

Chemical Analysis Report

SW-DIST-2018-01-31-02

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

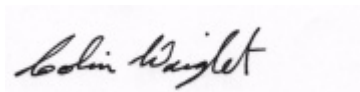
Event Description: **Alafia, Delany, Thirtymile**
Request ID: **RQ-2018-01-29-32**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
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Temple Terrace, FL 33637-0926
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Certified by: Colin Wright, Program Administrator

Date Certified: 23-FEB-2018 11:43

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

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: Thirty Mile Creek @ Train Tracks Mosaic

Collection Date/Time: 01/30/2018 09:23

Field ID: G2SW0047

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963152	EPA 8321B	2,4-D	0.0020	U	ug/L	P339013	
		Sucralose**	0.14		ug/L	P339293	
		Bentazon	8.0E-04	U	ug/L	P339013	MS
		MCP	0.0020	U	ug/L	P339013	MS
		Triclopyr**	0.0040	U	ug/L	P339013	
		Imidacloprid	0.0020	U	ug/L	P339013	
		Diuron	0.0020	U	ug/L	P339013	
		Primidone**	0.0040	U	ug/L	P339013	
		Linuron	0.0040	U	ug/L	P339013	
		Acetaminophen**	0.0080	U	ug/L	P339013	
		Fenuron	0.0080	U	ug/L	P339013	
		Carbamazepine**	4.0E-04	U	ug/L	P339013	
		Fluridone**	4.0E-04	U	ug/L	P339013	

Sample Location: Thirty Mile Creek @ Nichols Road

Collection Date/Time: 01/30/2018 09:45

Field ID: G2SW0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963153	EPA 8321B	2,4-D	0.0020	U	ug/L	P339013	
		Sucralose**	0.076		ug/L	P339293	
		Bentazon	8.0E-04	U	ug/L	P339013	MS
		MCP	0.0020	U	ug/L	P339013	MS
		Triclopyr**	0.0040	U	ug/L	P339013	
		Imidacloprid	0.0020	U	ug/L	P339013	
		Diuron	0.0020	U	ug/L	P339013	
		Primidone**	0.0040	U	ug/L	P339013	
		Linuron	0.0040	U	ug/L	P339013	
		Acetaminophen**	0.0080	U	ug/L	P339013	
		Fenuron	0.0080	U	ug/L	P339013	
		Carbamazepine**	4.0E-04	U	ug/L	P339013	
		Fluridone**	4.0E-04	U	ug/L	P339013	

Sample Location: Alafia R. @ Center Ave

Collection Date/Time: 01/30/2018 10:50

Field ID: G2SW0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963117	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P339091	
	EPA 300.0 Rev. 2.1	Chloride	23		mg Cl/L	P339227	
		Sulfate	52		mg SO4/L	P339230	
	SM 2120 B	Color (true)	110		PCU	P339095	
	SM 2320 B-97	Total Alkalinity	62		mg CaCO3/L	P339475	
	SM 2540 C-97	TDS	260	A	mg/L	P339571	
	SM 2540 D-97	TSS	9	IA	mg/L	P339623	
	SM 4500 F-C-97	Fluoride	0.67		mg F/L	P339478	RPD

Field ID: G2SW0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963118	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P339291	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P339103	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.67		mg N/L	P339147	
	EPA 365.1 Rev. 2.0	Total-P	0.96		mg P/L	P339153	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P339266	
1963119	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.61		mg P/L	P339115	
1963166	EPA 200.7 Rev. 4.4	Calcium	32.2		mg/L	P339189	
		Iron	560		ug/L	P339189	
		Magnesium	11.3		mg/L	P339189	
		Potassium	5.0		mg/L	P339189	
		Sodium	19.5		mg/L	P339189	
		Zinc	5.0	U	ug/L	P339189	
		Arsenic	1.36		ug/L	P339189	
	EPA 200.8 Rev. 5.4	Cadmium	0.095		ug/L	P339189	
		Chromium	1.6	I	ug/L	P339189	
		Copper	2.37		ug/L	P339189	
		Lead	0.75		ug/L	P339189	
		Nickel	1.13		ug/L	P339189	
		Silver	0.010	U	ug/L	P339189	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: Alafia R. @ Center Ave

