

Chemical Analysis Report

SE-DIST-2018-10-18-01

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

Event Description: **SMP- Broward**
Request ID: **RQ-2018-10-15-42**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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2199 South Rock Road
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 19-NOV-2018 11:16

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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 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: NORTH NEW RIVER CANAL

Collection Date/Time: 10/17/2018 10:55

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033783	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P353458	
	EPA 300.0 Rev. 2.1	Chloride	51		mg Cl/L	P353720	
		Sulfate	7.0		mg SO4/L	P353722	
	SM 2120 B	Color (true)	43		PCU	P353297	
	SM 2320 B-97	Total Alkalinity	176		mg CaCO3/L	P353711	
	SM 2540 C-97	TDS	296		mg/L	P353837	
	SM 2540 D-97	TSS	2	I	mg/L	P353586	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P353714	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.16		mg N/L	P353851	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P353610	
2033784	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P353352	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P353341	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P353622	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P353313	
	dissolved						
2033800	EPA 8321B	Aldicarb	0.020	U	ug/L	P353225	MS, RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P353225	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P353225	
		Carbaryl	0.0020	U	ug/L	P353225	
		Carbofuran	0.0020	U	ug/L	P353225	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P353225	
		Methiocarb	0.0020	U	ug/L	P353225	
		Methomyl	0.0020	U	ug/L	P353225	RPD
		Oxamyl	0.0020	U	ug/L	P353225	
		Propoxur	0.0020	U	ug/L	P353225	
2033801		2,4-D	0.0053	I	ug/L	P353225	
		Bentazon	0.018		ug/L	P353225	
		MCP	0.0020	U	ug/L	P353225	
		Triclopyr**	0.0040	U	ug/L	P353225	
		Imidacloprid	0.0025	IJ	ug/L	P353225	MS
		Diuron	0.020		ug/L	P353225	
		Pyraclostrobin**	0.0020	U	ug/L	P353225	
		Primidone**	0.0040	U	ug/L	P353225	
		Linuron	0.0040	U	ug/L	P353225	
		Acetaminophen**	0.0080	U	ug/L	P353225	
		Fenuron	0.016	U	ug/L	P353225	
		Imazapyr**	0.19	J	ug/L	P353225	MS
		Carbamazepine**	8.0E-04	U	ug/L	P353225	
		Fluridone**	0.0026		ug/L	P353225	
		Hydrocodone**	8.0E-04	U	ug/L	P353225	
		Naproxen**	0.0080	U	ug/L	P353225	
		Ibuprofen**	0.020	U	ug/L	P353225	
		Sucralose**	0.010	U	ug/L	P353138	
		Glyphosate**	0.10	U	ug/L	P353138	

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033801	EPA 8321B	AMPA**	0.10	U	ug/L	P353138	
		Endothall**	0.25	U	ug/L	P353138	
		Glufosinate**	0.10	U	ug/L	P353138	
		Acesulfame K**	0.10	U	ug/L	P353138	
2033802	EPA 8270D	Aldrin	4.1	U	ng/L	P353277	
		Alpha-BHC	2.1	U	ng/L	P353277	
		Beta-BHC	4.1	U	ng/L	P353277	
		Delta-BHC	4.1	U	ng/L	P353277	
		Gamma-BHC	4.1	U	ng/L	P353277	
		Carbophenothion	4.1	U	ng/L	P353277	
		Chlorothalonil	2.1	U	ng/L	P353277	
		Cypermethrin	21	U	ng/L	P353277	
		DDD-p,p'	3.1	U	ng/L	P353277	
		DDE-p,p'	3.1	U	ng/L	P353277	
		DDT-p,p'	3.1	U	ng/L	P353277	
		Dieldrin	4.1	U	ng/L	P353277	
		Endosulfan I	4.1	U	ng/L	P353277	
		Endosulfan II	4.1	U	ng/L	P353277	
		Endosulfan Sulfate	2.1	U	ng/L	P353277	
		Endrin	2.1	U	ng/L	P353277	
		Endrin Aldehyde	2.1	U	ng/L	P353277	
		Heptachlor	1.5	U	ng/L	P353277	
		Heptachlor Epoxide	2.1	U	ng/L	P353277	
		Methoxychlor	4.1	U	ng/L	P353277	
		Mirex	2.1	U	ng/L	P353277	
		Permethrin	10	U	ng/L	P353277	
		Trifluralin	1.0	U	ng/L	P353277	
		Alpha-Chlordane	1.0	U	ng/L	P353277	
		Gamma-Chlordane	1.0	U	ng/L	P353277	
		Endrin Ketone	2.1	U	ng/L	P353277	
		Dicofol	31	U	ng/L	P353277	
		Chlordane	2.6	U	ng/L	P353277	
		Toxaphene	31	U	ng/L	P353277	
2033803	EPA 8270D	Alachlor	0.24	U	ng/L	P353242	
		Ametryn	4.1		ng/L	P353242	
		Atrazine	12		ng/L	P353242	
		Atrazine Desethyl	2.0	I	ng/L	P353242	
		Azinphos Methyl	2.1	U	ng/L	P353242	
		Bromacil	0.48	U	ng/L	P353242	
		Butylate	0.38	U	ng/L	P353242	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P353242	
		Chlorpyrifos Methyl	0.095	U	ng/L	P353242	
		Demeton	1.9	U	ng/L	P353242	RPD
		Diazinon	0.12	U	ng/L	P353242	
		Disulfoton	0.48	U	ng/L	P353242	
	EPA 8276	Chlordane	2.6	U	ng/L	P353277	
		Toxaphene	31	U	ng/L	P353277	
		Alachlor	0.24	U	ng/L	P353242	
		Ametryn	4.1		ng/L	P353242	

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033803	EPA 8270D	EPTC	1.2	U	ng/L	P353242	
		Ethion	0.14	U	ng/L	P353242	
		Ethoprop	0.095	U	ng/L	P353242	
		Fenamiphos	0.24	U	ng/L	P353242	
		Fipronil	0.24	U	ng/L	P353242	
		Fipronil Sulfide	0.14	U	ng/L	P353242	
		Fipronil Sulfone	0.14	U	ng/L	P353242	
		Hexazinone	4.4		ng/L	P353242	
		Malathion	0.33	U	ng/L	P353242	
		Metribuzin	0.19	UJ	ng/L	P353242	RPD
		Mevinphos	0.48	U	ng/L	P353242	
		Molinate	0.29	U	ng/L	P353242	
		Norflurazon	0.48	U	ng/L	P353242	
		Pendimethalin	0.95	U	ng/L	P353242	
		Phorate	0.24	U	ng/L	P353242	
		Prometon	0.86	U	ng/L	P353242	
		Prometryn	0.19	U	ng/L	P353242	
		Simazine	0.48	U	ng/L	P353242	
		Terbufos	0.095	U	ng/L	P353242	
		Terbuthylazine	0.41	U	ng/L	P353242	
		Fonofos	0.19	U	ng/L	P353242	
		Metalaxyl	0.44	I	ng/L	P353242	
		Metolachlor	0.24	U	ng/L	P353242	
		Acetochlor	0.24	U	ng/L	P353242	
		Cyanazine	0.48	U	ng/L	P353242	
		Parathion Ethyl	0.24	U	ng/L	P353242	
		Parathion Methyl	0.24	UJ	ng/L	P353242	LCS, RPD
		Dimethenamid**	0.095	U	ng/L	P353242	
		Fipronil Desulfinyl**	0.12	U	ng/L	P353242	
		Dithiopyr**	0.095	U	ng/L	P353242	
		Prodiamine**	0.17	U	ng/L	P353242	
		Oxadiazon**	0.76		ng/L	P353242	
		Tebuconazole**	0.48	U	ng/L	P353242	
2033820	EPA 200.7 Rev. 4.4	Calcium	55.7		mg/L	P353323	
		Iron	30	U	ug/L	P353323	
		Magnesium	10.1		mg/L	P353323	
		Potassium	3.2		mg/L	P353323	
		Sodium	34.5		mg/L	P353323	
		Zinc	5.0	U	ug/L	P353323	
	EPA 200.8 Rev. 5.4	Arsenic	0.67		ug/L	P353997	
		Cadmium	0.020	U	ug/L	P353323	
		Chromium	0.40	U	ug/L	P353323	
		Copper	0.24	I	ug/L	P353323	
		Lead	0.050	U	ug/L	P353323	
		Nickel	0.20	U	ug/L	P353323	

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033820	EPA 200.8 Rev. 5.4	Silver	0.010	U	ug/L	P353323	

Ref. Method and Comment:
EPA 8321B: Refer to the narrative for an explanation of QC Codes.
EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Sample Location: WEST LAKE @ SHERIDAN

Collection Date/Time: 10/17/2018 11:45

Field ID: G4SE0037

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033780	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P353458	
	SM 2320 B-97	Total Alkalinity	141		mg CaCO3/L	P354097	
	SM 2540 D-97	TSS	17		mg/L	P353589	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P354100	
2033781	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P353852	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P353612	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P353593	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P353343	
	SM 5310 B-00	Organic Carbon	3.0		mg C/L	P353944	
2033782	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P353312	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: DANIA CUTOFF @ US 1

Collection Date/Time: 10/17/2018 12:15

Field ID: G4SE0028

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033786	EPA 180.1 Rev. 2.0	Turbidity	4.1		NTU	P353458	
	SM 2320 B-97	Total Alkalinity	146		mg CaCO3/L	P353815	
	SM 2540 D-97	TSS	9	I	mg/L	P353589	
	SM 4500 F-C-97	Fluoride	1.1		mg F/L	P353818	
2033787	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P353852	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33	I	mg N/L	P353612	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P353594	
	EPA 365.1 Rev. 2.0	Total-P	0.032		mg P/L	P353343	
	SM 5310 B-00	Organic Carbon	2.9		mg C/L	P353944	
2033788	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.021		mg P/L	P353312	
2033821	EPA 200.7 Rev. 4.4	Iron	120	U	ug/L	P353602	
		Zinc	26	I	ug/L	P353602	
	EPA 200.8 Rev. 5.4	Arsenic	1.49		ug/L	P353602	
		Cadmium	0.060	U	ug/L	P353602	
		Chromium	4.0	U	ug/L	P353602	MS
		Copper	5.0		ug/L	P353602	
		Lead	0.24	I	ug/L	P353602	
		Nickel	0.60	U	ug/L	P353602	
		Silver	0.030	U	ug/L	P353602	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: The copper result was confirmed in the undigested sample on 11/16/2018.

