

Chemical Analysis Report

SE-DIST-2018-10-23-01

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

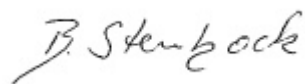
Event Description: **SMP- E-Canals**
Request ID: **RQ-2018-10-22-21**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

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

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

Date Certified: 16-NOV-2018 13:41



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: E-2 @ Glades

Collection Date/Time: 10/22/2018 12:00

Field ID: G3SE0035

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2034723	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P353560	
	EPA 300.0 Rev. 2.1	Chloride	45		mg Cl/L	P353878	
		Sulfate	29		mg SO4/L	P353880	
		Color (true)	55		PCU	P353524	
	SM 2320 B-97	Total Alkalinity	153		mg CaCO3/L	P353896	
	SM 2540 C-97	TDS	294		mg/L	P354122	
	SM 2540 D-97	TSS	6	I	mg/L	P354018	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P353901	
2034725	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P353947	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P354012	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P353771	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P353579	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P353943	
2034727	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.050		mg P/L	P353541	
2034751	EPA 200.7 Rev. 4.4	Calcium	68.4		mg/L	P353601	
		Iron	30	U	ug/L	P353601	
		Magnesium	5.32		mg/L	P353601	
		Potassium	6.9		mg/L	P353601	
		Sodium	26.8		mg/L	P353601	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P354281	
		Arsenic	2.68		ug/L	P353601	
		Cadmium	0.020	U	ug/L	P353601	
		Chromium	0.58	I	ug/L	P353601	
		Copper	2.64		ug/L	P354281	
		Lead	0.10	I	ug/L	P354281	
		Nickel	0.36	I	ug/L	P353601	
		Silver	0.010	U	ug/L	P353601	

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: E-2 @ Glades

Collection Date/Time: 10/22/2018 12:10

Field ID: DUPE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2034729	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P353560	
	EPA 300.0 Rev. 2.1	Chloride	44		mg Cl/L	P353878	
		Sulfate	28		mg SO4/L	P353880	
		Color (true)	55		PCU	P353524	
	SM 2320 B-97	Total Alkalinity	154		mg CaCO3/L	P353896	
	SM 2540 C-97	TDS	288		mg/L	P354122	
	SM 2540 D-97	TSS	6	I	mg/L	P354018	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P353901	
2034730	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P353947	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P354012	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P353771	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P353579	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P353943	
2034731	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.049		mg P/L	P353541	
2034753	EPA 200.7 Rev. 4.4	Calcium	65.3		mg/L	P353601	
		Iron	30	U	ug/L	P353601	
		Magnesium	5.14		mg/L	P353601	
		Potassium	6.6		mg/L	P353601	
		Sodium	26.6		mg/L	P353601	
		Zinc	5.0	U	ug/L	P353601	
	EPA 200.8 Rev. 5.4	Arsenic	2.64		ug/L	P353601	
		Cadmium	0.020	U	ug/L	P353601	
		Chromium	0.59	I	ug/L	P353601	
		Copper	2.41		ug/L	P353601	
		Lead	0.11	I	ug/L	P353601	
		Nickel	0.37	I	ug/L	P353601	
		Silver	0.010	U	ug/L	P353601	

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: E-2 West @ Yamato

Collection Date/Time: 10/22/2018 12:25

Field ID: G3SE0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2034724	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P353560	
	EPA 300.0 Rev. 2.1	Chloride	45		mg Cl/L	P353878	
		Sulfate	31		mg SO4/L	P353880	
		Color (true)	55		PCU	P353524	
	SM 2320 B-97	Total Alkalinity	143		mg CaCO3/L	P353896	
	SM 2540 C-97	TDS	278		mg/L	P354122	
	SM 2540 D-97	TSS	4	I	mg/L	P354018	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P353901	
2034726	EPA 350.1 Rev. 2.0	Ammonia-N	0.027		mg N/L	P353947	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P353743	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.017		mg N/L	P353772	
	EPA 365.1 Rev. 2.0	Total-P	0.098		mg P/L	P353579	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P353943	
2034728	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.046		mg P/L	P353541	
2034752	EPA 200.7 Rev. 4.4	Calcium	63.4		mg/L	P353601	
		Iron	37	I	ug/L	P353601	
		Magnesium	5.00		mg/L	P353601	
		Potassium	6.6		mg/L	P353601	
		Sodium	26.9		mg/L	P353601	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P353601	
		Arsenic	2.44		ug/L	P353601	
		Cadmium	0.020	U	ug/L	P353601	
		Chromium	0.64	I	ug/L	P353601	
		Copper	4.95		ug/L	P353601	
		Lead	0.12	I	ug/L	P353601	
		Nickel	0.36	I	ug/L	P353601	
		Silver	0.010	U	ug/L	P353601	

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: E-2 West @ Clint Moore

Collection Date/Time: 10/22/2018 12:45

Field ID: G3SE0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2034720	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P353560	
	EPA 300.0 Rev. 2.1	Chloride	43		mg Cl/L	P353878	
		Sulfate	28		mg SO4/L	P353880	
		Color (true)	54		PCU	P353524	
	SM 2320 B-97	Total Alkalinity	141		mg CaCO3/L	P353896	
	SM 2540 C-97	TDS	284		mg/L	P354122	
	SM 2540 D-97	TSS	5	I	mg/L	P354018	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P353901	
2034721	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P353947	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P353743	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.021		mg N/L	P353771	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P353579	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P353943	
2034722	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.052		mg P/L	P353541	
2034750	EPA 200.7 Rev. 4.4	Calcium	62.3		mg/L	P353601	
		Iron	45	I	ug/L	P353601	
		Magnesium	4.72		mg/L	P353601	
		Potassium	6.1		mg/L	P353601	
		Sodium	26.1		mg/L	P353601	
		Zinc	5.0	U	ug/L	P353601	
	EPA 200.8 Rev. 5.4	Arsenic	2.45		ug/L	P353601	
		Cadmium	0.020	U	ug/L	P353601	
		Chromium	0.77	I	ug/L	P353601	
		Copper	4.22		ug/L	P353601	
		Lead	0.12	I	ug/L	P353601	
		Nickel	0.33	I	ug/L	P353601	
		Silver	0.010	U	ug/L	P353601	

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: E-2 West @ Atlantic

Collection Date/Time: 10/22/2018 13:15

Field ID: G3SE0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2034717	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P353560	
	EPA 300.0 Rev. 2.1	Chloride	56		mg Cl/L	P353878	
		Sulfate	38		mg SO4/L	P353880	
	SM 2120 B	Color (true)	66	A	PCU	P353524	
	SM 2320 B-97	Total Alkalinity	184		mg CaCO3/L	P353896	
	SM 2540 C-97	TDS	363	A	mg/L	P354122	
	SM 2540 D-97	TSS	8	IA	mg/L	P354018	
	SM 4500 F-C-97	Fluoride	0.22		mg F/L	P353901	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P353947	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P353743	
2034718	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P353771	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P353579	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P353943	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.087		mg P/L	P353541	
	dissolved						
2034745	EPA 8321B	Aldicarb	0.020	U	ug/L	P353357	
		Aldicarb Sulfone	0.0020	U	ug/L	P353357	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P353357	MS
		Carbaryl	0.0020	U	ug/L	P353357	
		Carbofuran	0.0020	U	ug/L	P353357	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P353357	
		Methiocarb	0.0020	U	ug/L	P353357	
		Methomyl	0.0020	U	ug/L	P353357	
		Oxamyl	0.0020	U	ug/L	P353357	
		Propoxur	0.0020	U	ug/L	P353357	
2034746		2,4-D	0.044		ug/L	P353357	
		Bentazon	0.093		ug/L	P353357	
		MCP	0.0045	I	ug/L	P353357	
		Triclopyr**	0.0040	U	ug/L	P353357	
		Imidacloprid	0.097		ug/L	P353357	MS
		Diuron	0.012		ug/L	P353357	
		Pyraclostrobin**	0.0020	U	ug/L	P353357	
		Primidone**	0.0069	I	ug/L	P353357	
		Linuron	0.0040	U	ug/L	P353357	
		Acetaminophen**	0.0080	UJ	ug/L	P353357	CCV
		Fenuron	0.016	U	ug/L	P353357	
		Imazapyr**	0.23		ug/L	P353357	
		Carbamazepine**	8.1E-04	I	ug/L	P353357	
		Fluridone**	0.16		ug/L	P353357	
		Hydrocodone**	8.0E-04	U	ug/L	P353357	
		Naproxen**	0.0080	U	ug/L	P353357	
		Ibuprofen**	0.020	U	ug/L	P353357	MS
		Sucralose**	0.52		ug/L	P353544	
		Glyphosate**	2.5		ug/L	P353544	