Collection Date/Time: 01/30/2018 10:50

Field ID: G2SW0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963146	EPA 8321B	Glyphosate**	1.1		ug/L	P339137	
		2,4-D	0.0065	I	ug/L	P339013	
		AMPA**	1.2		ug/L	P339137	
		Sucralose**	0.79		ug/L	P339293	
		Bentazon	0.018		ug/L	P339013	MS
		MCPP	0.0020	U	ug/L	P339013	MS
		Triclopyr**	0.0040	U	ug/L	P339013	
		Imidacloprid	0.046		ug/L	P339013	
		Diuron	0.022		ug/L	P339013	
		Pyraclostrobin**	0.022		ug/L	P339013	
		Primidone**	0.0040	U	ug/L	P339013	
		Linuron	0.0040	U	ug/L	P339013	
		Acetaminophen**	0.0080	U	ug/L	P339013	
		Fenuron	0.0080	U	ug/L	P339013	
		Carbamazepine**	0.0018		ug/L	P339013	
		Fluridone**	0.010		ug/L	P339013	
1963147		Aldicarb	0.020	U	ug/L	P339013	
		Aldicarb Sulfone	0.0020	U	ug/L	P339013	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P339013	

Field ID: G2SW0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963147	EPA 8321B	Carbaryl	0.0020	U	ug/L	P339013	
		Carbofuran	0.0020	U	ug/L	P339013	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P339013	
		Methiocarb	0.0020	U	ug/L	P339013	
		Methomyl	0.0020	U	ug/L	P339013	
		Oxamyl	0.0020	U	ug/L	P339013	
		Propoxur	0.0020	U	ug/L	P339013	
1963154	EPA 8270D	Aldrin	4.1	U	ng/L	P339134	
		Alpha-BHC	2.1	U	ng/L	P339134	
		Beta-BHC	4.1	U	ng/L	P339134	
		Delta-BHC	4.1	U	ng/L	P339134	
		Gamma-BHC	4.1	U	ng/L	P339134	
		Carbophenothion	4.1	U	ng/L	P339134	
		Chlorothalonil	2.1	U	ng/L	P339134	
		Cypermethrin	21	U	ng/L	P339134	
		DDD-p,p'	3.1	U	ng/L	P339134	
		DDE-p,p'	3.1	U	ng/L	P339134	
		DDT-p,p'	3.1	U	ng/L	P339134	
		Dieldrin	4.1	U	ng/L	P339134	
		Endosulfan I	4.1	U	ng/L	P339134	
		Endosulfan II	4.1	U	ng/L	P339134	
		Endosulfan Sulfate	2.1	U	ng/L	P339134	
		Endrin	2.1	U	ng/L	P339134	
		Endrin Aldehyde	2.1	U	ng/L	P339134	
		Heptachlor	1.5	U	ng/L	P339134	
		Heptachlor Epoxide	2.1	U	ng/L	P339134	
		Methoxychlor	4.1	U	ng/L	P339134	
		Mirex	2.1	U	ng/L	P339134	
		Permethrin	10	U	ng/L	P339134	
		Trifluralin	1.0	U	ng/L	P339134	
		Alpha-Chlordane	1.0	U	ng/L	P339134	
		Gamma-Chlordane	1.0	U	ng/L	P339134	
		Endrin Ketone	2.1	U	ng/L	P339134	MS
		Dicofol	31	U	ng/L	P339134	
	EPA 8276	Chlordane**	2.6	U	ng/L	P339134	
		Toxaphene**	13	U	ng/L	P339134	
1963155	EPA 8270D	Alachlor	0.24	U	ng/L	P339294	
		Ametryn	0.31	UJ	ng/L	P339294	LCS, MS
		Atrazine	330		ng/L	P339294	
		Atrazine Desethyl	12		ng/L	P339294	MS, RPD
		Azinphos Methyl	2.1	U	ng/L	P339294	
		Bromacil	30		ng/L	P339294	
		Butylate	0.38	U	ng/L	P339294	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P339294	MS
		Chlorpyrifos Methyl	0.095	U	ng/L	P339294	MS