Sample Location: SOSPIRO @ LAS OLAS

Collection Date/Time: 10/17/2018 13:25

Field ID: G4SE0032

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033774	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P353458	
	SM 2320 B-97	Total Alkalinity	161		mg CaCO3/L	P353815	
	SM 2540 D-97	TSS	3	I	mg/L	P353589	
	SM 4500 F-C-97	Fluoride	0.83		mg F/L	P353818	
2033775	EPA 350.1 Rev. 2.0	Ammonia-N	0.050		mg N/L	P353852	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P353612	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P353593	
	EPA 365.1 Rev. 2.0	Total-P	0.033		mg P/L	P353343	
	SM 5310 B-00	Organic Carbon	6.8		mg C/L	P353944	
2033776	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.020		mg P/L	P353312	
2033818	EPA 200.7 Rev. 4.4	Iron	90	U	ug/L	P353602	
		Zinc	26	I	ug/L	P353602	
	EPA 200.8 Rev. 5.4	Arsenic	2.19		ug/L	P353602	
		Cadmium	0.060	U	ug/L	P353602	
		Chromium	4.0	UJ	ug/L	P353602	MS
		Copper	8.9		ug/L	P353602	
		Lead	0.37	I	ug/L	P353602	
		Nickel	1.5	I	ug/L	P353602	
		Silver	0.030	U	ug/L	P353602	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Refer to the narrative for an explanation of QC Codes. The copper result was confirmed in the undigested sample on 11/16/2018.

Sample Location: C-13 EAST (MIDDLE RIVER CANAL)/NW 21ST AVE BRIDGE **Collection Date/Time: 10/17/2018 14:10**

Field ID: G4SEB011

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033777	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P353458	
	SM 2320 B-97	Total Alkalinity	202		mg CaCO3/L	P353710	
	SM 2540 D-97	TSS	4	I	mg/L	P353588	
	SM 4500 F-C-97	Fluoride	0.30		mg F/L	P353713	
2033778	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P353851	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P353610	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034		mg N/L	P353352	
	EPA 365.1 Rev. 2.0	Total-P	0.036		mg P/L	P353341	
	SM 5310 B-00	Organic Carbon	9.4		mg C/L	P353622	
2033779	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P353313	
2033819	EPA 200.7 Rev. 4.4	Iron	140		ug/L	P353462	
		Zinc	5.0	U	ug/L	P353462	
	EPA 200.8 Rev. 5.4	Arsenic	1.30		ug/L	P353462	
		Cadmium	0.020	U	ug/L	P353462	
		Chromium	0.40	U	ug/L	P353462	
		Copper	1.07		ug/L	P353462	
		Lead	0.15	I	ug/L	P353462	
		Nickel	0.20	U	ug/L	P353462	
		Silver	0.010	U	ug/L	P353462	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353458

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353323

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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353462

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353602

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353323

Component	Result	Code	Units
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353462

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353602

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353997

Component	Result	Code	Units
Arsenic	0.050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353720

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353722

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353851

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353852

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353610

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353612

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353352

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353593

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353594

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353341

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353343

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353312

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353313

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

Reference Method: EPA 8270D
Batch ID: P353242

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P353242

Component	Result	Code	Units
Cyanazine	0.50	U	ng/L
Demeton	2.0	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	0.25	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
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.25	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	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	0.25	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
Simazine	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 8270D
Batch ID: P353277

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	3.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P353277

Component	Result	Code	Units
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	4.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8276
Batch ID: P353277

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P353138

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: P353225

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P353225

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
MCPP	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B
Batch ID: P353297

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P353710

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

Reference Method: SM 2320 B-97
Batch ID: P353711

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

Reference Method: SM 2320 B-97
Batch ID: P353815

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

Reference Method: SM 2320 B-97
Batch ID: P354097

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

Reference Method: SM 2540 C-97
Batch ID: P353837

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P353586

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P353588

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P353589

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P353713

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P353714

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P353818

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P354100

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P353622

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

Reference Method: SM 5310 B-00
Batch ID: P353944

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: P353323

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	93.6		P	85 - 115
Magnesium	91.6		P	85 - 115
Potassium	93.5		P	85 - 115
Sodium	97.6		P	85 - 115
Zinc	90.2		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353462

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	103		P	85 - 115
Zinc	92.4		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353602

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	108		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353323

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cadmium	104		P	85 - 115
Chromium	101		P	85 - 115
Copper	105		P	85 - 115
Lead	98.8		P	85 - 115
Nickel	98.6		P	85 - 115
Silver	94.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353462

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	102		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	101		P	85 - 115
Copper	102		P	85 - 115
Lead	94.9		P	85 - 115
Nickel	102		P	85 - 115
Silver	98.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353602

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	106		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	104		P	85 - 115
Copper	104		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353602

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lead	96.3		P	85 - 115
Nickel	103		P	85 - 115
Silver	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353997

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	108		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353720

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353722

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353610

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353612

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353352

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353594

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353341

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353343

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: P353312

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353313

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

Reference Method: EPA 8270D
Batch ID: P353242

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	110	86.6	P/P	74 - 119
Alachlor	102	80.9	P/P	75 - 118
Ametryn	85.4	79.9	P/P	59 - 137
Atrazine	104	89.6	P/P	73 - 120
Atrazine Desethyl	74.6	57.4	P/P	19 - 129
Azinphos Methyl	115	97.0	P/P	65 - 181
Bromacil	83.1	71.7	P/P	43 - 123
Butylate	54.2	58.3	P/P	28 - 85.0
Chlorpyrifos Ethyl	105	92.2	P/P	55 - 112
Chlorpyrifos Methyl	96.4	79.8	P/P	35 - 124
Cyanazine	107	88.5	P/P	26 - 262
Demeton	74.6	71.1	P/P	43 - 122
Diazinon	100	80.0	P/P	72 - 120
Dimethenamid	108	86.5	P/P	60 - 130
Disulfoton	87.0	76.4	P/P	45 - 137
Dithiopyr	107	88.5	P/P	60 - 130

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P353242

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
EPTC	53.1	56.2	P/P	28 - 95.0
Ethion	87.5	85.5	P/P	63 - 127
Ethoprop	79.1	69.6	P/P	63 - 109
Fenamiphos	83.3	74.6	P/P	66 - 136
Fipronil	91.6	80.6	P/P	63 - 126
Fipronil Sulfide	80.6	83.3	P/P	59 - 123
Fipronil Sulfone	79.8	80.3	P/P	56 - 122
Fonofos	84.1	81.3	P/P	64 - 114
Hexazinone	106	91.5	P/P	49 - 144
Malathion	93.6	93.8	P/P	68 - 131
Metaxyl	98.1	77.7	P/P	57 - 126
Metolachlor	95.3	86.8	P/P	75 - 118
Metribuzin	101	72.4	P/P	46 - 169
Mevinphos	94.8	79.0	P/P	34 - 126
Molinate	65.1	63.8	P/P	37 - 101
Norflurazon	88.4	78.4	P/P	63 - 127
Oxadiazon	97.6	87.9	P/P	60 - 130
Parathion Ethyl	89.4	87.4	P/P	78 - 109
Parathion Methyl	102	72.4	P/F	74 - 123
Pendimethalin	87.3	78.1	P/P	51 - 130
Phorate	83.1	85.2	P/P	53 - 116
Prodiamine	78.5	101	P/P	60 - 130
Prometon	85.1	80.8	P/P	66 - 124
Prometryn	89.3	81.4	P/P	66 - 124
Simazine	99.1	86.4	P/P	62 - 134
Tebuconazole	70.3	84.2	P/P	30 - 100
Terbufos	86.6	75.5	P/P	59 - 115
Terbutylazine	93.0	92.2	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P353277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	66.8	65.7	P/P	24 - 89.0
Alpha-BHC	106	93.2	P/P	58 - 117
Alpha-Chlordane	90.5	83.0	P/P	56 - 115
Beta-BHC	124	109	P/P	55 - 137
Carbophenothion	100	95.5	P/P	37 - 145
Chlorothalonil	75.9	68.6	P/P	26 - 163
Cypermethrin	73.2	64.7	P/P	42 - 156
DDD-p,p'	101	92.8	P/P	59 - 129
DDE-p,p'	96.5	87.8	P/P	52 - 117
DDT-p,p'	108	100	P/P	48 - 128
Delta-BHC	125	124	P/P	59 - 158
Dicofol	102	106	P/P	19 - 124
Dieldrin	93.6	92.0	P/P	57 - 126
Endosulfan I	86.1	86.7	P/P	59 - 133
Endosulfan II	98.0	95.3	P/P	58 - 148
Endosulfan Sulfate	88.2	85.1	P/P	56 - 135
Endrin	95.3	89.3	P/P	50 - 140
Endrin Aldehyde	104	100	P/P	47 - 141
Endrin Ketone	89.7	86.1	P/P	63 - 123