Field ID: G3SE0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2034746	EPA 8321B	AMPA**	4.2		ug/L	P353544	
		Endothall**	0.25	U	ug/L	P353544	
		Glufosinate**	0.10	U	ug/L	P353544	
		Acesulfame K**	0.20	I	ug/L	P353544	
2034747	EPA 8270D	Aldrin	4.1	U	ng/L	P353657	
		Alpha-BHC	2.1	U	ng/L	P353657	
		Beta-BHC	4.1	U	ng/L	P353657	
		Delta-BHC	4.1	U	ng/L	P353657	
		Gamma-BHC	4.1	U	ng/L	P353657	
		Carbophenothion	4.1	U	ng/L	P353657	
		Chlorothalonil	2.1	UJ	ng/L	P353657	RPD
		Cypermethrin	21	U	ng/L	P353657	
		DDD-p,p'	3.1	U	ng/L	P353657	
		DDE-p,p'	3.1	U	ng/L	P353657	
		DDT-p,p'	3.1	U	ng/L	P353657	
		Dieldrin	4.1	U	ng/L	P353657	
		Endosulfan I	4.1	U	ng/L	P353657	
		Endosulfan II	4.1	U	ng/L	P353657	
		Endosulfan Sulfate	2.1	U	ng/L	P353657	
		Endrin	2.1	U	ng/L	P353657	
		Endrin Aldehyde	2.1	U	ng/L	P353657	
		Heptachlor	1.6	U	ng/L	P353657	
		Heptachlor Epoxide	2.1	U	ng/L	P353657	
		Methoxychlor	4.1	U	ng/L	P353657	
		Mirex	2.1	U	ng/L	P353657	
		Permethrin	10	U	ng/L	P353657	
		Trifluralin	1.0	U	ng/L	P353657	
		Alpha-Chlordane	1.0	U	ng/L	P353657	
		Gamma-Chlordane	1.0	U	ng/L	P353657	
		Endrin Ketone	2.1	U	ng/L	P353657	
		Dicofol	31	U	ng/L	P353657	
		Chlordane	2.6	U	ng/L	P353657	
		Toxaphene	31	U	ng/L	P353657	
2034748	EPA 8270D	Alachlor	0.25	U	ng/L	P353789	
		Ametryn	5.1		ng/L	P353789	
		Atrazine	20	J	ng/L	P353789	LCS
		Atrazine Desethyl	1.5	U	ng/L	P353789	
		Azinphos Methyl	2.2	U	ng/L	P353789	
		Bromacil	0.49	U	ng/L	P353789	
		Butylate	0.98	IJ	ng/L	P353789	LCS
		Chlorpyrifos Ethyl	0.25	UJ	ng/L	P353789	LCS
		Chlorpyrifos Methyl	0.098	U	ng/L	P353789	
		Demeton	2.0	U	ng/L	P353789	
		Diazinon	0.12	UJ	ng/L	P353789	LCS
		Disulfoton	0.49	U	ng/L	P353789	

Field ID: G3SE0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2034748	EPA 8270D	EPTC	1.2	U	ng/L	P353789	LCS, MS, RPD
		Ethion	0.15	UJ	ng/L	P353789	
		Ethoprop	0.098	U	ng/L	P353789	
		Fenamiphos	0.25	U	ng/L	P353789	
		Fipronil	0.25	U	ng/L	P353789	
		Fipronil Sulfide	0.17	I	ng/L	P353789	
		Fipronil Sulfone	0.47	I	ng/L	P353789	
		Hexazinone	6.4	J	ng/L	P353789	
		Malathion	0.34	U	ng/L	P353789	
		Metribuzin	1.1		ng/L	P353789	
		Mevinphos	0.49	U	ng/L	P353789	
		Molinate	0.29	U	ng/L	P353789	
		Norflurazon	0.49	U	ng/L	P353789	
		Pendimethalin	0.98	U	ng/L	P353789	
		Phorate	0.25	U	ng/L	P353789	
		Prometon	0.88	U	ng/L	P353789	
		Prometryn	0.20	U	ng/L	P353789	
		Simazine	0.49	U	ng/L	P353789	
		Terbufos	0.098	U	ng/L	P353789	
		Terbutylazine	0.42	U	ng/L	P353789	
		Fonofos	0.20	U	ng/L	P353789	
		Metalaxyl	10		ng/L	P353789	
		Metolachlor	570		ng/L	P353789	
		Acetochlor	0.25	UJ	ng/L	P353789	LCS RPD
		Cyanazine	0.49	U	ng/L	P353789	
		Parathion Ethyl	0.25	U	ng/L	P353789	
		Parathion Methyl	0.25	U	ng/L	P353789	
		Dimethenamid**	2.8		ng/L	P353789	
		Fipronil Desulfinyl**	0.29	IJ	ng/L	P353789	
		Dithiopyr**	0.22	I	ng/L	P353789	
		Prodiamine**	0.17	U	ng/L	P353789	
		Oxadiazon**	11		ng/L	P353789	
		Tebuconazole**	0.49	UJ	ng/L	P353789	
2034749	EPA 200.7 Rev. 4.4	Calcium	76.1		mg/L	P353601	MS, RPD
		Iron	41	I	ug/L	P353601	
		Magnesium	7.77		mg/L	P353601	
		Potassium	9.6		mg/L	P353601	
		Sodium	32.9		mg/L	P353601	
		Zinc	5.0	U	ug/L	P353601	
	EPA 200.8 Rev. 5.4	Arsenic	2.09		ug/L	P353601	
		Cadmium	0.020	U	ug/L	P353601	
		Chromium	0.69	I	ug/L	P353601	
		Copper	1.71		ug/L	P353601	
		Lead	0.18	I	ug/L	P353601	

Field ID: G3SE0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2034749	EPA 200.8 Rev. 5.4	Nickel	0.69	I	ug/L	P353601	
		Silver	0.010	U	ug/L	P353601	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Refer to the narrative for an explanation of QC Codes.
EPA 8270D: Refer to the narrative for an explanation of QC Codes.
EPA 8270D: MS accuracy for Atrazine not assessed due to high content of this parameter in the sample spiked. Estimated value for Hexazinone due to internal standard recovery outside control limits. Refer to the narrative for an explanation of QC Codes. Estimated value for Fipronil DesulfinyI due to the lack of the second source standard.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353560

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353601

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: P354281

Component	Result	Code	Units
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353601

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: P354281

Component	Result	Code	Units
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353878

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353880

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353947

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353743

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354012

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353771

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353772

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353579

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353541

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

Reference Method: EPA 8270D
Batch ID: P353657

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D
Batch ID: P353657

Component	Result	Code	Units
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L
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 8270D
Batch ID: P353789

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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P353789

Component	Result	Code	Units
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 8276
Batch ID: P353657

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

Reference Method: EPA 8321B
Batch ID: P353357

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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P353357

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P353544

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: SM 2120 B
Batch ID: P353524

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P353896

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

Reference Method: SM 2540 C-97
Batch ID: P354122

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P354018

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P353901

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P353943

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: P353601

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	106		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	97.1		P	85 - 115
Sodium	97.1		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P354281

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353601

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	95.9		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	96.2		P	85 - 115
Copper	96.0		P	85 - 115
Lead	93.6		P	85 - 115
Nickel	96.0		P	85 - 115
Silver	98.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P354281

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	97.9		P	85 - 115
Lead	93.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353878

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353880

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353947

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353743

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	103		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354012

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353771

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353772

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353579

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: P353541

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.5		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P353657

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	57.2	59.2	P/P	24 - 89.0
Alpha-BHC	105	106	P/P	58 - 117
Alpha-Chlordane	91.2	91.5	P/P	56 - 115
Beta-BHC	113	117	P/P	55 - 137
Carbophenothion	87.6	91.9	P/P	37 - 145
Chlorothalonil	52.8	113	P/P	26 - 163
Cypermethrin	81.8	84.1	P/P	42 - 156
DDD-p,p'	88.9	95.5	P/P	59 - 129
DDE-p,p'	91.3	94.2	P/P	52 - 117
DDT-p,p'	103	104	P/P	48 - 128
Delta-BHC	119	125	P/P	59 - 158
Dicofol	99.3	100	P/P	19 - 124
Dieldrin	93.8	97.7	P/P	57 - 126
Endosulfan I	94.1	93.0	P/P	59 - 133
Endosulfan II	100	101	P/P	58 - 148
Endosulfan Sulfate	86.4	83.0	P/P	56 - 135

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P353657

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	94.5	101	P/P	50 - 140
Endrin Aldehyde	95.1	96.2	P/P	47 - 141
Endrin Ketone	85.2	87.5	P/P	63 - 123
Gamma-BHC	123	109	P/P	59 - 132
Gamma-Chlordane	89.5	90.6	P/P	55 - 112
Heptachlor	78.0	77.8	P/P	45 - 102
Heptachlor Epoxide	93.1	93.1	P/P	61 - 116
Methoxychlor	114	111	P/P	60 - 133
Mirex	70.0	73.4	P/P	40 - 98.0
Permethrin	74.7	77.9	P/P	45 - 131
Trifluralin	90.7	97.2	P/P	38 - 179

