120
Tebuconazole	105		P	80 - 120
Terbufos	100		P	80 - 120
Terbutylazine	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A97771

Included Lab Sample IDs: 2157462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	98.7	P/P	90 - 110
Sulfate	98.9	98.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A97772

Included Lab Sample IDs: 2157474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	91.7	92.9	P/P	90 - 110
Antimony	102	101	P/P	90 - 110
Arsenic	95.6	96.9	P/P	90 - 110
Boron	106	100	P/P	90 - 110
Cadmium	99.5	98.3	P/P	90 - 110
Chromium	96.1	94.8	P/P	90 - 110
Copper	92.6	93.1	P/P	90 - 110
Lead	93.5	93.6	P/P	90 - 110
Nickel	93.3	93.6	P/P	90 - 110
Silver	101	99.9	P/P	90 - 110
Thallium	94.2	94.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A97817

Included Lab Sample IDs: 2157473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.2	60.7	P/P	60 - 160
Endothall	105	97.1	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97860

Included Lab Sample IDs: 2157463

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A97908
Included Lab Sample IDs: 2157473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	109	118	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A97951
Included Lab Sample IDs: 2157473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	67.4	83.2	P/P	60 - 160
Glufosinate	122	101	P/P	60 - 160
Glyphosate	113	117	P/P	60 - 160

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							10.3	
EPA 200.7 Rev. 4.4	Barium	102		103	103	104			1.08
	Calcium	105		103	102	101			0.865
	Iron	102		100	102	98.9			3.15
	Magnesium	105		102	101	96.7			3.16
	Potassium	100		103	98.0	94.5			2.62
	Sodium	101		99.9	98.5	96.3			1.38
	Zinc	101		102	102	103			1.32
EPA 200.8 Rev. 5.4	Aluminum	97.3		95.0	95.5	96.0			0.425
	Antimony	106		105	104	106			1.09
	Arsenic	101		98.9	99.3	101			0.391
	Boron	101		100	101	98.4			0.541
	Cadmium	104		106	103	103			2.46
	Chromium	99.6		101	100	101			0.603
	Copper	98.8		97.3	98.6	99.2			1.34
	Lead	98.2		97.4	97.9	99.0			0.444
	Nickel	97.3		96.0	99.0	97.7			3.02
	Selenium	96.6		97.6	98.0	97.7			0.390
	Silver	103		101	100	101			0.565
	Thallium	99.5		98.6	99.6	101			1.01
EPA 300.0 Rev. 2.1	Chloride	99.2		98.2	97.5			0.165	
	Sulfate	99.4		98.8	97.6			0.0877	
EPA 350.1 Rev. 2.0	Ammonia-N	101		98.5	99.1				0.513
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		97.3	96.2				0.484
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0		99.2	99.7				0.489
EPA 365.1 Rev. 2.0	Total-P	104		106	106				0.561
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		98.1	98.6				0.508
EPA 8270E	Acetochlor	114	108	107	105		5.44		1.96
	Alachlor	112	108	108	105		3.91		2.68
	Ametryn	131	127	131	123		3.36		6.43
	Atrazine	110	110				0.105		0.514
	Atrazine Desethyl	101	96.9	98.9	74.4		3.84		24.2
	Azinphos Methyl	145	142	139	128		1.56		7.98
	Bromacil	83.5	79.4	92.5	106		4.98		10.9
	Butylate	51.9	57.0	69.5	71.1		9.23		2.20
	Carbophenothion	100	101	87.4	94.8		1.40		8.10
	Chlorpyrifos Ethyl	99.3	102	98.4	101		3.13		2.67
	Chlorpyrifos Methyl	98.4	103	92.9	97.0		4.14		4.33
	Cyanazine	134	137	143	134		2.57		7.20
	Demeton	89.1	73.8	84.7	88.1		18.7		3.92
	Diazinon	107	101	105	104		6.54		0.896
	Dimethenamid	111	105	109	107		5.44		2.28
	Disulfoton	92.8	97.6	79.7	92.0		5.09		14.3
	Dithiopyr	102	102	103	104		0.365		1.04
	EPTC	56.1	54.2	54.8	65.7		3.39		18.1
	Ethion	103	103	88.4	103		0.327		15.1
	Ethoprop	101	96.1	93.7	98.8		4.57		5.30
	Fenamiphos	102	106	116	94.3		3.57		20.8
	Fipronil	110	109	106	106		0.948		0.312
	Fipronil Desulfanyl	112	106	107	110		5.23		3.12
	Fipronil Sulfide	89.1	93.1	88.8	96.3		4.39		8.09
	Fipronil Sulfone	93.6	96.7	88.2	95.0		3.24		4.82
	Flumioxazin	1.31	0.736	196	191		56.1		2.79
	Fonofos	89.9	89.4	85.3	89.5		0.583		4.73