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P353277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Gamma-BHC	129	114	P/P	59 - 132
Gamma-Chlordane	88.6	80.9	P/P	55 - 112
Heptachlor	69.5	67.5	P/P	45 - 102
Heptachlor Epoxide	89.9	84.5	P/P	61 - 116
Methoxychlor	111	94.2	P/P	60 - 133
Mirex	70.1	56.9	P/P	40 - 98.0
Permethrin	76.2	72.2	P/P	45 - 131
Trifluralin	99.3	87.9	P/P	38 - 179

Reference Method: EPA 8276
Batch ID: P353277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	75.6	73.2	P/P	41 - 134
Toxaphene	69.9	64.8	P/P	39 - 158

Reference Method: EPA 8321B
Batch ID: P353138

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	102		P	40 - 150
AMPA	112		P	40 - 150
Endothall	98.6		P	40 - 150
Glufosinate	81.8		P	40 - 150
Glyphosate	70.0		P	40 - 140
Sucralose	83.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353225

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	92.7		P	40 - 150
3-Hydroxycarbofuran	65.9		P	40 - 150
Acetaminophen	148		P	30 - 150
Aldicarb	107		P	30 - 150
Aldicarb Sulfone	123		P	40 - 150
Aldicarb Sulfoxide	108		P	40 - 150
Bentazon	94.1		P	30 - 150
Carbamazepine	98.8		P	40 - 150
Carbaryl	94.3		P	40 - 150
Carbofuran	97.7		P	40 - 150
Diuron	101		P	40 - 150
Fenuron	139		P	40 - 150
Fluridone	115		P	40 - 150
Hydrocodone	131		P	40 - 150
Ibuprofen	57.2		P	40 - 150
Imazapyr	108		P	40 - 150
Imidacloprid	123		P	40 - 160
Linuron	86.5		P	40 - 150
MCPP	88.0		P	40 - 150
Methiocarb	82.1		P	40 - 150
Methomyl	120		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P353225

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Naproxen	57.6		P	40 - 150
Oxamyl	126		P	40 - 150
Primidone	129		P	40 - 150
Propoxur	98.7		P	40 - 150
Pyraclostrobin	78.1		P	40 - 150
Triclopyr	85.3		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P353297

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

Reference Method: SM 2320 B-97
Batch ID: P353710

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Reference Method: SM 2320 B-97
Batch ID: P353711

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Reference Method: SM 2320 B-97
Batch ID: P353815

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Reference Method: SM 2320 B-97
Batch ID: P354097

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P353713

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.6		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P353714

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	91 - 105

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P353818

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.8		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P354100

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.5		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P353622

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

Reference Method: SM 5310 B-00
Batch ID: P353944

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033418	Calcium	97.9		P	80 - 120
2033418	Iron	93.5	93.1	P/P	80 - 120
2033418	Magnesium	87.4		P	80 - 120
2033418	Potassium	91.9		P	80 - 120
2033418	Sodium	89.0		P	80 - 120
2033418	Zinc	90.0	89.9	P/P	80 - 120
2033544	Calcium	106		P	80 - 120
2033544	Iron	91.6		P	80 - 120
2033544	Magnesium	90.5		P	80 - 120
2033544	Potassium	89.2		P	80 - 120
2033544	Sodium	95.2		P	80 - 120
2033544	Zinc	88.3		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033892	Iron	104		P	80 - 120
2033892	Zinc	91.2		P	80 - 120
2033902	Iron	102	101	P/P	80 - 120
2033902	Zinc	91.9	92.7	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353602

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033818	Iron	104	99.8	P/P	80 - 120
2033818	Zinc	99.5	96.6	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033418	Cadmium	108	109	P/P	80 - 120
2033418	Chromium	102	102	P/P	80 - 120
2033418	Copper	101	101	P/P	80 - 120
2033418	Lead	102	103	P/P	80 - 120
2033418	Nickel	97.2	96.7	P/P	80 - 120
2033418	Silver	94.8	96.4	P/P	80 - 120
2033544	Cadmium	115		P	80 - 120
2033544	Chromium	108		P	80 - 120
2033544	Copper	106		P	80 - 120
2033544	Lead	107		P	80 - 120
2033544	Nickel	100		P	80 - 120
2033544	Silver	99.1		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033892	Arsenic	102		P	80 - 120
2033892	Cadmium	103		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033892	Chromium	103		P	80 - 120
2033892	Copper	101		P	80 - 120
2033892	Lead	95.8		P	80 - 120
2033892	Nickel	101		P	80 - 120
2033892	Silver	99.6		P	80 - 120
2033902	Arsenic	102	101	P/P	80 - 120
2033902	Cadmium	101	98.9	P/P	80 - 120
2033902	Chromium	101	100	P/P	80 - 120
2033902	Copper	103	103	P/P	80 - 120
2033902	Lead	94.2	94.2	P/P	80 - 120
2033902	Nickel	101	101	P/P	80 - 120
2033902	Silver	99.0	98.3	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353602

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033818	Arsenic	109	110	P/P	70 - 130
2033818	Cadmium	98.8	99.9	P/P	70 - 130
2033818	Chromium	112	132	P/F	80 - 120
2033818	Copper	94.3	93.4	P/P	70 - 130
2033818	Lead	101	106	P/P	80 - 120
2033818	Nickel	87.6	86.7	P/P	70 - 130
2033818	Silver	90.4	91.1	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353997

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033543	Arsenic	107	107	P/P	80 - 120
2033820	Arsenic	110		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353720

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033381	Chloride	98.6		P	90 - 110
2033460	Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033381	Sulfate	93.1		P	90 - 110
2033460	Sulfate	98.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033811	Ammonia-N	97.8	99.3	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033512	Ammonia-N	98.0	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353610

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033778	Kjeldahl Nitrogen	97.6	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033775	Kjeldahl Nitrogen	107	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033531	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033133	NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033787	NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353341

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033784	Total-P	96.9	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353343

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033781	Total-P	94.8	97.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033776	O-Phosphate-P	97.5	97.1	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353313

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033785	O-Phosphate-P	97.4	97.7	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P353242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033212	Acetochlor	105	102	P/P	67 - 125
2033212	Alachlor	94.5	97.0	P/P	69 - 123
2033212	Ametryn	92.0	90.4	P/P	52 - 151
2033212	Atrazine	99.3	91.5	P/P	71 - 125
2033212	Atrazine Desethyl	48.5	65.4	P/P	10 - 129
2033212	Azinphos Methyl	108	94.3	P/P	48 - 200
2033212	Bromacil	81.0	82.9	P/P	46 - 130
2033212	Butylate	50.8	63.4	P/P	10 - 85.0
2033212	Chlorpyrifos Ethyl	91.7	88.4	P/P	54 - 115
2033212	Chlorpyrifos Methyl	79.3	80.1	P/P	44 - 117
2033212	Cyanazine	97.1	84.1	P/P	10 - 262
2033212	Demeton	53.3	73.0	P/P	24 - 145
2033212	Diazinon	86.5	90.6	P/P	66 - 129
2033212	Dimethenamid	103	98.1	P/P	60 - 130
2033212	Disulfoton	67.6	75.0	P/P	45 - 139
2033212	Dithiopyr	99.3	98.0	P/P	60 - 130
2033212	EPTC	51.2	60.8	P/P	10 - 86.0
2033212	Ethion	106	85.2	P/P	59 - 133
2033212	Ethoprop	71.1	67.0	P/P	54 - 116
2033212	Fenamiphos	89.4	71.7	P/P	55 - 140
2033212	Fipronil	105	77.4	P/P	37 - 142
2033212	Fipronil Sulfide	87.2	67.1	P/P	37 - 130
2033212	Fipronil Sulfone	95.9	77.8	P/P	18 - 143
2033212	Fonofos	77.1	78.6	P/P	55 - 118
2033212	Hexazinone	109	107	P/P	62 - 140
2033212	Malathion	107	97.7	P/P	64 - 132
2033212	Metalaxyl	86.9	75.0	P/P	55 - 129
2033212	Metolachlor	102	93.6	P/P	56 - 137
2033212	Metribuzin	96.8	91.8	P/P	16 - 218
2033212	Mevinphos	68.9	71.3	P/P	34 - 129
2033212	Molinate	60.0	69.6	P/P	16 - 99.0
2033212	Norflurazon	97.0	82.1	P/P	43 - 135
2033212	Oxadiazon	91.4	92.3	P/P	60 - 130
2033212	Parathion Ethyl	90.2	80.6	P/P	71 - 112
2033212	Parathion Methyl	90.5	88.6	P/P	65 - 127
2033212	Pendimethalin	81.8	81.5	P/P	35 - 159
2033212	Phorate	73.8	78.1	P/P	41 - 129
2033212	Prodiamine	114	96.2	P/P	60 - 130
2033212	Prometon	92.7	84.0	P/P	56 - 140
2033212	Prometryn	98.6	82.9	P/P	65 - 130
2033212	Simazine	101	94.8	P/P	54 - 148
2033212	Tebuconazole	95.8	77.0	P/P	30 - 100
2033212	Terbufos	77.0	79.3	P/P	53 - 126
2033212	Terbutylazine	100	95.1	P/P	73 - 114