Reference Method: EPA 8270D
Batch ID: P353789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	112	128	P/F	67 - 125
Alachlor	107	119	P/P	69 - 123
Ametryn	89.0	97.6	P/P	52 - 151
Atrazine	117	126	P/F	71 - 125
Atrazine Desethyl	94.1	115	P/P	19 - 129
Azinphos Methyl	152	154	P/P	48 - 200
Bromacil	96.6	105	P/P	46 - 130
Butylate	73.9	88.7	P/F	10 - 85.0
Chlorpyrifos Ethyl	98.0	122	P/F	54 - 115
Chlorpyrifos Methyl	97.2	115	P/P	44 - 117
Cyanazine	108	132	P/P	26 - 262
Demeton	83.6	96.5	P/P	24 - 145
Diazinon	128	134	P/F	66 - 129
Dimethenamid	92.2	124	P/P	60 - 130
Disulfoton	91.9	102	P/P	45 - 139
Dithiopyr	114	128	P/P	60 - 130
EPTC	68.1	85.3	P/P	10 - 86.0
Ethion	56.8	94.0	F/P	63 - 127
Ethoprop	85.9	95.8	P/P	63 - 109
Fenamiphos	88.0	103	P/P	55 - 140
Fipronil	103	116	P/P	37 - 142
Fipronil Sulfide	85.0	100	P/P	37 - 130
Fipronil Sulfone	77.7	88.7	P/P	18 - 143
Fonofos	104	115	P/P	55 - 118
Hexazinone	101	115	P/P	62 - 140
Malathion	99.0	117	P/P	64 - 132
Metalaxyl	107	119	P/P	55 - 129
Metolachlor	105	119	P/P	56 - 137
Metribuzin	184	197	P/P	16 - 218
Mevinphos	102	109	P/P	34 - 129
Molinate	63.4	72.7	P/P	16 - 99.0
Norflurazon	107	121	P/P	43 - 135
Oxadiazon	110	126	P/P	60 - 130
Parathion Ethyl	89.0	97.5	P/P	78 - 109
Parathion Methyl	105	121	P/P	65 - 127
Pendimethalin	102	119	P/P	35 - 159

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P353789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	97.0	112	P/P	41 - 129
Prodiamine	91.2	118	P/P	60 - 130
Prometon	90.3	108	P/P	56 - 140
Prometryn	105	113	P/P	65 - 130
Simazine	108	117	P/P	54 - 148
Tebuconazole	30.2	49.4	P/P	30 - 100
Terbufos	117	124	P/P	53 - 126
Terbutylazine	89.3	107	P/P	76 - 113

Reference Method: EPA 8276
Batch ID: P353657

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	85.6	82.2	P/P	47 - 125
Toxaphene	77.7	71.1	P/P	46 - 147

Reference Method: EPA 8321B
Batch ID: P353357

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	109		P	40 - 150
3-Hydroxycarbofuran	72.2		P	40 - 150
Acetaminophen	121		P	30 - 150
Aldicarb	93.9		P	30 - 150
Aldicarb Sulfone	72.6		P	40 - 150
Aldicarb Sulfoxide	87.7		P	40 - 150
Bentazon	100		P	30 - 150
Carbamazepine	81.7		P	40 - 150
Carbaryl	59.2		P	40 - 150
Carbofuran	69.3		P	40 - 150
Diuron	86.2		P	40 - 150
Fenuron	117		P	40 - 150
Fluridone	102		P	40 - 150
Hydrocodone	116		P	40 - 150
Ibuprofen	44.1		P	40 - 150
Imazapyr	99.9		P	40 - 150
Imidacloprid	109		P	40 - 160
Linuron	80.4		P	40 - 150
MCPP	121		P	40 - 150
Methiocarb	59.7		P	40 - 150
Methomyl	95.7		P	40 - 150
Naproxen	113		P	40 - 150
Oxamyl	104		P	40 - 150
Primidone	131		P	40 - 150
Propoxur	66.9		P	40 - 150
Pyraclostrobin	76.4		P	40 - 150
Triclopyr	116		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353544

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

Reference Method: EPA 8321B
Batch ID: P353544

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	84.0		P	40 - 150
AMPA	120		P	40 - 150
Endothall	81.0		P	40 - 150
Glufosinate	82.6		P	40 - 150
Glyphosate	71.3		P	40 - 140
Sucralose	83.5		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P353524

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.1		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P353896

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

Reference Method: SM 4500 F-C-97
Batch ID: P353901

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P353943

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353601

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034803	Calcium	102		P	80 - 120
2034803	Iron	105	103	P/P	80 - 120
2034803	Magnesium	106	104	P/P	80 - 120
2034803	Potassium	102	102	P/P	80 - 120
2034803	Sodium	95.8		P	80 - 120
2034803	Zinc	99.2	99.4	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P354281

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038195	Zinc	102		P	80 - 120
2038694	Zinc	98.1	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353601

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034803	Arsenic	97.6	98.9	P/P	80 - 120
2034803	Cadmium	100	101	P/P	80 - 120
2034803	Chromium	96.9	97.3	P/P	80 - 120
2034803	Copper	96.6	97.6	P/P	80 - 120
2034803	Lead	95.6	95.9	P/P	80 - 120
2034803	Nickel	95.5	95.4	P/P	80 - 120
2034803	Silver	99.0	100	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P354281

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038195	Copper	96.8		P	80 - 120
2038195	Lead	94.5		P	80 - 120
2038694	Copper	101	101	P/P	80 - 120
2038694	Lead	97.0	94.8	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353878

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034415	Chloride	97.8		P	90 - 110
2034688	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353880

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034415	Sulfate	97.2		P	90 - 110
2034688	Sulfate	103		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034718	Ammonia-N	99.3	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353743

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034791	Kjeldahl Nitrogen	99.4	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354012

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2035411	Kjeldahl Nitrogen	103	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353771

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034623	NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353772

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034726	NO2NO3-N	99.4	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353579

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034788	Total-P	100	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034789	O-Phosphate-P	97.0	97.4	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P353657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2036945	Aldrin	59.9	62.6	P/P	26 - 96.0
2036945	Alpha-BHC	97.5	110	P/P	51 - 123
2036945	Alpha-Chlordane	90.8	88.7	P/P	45 - 120
2036945	Beta-BHC	111	120	P/P	43 - 146
2036945	Carbophenothion	72.4	88.0	P/P	26 - 179
2036945	Chlorothalonil	98.0	95.7	P/P	10 - 215
2036945	Cypermethrin	74.1	80.2	P/P	35 - 169
2036945	DDD-p,p'	76.0	95.3	P/P	49 - 131
2036945	DDE-p,p'	92.2	92.4	P/P	39 - 127
2036945	DDT-p,p'	95.4	102	P/P	49 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P353657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2036945	Delta-BHC	145	154	P/P	49 - 187
2036945	Dicofol	99.4	98.3	P/P	10 - 129
2036945	Dieldrin	114	111	P/P	46 - 132
2036945	Endosulfan I	95.7	90.2	P/P	57 - 130
2036945	Endosulfan II	89.8	94.1	P/P	52 - 148
2036945	Endosulfan Sulfate	89.9	88.4	P/P	55 - 129
2036945	Endrin	97.3	95.7	P/P	45 - 133
2036945	Endrin Aldehyde	77.4	88.8	P/P	26 - 140
2036945	Endrin Ketone	89.8	95.9	P/P	60 - 125
2036945	Gamma-BHC	135	134	P/P	50 - 145
2036945	Gamma-Chlordane	89.6	87.6	P/P	44 - 118
2036945	Heptachlor	72.0	75.4	P/P	35 - 106
2036945	Heptachlor Epoxide	95.2	92.4	P/P	52 - 123
2036945	Methoxychlor	101	109	P/P	54 - 132
2036945	Mirex	68.0	73.6	P/P	36 - 107
2036945	Permethrin	74.7	79.6	P/P	47 - 135
2036945	Trifluralin	89.4	101	P/P	32 - 228