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Hexazinone	111	107	117	112	3.39		2.43
	Imazalil	78.5	130	105	88.7	49.7		16.4
	Malathion	88.9	85.7	104	112	3.69		7.45
	Metalaxyl	117	113	117	114	3.47		2.70
	Metolachlor	108	104	109	102	4.24		5.29
	Metribuzin	149	146	153	152	2.12		0.446
	Mevinphos	94.4	87.9	91.9	95.1	7.12		3.36
	Molinate	83.6	72.9	77.1	87.4	13.7		12.6
	Norflurazon	103	107	107	105	3.03		1.38
	Oxadiazon	105	102	101	104	2.42		3.72
	Parathion Ethyl	96.0	98.3	91.8	95.7	2.39		4.15
	Parathion Methyl	103	101	95.7	97.5	1.26		1.84
	Pendimethalin	89.8	90.4	87.8	95.3	0.646		8.12
	Phorate	92.7	122	113	97.6	26.9		14.8
	Prodiamine	66.3	60.5	63.5	67.8	9.16		6.45
	Prometon	98.6	99.4	98.9	102	0.777		3.48
	Prometryn	112	109	110	111	2.33		1.60
	Pronamide	117	110	118	119	5.75		0.361
	Propiconazole	103	108	108	109	4.39		1.50
	Simazine	98.0	107	107	108	8.59		0.682
	Sulfentrazone	28.8	30.4	115	109	5.20		4.80
	Tebuconazole	88.9	82.8	84.3	84.3	7.00		0.0991
	Terbufos	84.2	86.9	93.1	97.7	3.12		4.85
	Terbutylazine	108	106	109	109	1.89		0.147
EPA 8321B	2,4-D	124		111	121			6.59
	Acesulfame K	79.0		76.9	79.0			2.70
	Acetaminophen	89.8		79.8	93.7			16.1
	Acetamiprid	90.8		84.8	89.3			5.22
	Afidopyropen	81.6		90.2	94.7			4.93
	AMPA	72.2		79.5	75.9			4.71
	Bentazon	91.8		69.9	76.9			9.50
	Benzovindiflupyr	84.3		74.6	72.0			3.62
	Carbamazepine	82.9		80.3	81.5			1.45
	Clothianidin	95.8		95.3	98.4			3.20
	Dinotefuran	91.3		93.8	101			7.39
	Diuron	86.2		69.8	72.5			3.78
	Endothall	93.4		55.1	60.7			9.55
	Fenuron	106		98.1	106			8.16
	Fluridone	100		80.2	84.4			5.09
	Glufosinate	114		111	121			8.16
	Glyphosate	103		124	123			1.13
	Hydrocodone	102		87.3	90.7			3.83
	Ibuprofen	88.5		73.4	65.4			11.5
	Imazapyr	89.8		77.3	94.4			19.8
	Imidacloprid	95.5		155	159			2.61
	Linuron	71.0		59.4	58.9			0.981
	Mandestrobin	92.3		80.7	82.6			2.23
	MCPP	130		138	143			2.72
	Naproxen	77.2		69.8	74.7			6.85
	Primidone	98.2		94.4	99.2			4.96
	Pyraclostrobin	82.6		65.8	70.6			7.05
	Sucralose	106		111	108			2.78
	Thiamethoxam	97.6		130	135			4.34
	Tolfenpyrad	65.5		48.3	49.8			3.17

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Triclopyr	100	99.6	105			5.68
SM 2120 B-2011	Color (true)	99.3				0.884	
SM 2320 B-2011	Total Alkalinity	104				0.763	
SM 2540 C-2011	TDS					3.96	
SM 4500 F-C-2011	Fluoride	99.3	97.8	98.9			1.00
SM 5310 B-2011	Organic Carbon	95.8	98.0	96.7			0.861

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2157462
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2157474
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2157474
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2157462
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2157462
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2157463
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2157463
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2157463
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2157463
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2157464
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2157487
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2157473
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2157473
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2157462
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2157462
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2157462
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2157462
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2157462
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2157463

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	02/13/2020			02/13/2020 16:14	Yen Ta	2157462
EPA 200.7 Rev. 4.4	02/13/2020	02/17/2020 14:30	Elliott D. Healy	02/20/2020 16:07	Betina Topolski	2157474
EPA 200.8 Rev. 5.4	02/13/2020	02/17/2020 14:30	Elliott D. Healy	02/24/2020 21:46	Justin Cutchin	2157474
	02/13/2020	02/17/2020 14:30	Elliott D. Healy	02/26/2020 18:36	Justin Cutchin	2157474
EPA 300.0 Rev. 2.1	02/13/2020			02/25/2020 15:53	Lipi Saha	2157462
EPA 350.1 Rev. 2.0	02/13/2020			02/17/2020 11:12	Ping Hua	2157463
EPA 351.2 Rev. 2.0	02/13/2020	02/19/2020 11:45	Sima Feizi	02/20/2020 20:12	Jhamieka S. Greenwood	2157463
EPA 353.2 Rev. 2.0	02/13/2020			02/24/2020 11:07	Beverly Y. Sanders	2157463
EPA 365.1 Rev. 2.0	02/13/2020	02/24/2020 16:08	Yen Ta	02/27/2020 13:35	Benjamin T. Nordmann	2157463
EPA 365.1 Rev. 2.0 dissolved	02/13/2020			02/13/2020 16:43	Carlos Miranda	2157464
EPA 8270E	02/13/2020	02/17/2020 09:00	Julie Wi	02/19/2020 16:20	Vandana T. Nagar	2157487
EPA 8321B	02/13/2020	02/18/2020 10:00	Rebecca Ware	02/18/2020 12:26	Rebecca Ware	2157473
	02/13/2020	02/18/2020 10:00	Rebecca Ware	02/20/2020 09:50	Rebecca Ware	2157473
	02/13/2020	02/18/2020 10:00	Rebecca Ware	02/26/2020 13:21	Rebecca Ware	2157473
	02/13/2020	02/19/2020 09:00	Hoor Shaik	02/21/2020 10:07	Juyoung Kim	2157473
SM 2120 B-2011	02/13/2020			02/13/2020 16:32	Samantha Davila	2157462
SM 2320 B-2011	02/13/2020			02/21/2020 10:45	Dale L. Simmons	2157462
SM 2540 C-2011	02/13/2020			02/18/2020 15:02	Yijie Li	2157462
SM 2540 D-2011	02/13/2020			02/18/2020 15:02	Yijie Li	2157462
SM 4500 F-C-2011	02/13/2020			02/21/2020 10:45	Dale L. Simmons	2157462
SM 5310 B-2011	02/13/2020			02/17/2020 17:02	Madeline Funaro	2157463