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P353277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032704	Aldrin	76.5	69.7	P/P	26 - 96.0
2032704	Alpha-BHC	113	111	P/P	51 - 123
2032704	Alpha-Chlordane	90.3	81.7	P/P	45 - 120
2032704	Beta-BHC	80.3	106	P/P	43 - 146
2032704	Carbophenothion	99.8	102	P/P	26 - 179
2032704	Chlorothalonil	15.1	14.5	P/P	10 - 215
2032704	Cypermethrin	69.1	78.4	P/P	35 - 169
2032704	DDD-p,p'	88.8	83.1	P/P	49 - 131
2032704	DDE-p,p'	92.4	87.2	P/P	39 - 127
2032704	DDT-p,p'	107	99.1	P/P	49 - 120
2032704	Delta-BHC	114	136	P/P	49 - 187
2032704	Dicofol	107	107	P/P	10 - 129
2032704	Dieldrin	94.8	82.3	P/P	46 - 132
2032704	Endosulfan I	94.8	83.5	P/P	57 - 130
2032704	Endosulfan II	82.9	67.6	P/P	52 - 148
2032704	Endosulfan Sulfate	85.2	87.4	P/P	55 - 129
2032704	Endrin	95.8	86.0	P/P	45 - 133
2032704	Endrin Aldehyde	69.7	72.1	P/P	26 - 140
2032704	Endrin Ketone	87.9	88.3	P/P	60 - 125
2032704	Gamma-BHC	134	127	P/P	50 - 145
2032704	Gamma-Chlordane	87.6	79.8	P/P	44 - 118
2032704	Heptachlor	89.7	76.0	P/P	35 - 106
2032704	Heptachlor Epoxide	91.1	81.7	P/P	52 - 123
2032704	Methoxychlor	103	101	P/P	54 - 132
2032704	Mirex	70.7	74.2	P/P	36 - 107
2032704	Permethrin	78.5	84.1	P/P	47 - 135
2032704	Trifluralin	102	97.5	P/P	32 - 228

Reference Method: EPA 8276
Batch ID: P353277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034006	Chlordane	73.2	85.6	P/P	41 - 134
2034006	Toxaphene	63.3	69.5	P/P	39 - 158

Reference Method: EPA 8321B
Batch ID: P353138

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033307	Acesulfame K	107	108	P/P	40 - 150
2033307	AMPA	65.8	64.1	P/P	40 - 150
2033307	Endothall	99.3	101	P/P	40 - 150
2033307	Glufosinate	72.2	73.2	P/P	40 - 150
2033307	Glyphosate	57.5	59.4	P/P	40 - 140
2033307	Sucralose	88.6	87.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353225

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033412	3-Hydroxycarbofuran	54.4	50.4	P/P	40 - 150
2033412	Aldicarb	61.5	17.4	P/F	30 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P353225

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033412	Aldicarb Sulfone	99.6	82.1	P/P	40 - 150
2033412	Aldicarb Sulfoxide	64.6	49.4	P/P	40 - 150
2033412	Carbaryl	60.4	55.0	P/P	40 - 150
2033412	Carbofuran	63.4	53.4	P/P	40 - 150
2033412	Methiocarb	53.9	45.4	P/P	40 - 150
2033412	Methomyl	127	88.2	P/P	40 - 150
2033412	Oxamyl	92.4	82.5	P/P	40 - 150
2033412	Propoxur	61.5	56.8	P/P	40 - 150
2033801	2,4-D	126	139	P/P	40 - 150
2033801	Acetaminophen	131	140	P/P	30 - 150
2033801	Bentazon	52.6	60.3	P/P	30 - 150
2033801	Carbamazepine	80.7	81.8	P/P	40 - 150
2033801	Diuron	72.7	71.9	P/P	40 - 150
2033801	Fenuron	110	113	P/P	40 - 150
2033801	Fluridone	106	110	P/P	40 - 150
2033801	Hydrocodone	108	116	P/P	40 - 150
2033801	Ibuprofen	52.2	65.2	P/P	40 - 150
2033801	Imazapyr	148	161	P/F	40 - 150
2033801	Imidacloprid	189	182	F/F	40 - 160
2033801	Linuron	73.3	76.8	P/P	40 - 150
2033801	MCP	132	137	P/P	40 - 150
2033801	Naproxen	60.2	71.8	P/P	40 - 150
2033801	Primidone	111	110	P/P	40 - 150
2033801	Pyraclostrobin	88.8	86.8	P/P	40 - 150
2033801	Triclopyr	124	140	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P353713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033469	Fluoride	97.3	96.6	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P353714

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033920	Fluoride	97.6	97.6	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P353818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034476	Fluoride	96.7	96.7	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P354100

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2035932	Fluoride	97.5	98.2	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P353622

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033531	Organic Carbon	95.2	94.9	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P353944

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033515	Organic Carbon	93.6	94.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353458

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033804	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033418	Calcium	2.25	Spike	P	0 - 20
2033418	Iron	0.426	Spike	P	0 - 20
2033418	Magnesium	0.561	Spike	P	0 - 20
2033418	Potassium	0.605	Spike	P	0 - 20
2033418	Sodium	0.208	Spike	P	0 - 20
2033418	Zinc	0.0408	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033902	Iron	0.566	Spike	P	0 - 20
2033902	Zinc	0.876	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033818	Iron	4.12	Spike	P	0 - 20
2033818	Zinc	2.78	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033418	Cadmium	1.25	Spike	P	0 - 20
2033418	Chromium	0.499	Spike	P	0 - 20
2033418	Copper	0.0637	Spike	P	0 - 20
2033418	Lead	0.999	Spike	P	0 - 20
2033418	Nickel	0.520	Spike	P	0 - 20
2033418	Silver	1.68	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033902	Arsenic	0.588	Spike	P	0 - 20
2033902	Cadmium	1.75	Spike	P	0 - 20
2033902	Chromium	0.815	Spike	P	0 - 20
2033902	Copper	0.0989	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033902	Lead	0.0603	Spike	P	0 - 20
2033902	Nickel	0.133	Spike	P	0 - 20
2033902	Silver	0.647	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033818	Arsenic	0.904	Spike	P	0 - 20
2033818	Cadmium	1.16	Spike	P	0 - 20
2033818	Chromium	16.8	Spike	P	0 - 20
2033818	Copper	0.650	Spike	P	0 - 20
2033818	Lead	4.90	Spike	P	0 - 20
2033818	Nickel	0.990	Spike	P	0 - 20
2033818	Silver	0.834	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353997

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033543	Arsenic	0.137	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033381	Chloride	0.181	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033381	Sulfate	0.198	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033811	Ammonia-N	1.37	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033512	Ammonia-N	1.38	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353610

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033778	Kjeldahl Nitrogen	0.720	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033775	Kjeldahl Nitrogen	1.52	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033531	NO2NO3-N	0.995	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033133	NO2NO3-N	1.20	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033787	NO2NO3-N	0.939	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353341

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033784	Total-P	2.10	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033781	Total-P	2.46	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353312

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033776	O-Phosphate-P	0.340	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353313