Reference Method: EPA 8270D
Batch ID: P353789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034829	Acetochlor	108	108	P/P	67 - 125
2034829	Alachlor	97.6	103	P/P	69 - 123
2034829	Ametryn	108	97.7	P/P	52 - 151
2034829	Atrazine Desethyl	113	94.7	P/P	10 - 129
2034829	Azinphos Methyl	153	155	P/P	48 - 200
2034829	Bromacil	100	92.0	P/P	46 - 130
2034829	Butylate	65.8	81.1	P/P	10 - 85.0
2034829	Chlorpyrifos Ethyl	93.6	91.9	P/P	54 - 115
2034829	Chlorpyrifos Methyl	92.6	90.8	P/P	44 - 117
2034829	Cyanazine	136	75.0	P/P	10 - 262
2034829	Demeton	85.9	94.8	P/P	24 - 145
2034829	Diazinon	119	121	P/P	66 - 129
2034829	Dimethenamid	87.8	69.4	P/P	60 - 130
2034829	Disulfoton	92.6	101	P/P	45 - 139
2034829	Dithiopyr	106	104	P/P	60 - 130
2034829	EPTC	61.8	66.8	P/P	10 - 86.0
2034829	Ethion	31.7	13.7	F/F	59 - 133
2034829	Ethoprop	99.7	107	P/P	54 - 116
2034829	Fenamiphos	88.4	84.9	P/P	55 - 140
2034829	Fipronil	97.4	83.6	P/P	37 - 142
2034829	Fipronil Sulfide	81.5	64.8	P/P	37 - 130
2034829	Fipronil Sulfone	73.4	53.2	P/P	18 - 143
2034829	Fonofos	99.4	103	P/P	55 - 118
2034829	Hexazinone	109	84.0	P/P	62 - 140
2034829	Malathion	98.4	95.6	P/P	64 - 132
2034829	Metalaxyl	101	101	P/P	55 - 129
2034829	Metolachlor	103	100	P/P	56 - 137
2034829	Metribuzin	173	165	P/P	16 - 218
2034829	Mevinphos	95.0	102	P/P	34 - 129
2034829	Molinate	63.6	64.3	P/P	16 - 99.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P353789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034829	Norflurazon	101	81.4	P/P	43 - 135
2034829	Oxadiazon	101	90.2	P/P	60 - 130
2034829	Parathion Ethyl	90.9	90.4	P/P	71 - 112
2034829	Parathion Methyl	99.1	99.8	P/P	65 - 127
2034829	Pendimethalin	103	102	P/P	35 - 159
2034829	Phorate	105	111	P/P	41 - 129
2034829	Prodiamine	92.2	70.7	P/P	60 - 130
2034829	Prometon	95.3	84.2	P/P	56 - 140
2034829	Prometryn	104	103	P/P	65 - 130
2034829	Simazine	102	94.7	P/P	54 - 148
2034829	Tebuconazole	38.8	18.9	P/F	30 - 100
2034829	Terbufos	113	121	P/P	53 - 126
2034829	Terbutylazine	111	109	P/P	73 - 114

Reference Method: EPA 8276
Batch ID: P353657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2036303	Chlordane	89.9	81.9	P/P	41 - 134
2036303	Toxaphene	76.4	74.4	P/P	39 - 158

Reference Method: EPA 8321B
Batch ID: P353357

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034643	3-Hydroxycarbofuran	51.9	57.9	P/P	40 - 150
2034643	Aldicarb	46.2	42.9	P/P	30 - 150
2034643	Aldicarb Sulfone	62.3	67.4	P/P	40 - 150
2034643	Aldicarb Sulfoxide	28.4	32.2	F/F	40 - 150
2034643	Carbaryl	49.6	46.7	P/P	40 - 150
2034643	Carbofuran	40.5	45.7	P/P	40 - 150
2034643	Methiocarb	40.6	43.9	P/P	40 - 150
2034643	Methomyl	70.6	75.8	P/P	40 - 150
2034643	Oxamyl	65.1	74.1	P/P	40 - 150
2034643	Propoxur	41.4	42.5	P/P	40 - 150
2034644	2,4-D	124	127	P/P	40 - 150
2034644	Acetaminophen	127	134	P/P	30 - 150
2034644	Bentazon	38.5	37.6	P/P	30 - 150
2034644	Carbamazepine	69.7	68.6	P/P	40 - 150
2034644	Diuron	65.2	64.3	P/P	40 - 150
2034644	Fenuron	97.5	98.9	P/P	40 - 150
2034644	Fluridone	99.4	105	P/P	40 - 150
2034644	Hydrocodone	106	109	P/P	40 - 150
2034644	Ibuprofen	37.7	38.5	F/F	40 - 150
2034644	Imazapyr	102	123	P/P	40 - 150
2034644	Imidacloprid	178	174	F/F	40 - 160
2034644	Linuron	68.2	73.0	P/P	40 - 150
2034644	MCPP	138	139	P/P	40 - 150
2034644	Naproxen	99.2	90.9	P/P	40 - 150
2034644	Primidone	106	112	P/P	40 - 150
2034644	Pyraclostrobin	84.5	88.0	P/P	40 - 150
2034644	Triclopyr	128	134	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P353544

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034746	Acesulfame K	104	99.7	P/P	40 - 150
2034746	AMPA	62.1	50.2	P/P	40 - 150
2034746	Endothall	101	107	P/P	40 - 150
2034746	Glufosinate	81.7	83.3	P/P	40 - 150
2034746	Glyphosate	65.2	53.9	P/P	40 - 140
2034746	Sucralose	81.8	78.5	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P353901

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2035860	Fluoride	98.3	99.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P353943

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034527	Organic Carbon	99.7		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353560

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034761	Turbidity	0.264	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353601

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034803	Calcium	3.71	Spike	P	0 - 20
2034803	Iron	1.48	Spike	P	0 - 20
2034803	Magnesium	1.36	Spike	P	0 - 20
2034803	Potassium	0.213	Spike	P	0 - 20
2034803	Sodium	0.417	Spike	P	0 - 20
2034803	Zinc	0.137	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P354281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038694	Zinc	2.82	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353601

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034803	Arsenic	1.25	Spike	P	0 - 20
2034803	Cadmium	1.15	Spike	P	0 - 20
2034803	Chromium	0.357	Spike	P	0 - 20
2034803	Copper	0.975	Spike	P	0 - 20
2034803	Lead	0.293	Spike	P	0 - 20
2034803	Nickel	0.0631	Spike	P	0 - 20
2034803	Silver	1.48	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P354281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038694	Copper	0.0198	Spike	P	0 - 20
2038694	Lead	2.13	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034415	Chloride	2.21	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353880

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034415	Sulfate	2.76	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034718	Ammonia-N	1.83	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034791	Kjeldahl Nitrogen	0.386	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2035411	Kjeldahl Nitrogen	1.09	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353771

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034623	NO2NO3-N	0.870	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034726	NO2NO3-N	1.38	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353579