Field ID: G2SW0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963155	EPA 8270D	Demeton	1.9	U	ng/L	P339294	
		Diazinon	0.28	I	ng/L	P339294	
		Disulfoton	0.48	U	ng/L	P339294	
		EPTC	1.2	UJ	ng/L	P339294	LCS, RPD
		Ethion	0.14	U	ng/L	P339294	
		Ethoprop	0.095	U	ng/L	P339294	
		Fenamiphos	0.24	U	ng/L	P339294	
		Fipronil	0.43	I	ng/L	P339294	
		Fipronil Sulfide	0.19	I	ng/L	P339294	
		Fipronil Sulfone	0.47	I	ng/L	P339294	
		Hexazinone	2.4		ng/L	P339294	
		Malathion	1.5		ng/L	P339294	MS
		Metribuzin	2.0		ng/L	P339294	
		Mevinphos	0.48	U	ng/L	P339294	
		Molinate	0.29	U	ng/L	P339294	
		Norflurazon	8.0		ng/L	P339294	
		Pendimethalin	0.95	U	ng/L	P339294	
		Phorate	0.24	U	ng/L	P339294	
		Prometon	0.86	U	ng/L	P339294	
		Prometryn	0.19	U	ng/L	P339294	
		Simazine	160		ng/L	P339294	
		Terbufos	0.095	U	ng/L	P339294	
		Terbuthylazine	0.40	U	ng/L	P339294	
		Fonofos	0.19	U	ng/L	P339294	
		Metalaxyl	13		ng/L	P339294	
		Metolachlor	530		ng/L	P339294	
		Acetochlor	0.24	U	ng/L	P339294	
		Cyanazine	0.48	U	ng/L	P339294	
		Parathion Ethyl	0.24	U	ng/L	P339294	MS
		Parathion Methyl	0.24	UJ	ng/L	P339294	LCS, MS

Ref. Method and Comment:

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

Sample Location: Delany Creek @ 36th Ave

Collection Date/Time: 01/30/2018 11:40

Field ID: G1SW0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963120	EPA 180.1 Rev. 2.0	Turbidity	7.6		NTU	P339091	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P339227	
		Sulfate	19		mg SO4/L	P339230	
	SM 2120 B	Color (true)	69		PCU	P339095	
	SM 2320 B-97	Total Alkalinity	81		mg CaCO3/L	P339475	
	SM 2540 C-97	TDS	190		mg/L	P339571	
	SM 2540 D-97	TSS	7	I	mg/L	P339623	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P339478	RPD

Field ID: G1SW0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963122	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P339291	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P339103	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.074		mg N/L	P339147	
	EPA 365.1 Rev. 2.0	Total-P	0.24		mg P/L	P339153	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P339266	
1963124	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P339117	
1963167	EPA 200.7 Rev. 4.4	Calcium	40.4		mg/L	P339189	
		Iron	410		ug/L	P339189	
		Magnesium	3.69		mg/L	P339189	
		Potassium	3.7		mg/L	P339189	
		Sodium	16.4		mg/L	P339189	
		Zinc	5.4	I	ug/L	P339189	
	EPA 200.8 Rev. 5.4	Arsenic	1.55		ug/L	P339189	
		Cadmium	0.020	U	ug/L	P339189	
		Chromium	1.0	I	ug/L	P339189	
		Copper	1.28		ug/L	P339189	
		Lead	0.81		ug/L	P339189	
		Nickel	0.71	I	ug/L	P339189	
		Silver	0.010	U	ug/L	P339189	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Delany Creek @ 36th Ave

Collection Date/Time: 01/30/2018 11:40

Field ID: G1SW0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963148	EPA 8321B	Glyphosate**	2.0		ug/L	P339137	
		2,4-D	0.034		ug/L	P339013	
		AMPA**	1.1		ug/L	P339137	
		Sucralose**	0.35		ug/L	P339293	
		Bentazon	0.040		ug/L	P339013	MS
		MCP	0.0020	U	ug/L	P339013	MS
		Triclopyr**	0.0040	U	ug/L	P339013	
		Imidacloprid	0.051		ug/L	P339013	
		Diuron	0.0041	I	ug/L	P339013	
		Pyraclostrobin**	0.0020	U	ug/L	P339013	
		Primidone**	0.0040	U	ug/L	P339013	
		Linuron	0.0040	U	ug/L	P339013	
		Acetaminophen**	0.0080	U	ug/L	P339013	
		Fenuron	0.0080	U	ug/L	P339013	
		Carbamazepine**	4.7E-04	I	ug/L	P339013	
		Fluridone**	0.023		ug/L	P339013	
1963150		Aldicarb	0.020	U	ug/L	P339013	