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033785	O-Phosphate-P	0.308	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P353242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033212	Acetochlor	2.30	Spike	P	0 - 30
2033212	Alachlor	2.62	Spike	P	0 - 30
2033212	Ametryn	1.83	Spike	P	0 - 30
2033212	Atrazine	7.28	Spike	P	0 - 30
2033212	Atrazine Desethyl	29.7	Spike	P	0 - 30
2033212	Azinphos Methyl	13.9	Spike	P	0 - 30
2033212	Bromacil	2.40	Spike	P	0 - 30
2033212	Butylate	22.1	Spike	P	0 - 30
2033212	Chlorpyrifos Ethyl	3.74	Spike	P	0 - 30
2033212	Chlorpyrifos Methyl	0.990	Spike	P	0 - 30
2033212	Cyanazine	14.4	Spike	P	0 - 30
2033212	Demeton	31.1	Spike	F	0 - 30
2033212	Diazinon	4.70	Spike	P	0 - 30
2033212	Dimethenamid	4.41	Spike	P	0 - 30
2033212	Disulfoton	10.3	Spike	P	0 - 30
2033212	Dithiopyr	1.28	Spike	P	0 - 30
2033212	EPTC	17.1	Spike	P	0 - 30
2033212	Ethion	21.7	Spike	P	0 - 30
2033212	Ethoprop	5.99	Spike	P	0 - 30
2033212	Fenamiphos	21.9	Spike	P	0 - 30
2033212	Fipronil	29.8	Spike	P	0 - 30
2033212	Fipronil Sulfide	26.0	Spike	P	0 - 30
2033212	Fipronil Sulfone	20.7	Spike	P	0 - 30
2033212	Fonofos	2.02	Spike	P	0 - 30
2033212	Hexazinone	1.99	Spike	P	0 - 30
2033212	Malathion	8.91	Spike	P	0 - 30
2033212	Metaxyl	14.7	Spike	P	0 - 30
2033212	Metolachlor	8.53	Spike	P	0 - 30
2033212	Metribuzin	5.36	Spike	P	0 - 30
2033212	Mevinphos	3.39	Spike	P	0 - 30
2033212	Molinate	14.8	Spike	P	0 - 30
2033212	Norflurazon	16.6	Spike	P	0 - 30
2033212	Oxadiazon	0.941	Spike	P	0 - 30
2033212	Parathion Ethyl	11.3	Spike	P	0 - 30
2033212	Parathion Methyl	2.18	Spike	P	0 - 30
2033212	Pendimethalin	0.294	Spike	P	0 - 30
2033212	Phorate	5.69	Spike	P	0 - 30
2033212	Prodiamine	16.7	Spike	P	0 - 30
2033212	Prometon	9.83	Spike	P	0 - 30
2033212	Prometryn	17.4	Spike	P	0 - 30
2033212	Simazine	5.91	Spike	P	0 - 30
2033212	Tebuconazole	21.7	Spike	P	0 - 30
2033212	Terbufos	2.92	Spike	P	0 - 30
2033212	Terbutylazine	5.40	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P353242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Acetochlor	23.7	LCS	P	0 - 30
LFB	Alachlor	22.6	LCS	P	0 - 30
LFB	Ametryn	6.62	LCS	P	0 - 30
LFB	Atrazine	14.5	LCS	P	0 - 30
LFB	Atrazine Desethyl	26.1	LCS	P	0 - 30
LFB	Azinphos Methyl	16.7	LCS	P	0 - 30
LFB	Bromacil	14.7	LCS	P	0 - 30
LFB	Butylate	7.30	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	13.2	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	18.9	LCS	P	0 - 30
LFB	Cyanazine	18.8	LCS	P	0 - 30
LFB	Demeton	4.76	LCS	P	0 - 30
LFB	Diazinon	22.8	LCS	P	0 - 30
LFB	Dimethenamid	22.0	LCS	P	0 - 30
LFB	Disulfoton	13.0	LCS	P	0 - 30
LFB	Dithiopyr	18.8	LCS	P	0 - 30
LFB	EPTC	5.70	LCS	P	0 - 30
LFB	Ethion	2.35	LCS	P	0 - 30
LFB	Ethoprop	12.8	LCS	P	0 - 30
LFB	Fenamiphos	11.0	LCS	P	0 - 30
LFB	Fipronil	12.8	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.35	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.607	LCS	P	0 - 30
LFB	Fonofos	3.37	LCS	P	0 - 30
LFB	Hexazinone	14.6	LCS	P	0 - 30
LFB	Malathion	0.213	LCS	P	0 - 30
LFB	Metaxyl	23.2	LCS	P	0 - 30
LFB	Metolachlor	9.29	LCS	P	0 - 30
LFB	Metribuzin	33.3	LCS	F	0 - 30
LFB	Mevinphos	18.1	LCS	P	0 - 30
LFB	Molinate	2.03	LCS	P	0 - 30
LFB	Norflurazon	11.9	LCS	P	0 - 30
LFB	Oxadiazon	10.4	LCS	P	0 - 30
LFB	Parathion Ethyl	2.26	LCS	P	0 - 30
LFB	Parathion Methyl	33.9	LCS	F	0 - 30
LFB	Pendimethalin	11.2	LCS	P	0 - 30
LFB	Phorate	2.51	LCS	P	0 - 30
LFB	Prodiamine	25.5	LCS	P	0 - 30
LFB	Prometon	5.25	LCS	P	0 - 30
LFB	Prometryn	9.24	LCS	P	0 - 30
LFB	Simazine	13.7	LCS	P	0 - 30
LFB	Tebuconazole	18.0	LCS	P	0 - 30
LFB	Terbufos	13.7	LCS	P	0 - 30
LFB	Terbutylazine	0.839	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P353277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032704	Aldrin	9.25	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P353277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032704	Alpha-BHC	2.23	Spike	P	0 - 30
2032704	Alpha-Chlordane	10.1	Spike	P	0 - 30
2032704	Beta-BHC	27.6	Spike	P	0 - 30
2032704	Carbophenothion	2.20	Spike	P	0 - 30
2032704	Chlorothalonil	3.93	Spike	P	0 - 30
2032704	Cypermethrin	12.7	Spike	P	0 - 30
2032704	DDD-p,p'	6.62	Spike	P	0 - 30
2032704	DDE-p,p'	5.79	Spike	P	0 - 30
2032704	DDT-p,p'	7.41	Spike	P	0 - 30
2032704	Delta-BHC	17.8	Spike	P	0 - 30
2032704	Dicofol	0.358	Spike	P	0 - 30
2032704	Dieldrin	14.1	Spike	P	0 - 30
2032704	Endosulfan I	12.7	Spike	P	0 - 30
2032704	Endosulfan II	20.3	Spike	P	0 - 30
2032704	Endosulfan Sulfate	2.59	Spike	P	0 - 30
2032704	Endrin	10.8	Spike	P	0 - 30
2032704	Endrin Aldehyde	3.48	Spike	P	0 - 30
2032704	Endrin Ketone	0.535	Spike	P	0 - 30
2032704	Gamma-BHC	5.87	Spike	P	0 - 30
2032704	Gamma-Chlordane	9.29	Spike	P	0 - 30
2032704	Heptachlor	16.6	Spike	P	0 - 30
2032704	Heptachlor Epoxide	10.9	Spike	P	0 - 30
2032704	Methoxychlor	2.47	Spike	P	0 - 30
2032704	Mirex	4.82	Spike	P	0 - 30
2032704	Permethrin	6.77	Spike	P	0 - 30
2032704	Trifluralin	4.08	Spike	P	0 - 30
LFB	Aldrin	1.64	LCS	P	0 - 30
LFB	Alpha-BHC	12.6	LCS	P	0 - 30
LFB	Alpha-Chlordane	8.65	LCS	P	0 - 30
LFB	Beta-BHC	12.5	LCS	P	0 - 30
LFB	Carbophenothion	4.87	LCS	P	0 - 30
LFB	Chlorothalonil	10.0	LCS	P	0 - 30
LFB	Cypermethrin	12.4	LCS	P	0 - 30
LFB	DDD-p,p'	8.54	LCS	P	0 - 30
LFB	DDE-p,p'	9.38	LCS	P	0 - 30
LFB	DDT-p,p'	7.19	LCS	P	0 - 30
LFB	Delta-BHC	0.402	LCS	P	0 - 30
LFB	Dicofol	3.01	LCS	P	0 - 30
LFB	Dieldrin	1.76	LCS	P	0 - 30
LFB	Endosulfan I	0.736	LCS	P	0 - 30
LFB	Endosulfan II	2.80	LCS	P	0 - 30
LFB	Endosulfan Sulfate	3.61	LCS	P	0 - 30
LFB	Endrin	6.47	LCS	P	0 - 30
LFB	Endrin Aldehyde	3.02	LCS	P	0 - 30
LFB	Endrin Ketone	4.07	LCS	P	0 - 30
LFB	Gamma-BHC	12.4	LCS	P	0 - 30
LFB	Gamma-Chlordane	9.08	LCS	P	0 - 30
LFB	Heptachlor	2.89	LCS	P	0 - 30
LFB	Heptachlor Epoxide	6.22	LCS	P	0 - 30
LFB	Methoxychlor	16.7	LCS	P	0 - 30
LFB	Mirex	20.8	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P353277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Permethrin	5.41	LCS	P	0 - 30
LFB	Trifluralin	12.1	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P353277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034006	Chlordane	15.6	Spike	P	0 - 30
2034006	Toxaphene	9.36	Spike	P	0 - 30
LFB	Chlordane	3.22	LCS	P	0 - 30
LFB	Toxaphene	7.69	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P353138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033307	Acesulfame K	0.807	Spike	P	0 - 30
2033307	AMPA	2.61	Spike	P	0 - 30
2033307	Endothall	1.47	Spike	P	0 - 30
2033307	Glufosinate	1.42	Spike	P	0 - 30
2033307	Glyphosate	3.23	Spike	P	0 - 30
2033307	Sucralose	1.11	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P353225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033412	3-Hydroxycarbofuran	7.60	Spike	P	0 - 30
2033412	Aldicarb	112	Spike	F	0 - 30
2033412	Aldicarb Sulfone	19.3	Spike	P	0 - 30
2033412	Aldicarb Sulfoxide	26.5	Spike	P	0 - 30
2033412	Carbaryl	9.36	Spike	P	0 - 30
2033412	Carbofuran	17.2	Spike	P	0 - 30
2033412	Methiocarb	17.0	Spike	P	0 - 30
2033412	Methomyl	35.8	Spike	F	0 - 30
2033412	Oxamyl	11.3	Spike	P	0 - 30
2033412	Propoxur	7.96	Spike	P	0 - 30
2033801	2,4-D	9.52	Spike	P	0 - 30
2033801	Acetaminophen	6.29	Spike	P	0 - 30
2033801	Bentazon	9.84	Spike	P	0 - 30
2033801	Carbamazepine	1.38	Spike	P	0 - 30
2033801	Diuron	0.794	Spike	P	0 - 30
2033801	Fenuron	2.64	Spike	P	0 - 30
2033801	Fluridone	4.07	Spike	P	0 - 30
2033801	Hydrocodone	6.88	Spike	P	0 - 30
2033801	Ibuprofen	22.2	Spike	P	0 - 30
2033801	Imazapyr	3.26	Spike	P	0 - 30
2033801	Imidacloprid	4.05	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P353225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033801	Linuron	4.71	Spike	P	0 - 30
2033801	MCP	3.58	Spike	P	0 - 30
2033801	Naproxen	17.6	Spike	P	0 - 30
2033801	Primidone	0.709	Spike	P	0 - 30
2033801	Pyraclostrobin	2.36	Spike	P	0 - 30
2033801	Triclopyr	12.2	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P353297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033805	Color (true)	1.95	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P353710

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033469	Total Alkalinity	0.283	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P353711

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033920	Total Alkalinity	0.631	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P353815

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034476	Total Alkalinity	0.598	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P354097

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2035932	Total Alkalinity	0.133	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P353837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033460	TDS	7.55	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 D-97
Batch ID: P353586

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033460	TSS	3.31	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P353588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033524	TSS	5.41	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P353713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033469	Fluoride	0.470	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P353714

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033920	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P353818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034476	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P354100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2035932	Fluoride	0.470	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P353622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033531	Organic Carbon	0.154	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P353944

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033515	Organic Carbon	1.00	Spike	P	0 - 20

Quality Assurance Report

Precision

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2033800
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	60.6	P	30 - 160

Lab Sample ID: 2033801
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	114	P	30 - 160
EPA 8321B	Acetaminophen-d4	119	P	30 - 160
EPA 8321B	Carbamazepine-d10	75.8	P	30 - 160
EPA 8321B	Diuron-d6	68.9	P	30 - 160
EPA 8321B	Endothall-d6	98.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	84.6	P	40 - 160
EPA 8321B	Ibuprofen-d3	46.9	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	40 - 160