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034788	Total-P	2.85	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034789	O-Phosphate-P	0.412	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P353657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2036945	Aldrin	4.57	Spike	P	0 - 30
2036945	Alpha-BHC	12.3	Spike	P	0 - 30
2036945	Alpha-Chlordane	2.30	Spike	P	0 - 30
2036945	Beta-BHC	8.01	Spike	P	0 - 30
2036945	Carbophenothion	19.5	Spike	P	0 - 30
2036945	Chlorothalonil	2.36	Spike	P	0 - 30
2036945	Cypermethrin	7.86	Spike	P	0 - 30
2036945	DDD-p,p'	22.6	Spike	P	0 - 30
2036945	DDE-p,p'	0.278	Spike	P	0 - 30
2036945	DDT-p,p'	7.11	Spike	P	0 - 30
2036945	Delta-BHC	6.02	Spike	P	0 - 30
2036945	Dicofol	1.12	Spike	P	0 - 30
2036945	Dieldrin	2.70	Spike	P	0 - 30
2036945	Endosulfan I	5.90	Spike	P	0 - 30
2036945	Endosulfan II	4.67	Spike	P	0 - 30
2036945	Endosulfan Sulfate	1.71	Spike	P	0 - 30
2036945	Endrin	1.65	Spike	P	0 - 30
2036945	Endrin Aldehyde	13.7	Spike	P	0 - 30
2036945	Endrin Ketone	6.63	Spike	P	0 - 30
2036945	Gamma-BHC	0.308	Spike	P	0 - 30
2036945	Gamma-Chlordane	2.24	Spike	P	0 - 30
2036945	Heptachlor	4.72	Spike	P	0 - 30
2036945	Heptachlor Epoxide	2.94	Spike	P	0 - 30
2036945	Methoxychlor	7.42	Spike	P	0 - 30
2036945	Mirex	8.04	Spike	P	0 - 30
2036945	Permethrin	6.34	Spike	P	0 - 30
2036945	Trifluralin	12.1	Spike	P	0 - 30
LFB	Aldrin	3.34	LCS	P	0 - 30
LFB	Alpha-BHC	1.14	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.358	LCS	P	0 - 30
LFB	Beta-BHC	3.34	LCS	P	0 - 30
LFB	Carbophenothion	4.79	LCS	P	0 - 30
LFB	Chlorothalonil	72.8	LCS	F	0 - 30
LFB	Cypermethrin	2.67	LCS	P	0 - 30
LFB	DDD-p,p'	7.23	LCS	P	0 - 30
LFB	DDE-p,p'	3.20	LCS	P	0 - 30
LFB	DDT-p,p'	0.861	LCS	P	0 - 30
LFB	Delta-BHC	4.65	LCS	P	0 - 30
LFB	Dicofol	1.09	LCS	P	0 - 30
LFB	Dieldrin	4.06	LCS	P	0 - 30
LFB	Endosulfan I	1.17	LCS	P	0 - 30
LFB	Endosulfan II	0.464	LCS	P	0 - 30
LFB	Endosulfan Sulfate	3.97	LCS	P	0 - 30
LFB	Endrin	6.57	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.10	LCS	P	0 - 30
LFB	Endrin Ketone	2.65	LCS	P	0 - 30
LFB	Gamma-BHC	11.8	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.21	LCS	P	0 - 30
LFB	Heptachlor	0.268	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.0373	LCS	P	0 - 30
LFB	Methoxychlor	2.10	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P353657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Mirex	4.73	LCS	P	0 - 30
LFB	Permethrin	4.20	LCS	P	0 - 30
LFB	Trifluralin	6.94	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P353789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034829	Acetochlor	0.0417	Spike	P	0 - 30
2034829	Alachlor	5.53	Spike	P	0 - 30
2034829	Ametryn	3.53	Spike	P	0 - 30
2034829	Atrazine	17.2	Spike	P	0 - 30
2034829	Atrazine Desethyl	9.77	Spike	P	0 - 30
2034829	Azinphos Methyl	1.50	Spike	P	0 - 30
2034829	Bromacil	8.33	Spike	P	0 - 30
2034829	Butylate	20.9	Spike	P	0 - 30
2034829	Chlorpyrifos Ethyl	1.92	Spike	P	0 - 30
2034829	Chlorpyrifos Methyl	2.00	Spike	P	0 - 30
2034829	Cyanazine	57.6	Spike	F	0 - 30
2034829	Demeton	9.86	Spike	P	0 - 30
2034829	Diazinon	1.03	Spike	P	0 - 30
2034829	Dimethenamid	23.4	Spike	P	0 - 30
2034829	Disulfoton	8.69	Spike	P	0 - 30
2034829	Dithiopyr	1.49	Spike	P	0 - 30
2034829	EPTC	7.75	Spike	P	0 - 30
2034829	Ethion	79.5	Spike	F	0 - 30
2034829	Ethoprop	7.03	Spike	P	0 - 30
2034829	Fenamiphos	3.96	Spike	P	0 - 30
2034829	Fipronil	13.9	Spike	P	0 - 30
2034829	Fipronil Sulfide	17.3	Spike	P	0 - 30
2034829	Fipronil Sulfone	19.4	Spike	P	0 - 30
2034829	Fonofos	3.75	Spike	P	0 - 30
2034829	Hexazinone	17.7	Spike	P	0 - 30
2034829	Malathion	2.91	Spike	P	0 - 30
2034829	Metalaxyl	0.183	Spike	P	0 - 30
2034829	Metolachlor	1.84	Spike	P	0 - 30
2034829	Metribuzin	2.75	Spike	P	0 - 30
2034829	Mevinphos	6.83	Spike	P	0 - 30
2034829	Molinate	1.03	Spike	P	0 - 30
2034829	Norflurazon	21.8	Spike	P	0 - 30
2034829	Oxadiazon	5.46	Spike	P	0 - 30
2034829	Parathion Ethyl	0.554	Spike	P	0 - 30
2034829	Parathion Methyl	0.687	Spike	P	0 - 30
2034829	Pendimethalin	0.476	Spike	P	0 - 30
2034829	Phorate	5.37	Spike	P	0 - 30
2034829	Prodiamine	26.4	Spike	P	0 - 30
2034829	Prometon	12.3	Spike	P	0 - 30
2034829	Prometryn	1.03	Spike	P	0 - 30
2034829	Simazine	6.26	Spike	P	0 - 30
2034829	Tebuconazole	51.6	Spike	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P353789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034829	Terbufos	7.28	Spike	P	0 - 30
2034829	Terbuthylazine	1.29	Spike	P	0 - 30
LFB	Acetochlor	12.8	LCS	P	0 - 30
LFB	Alachlor	10.8	LCS	P	0 - 30
LFB	Ametryn	9.26	LCS	P	0 - 30
LFB	Atrazine	7.81	LCS	P	0 - 30
LFB	Atrazine Desethyl	19.8	LCS	P	0 - 30
LFB	Azinphos Methyl	1.56	LCS	P	0 - 30
LFB	Bromacil	8.45	LCS	P	0 - 30
LFB	Butylate	18.2	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	22.1	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	17.0	LCS	P	0 - 30
LFB	Cyanazine	19.7	LCS	P	0 - 30
LFB	Demeton	14.4	LCS	P	0 - 30
LFB	Diazinon	5.09	LCS	P	0 - 30
LFB	Dimethenamid	29.7	LCS	P	0 - 30
LFB	Disulfoton	10.8	LCS	P	0 - 30
LFB	Dithiopyr	11.4	LCS	P	0 - 30
LFB	EPTC	22.4	LCS	P	0 - 30
LFB	Ethion	49.3	LCS	F	0 - 30
LFB	Ethoprop	11.0	LCS	P	0 - 30
LFB	Fenamiphos	15.2	LCS	P	0 - 30
LFB	Fipronil	11.5	LCS	P	0 - 30
LFB	Fipronil Sulfide	16.6	LCS	P	0 - 30
LFB	Fipronil Sulfone	13.1	LCS	P	0 - 30
LFB	Fonofos	9.56	LCS	P	0 - 30
LFB	Hexazinone	13.1	LCS	P	0 - 30
LFB	Malathion	16.7	LCS	P	0 - 30
LFB	Metalaxyl	10.3	LCS	P	0 - 30
LFB	Metolachlor	12.6	LCS	P	0 - 30
LFB	Metribuzin	7.11	LCS	P	0 - 30
LFB	Mevinphos	7.49	LCS	P	0 - 30
LFB	Molinate	13.7	LCS	P	0 - 30
LFB	Norflurazon	11.6	LCS	P	0 - 30
LFB	Oxadiazon	13.5	LCS	P	0 - 30
LFB	Parathion Ethyl	9.11	LCS	P	0 - 30
LFB	Parathion Methyl	14.2	LCS	P	0 - 30
LFB	Pendimethalin	15.7	LCS	P	0 - 30
LFB	Phorate	14.1	LCS	P	0 - 30
LFB	Prodiamine	25.7	LCS	P	0 - 30
LFB	Prometon	17.6	LCS	P	0 - 30
LFB	Prometryn	7.57	LCS	P	0 - 30
LFB	Simazine	8.13	LCS	P	0 - 30
LFB	Tebuconazole	48.4	LCS	F	0 - 30
LFB	Terbufos	6.27	LCS	P	0 - 30
LFB	Terbuthylazine	17.6	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P353657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2036303	Chlordane	9.37	Spike	P	0 - 30
2036303	Toxaphene	2.66	Spike	P	0 - 30
LFB	Chlordane	4.10	LCS	P	0 - 30
LFB	Toxaphene	8.88	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P353357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034643	3-Hydroxycarbofuran	11.0	Spike	P	0 - 30
2034643	Aldicarb	7.21	Spike	P	0 - 30
2034643	Aldicarb Sulfone	7.86	Spike	P	0 - 30
2034643	Aldicarb Sulfoxide	12.6	Spike	P	0 - 30
2034643	Carbaryl	6.05	Spike	P	0 - 30
2034643	Carbofuran	12.2	Spike	P	0 - 30
2034643	Methiocarb	7.86	Spike	P	0 - 30
2034643	Methomyl	7.09	Spike	P	0 - 30
2034643	Oxamyl	13.0	Spike	P	0 - 30
2034643	Propoxur	2.65	Spike	P	0 - 30
2034644	2,4-D	1.86	Spike	P	0 - 30
2034644	Acetaminophen	5.94	Spike	P	0 - 30
2034644	Bentazon	2.20	Spike	P	0 - 30
2034644	Carbamazepine	1.61	Spike	P	0 - 30
2034644	Diuron	1.21	Spike	P	0 - 30
2034644	Fenuron	1.44	Spike	P	0 - 30
2034644	Fluridone	4.36	Spike	P	0 - 30
2034644	Hydrocodone	2.34	Spike	P	0 - 30
2034644	Ibuprofen	2.18	Spike	P	0 - 30
2034644	Imazapyr	4.09	Spike	P	0 - 30
2034644	Imidacloprid	2.08	Spike	P	0 - 30
2034644	Linuron	6.80	Spike	P	0 - 30
2034644	MCPP	1.16	Spike	P	0 - 30
2034644	Naproxen	8.77	Spike	P	0 - 30
2034644	Primidone	5.51	Spike	P	0 - 30
2034644	Pyraclostrobin	4.05	Spike	P	0 - 30
2034644	Triclopyr	4.57	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P353544

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034746	Acesulfame K	3.97	Spike	P	0 - 30
2034746	AMPA	2.52	Spike	P	0 - 30
2034746	Endothall	5.85	Spike	P	0 - 30
2034746	Glufosinate	1.88	Spike	P	0 - 30
2034746	Glyphosate	3.71	Spike	P	0 - 30
2034746	Sucralose	3.21	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P353524

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034717	Color (true)	1.90	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P353896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2035860	Total Alkalinity	0.234	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P354122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034717	TDS	1.65	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P353901

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2035860	Fluoride	0.979	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P353943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034527	Organic Carbon	0.917	Spike	P	0 - 20

* 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: 2034745
Field Sample ID: G3SE0007

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	54.7	P	30 - 160

Lab Sample ID: 2034746
Field Sample ID: G3SE0007

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	132	P	30 - 160
EPA 8321B	Acetaminophen-d4	118	P	30 - 160
EPA 8321B	Carbamazepine-d10	74.8	P	30 - 160
EPA 8321B	Diuron-d6	70.1	P	30 - 160
EPA 8321B	Endothall-d6	95.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	91.4	P	40 - 160
EPA 8321B	Ibuprofen-d3	96.7	P	30 - 160
EPA 8321B	Primidone-d5	119	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	40 - 160