Field ID: G1SW0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963150	EPA 8321B	Aldicarb Sulfone	0.0020	U	ug/L	P339013	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P339013	
		Carbaryl	0.0020	U	ug/L	P339013	
		Carbofuran	0.0020	U	ug/L	P339013	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P339013	
		Methiocarb	0.0020	U	ug/L	P339013	
		Methomyl	0.0020	U	ug/L	P339013	
		Oxamyl	0.0020	U	ug/L	P339013	
		Propoxur	0.0020	U	ug/L	P339013	
1963156	EPA 8270D	Aldrin	4.2	U	ng/L	P339134	
		Alpha-BHC	2.1	U	ng/L	P339134	
		Beta-BHC	4.2	U	ng/L	P339134	
		Delta-BHC	4.2	U	ng/L	P339134	
		Gamma-BHC	4.2	U	ng/L	P339134	
		Carbophenothion	4.2	U	ng/L	P339134	
		Chlorothalonil	2.1	U	ng/L	P339134	
		Cypermethrin	21	U	ng/L	P339134	
		DDD-p,p'	3.1	U	ng/L	P339134	
		DDE-p,p'	3.1	U	ng/L	P339134	
		DDT-p,p'	3.1	U	ng/L	P339134	
		Dieldrin	4.2	U	ng/L	P339134	
		Endosulfan I	4.2	U	ng/L	P339134	
		Endosulfan II	4.2	U	ng/L	P339134	
		Endosulfan Sulfate	2.1	U	ng/L	P339134	
		Endrin	2.1	U	ng/L	P339134	
		Endrin Aldehyde	2.1	U	ng/L	P339134	
		Heptachlor	1.6	U	ng/L	P339134	
		Heptachlor Epoxide	2.1	U	ng/L	P339134	
		Methoxychlor	4.2	U	ng/L	P339134	
		Mirex	2.1	U	ng/L	P339134	
		Permethrin	10	U	ng/L	P339134	
		Trifluralin	1.0	U	ng/L	P339134	
		Alpha-Chlordane	1.0	U	ng/L	P339134	
		Gamma-Chlordane	1.0	U	ng/L	P339134	
		Endrin Ketone	2.1	U	ng/L	P339134	MS
		Dicofol	31	U	ng/L	P339134	
	EPA 8276	Chlordane**	2.6	U	ng/L	P339134	
		Toxaphene**	13	U	ng/L	P339134	
1963158	EPA 8270D	Alachlor	0.24	U	ng/L	P339294	
		Ametryn	0.31	UJ	ng/L	P339294	LCS, MS
		Atrazine	270		ng/L	P339294	
		Atrazine Desethyl	17		ng/L	P339294	MS, RPD
		Azinphos Methyl	2.2	U	ng/L	P339294	
		Bromacil	0.48	U	ng/L	P339294	
		Butylate	0.38	U	ng/L	P339294	

Field ID: G1SW0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963158	EPA 8270D	Chlorpyrifos Ethyl	0.24	U	ng/L	P339294	MS
		Chlorpyrifos Methyl	0.096	U	ng/L	P339294	MS
		Demeton	1.9	U	ng/L	P339294	
		Diazinon	0.12	U	ng/L	P339294	
		Disulfoton	0.48	U	ng/L	P339294	
		EPTC	1.2	UJ	ng/L	P339294	LCS, RPD
		Ethion	0.14	U	ng/L	P339294	
		Ethoprop	0.096	U	ng/L	P339294	
		Fenamiphos	0.24	U	ng/L	P339294	
		Fipronil	0.62	I	ng/L	P339294	
		Fipronil Sulfide	0.75		ng/L	P339294	
		Fipronil Sulfone	1.4		ng/L	P339294	
		Hexazinone	8.9		ng/L	P339294	
		Malathion	0.35	I	ng/L	P339294	MS
		Metribuzin	0.50	I	ng/L	P339294	
		Mevinphos	0.48	U	ng/L	P339294	
		Molinate	0.29	U	ng/L	P339294	
		Norflurazon	0.48	U	ng/L	P339294	
		Pendimethalin	0.96	U	ng/L	P339294	
		Phorate	0.24	U	ng/L	P339294	
		Prometon	0.87	U	ng/L	P339294	
		Prometryn	0.19	U	ng/L	P339294	
		Simazine	0.48	U	ng/L	P339294	
		Terbufos	0.096	U	ng/L	P339294	
		Terbuthylazine	0.41	U	ng/L	P339294	
		Fonofos	0.19	U	ng/L	P339294	
		Metalaxyl	0.87	I	ng/L	P339294	
		Metolachlor	1.0		ng/L	P339294	
		Acetochlor	0.24	U	ng/L	P339294	
		Cyanazine	0.48	U	ng/L	P339294	
		Parathion Ethyl	0.24	U	ng/L	P339294	MS
		Parathion Methyl	0.24	UJ	ng/L	P339294	LCS, MS