Lab Sample ID: 2033802
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	77.1	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	66.0	P	34 - 101
EPA 8276	Decachlorobiphenyl	66.0	P	31 - 108
EPA 8276	PCNB	129	P	62 - 142

Lab Sample ID: 2033803
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	91.3	P	71 - 126
EPA 8270D	Terbufos-d10	102	P	59 - 149

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A87127
Included Lab Sample IDs: 2033783

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A87131
Included Lab Sample IDs: 2033776, 2033779, 2033782, 2033785, 2033788

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	98.6	P/P	90 - 110
O-Phosphate-P	99.3	98.8	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A87135
Included Lab Sample IDs: 2033801

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	108	106	P/P	60 - 160
Endothall	93.7	87.4	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A87160
Included Lab Sample IDs: 2033778, 2033784

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

Reference Method: EPA 8321B
Run ID: A87174
Included Lab Sample IDs: 2033801

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	84.7	81.1	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A87177
Included Lab Sample IDs: 2033801

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	116	117	P/P	60 - 160
Glufosinate	95.9	97.3	P/P	60 - 160
Glyphosate	89.5	93.9	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A87195
Included Lab Sample IDs: 2033778, 2033784

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A87200

Included Lab Sample IDs: 2033774, 2033777, 2033780, 2033783, 2033786

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	102	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A87212

Included Lab Sample IDs: 2033783

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.9	99.9	P/P	90 - 110
Sulfate	99.1	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A87220

Included Lab Sample IDs: 2033775, 2033781, 2033787

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A87255

Included Lab Sample IDs: 2033775, 2033781, 2033787

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	98.5	P/P	90 - 110
NO2NO3-N	98.5	99.0	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A87260

Included Lab Sample IDs: 2033778, 2033784

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.3	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87281

Included Lab Sample IDs: 2033778, 2033784

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87284

Included Lab Sample IDs: 2033775, 2033781, 2033787

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.2	96.0	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A87299

Included Lab Sample IDs: 2033777, 2033783

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

Reference Method: SM 2320 B-97

Run ID: A87299

Included Lab Sample IDs: 2033777, 2033783

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

Reference Method: SM 4500 F-C-97

Run ID: A87299

Included Lab Sample IDs: 2033777, 2033783

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	100	P/P	90 - 110
Fluoride	99.0	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87312

Included Lab Sample IDs: 2033820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	104	104	P/P	90 - 110
Chromium	100	101	P/P	90 - 110
Lead	99.6	99.5	P/P	90 - 110
Nickel	96.0	95.9	P/P	90 - 110
Silver	96.1	95.7	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A87337

Included Lab Sample IDs: 2033819, 2033820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	91.4	92.8	P/P	90 - 110
Magnesium	90.7	92.2	P/P	90 - 110
Potassium	93.9	94.3	P/P	90 - 110
Sodium	96.7	98.1	P/P	90 - 110
Zinc	94.2	95.0	P/P	90 - 110
Zinc	95.0	92.8	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A87344

Included Lab Sample IDs: 2033774, 2033786

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A87344

Included Lab Sample IDs: 2033774, 2033786

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	97.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87350

Included Lab Sample IDs: 2033820

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87363

Included Lab Sample IDs: 2033775, 2033778, 2033781, 2033784, 2033787

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A87365

Included Lab Sample IDs: 2033819, 2033820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	102	P/P	90 - 110
Iron	102	99.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A87399

Included Lab Sample IDs: 2033818, 2033821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	105	99.3	P/P	90 - 110
Zinc	97.6	97.4	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A87403

Included Lab Sample IDs: 2033775, 2033781, 2033787

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.2	95.4	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A87416

Included Lab Sample IDs: 2033802

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.4		P	80 - 120
Alpha-BHC	92.2		P	80 - 120
Alpha-Chlordane	94.1		P	80 - 120
Beta-BHC	96.6		P	80 - 120
Carbophenothion	95.8		P	80 - 120
Chlorothalonil	81.3		P	80 - 120
Cypermethrin	87.6		P	80 - 120
DDD-p,p'	96.1		P	80 - 120
DDE-p,p'	96.9		P	80 - 120
DDT-p,p'	99.7		P	80 - 120
Delta-BHC	89.3		P	80 - 120
Dicofol	99.1		P	80 - 120
Dieldrin	95.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A87416

Included Lab Sample IDs: 2033802

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endosulfan I	91.2		P	80 - 120
Endosulfan II	90.8		P	80 - 120
Endosulfan Sulfate	94.5		P	80 - 120
Endrin	95.4		P	80 - 120
Endrin Aldehyde	96.7		P	80 - 120
Endrin Ketone	93.6		P	80 - 120
Gamma-BHC	107		P	80 - 120
Gamma-Chlordane	93.7		P	80 - 120
Heptachlor	91.8		P	80 - 120
Heptachlor Epoxide	95.1		P	80 - 120
Methoxychlor	101		P	80 - 120
Mirex	95.7		P	80 - 120
Permethrin	89.1		P	80 - 120
Trifluralin	94.9		P	80 - 120

Reference Method: EPA 8276

Run ID: A87441

Included Lab Sample IDs: 2033802

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	87.0		P	80 - 120
Toxaphene	111		P	80 - 120

Reference Method: EPA 8321B

Run ID: A87443

Included Lab Sample IDs: 2033801

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.5	107	P/P	50 - 150
3-Hydroxycarbofuran	132	147	P/P	50 - 150
Acetaminophen	129	115	P/P	60 - 160
Aldicarb	128	127	P/P	60 - 150
Aldicarb Sulfone	124	144	P/P	50 - 150
Aldicarb Sulfoxide	118	140	P/P	50 - 150
Bentazon	111	117	P/P	50 - 160
Carbamazepine	130	134	P/P	60 - 160
Carbaryl	132	142	P/P	60 - 150
Carbofuran	136	133	P/P	50 - 150
Diuron	136	143	P/P	60 - 150
Fenuron	123	135	P/P	60 - 150
Fluridone	120	124	P/P	60 - 160
Hydrocodone	121	128	P/P	60 - 150
Ibuprofen	72.0	63.1	P/P	50 - 160
Imazapyr	116	113	P/P	50 - 150
Imidacloprid	120	138	P/P	60 - 150
Linuron	126	137	P/P	60 - 150
MCPP	101	108	P/P	50 - 150
Methiocarb	135	129	P/P	50 - 150
Methomyl	116	146	P/P	50 - 150
Naproxen	95.7	98.6	P/P	50 - 160
Oxamyl	130	141	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
 Run ID: A87443
 Included Lab Sample IDs: 2033801

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	135	130	P/P	60 - 150
Propoxur	126	133	P/P	50 - 150
Pyraclostrobin	123	130	P/P	60 - 150
Triclopyr	111	103	P/P	50 - 160

Reference Method: SM 2320 B-97
 Run ID: A87470
 Included Lab Sample IDs: 2033780

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.8	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97
 Run ID: A87470
 Included Lab Sample IDs: 2033780

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	98.6	P/P	90 - 110

Reference Method: EPA 8270D
 Run ID: A87480
 Included Lab Sample IDs: 2033803

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.1		P	80 - 120
Alachlor	99.4		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine	96.9		P	80 - 120
Atrazine Desethyl	95.8		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	98.7		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	96.7		P	80 - 120
Cyanazine	106		P	80 - 120
Demeton	97.8		P	80 - 120
Diazinon	97.3		P	80 - 120
Dimethenamid	99.5		P	80 - 120
Disulfoton	95.1		P	80 - 120
Dithiopyr	98.9		P	80 - 120
EPTC	102		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	104		P	80 - 120
Fenamiphos	95.4		P	80 - 120
Fipronil	98.3		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	98.6		P	80 - 120
Fipronil Sulfone	95.2		P	80 - 120
Fonofos	99.8		P	80 - 120
Hexazinone	98.7		P	80 - 120
Malathion	99.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A87480

Included Lab Sample IDs: 2033803

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metalaxyl	99.7		P	80 - 120
Metolachlor	105		P	80 - 120
Metribuzin	86.4		P	80 - 120
Mevinphos	97.3		P	80 - 120
Molinate	98.3		P	80 - 120
Norflurazon	100		P	80 - 120
Oxadiazon	98.4		P	80 - 120
Parathion Ethyl	97.2		P	80 - 120
Parathion Methyl	90.5		P	80 - 120
Pendimethalin	87.2		P	80 - 120
Phorate	97.5		P	80 - 120
Prodiamine	90.6		P	80 - 120
Prometon	97.3		P	80 - 120
Prometryn	101		P	80 - 120
Simazine	99.1		P	80 - 120
Tebuconazole	98.5		P	80 - 120
Terbufos	94.9		P	80 - 120
Terbutylazine	99.7		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A87579

Included Lab Sample IDs: 2033821

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87582

Included Lab Sample IDs: 2033820

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87611

Included Lab Sample IDs: 2033819

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	97.6	97.6	P/P	90 - 110
Cadmium	96.0	98.3	P/P	90 - 110
Chromium	99.7	100	P/P	90 - 110
Copper	98.9	99.1	P/P	90 - 110
Lead	93.7	93.6	P/P	90 - 110
Nickel	99.9	99.9	P/P	90 - 110
Silver	92.9	93.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87648

Included Lab Sample IDs: 2033818, 2033821

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87648

Included Lab Sample IDs: 2033818, 2033821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	103	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Copper	101	99.2	P/P	90 - 110
Nickel	100	97.6	P/P	90 - 110
Silver	95.4	94.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87705