Lab Sample ID: 2034747
Field Sample ID: G3SE0007

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	56.6	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	42.3	P	34 - 101
EPA 8276	Decachlorobiphenyl	48.2	P	31 - 108
EPA 8276	PCNB	85.2	P	62 - 142

Lab Sample ID: 2034748
Field Sample ID: G3SE0007

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	108	P	71 - 126
EPA 8270D	Terbufos-d10	122	P	59 - 149

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A87230

Included Lab Sample IDs: 2034717, 2034720, 2034723, 2034724, 2034729

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A87237

Included Lab Sample IDs: 2034719, 2034722, 2034727, 2034728, 2034731

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A87245

Included Lab Sample IDs: 2034717, 2034720, 2034723, 2034724, 2034729

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A87276

Included Lab Sample IDs: 2034718, 2034721, 2034725, 2034726, 2034730

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	102	P/P	90 - 110
Total-P	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A87323

Included Lab Sample IDs: 2034718, 2034721, 2034725, 2034726, 2034730

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

Reference Method: EPA 8321B

Run ID: A87330

Included Lab Sample IDs: 2034746

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	81.1	72.1	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A87359

Included Lab Sample IDs: 2034746

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	79.3	69.7	P/P	60 - 160
Endothall	70.3	91.4	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A87365

Included Lab Sample IDs: 2034749, 2034750, 2034751, 2034752, 2034753

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	95 - 105
Iron	101	103	P/P	95 - 105
Magnesium	99.9	101	P/P	95 - 105
Potassium	97.2	95.5	P/P	95 - 105
Sodium	97.5	97.2	P/P	95 - 105
Zinc	99.5	97.2	P/P	95 - 105

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87372

Included Lab Sample IDs: 2034749, 2034750, 2034751, 2034752, 2034753

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	95.1	95.3	P/P	90 - 110
Arsenic	95.2	95.1	P/P	90 - 110
Cadmium	97.8	99.6	P/P	90 - 110
Cadmium	99.6	97.7	P/P	90 - 110
Chromium	96.5	96.7	P/P	90 - 110
Chromium	96.7	97.5	P/P	90 - 110
Copper	95.7	96.4	P/P	90 - 110
Copper	96.4	97.1	P/P	90 - 110
Lead	95.9	95.0	P/P	90 - 110
Lead	96.3	95.9	P/P	90 - 110
Nickel	95.8	95.9	P/P	90 - 110
Nickel	95.9	96.0	P/P	90 - 110
Silver	94.7	94.9	P/P	90 - 110
Silver	94.9	94.2	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A87375

Included Lab Sample IDs: 2034717, 2034720, 2034723, 2034724, 2034729

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	103	P/P	90 - 110
Chloride	103	104	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A87382

Included Lab Sample IDs: 2034717, 2034720, 2034723, 2034724, 2034729

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	101	P/P	90 - 110
Total Alkalinity	99.1	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A87382

Included Lab Sample IDs: 2034717, 2034720, 2034723, 2034724, 2034729

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

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A87382

Included Lab Sample IDs: 2034717, 2034720, 2034723, 2034724, 2034729

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87386

Included Lab Sample IDs: 2034718, 2034721, 2034726

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.6	99.2	P/P	90 - 110
Kjeldahl Nitrogen	99.7	97.6	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A87403

Included Lab Sample IDs: 2034718, 2034721, 2034725, 2034726, 2034730

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	95.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87407

Included Lab Sample IDs: 2034718, 2034721, 2034725, 2034726, 2034730

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

Reference Method: EPA 8321B

Run ID: A87443

Included Lab Sample IDs: 2034746

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	134	136	P/P	50 - 150
Acetaminophen	118	189*	P/F	60 - 160
Bentazon	122	102	P/P	50 - 160
Carbamazepine	123	146	P/P	60 - 160
Diuron	146	145	P/P	60 - 150
Fenuron	115	141	P/P	60 - 150
Fluridone	126	119	P/P	60 - 160
Hydrocodone	132	142	P/P	60 - 150
Ibuprofen	77.7	75.2	P/P	50 - 160
Imazapyr	114	122	P/P	50 - 150
Imidacloprid	121	154	P/P	60 - 160
Linuron	130	138	P/P	60 - 150
MCPP	107	95.6	P/P	50 - 150
Naproxen	124	119	P/P	50 - 160
Primidone	142	148	P/P	60 - 160
Pyraclostrobin	125	125	P/P	60 - 150
Triclopyr	113	101	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87446

Included Lab Sample IDs: 2034725, 2034730

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	96.7	P/P	90 - 110
Kjeldahl Nitrogen	97.2	103	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A87492

Included Lab Sample IDs: 2034747

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	92.7		P	80 - 120
Alpha-BHC	99.4		P	80 - 120
Alpha-Chlordane	93.9		P	80 - 120
Beta-BHC	102		P	80 - 120
Carbophenothion	89.7		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cypermethrin	87.3		P	80 - 120
DDD-p,p'	93.1		P	80 - 120
DDE-p,p'	94.9		P	80 - 120
DDT-p,p'	98.9		P	80 - 120
Delta-BHC	102		P	80 - 120
Dicofol	98.8		P	80 - 120
Dieldrin	94.1		P	80 - 120
Endosulfan I	93.6		P	80 - 120
Endosulfan II	93.4		P	80 - 120
Endosulfan Sulfate	92.8		P	80 - 120
Endrin	92.9		P	80 - 120
Endrin Aldehyde	89.6		P	80 - 120
Endrin Ketone	94.7		P	80 - 120
Gamma-BHC	96.6		P	80 - 120
Gamma-Chlordane	94.6		P	80 - 120
Heptachlor	91.3		P	80 - 120
Heptachlor Epoxide	95.0		P	80 - 120
Methoxychlor	102		P	80 - 120
Mirex	94.1		P	80 - 120
Permethrin	88.2		P	80 - 120
Trifluralin	91.6		P	80 - 120

Reference Method: EPA 8276

Run ID: A87517

Included Lab Sample IDs: 2034747

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	94.8		P	80 - 120
Toxaphene	100		P	80 - 120

Reference Method: EPA 8321B

Run ID: A87533

Included Lab Sample IDs: 2034745

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	103	84.1	P/P	50 - 150
Aldicarb	98.5	75.0	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A87533

Included Lab Sample IDs: 2034745

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldicarb Sulfone	97.9	71.4	P/P	50 - 150
Aldicarb Sulfoxide	104	92.5	P/P	50 - 150
Carbaryl	106	100	P/P	60 - 150
Carbofuran	107	104	P/P	50 - 150
Methiocarb	99.8	93.8	P/P	50 - 150
Methomyl	107	99.4	P/P	50 - 150
Oxamyl	100	87.7	P/P	50 - 150
Propoxur	98.7	95.4	P/P	50 - 150

Reference Method: EPA 8270D

Run ID: A87547

Included Lab Sample IDs: 2034748

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.5		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	96.8		P	80 - 120
Atrazine	102		P	80 - 120
Atrazine Desethyl	95.4		P	80 - 120
Azinphos Methyl	97.6		P	80 - 120
Bromacil	90.5		P	80 - 120
Butylate	101		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	99.7		P	80 - 120
Cyanazine	91.8		P	80 - 120
Demeton	93.5		P	80 - 120
Diazinon	101		P	80 - 120
Dimethenamid	98.7		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	99.4		P	80 - 120
EPTC	99.0		P	80 - 120
Ethion	86.7		P	80 - 120
Ethoprop	94.7		P	80 - 120
Fenamiphos	96.0		P	80 - 120
Fipronil	98.0		P	80 - 120
Fipronil Desulfinyl	99.5		P	80 - 120
Fipronil Sulfide	96.3		P	80 - 120
Fipronil Sulfone	97.4		P	80 - 120
Fonofos	97.4		P	80 - 120
Hexazinone	98.6		P	80 - 120
Malathion	99.7		P	80 - 120
Metalaxyl	101		P	80 - 120
Metribuzin	93.8		P	80 - 120
Mevinphos	100		P	80 - 120
Molinate	91.4		P	80 - 120
Norflurazon	96.6		P	80 - 120
Oxadiazon	101		P	80 - 120
Parathion Ethyl	98.3		P	80 - 120
Parathion Methyl	95.7		P	80 - 120
Pendimethalin	103		P	80 - 120
Phorate	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A87547

Included Lab Sample IDs: 2034748

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prodiamine	101		P	80 - 120
Prometon	99.2		P	80 - 120
Prometryn	98.9		P	80 - 120
Simazine	101		P	80 - 120
Tebuconazole	96.7		P	80 - 120
Terbufos	98.9		P	80 - 120
Terbutylazine	99.0		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87648

Included Lab Sample IDs: 2034751

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	99.7	100	P/P	90 - 110
Lead	95.1	95.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A87652