Ref. Method and Comment:

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

Sample Location: Delany Creek @ Maydell Dr

Collection Date/Time: 01/30/2018 12:15

Field ID: G1SW0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963121	EPA 180.1 Rev. 2.0	Turbidity	8.1		NTU	P339091	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P339227	
		Sulfate	18		mg SO4/L	P339230	
	SM 2120 B	Color (true)	67		PCU	P339095	
	SM 2320 B-97	Total Alkalinity	78		mg CaCO3/L	P339475	
	SM 2540 C-97	TDS	175		mg/L	P339571	

Field ID: G1SW0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963121	SM 2540 D-97	TSS	9	I	mg/L	P339623	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P339478	RPD
1963123	EPA 350.1 Rev. 2.0	Ammonia-N	0.023		mg N/L	P339291	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P339104	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.064		mg N/L	P339147	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P339153	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P339266	
1963125	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P339115	
1963168	EPA 200.7 Rev. 4.4	Calcium	38.0		mg/L	P339189	
		Iron	420		ug/L	P339189	
		Magnesium	3.34		mg/L	P339189	
		Potassium	3.7		mg/L	P339189	
		Sodium	13.9		mg/L	P339189	
		Zinc	5.9	I	ug/L	P339189	
	EPA 200.8 Rev. 5.4	Arsenic	1.55		ug/L	P339189	
		Cadmium	0.030	I	ug/L	P339189	
		Chromium	1.9		ug/L	P339189	
		Copper	1.41		ug/L	P339189	
		Lead	0.93		ug/L	P339189	
		Nickel	0.72	I	ug/L	P339189	
		Silver	0.010	U	ug/L	P339189	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: Delany Creek @ Maydell Dr

Collection Date/Time: 01/30/2018 12:15

Field ID: G1SW0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963149	EPA 8321B	Glyphosate**	1.9		ug/L	P339137	
		2,4-D	0.031		ug/L	P339013	
		AMPA**	1.2		ug/L	P339137	
		Sucralose**	0.35		ug/L	P339293	
		Bentazon	0.045		ug/L	P339013	MS
		MCP	0.0020	U	ug/L	P339013	MS
		Triclopyr**	0.0040	U	ug/L	P339013	
		Imidacloprid	0.053		ug/L	P339013	
		Diuron	0.0039	I	ug/L	P339013	
		Pyraclostrobin**	0.0020	U	ug/L	P339013	
		Primidone**	0.0040	U	ug/L	P339013	
		Linuron	0.0040	U	ug/L	P339013	
		Acetaminophen**	0.0080	U	ug/L	P339013	
		Fenuron	0.0080	U	ug/L	P339013	
		Carbamazepine**	4.0E-04	U	ug/L	P339013	
		Fluridone**	0.024		ug/L	P339013	
1963151		Aldicarb	0.020	U	ug/L	P339013	