Included Lab Sample IDs: 2033818, 2033821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	103	103	P/P	90 - 110
Lead	103	99.2	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							0.0	
EPA 200.7 Rev. 4.4	Calcium	102		97.9	106				2.25
	Iron	93.6		93.5	93.1	91.6			0.426
	Iron	103		104	102	101			0.566
	Iron	108		104	99.8				4.12
	Magnesium	91.6		87.4	90.5				0.561
	Potassium	93.5		91.9	89.2				0.605
	Sodium	97.6		89.0	95.2				0.208
	Zinc	90.2		90.0	89.9	88.3			0.0408
	Zinc	92.4		91.2	91.9	92.7			0.876
	Zinc	101		99.5	96.6				2.78
EPA 200.8 Rev. 5.4	Arsenic	102		102	102	101			0.588
	Arsenic	106		109	110				0.904
	Arsenic	108		107	107	110			0.137
	Cadmium	104		108	109	115			1.25
	Cadmium	101		103	101	98.9			1.75
	Cadmium	102		98.8	99.9				1.16
	Chromium	101		102	102	108			0.499
	Chromium	101		103	101	100			0.815
	Chromium	104		112	132				16.8
	Copper	105		101	101	106			0.0637
	Copper	102		101	103	103			0.0989
	Copper	104		94.3	93.4				0.650
	Lead	98.8		102	103	107			0.999
	Lead	94.9		95.8	94.2	94.2			0.0603
	Lead	96.3		101	106				4.90
	Nickel	98.6		97.2	96.7	100			0.520
	Nickel	102		101	101	101			0.133
	Nickel	103		87.6	86.7				0.990
	Silver	94.3		94.8	96.4	99.1			1.68
	Silver	98.7		99.6	99.0	98.3			0.647
	Silver	101		90.4	91.1				0.834
EPA 300.0 Rev. 2.1	Chloride	101		98.6	98.2			0.181	
	Sulfate	101		93.1	98.5			0.198	
EPA 350.1 Rev. 2.0	Ammonia-N	98.1		97.8	99.3				1.37
	Ammonia-N	96.7		98.0	99.8				1.38
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		97.6	98.8				0.720
	Kjeldahl Nitrogen	97.7		107	105				1.52
EPA 353.2 Rev. 2.0	NO2NO3-N	100		100	101				0.995
	NO2NO3-N	99.5		100	102				1.20
	NO2NO3-N	100		100	102				0.939
EPA 365.1 Rev. 2.0	Total-P	99.1		96.9	99.0				2.10
	Total-P	101		94.8	97.3				2.46
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.6		97.5	97.1				0.340
	O-Phosphate-P	102		97.4	97.7				0.308
EPA 8270D	Acetochlor	110	86.6	105	102	23.7			2.30
	Alachlor	102	80.9	94.5	97.0	22.6			2.62
	Aldrin	66.8	65.7	69.7	76.5	1.64			9.25
	Alpha-BHC	106	93.2	111	113	12.6			2.23
	Alpha-Chlordane	90.5	83.0	90.3	81.7	8.65			10.1
	Ametryn	85.4	79.9	92.0	90.4	6.62			1.83
	Atrazine	104	89.6	99.3	91.5	14.5			7.28
	Atrazine Desethyl	74.6	57.4	48.5	65.4	26.1			29.7
	Azinphos Methyl	115	97.0	108	94.3	16.7			13.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270D	Beta-BHC	124	109	80.3	106	12.5		27.6
	Bromacil	83.1	71.7	81.0	82.9	14.7		2.40
	Butylate	54.2	58.3	50.8	63.4	7.30		22.1
	Carbophenothion	100	95.5	99.8	102	4.87		2.20
	Chlorothalonil	75.9	68.6	15.1	14.5	10.0		3.93
	Chlorpyrifos Ethyl	105	92.2	91.7	88.4	13.2		3.74
	Chlorpyrifos Methyl	96.4	79.8	79.3	80.1	18.9		0.990
	Cyanazine	107	88.5	97.1	84.1	18.8		14.4
	Cypermethrin	73.2	64.7	69.1	78.4	12.4		12.7
	DDD-p,p'	101	92.8	88.8	83.1	8.54		6.62
	DDE-p,p'	96.5	87.8	87.2	92.4	9.38		5.79
	DDT-p,p'	108	100	99.1	107	7.19		7.41
	Delta-BHC	125	124	114	136	0.402		17.8
	Demeton	74.6	71.1	53.3	73.0	4.76		31.1
	Diazinon	100	80.0	86.5	90.6	22.8		4.70
	Dicofol	102	106	107	107	3.01		0.358
	Dieldrin	93.6	92.0	82.3	94.8	1.76		14.1
	Dimethenamid	108	86.5	103	98.1	22.0		4.41
	Disulfoton	87.0	76.4	67.6	75.0	13.0		10.3
	Dithiopyr	107	88.5	99.3	98.0	18.8		1.28
	Endosulfan I	86.1	86.7	83.5	94.8	0.736		12.7
	Endosulfan II	98.0	95.3	67.6	82.9	2.80		20.3
	Endosulfan Sulfate	88.2	85.1	87.4	85.2	3.61		2.59
	Endrin	95.3	89.3	86.0	95.8	6.47		10.8
	Endrin Aldehyde	104	100	72.1	69.7	3.02		3.48
	Endrin Ketone	89.7	86.1	87.9	88.3	4.07		0.535
	EPTC	53.1	56.2	51.2	60.8	5.70		17.1
	Ethion	87.5	85.5	106	85.2	2.35		21.7
	Ethoprop	79.1	69.6	71.1	67.0	12.8		5.99
	Fenamiphos	83.3	74.6	89.4	71.7	11.0		21.9
	Fipronil	91.6	80.6	105	77.4	12.8		29.8
	Fipronil Sulfide	80.6	83.3	87.2	67.1	3.35		26.0
	Fipronil Sulfone	79.8	80.3	95.9	77.8	0.607		20.7
	Fonofos	84.1	81.3	77.1	78.6	3.37		2.02
	Gamma-BHC	129	114	134	127	12.4		5.87
	Gamma-Chlordane	88.6	80.9	87.6	79.8	9.08		9.29
	Heptachlor	69.5	67.5	76.0	89.7	2.89		16.6
	Heptachlor Epoxide	89.9	84.5	81.7	91.1	6.22		10.9
	Hexazinone	106	91.5	109	107	14.6		1.99
	Malathion	93.6	93.8	107	97.7	0.213		8.91
	Metalaxyl	98.1	77.7	86.9	75.0	23.2		14.7
	Methoxychlor	111	94.2	101	103	16.7		2.47
	Metolachlor	95.3	86.8	102	93.6	9.29		8.53
	Metribuzin	101	72.4	96.8	91.8	33.3		5.36
	Mevinphos	94.8	79.0	68.9	71.3	18.1		3.39
	Mirex	70.1	56.9	74.2	70.7	20.8		4.82
	Molinate	65.1	63.8	60.0	69.6	2.03		14.8
	Norflurazon	88.4	78.4	97.0	82.1	11.9		16.6
	Oxadiazon	97.6	87.9	91.4	92.3	10.4		0.941
	Parathion Ethyl	89.4	87.4	90.2	80.6	2.26		11.3
	Parathion Methyl	102	72.4	90.5	88.6	33.9		2.18
	Pendimethalin	87.3	78.1	81.8	81.5	11.2		0.294
	Permethrin	76.2	72.2	84.1	78.5	5.41		6.77
	Phorate	83.1	85.2	73.8	78.1	2.51		5.69

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270D	Prodiamine	78.5	101	114	96.2	25.5		16.7
	Prometon	85.1	80.8	92.7	84.0	5.25		9.83
	Prometryn	89.3	81.4	98.6	82.9	9.24		17.4
	Simazine	99.1	86.4	101	94.8	13.7		5.91
	Tebuconazole	70.3	84.2	95.8	77.0	18.0		21.7
	Terbufos	86.6	75.5	77.0	79.3	13.7		2.92
	Terbuthylazine	93.0	92.2	100	95.1	0.839		5.40
	Trifluralin	99.3	87.9	97.5	102	12.1		4.08
EPA 8276	Chlordane	75.6	73.2	73.2	85.6	3.22		15.6
	Toxaphene	69.9	64.8	63.3	69.5	7.69		9.36
EPA 8321B	2,4-D	92.7		126	139			9.52
	3-Hydroxycarbofuran	65.9		54.4	50.4			7.60
	Acesulfame K	102		107	108			0.807
	Acetaminophen	148		131	140			6.29
	Aldicarb	107		61.5	17.4			112
	Aldicarb Sulfone	123		99.6	82.1			19.3
	Aldicarb Sulfoxide	108		64.6	49.4			26.5
	AMPA	112		65.8	64.1			2.61
	Bentazon	94.1		52.6	60.3			9.84
	Carbamazepine	98.8		80.7	81.8			1.38
	Carbaryl	94.3		60.4	55.0			9.36
	Carbofuran	97.7		63.4	53.4			17.2
	Diuron	101		72.7	71.9			0.794
	Endothall	98.6		99.3	101			1.47
	Fenuron	139		110	113			2.64
	Fluridone	115		106	110			4.07
	Glufosinate	81.8		72.2	73.2			1.42
	Glyphosate	70.0		57.5	59.4			3.23
	Hydrocodone	131		108	116			6.88
	Ibuprofen	57.2		52.2	65.2			22.2
	Imazapyr	108		148	161			3.26
	Imidacloprid	123		189	182			4.05
	Linuron	86.5		73.3	76.8			4.71
	MCPP	88.0		132	137			3.58
	Methiocarb	82.1		53.9	45.4			17.0
	Methomyl	120		127	88.2			35.8
	Naproxen	57.6		60.2	71.8			17.6
	Oxamyl	126		92.4	82.5			11.3
	Primidone	129		111	110			0.709
	Propoxur	98.7		61.5	56.8			7.96
	Pyraclostrobin	78.1		88.8	86.8			2.36
	Sucralose	83.6		88.6	87.6			1.11
	Triclopyr	85.3		124	140			12.2
SM 2120 B	Color (true)	101					1.95	
SM 2320 B-97	Total Alkalinity	101					0.283	
	Total Alkalinity	103					0.631	
	Total Alkalinity	103					0.598	
	Total Alkalinity	102					0.133	
SM 2540 C-97	TDS						7.55	
SM 2540 D-97	TSS						3.31	
	TSS						5.41	
SM 4500 F-C-97	Fluoride	96.6		97.3	96.6			0.470
	Fluoride	98.9		97.6	97.6			0.0
	Fluoride	96.8		96.7	96.7			0.0