Included Lab Sample IDs: 2034751

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Zinc	103	103	P/P	95 - 105

Reference Method: EPA 8270D

Run ID: A87707

Included Lab Sample IDs: 2034748

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metolachlor	105		P	80 - 120

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.264	
EPA 200.7 Rev. 4.4	Calcium	103		102				3.71
	Iron	106		105	103			1.48
	Magnesium	108		106	104			1.36
	Potassium	97.1		102	102			0.213
	Sodium	97.1		95.8				0.417
	Zinc	101		99.2	99.4			0.137
	Zinc	103		102	98.1	102		2.82
EPA 200.8 Rev. 5.4	Arsenic	95.9		97.6	98.9			1.25
	Cadmium	101		100	101			1.15
	Chromium	96.2		96.9	97.3			0.357
	Copper	96.0		96.6	97.6			0.975
	Copper	97.9		96.8	101	101		0.0198
	Lead	93.6		95.6	95.9			0.293
	Lead	93.0		94.5	97.0	94.8		2.13
	Nickel	96.0		95.5	95.4			0.0631
	Silver	98.8		99.0	100			1.48
EPA 300.0 Rev. 2.1	Chloride	103		97.8	101		2.21	
	Sulfate	103		97.2	103		2.76	
EPA 350.1 Rev. 2.0	Ammonia-N	102		99.3	102			1.83
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		99.4	100			0.386
	Kjeldahl Nitrogen	98.2		103	102			1.09
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0		100	99.5			0.870
	NO2NO3-N	99.5		99.4	101			1.38
EPA 365.1 Rev. 2.0	Total-P	101		100	103			2.85
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.5		97.0	97.4			0.412
EPA 8270D	Acetochlor	112	128	108	108	12.8		0.0417
	Alachlor	107	119	97.6	103	10.8		5.53
	Aldrin	57.2	59.2	59.9	62.6	3.34		4.57
	Alpha-BHC	105	106	97.5	110	1.14		12.3
	Alpha-Chlordane	91.2	91.5	90.8	88.7	0.358		2.30
	Ametryn	89.0	97.6	108	97.7	9.26		3.53
	Atrazine	117	126			7.81		17.2
	Atrazine Desethyl	94.1	115	113	94.7	19.8		9.77
	Azinphos Methyl	152	154	153	155	1.56		1.50
	Beta-BHC	113	117	111	120	3.34		8.01
	Bromacil	96.6	105	100	92.0	8.45		8.33
	Butylate	73.9	88.7	65.8	81.1	18.2		20.9
	Carbophenothion	87.6	91.9	72.4	88.0	4.79		19.5
	Chlorothalonil	52.8	113	98.0	95.7	72.8		2.36
	Chlorpyrifos Ethyl	98.0	122	93.6	91.9	22.1		1.92
	Chlorpyrifos Methyl	97.2	115	92.6	90.8	17.0		2.00
	Cyanazine	108	132	136	75.0	19.7		57.6
	Cypermethrin	81.8	84.1	74.1	80.2	2.67		7.86
	DDD-p,p'	88.9	95.5	76.0	95.3	7.23		22.6
	DDE-p,p'	91.3	94.2	92.2	92.4	3.20		0.278
	DDT-p,p'	103	104	95.4	102	0.861		7.11
	Delta-BHC	119	125	145	154	4.65		6.02
	Demeton	83.6	96.5	85.9	94.8	14.4		9.86
	Diazinon	128	134	119	121	5.09		1.03
	Dicofol	99.3	100	99.4	98.3	1.09		1.12
	Dieldrin	93.8	97.7	114	111	4.06		2.70
	Dimethenamid	92.2	124	87.8	69.4	29.7		23.4
	Disulfoton	91.9	102	92.6	101	10.8		8.69

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270D	Dithiopyr	114	128	106	104	11.4		1.49
	Endosulfan I	94.1	93.0	95.7	90.2	1.17		5.90
	Endosulfan II	100	101	89.8	94.1	0.464		4.67
	Endosulfan Sulfate	86.4	83.0	89.9	88.4	3.97		1.71
	Endrin	94.5	101	97.3	95.7	6.57		1.65
	Endrin Aldehyde	95.1	96.2	77.4	88.8	1.10		13.7
	Endrin Ketone	85.2	87.5	89.8	95.9	2.65		6.63
	EPTC	68.1	85.3	61.8	66.8	22.4		7.75
	Ethion	56.8	94.0	31.7	13.7	49.3		79.5
	Ethoprop	85.9	95.8	99.7	107	11.0		7.03
	Fenamiphos	88.0	103	88.4	84.9	15.2		3.96
	Fipronil	103	116	97.4	83.6	11.5		13.9
	Fipronil Sulfide	85.0	100	81.5	64.8	16.6		17.3
	Fipronil Sulfone	77.7	88.7	73.4	53.2	13.1		19.4
	Fonofos	104	115	99.4	103	9.56		3.75
	Gamma-BHC	123	109	135	134	11.8		0.308
	Gamma-Chlordane	89.5	90.6	89.6	87.6	1.21		2.24
	Heptachlor	78.0	77.8	72.0	75.4	0.268		4.72
	Heptachlor Epoxide	93.1	93.1	95.2	92.4	0.0373		2.94
	Hexazinone	101	115	109	84.0	13.1		17.7
	Malathion	99.0	117	98.4	95.6	16.7		2.91
	Metalaxyl	107	119	101	101	10.3		0.183
	Methoxychlor	114	111	101	109	2.10		7.42
	Metolachlor	105	119	103	100	12.6		1.84
	Metribuzin	184	197	173	165	7.11		2.75
	Mevinphos	102	109	95.0	102	7.49		6.83
	Mirex	70.0	73.4	68.0	73.6	4.73		8.04
	Molinate	63.4	72.7	63.6	64.3	13.7		1.03
	Norflurazon	107	121	101	81.4	11.6		21.8
	Oxadiazon	110	126	101	90.2	13.5		5.46
	Parathion Ethyl	89.0	97.5	90.9	90.4	9.11		0.554
	Parathion Methyl	105	121	99.1	99.8	14.2		0.687
	Pendimethalin	102	119	103	102	15.7		0.476
	Permethrin	74.7	77.9	74.7	79.6	4.20		6.34
	Phorate	97.0	112	105	111	14.1		5.37
	Prodiamine	91.2	118	92.2	70.7	25.7		26.4
	Prometon	90.3	108	95.3	84.2	17.6		12.3
	Prometryn	105	113	104	103	7.57		1.03
	Simazine	108	117	102	94.7	8.13		6.26
	Tebuconazole	30.2	49.4	38.8	18.9	48.4		51.6
	Terbufos	117	124	113	121	6.27		7.28
	Terbuthylazine	89.3	107	111	109	17.6		1.29
	Trifluralin	90.7	97.2	89.4	101	6.94		12.1
EPA 8276	Chlordane	85.6	82.2	89.9	81.9	4.10		9.37
	Toxaphene	77.7	71.1	76.4	74.4	8.88		2.66
EPA 8321B	2,4-D	109		124	127			1.86
	3-Hydroxycarbofuran	72.2		51.9	57.9			11.0
	Acesulfame K	84.0		104	99.7			3.97
	Acetaminophen	121		127	134			5.94
	Aldicarb	93.9		46.2	42.9			7.21
	Aldicarb Sulfone	72.6		62.3	67.4			7.86
	Aldicarb Sulfoxide	87.7		28.4	32.2			12.6
	AMPA	120		50.2	62.1			2.52
	Bentazon	100		38.5	37.6			2.20

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8321B	Carbamazepine	81.7	69.7	68.6		
	Carbaryl	59.2	49.6	46.7		
	Carbofuran	69.3	40.5	45.7		
	Diuron	86.2	65.2	64.3		
	Endothall	81.0	101	107		
	Fenuron	117	97.5	98.9		
	Fluridone	102	99.4	105		
	Glufosinate	82.6	81.7	83.3		
	Glyphosate	71.3	53.9	65.2		
	Hydrocodone	116	106	109		
	Ibuprofen	44.1	37.7	38.5		
	Imazapyr	99.9	102	123		
	Imidacloprid	109	178	174		
	Linuron	80.4	68.2	73.0		
	MCPP	121	138	139		
	Methiocarb	59.7	40.6	43.9		
	Methomyl	95.7	70.6	75.8		
	Naproxen	113	99.2	90.9		
	Oxamyl	104	65.1	74.1		
	Primidone	131	106	112		
	Propoxur	66.9	41.4	42.5		
	Pyraclostrobin	76.4	84.5	88.0		
	Sucralose	83.5	81.8	78.5		
	Triclopyr	116	128	134		
SM 2120 B	Color (true)	99.1				1.90
SM 2320 B-97	Total Alkalinity	103				0.234
SM 2540 C-97	TDS					1.65
SM 4500 F-C-97	Fluoride	98.1	98.3	99.6		0.979
SM 5310 B-00	Organic Carbon	93.0	99.7			0.917