Field ID: G1SW0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963151	EPA 8321B	Aldicarb Sulfone	0.0020	U	ug/L	P339013	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P339013	
		Carbaryl	0.0031	I	ug/L	P339013	
		Carbofuran	0.0020	U	ug/L	P339013	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P339013	
		Methiocarb	0.0020	U	ug/L	P339013	
		Methomyl	0.0020	U	ug/L	P339013	
		Oxamyl	0.0020	U	ug/L	P339013	
		Propoxur	0.0020	U	ug/L	P339013	
1963157	EPA 8270D	Aldrin	4.3	U	ng/L	P339134	
		Alpha-BHC	2.2	U	ng/L	P339134	
		Beta-BHC	4.3	U	ng/L	P339134	
		Delta-BHC	4.3	U	ng/L	P339134	
		Gamma-BHC	4.3	U	ng/L	P339134	
		Carbophenothion	4.3	U	ng/L	P339134	
		Chlorothalonil	2.2	U	ng/L	P339134	
		Cypermethrin	22	U	ng/L	P339134	
		DDD-p,p'	3.2	U	ng/L	P339134	
		DDE-p,p'	3.2	U	ng/L	P339134	
		DDT-p,p'	3.2	U	ng/L	P339134	
		Dieldrin	4.3	U	ng/L	P339134	
		Endosulfan I	4.3	U	ng/L	P339134	
		Endosulfan II	4.3	U	ng/L	P339134	
		Endosulfan Sulfate	2.2	U	ng/L	P339134	
		Endrin	2.2	U	ng/L	P339134	
		Endrin Aldehyde	2.2	U	ng/L	P339134	
		Heptachlor	1.6	U	ng/L	P339134	
		Heptachlor Epoxide	2.2	U	ng/L	P339134	
		Methoxychlor	4.3	U	ng/L	P339134	
		Mirex	2.2	U	ng/L	P339134	
		Permethrin	11	U	ng/L	P339134	
		Trifluralin	1.1	U	ng/L	P339134	
		Alpha-Chlordane	1.1	U	ng/L	P339134	
		Gamma-Chlordane	1.1	U	ng/L	P339134	
		Endrin Ketone	2.2	U	ng/L	P339134	MS
		Dicofol	32	U	ng/L	P339134	
	EPA 8276	Chlordane**	2.7	U	ng/L	P339134	
		Toxaphene**	13	U	ng/L	P339134	
1963159	EPA 8270D	Alachlor	0.24	U	ng/L	P339294	
		Ametryn	0.31	UJ	ng/L	P339294	LCS, MS
		Atrazine	270		ng/L	P339294	
		Atrazine Desethyl	16		ng/L	P339294	MS, RPD
		Azinphos Methyl	2.2	U	ng/L	P339294	
		Bromacil	0.48	U	ng/L	P339294	
		Butylate	0.38	U	ng/L	P339294	

Field ID: G1SW0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1963159	EPA 8270D	Chlorpyrifos Ethyl	0.24	U	ng/L	P339294	MS
		Chlorpyrifos Methyl	0.096	U	ng/L	P339294	MS
		Demeton	1.9	U	ng/L	P339294	
		Diazinon	0.12	U	ng/L	P339294	
		Disulfoton	0.48	U	ng/L	P339294	
		EPTC	1.2	UJ	ng/L	P339294	LCS, RPD
		Ethion	0.14	U	ng/L	P339294	
		Ethoprop	0.096	U	ng/L	P339294	
		Fenamiphos	0.24	U	ng/L	P339294	
		Fipronil	0.58	I	ng/L	P339294	
		Fipronil Sulfide	0.68		ng/L	P339294	
		Fipronil Sulfone	1.4		ng/L	P339294	
		Hexazinone	4.8		ng/L	P339294	
		Malathion	0.34	U	ng/L	P339294	MS
		Metribuzin	0.43	I	ng/L	P339294	
		Mevinphos	0.48	U	ng/L	P339294	
		Molinate	0.29	U	ng/L	P339294	
		Norflurazon	0.48	U	ng/L	P339294	
		Pendimethalin	0.96	U	ng/L	P339294	
		Phorate	0.24	U	ng/L	P339294	
		Prometon	0.86	U	ng/L	P339294	
		Prometryn	0.19	U	ng/L	P339294	
		Simazine	4.2		ng/L	P339294	
		Terbufos	0.096	U	ng/L	P339294	
		Terbuthylazine	0.41	U	ng/L	P339294	
		Fonofos	0.19	U	ng/L	P339294	
		Metalaxyl	0.87	I	ng/L	P339294	
		Metolachlor	1.1		ng/L	P339294	
		Acetochlor	0.24	U	ng/L	P339294	
		Cyanazine	0.48	U	ng/L	P339294	
		Parathion Ethyl	0.24	U	ng/L	P339294	MS
		Parathion Methyl	0.24	UJ	ng/L	P339294	LCS, MS

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P339091

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P339189

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 200.8 Rev. 5.4
Batch ID: P339189

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 300.0 Rev. 2.1
Batch ID: P339227

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339230

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P339291

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339103

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339104

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: P339147

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P339153

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339115

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339117

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

Reference Method: EPA 8270D
Batch ID: P339134

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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P339294

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
Disulfoton	0.50	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 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
Metaxyl	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
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
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P339134

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	12	U	ng/L

Reference Method: EPA 8321B
Batch ID: P339013

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P339013

Component	Result	Code	Units
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	4.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	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
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: EPA 8321B
Batch ID: P339137

Component	Result	Code	Units
AMPA	0.10	U	ug/L
Glyphosate	0.10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P339293