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
SM 4500 F-C-97	Fluoride	98.5	97.5	98.2			0.470
SM 5310 B-00	Organic Carbon	96.8	95.2	94.9			0.154
	Organic Carbon	93.2	93.6	94.6			1.00

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2033774, 2033777, 2033780, 2033783, 2033786
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2033818, 2033819, 2033820, 2033821
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2033818, 2033819, 2033820, 2033821
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2033783
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2033783
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2033775, 2033778, 2033781, 2033784, 2033787
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2033775, 2033778, 2033781, 2033784, 2033787
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2033775, 2033778, 2033781, 2033784, 2033787
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2033775, 2033778, 2033781, 2033784, 2033787
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2033776, 2033779, 2033782, 2033785, 2033788
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2033802
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2033803
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2033802
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2033800
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2033801
SM 2120 B / E31780	True Color measured at 450 nm	2033783
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2033774, 2033777, 2033780, 2033783, 2033786
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2033783
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2033774, 2033777, 2033780, 2033783, 2033786
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2033774, 2033777, 2033780, 2033783, 2033786
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2033775, 2033778, 2033781, 2033784, 2033787

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	10/18/2018			10/18/2018 15:59	Megan Treadwell	2033774, 2033777, 2033780, 2033783, 2033786
EPA 200.7 Rev. 4.4	10/18/2018	10/19/2018 11:53	Devin Thornton	10/26/2018 21:30	Betina Topolski	2033820
	10/18/2018	10/19/2018 11:53	Devin Thornton	10/29/2018 19:47	Betina Topolski	2033820
	10/18/2018	10/22/2018 14:45	Elliott D. Healy	10/26/2018 22:33	Betina Topolski	2033819
	10/18/2018	10/22/2018 14:45	Elliott D. Healy	10/29/2018 20:58	Betina Topolski	2033819
	10/18/2018	10/24/2018 15:15	Elliott D. Healy	10/30/2018 16:48	Betina Topolski	2033818
	10/18/2018	10/24/2018 15:15	Elliott D. Healy	10/30/2018 17:19	Betina Topolski	2033821
	10/18/2018	10/24/2018 15:15	Elliott D. Healy	11/06/2018 18:47	Betina Topolski	2033821
EPA 200.8 Rev. 5.4	10/18/2018	10/19/2018 11:53	Devin Thornton	10/25/2018 21:03	Allison Taylor	2033820
	10/18/2018	10/19/2018 11:53	Devin Thornton	10/26/2018 21:40	Allison Taylor	2033820
	10/18/2018	10/22/2018 14:45	Elliott D. Healy	11/07/2018 21:02	Robert K Palmer	2033819
	10/18/2018	10/24/2018 15:15	Elliott D. Healy	11/08/2018 22:28	Robert K Palmer	2033818
	10/18/2018	10/24/2018 15:15	Elliott D. Healy	11/08/2018 22:56	Robert K Palmer	2033821
	10/18/2018	10/24/2018 15:15	Elliott D. Healy	11/09/2018 17:03	Allison Taylor	2033818
	10/18/2018	10/24/2018 15:15	Elliott D. Healy	11/09/2018 17:30	Allison Taylor	2033821
	10/18/2018	10/24/2018 15:15	Elliott D. Healy	11/09/2018 21:32	Allison Taylor	2033821
	10/18/2018	10/24/2018 15:15	Elliott D. Healy	11/09/2018 22:13	Allison Taylor	2033818
	10/18/2018	10/31/2018 15:35	Elliott D. Healy	11/06/2018 02:15	Allison Taylor	2033820
EPA 300.0 Rev. 2.1	10/18/2018			10/24/2018 20:43	Lipi Saha	2033783
EPA 350.1 Rev. 2.0	10/18/2018			10/29/2018 14:38	Julia Storbeck	2033778
	10/18/2018			10/29/2018 14:39	Julia Storbeck	2033784
	10/18/2018			10/29/2018 15:16	Julia Storbeck	2033775
	10/18/2018			10/29/2018 15:17	Julia Storbeck	2033781
	10/18/2018			10/29/2018 15:19	Julia Storbeck	2033787
EPA 351.2 Rev. 2.0	10/18/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 10:06	Joseph Suarez	2033778
	10/18/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 10:11	Joseph Suarez	2033784
	10/18/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 13:36	Joseph Suarez	2033775
	10/18/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 13:41	Joseph Suarez	2033781
	10/18/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 13:42	Joseph Suarez	2033787
EPA 353.2 Rev. 2.0	10/18/2018			10/19/2018 13:02	Lauren Bottorf	2033778
	10/18/2018			10/19/2018 13:03	Lauren Bottorf	2033784
	10/18/2018			10/24/2018 12:18	Lauren Bottorf	2033775
	10/18/2018			10/24/2018 12:19	Lauren Bottorf	2033781
	10/18/2018			10/24/2018 12:26	Lauren Bottorf	2033787
EPA 365.1 Rev. 2.0	10/18/2018	10/19/2018 12:10	Sima Feizi	10/22/2018 11:51	Beverly Y. Sanders	2033778
	10/18/2018	10/19/2018 12:10	Sima Feizi	10/22/2018 11:52	Beverly Y. Sanders	2033784
	10/18/2018	10/19/2018 12:10	Sima Feizi	10/23/2018 11:44	Beverly Y. Sanders	2033775
	10/18/2018	10/19/2018 12:10	Sima Feizi	10/23/2018 11:45	Beverly Y. Sanders	2033781, 2033787
EPA 365.1 Rev. 2.0 dissolved	10/18/2018			10/18/2018 17:09	Anthony C. Onicha	2033776

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0 dissolved	10/18/2018			10/18/2018 17:13	Anthony C. Onicha	2033785
	10/18/2018			10/18/2018 17:33	Anthony C. Onicha	2033782
	10/18/2018			10/18/2018 17:34	Anthony C. Onicha	2033788
	10/18/2018			10/18/2018 17:36	Anthony C. Onicha	2033779
EPA 8270D	10/18/2018	10/19/2018 14:40	Fe-Val Siddell	10/22/2018 23:08	Vandana T. Nagar	2033803
	10/18/2018	10/22/2018 08:00	Fe-Val Siddell	10/30/2018 03:28	Arthur Maknenko	2033802
EPA 8276	10/18/2018	10/22/2018 08:00	Fe-Val Siddell	10/31/2018 05:41	Dinesh Mishra	2033802
EPA 8321B	10/18/2018	10/18/2018 14:00	Mohammad Ghaffari	10/18/2018 23:59	Rebecca Ware	2033801
	10/18/2018	10/18/2018 14:00	Mohammad Ghaffari	10/19/2018 18:57	Mohammad Ghaffari	2033801
	10/18/2018	10/18/2018 14:00	Mohammad Ghaffari	10/21/2018 04:22	Mohammad Ghaffari	2033801
	10/18/2018	10/22/2018 10:00	Hoor Shaik	10/23/2018 21:57	Juyoung Kim	2033801
	10/18/2018	10/22/2018 10:00	Hoor Shaik	10/24/2018 17:07	Juyoung Kim	2033800
	10/18/2018	10/22/2018 10:00	Hoor Shaik	10/25/2018 15:02	Juyoung Kim	2033801
SM 2120 B	10/18/2018			10/18/2018 15:30	Chelsea Hernandez	2033783
SM 2320 B-97	10/18/2018			10/24/2018 10:14	Dale L. Simmons	2033777
	10/18/2018			10/24/2018 12:46	Dale L. Simmons	2033783
	10/18/2018			10/26/2018 12:44	Dale L. Simmons	2033774
	10/18/2018			10/26/2018 12:54	Dale L. Simmons	2033786
	10/18/2018			10/31/2018 00:43	Dale L. Simmons	2033780
SM 2540 C-97	10/18/2018			10/19/2018 15:48	Yijie Li	2033783
SM 2540 D-97	10/18/2018			10/19/2018 15:48	Yijie Li	2033774, 2033777, 2033780, 2033783, 2033786
SM 4500 F-C-97	10/18/2018			10/24/2018 10:14	Dale L. Simmons	2033777
	10/18/2018			10/24/2018 12:46	Dale L. Simmons	2033783
	10/18/2018			10/26/2018 10:13	Dale L. Simmons	2033774
	10/18/2018			10/26/2018 10:17	Dale L. Simmons	2033786
	10/18/2018			10/30/2018 21:08	Dale L. Simmons	2033780
SM 5310 B-00	10/18/2018			10/24/2018 05:10	Megan Treadwell	2033778
	10/18/2018			10/24/2018 05:23	Megan Treadwell	2033784
	10/18/2018			10/30/2018 17:45	Megan Treadwell	2033775
	10/18/2018			10/30/2018 17:58	Megan Treadwell	2033781
	10/18/2018			10/30/2018 18:13	Megan Treadwell	2033787