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2034717, 2034720, 2034723, 2034724, 2034729
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2034749, 2034750, 2034751, 2034752, 2034753
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2034749, 2034750, 2034751, 2034752, 2034753
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2034717, 2034720, 2034723, 2034724, 2034729
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2034717, 2034720, 2034723, 2034724, 2034729
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2034718, 2034721, 2034725, 2034726, 2034730
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2034718, 2034721, 2034725, 2034726, 2034730
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2034718, 2034721, 2034725, 2034726, 2034730
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2034718, 2034721, 2034725, 2034726, 2034730
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2034719, 2034722, 2034727, 2034728, 2034731
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2034747
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2034748

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2034747
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2034745
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2034746
SM 2120 B / E31780	True Color measured at 450 nm	2034717, 2034720, 2034723, 2034724, 2034729
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2034717, 2034720, 2034723, 2034724, 2034729
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2034717, 2034720, 2034723, 2034724, 2034729
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2034717, 2034720, 2034723, 2034724, 2034729
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2034717, 2034720, 2034723, 2034724, 2034729
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2034718, 2034721, 2034725, 2034726, 2034730

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	10/23/2018			10/23/2018 15:47	Megan Treadwell	2034717, 2034720, 2034723, 2034724, 2034729
EPA 200.7 Rev. 4.4	10/23/2018	10/24/2018 15:15	Elliott D. Healy	10/29/2018 13:54	Betina Topolski	2034749
	10/23/2018	10/24/2018 15:15	Elliott D. Healy	10/29/2018 14:01	Betina Topolski	2034750
	10/23/2018	10/24/2018 15:15	Elliott D. Healy	10/29/2018 14:08	Betina Topolski	2034751
	10/23/2018	10/24/2018 15:15	Elliott D. Healy	10/29/2018 14:16	Betina Topolski	2034752
	10/23/2018	10/24/2018 15:15	Elliott D. Healy	10/29/2018 14:23	Betina Topolski	2034753
EPA 200.8 Rev. 5.4	10/23/2018	11/06/2018 14:45	Elliott D. Healy	11/08/2018 15:40	Betina Topolski	2034751
	10/23/2018	10/24/2018 15:15	Elliott D. Healy	10/29/2018 19:28	Robert K Palmer	2034749
	10/23/2018	10/24/2018 15:15	Elliott D. Healy	10/29/2018 19:38	Robert K Palmer	2034750
	10/23/2018	10/24/2018 15:15	Elliott D. Healy	10/29/2018 19:47	Robert K Palmer	2034751
	10/23/2018	10/24/2018 15:15	Elliott D. Healy	10/29/2018 19:57	Robert K Palmer	2034752
EPA 300.0 Rev. 2.1	10/23/2018	10/24/2018 15:15	Elliott D. Healy	10/29/2018 20:26	Robert K Palmer	2034753
	10/23/2018	11/06/2018 14:45	Elliott D. Healy	11/08/2018 17:32	Robert K Palmer	2034751
	10/23/2018			10/27/2018 10:10	Lipi Saha	2034717
	10/23/2018			10/27/2018 10:22	Lipi Saha	2034720
	10/23/2018			10/27/2018 10:34	Lipi Saha	2034723
EPA 350.1 Rev. 2.0	10/23/2018			10/27/2018 11:10	Lipi Saha	2034724
	10/23/2018			10/27/2018 11:22	Lipi Saha	2034729
	10/23/2018			10/30/2018 11:59	Ping Hua	2034718
	10/23/2018			10/30/2018 12:01	Ping Hua	2034721
	10/23/2018			10/30/2018 12:02	Ping Hua	2034725
EPA 351.2 Rev. 2.0	10/23/2018			10/30/2018 12:04	Ping Hua	2034730
	10/23/2018			10/30/2018 12:05	Ping Hua	2034726
	10/23/2018	10/26/2018 12:00	Adrian Shelby	10/30/2018 10:27	Virginia P. Brown	2034718
	10/23/2018	10/26/2018 12:00	Adrian Shelby	10/30/2018 10:28	Virginia P. Brown	2034721
	10/23/2018	10/26/2018 12:00	Adrian Shelby	10/30/2018 10:34	Virginia P. Brown	2034726
EPA 353.2 Rev. 2.0	10/23/2018	10/31/2018 12:15	Adrian Shelby	11/01/2018 10:28	Virginia P. Brown	2034725
	10/23/2018	10/31/2018 12:15	Adrian Shelby	11/01/2018 10:35	Virginia P. Brown	2034730
	10/23/2018			10/26/2018 12:59	Lauren Bottorf	2034725
	10/23/2018			10/26/2018 13:00	Lauren Bottorf	2034730
	10/23/2018			10/26/2018 13:07	Lauren Bottorf	2034718
EPA 365.1 Rev. 2.0	10/23/2018			10/26/2018 13:09	Lauren Bottorf	2034721
	10/23/2018			10/26/2018 13:16	Lauren Bottorf	2034726
	10/23/2018	10/24/2018 13:05	Sima Feizi	10/25/2018 08:35	Beverly Y. Sanders	2034718
	10/23/2018	10/24/2018 13:05	Sima Feizi	10/25/2018 08:38	Beverly Y. Sanders	2034721
	10/23/2018	10/24/2018 13:05	Sima Feizi	10/25/2018 08:39	Beverly Y. Sanders	2034725
EPA 365.1 Rev. 2.0 dissolved	10/23/2018	10/24/2018 13:05	Sima Feizi	10/25/2018 08:41	Beverly Y. Sanders	2034726
	10/23/2018	10/24/2018 13:05	Sima Feizi	10/25/2018 08:42	Beverly Y. Sanders	2034730
	10/23/2018			10/23/2018 16:21	Julia Storbeck	2034727

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	10/23/2018			10/23/2018 16:22	Julia Storbeck	2034731
	10/23/2018			10/23/2018 16:33	Julia Storbeck	2034722
	10/23/2018			10/23/2018 16:34	Julia Storbeck	2034728
	10/23/2018			10/23/2018 16:35	Julia Storbeck	2034719
EPA 8270D	10/23/2018	10/29/2018 08:30	Fe-Val Siddell	11/01/2018 23:25	Arthur Maknenko	2034747
	10/23/2018	10/29/2018 08:52	Dinesh Mishra	11/01/2018 16:55	Vandana T. Nagar	2034748
	10/23/2018	10/29/2018 08:52	Dinesh Mishra	11/02/2018 13:55	Vandana T. Nagar	2034748
EPA 8276	10/23/2018	10/29/2018 08:30	Fe-Val Siddell	11/03/2018 12:13	Dinesh Mishra	2034747
EPA 8321B	10/23/2018	10/24/2018 10:00	Hoor Shaik	10/26/2018 07:45	Juyoung Kim	2034746
	10/23/2018	10/24/2018 10:00	Hoor Shaik	10/26/2018 21:05	Juyoung Kim	2034746
	10/23/2018	10/24/2018 10:00	Hoor Shaik	11/01/2018 23:37	Juyoung Kim	2034745
	10/23/2018	10/25/2018 13:00	Rebecca Ware	10/25/2018 14:54	Rebecca Ware	2034746
	10/23/2018	10/25/2018 13:00	Rebecca Ware	10/26/2018 20:02	Rebecca Ware	2034746
SM 2120 B	10/23/2018	10/25/2018 13:00	Rebecca Ware	10/27/2018 13:50	Mohammad Ghaffari	2034746
	10/23/2018			10/23/2018 15:00	Chelsea Hernandez	2034717
	10/23/2018			10/23/2018 15:01	Chelsea Hernandez	2034720
	10/23/2018			10/23/2018 15:02	Chelsea Hernandez	2034723
	10/23/2018			10/23/2018 15:03	Chelsea Hernandez	2034724, 2034729
SM 2320 B-97	10/23/2018			10/28/2018 20:56	Dale L. Simmons	2034717
	10/23/2018			10/28/2018 21:06	Dale L. Simmons	2034720
	10/23/2018			10/28/2018 21:16	Dale L. Simmons	2034723
	10/23/2018			10/28/2018 21:56	Dale L. Simmons	2034724
	10/23/2018			10/28/2018 22:07	Dale L. Simmons	2034729
SM 2540 C-97	10/23/2018			10/25/2018 15:41	Yijie Li	2034717, 2034720, 2034723, 2034724, 2034729
SM 2540 D-97	10/23/2018			10/25/2018 15:41	Yijie Li	2034717, 2034720, 2034723, 2034724, 2034729
SM 4500 F-C-97	10/23/2018			10/28/2018 20:56	Dale L. Simmons	2034717
	10/23/2018			10/28/2018 21:06	Dale L. Simmons	2034720
	10/23/2018			10/28/2018 21:16	Dale L. Simmons	2034723
	10/23/2018			10/28/2018 21:56	Dale L. Simmons	2034724
	10/23/2018			10/28/2018 22:07	Dale L. Simmons	2034729
SM 5310 B-00	10/23/2018			10/30/2018 12:44	Megan Treadwell	2034718
	10/23/2018			10/30/2018 12:58	Megan Treadwell	2034721
	10/23/2018			10/30/2018 13:11	Megan Treadwell	2034725
	10/23/2018			10/30/2018 13:25	Megan Treadwell	2034726
	10/23/2018			10/30/2018 13:39	Megan Treadwell	2034730