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P339095

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P339475

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

Reference Method: SM 2540 C-97
Batch ID: P339571

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P339571

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P339623

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P339478

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P339266

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: P339189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	104		P	85 - 115
Magnesium	109		P	85 - 115
Potassium	102		P	85 - 115
Sodium	108		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P339189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	105		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	101		P	85 - 115
Copper	100		P	85 - 115
Lead	105		P	85 - 115
Nickel	103		P	85 - 115
Silver	99.1		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339227

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339230

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P339291

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: P339103

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: P339104

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P339147

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P339153

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339117

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

Reference Method: EPA 8270D
Batch ID: P339134

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	59.5	56.2	P/P	24 - 89.0
Alpha-BHC	100	97.2	P/P	58 - 117
Alpha-Chlordane	94.4	84.2	P/P	56 - 115
Beta-BHC	122	100	P/P	55 - 137

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P339134

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbophenothion	110	96.6	P/P	37 - 145
Chlorothalonil	98.1	82.6	P/P	26 - 163
Cypermethrin	117	87.4	P/P	42 - 156
DDD-p,p'	111	93.9	P/P	59 - 129
DDE-p,p'	94.4	85.5	P/P	52 - 117
DDT-p,p'	102	98.5	P/P	48 - 128
Delta-BHC	118	124	P/P	59 - 158
Dicofol	116	95.0	P/P	19 - 124
Dieldrin	100	87.8	P/P	57 - 126
Endosulfan I	95.9	90.6	P/P	59 - 133
Endosulfan II	122	101	P/P	58 - 148
Endosulfan Sulfate	124	106	P/P	56 - 135
Endrin	97.1	93.6	P/P	50 - 140
Endrin Aldehyde	104	85.3	P/P	47 - 141
Endrin Ketone	116	97.5	P/P	63 - 123
Gamma-BHC	111	117	P/P	59 - 132
Gamma-Chlordane	92.4	82.3	P/P	55 - 112
Heptachlor	75.0	70.5	P/P	45 - 102
Heptachlor Epoxide	98.9	87.4	P/P	61 - 116
Methoxychlor	111	98.5	P/P	60 - 133
Mirex	81.5	75.5	P/P	40 - 98.0
Permethrin	102	86.3	P/P	45 - 131
Trifluralin	92.3	84.8	P/P	38 - 179

Reference Method: EPA 8270D
Batch ID: P339294

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	113	90.2	P/P	74 - 119
Alachlor	116	95.3	P/P	75 - 118
Ametryn	221	164	F/F	59 - 137
Atrazine	119	111	P/P	73 - 120
Atrazine Desethyl	102	93.3	P/P	19 - 129
Azinphos Methyl	152	141	P/P	65 - 181
Bromacil	89.2	76.7	P/P	43 - 123
Butylate	52.5	50.1	P/P	28 - 85.0
Chlorpyrifos Ethyl	111	110	P/P	55 - 112
Chlorpyrifos Methyl	122	107	P/P	35 - 124
Cyanazine	149	147	P/P	26 - 262
Demeton	103	105	P/P	43 - 122
Diazinon	108	79.7	P/P	72 - 120
Disulfoton	77.6	78.5	P/P	45 - 137
EPTC	33.3	17.8	P/F	28 - 95.0
Ethion	120	113	P/P	63 - 127
Ethoprop	106	94.4	P/P	63 - 109
Fenamiphos	107	106	P/P	66 - 136
Fipronil	103	92.9	P/P	63 - 126
Fipronil Sulfide	94.0	94.3	P/P	59 - 123
Fipronil Sulfone	109	108	P/P	56 - 122
Fonofos	95.5	95.6	P/P	64 - 114
Hexazinone	117	113	P/P	49 - 144
Malathion	112	120	P/P	68 - 131

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P339294

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metalaxyl	110	87.8	P/P	57 - 126
Metolachlor	110	99.2	P/P	75 - 118
Metribuzin	167	131	P/P	46 - 169
Mevinphos	86.9	99.4	P/P	34 - 126
Molinate	53.5	46.2	P/P	37 - 101
Norflurazon	99.4	89.2	P/P	63 - 127
Parathion Ethyl	104	98.4	P/P	78 - 109
Parathion Methyl	132	107	F/P	74 - 123
Pendimethalin	107	94.3	P/P	51 - 130
Phorate	89.9	82.9	P/P	53 - 116
Prometon	95.8	102	P/P	66 - 124
Prometryn	91.4	73.1	P/P	66 - 124
Simazine	111	97.4	P/P	62 - 134
Terbufos	110	109	P/P	59 - 115
Terbutylazine	111	99.8	P/P	76 - 113

Reference Method: EPA 8276
Batch ID: P339134

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	80.6	68.7	P/P	47 - 125
Toxaphene	78.8	69.6	P/P	46 - 147

Reference Method: EPA 8321B
Batch ID: P339013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	74.4		P	40 - 150
3-Hydroxycarbofuran	84.2		P	40 - 150
Acetaminophen	80.0		P	30 - 150
Aldicarb	74.6		P	30 - 150
Aldicarb Sulfone	91.3		P	40 - 150
Aldicarb Sulfoxide	83.2		P	40 - 150
Bentazon	105		P	30 - 150
Carbamazepine	80.7		P	40 - 150
Carbaryl	64.4		P	40 - 150
Carbofuran	66.4		P	40 - 150
Diuron	63.0		P	40 - 150
Fenuron	86.5		P	40 - 150
Fluridone	73.0		P	40 - 150
Imidacloprid	85.9		P	40 - 160
Linuron	74.0		P	40 - 150
MCPP	75.2		P	40 - 150
Methiocarb	66.3		P	40 - 150
Methomyl	88.6		P	40 - 150
Oxamyl	84.8		P	40 - 150
Primidone	94.0		P	40 - 150
Propoxur	66.6		P	40 - 150
Pyraclostrobin	67.9		P	40 - 150
Triclopyr	72.0		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P339137

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	118		P	40 - 150
Glyphosate	121		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P339293

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	93.2		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P339475

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.7		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P339478

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.4		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P339266

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P339189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1962950	Calcium	99.8		P	80 - 120
1962950	Iron	105		P	80 - 120
1962950	Magnesium	103		P	80 - 120
1962950	Potassium	104		P	80 - 120
1962950	Sodium	105		P	80 - 120
1962950	Zinc	99.4		P	80 - 120
1963044	Calcium	103		P	80 - 120
1963044	Iron	104	101	P/P	80 - 120
1963044	Magnesium	106	103	P/P	80 - 120
1963044	Potassium	99.2	103	P/P	80 - 120
1963044	Sodium	102	102	P/P	80 - 120
1963044	Zinc	100	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P339189

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P339189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1962950	Arsenic	102		P	80 - 120
1962950	Cadmium	101		P	80 - 120
1962950	Chromium	99.2		P	80 - 120
1962950	Copper	93.3		P	80 - 120
1962950	Lead	103		P	80 - 120
1962950	Nickel	96.9		P	80 - 120
1962950	Silver	96.7		P	80 - 120
1963044	Arsenic	99.9	102	P/P	80 - 120
1963044	Cadmium	99.2	100	P/P	80 - 120
1963044	Chromium	96.8	98.6	P/P	80 - 120
1963044	Copper	94.8	96.6	P/P	80 - 120
1963044	Lead	103	104	P/P	80 - 120
1963044	Nickel	88.1	89.7	P/P	80 - 120
1963044	Silver	96.3	95.4	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339227

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963093	Chloride	93.5		P	90 - 110
1963161	Chloride	97.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339230

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963093	Sulfate	94.5		P	90 - 110
1963161	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P339291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963098	Ammonia-N	100	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963083	Kjeldahl Nitrogen	91.3	91.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339104

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963163	Kjeldahl Nitrogen	97.8	94.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P339147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963084	NO2NO3-N	101		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P339153

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963084	Total-P	100	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P339115

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963085	O-Phosphate-P	95.8	97.2	P/P	90 - 110

Reference Method: EPA 8270D

Batch ID: P339134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963237	Aldrin	52.5	62.1	P/P	26 - 96.0
1963237	Alpha-BHC	83.0	108	P/P	51 - 123
1963237	Alpha-Chlordane	69.0	82.4	P/P	45 - 120
1963237	Beta-BHC	80.3	104	P/P	43 - 146
1963237	Carbophenothion	85.2	103	P/P	26 - 179
1963237	Chlorothalonil	52.3	62.8	P/P	10 - 215
1963237	Cypermethrin	77.9	97.4	P/P	35 - 169
1963237	DDD-p,p'	78.4	93.5	P/P	49 - 131
1963237	DDE-p,p'	67.4	80.5	P/P	39 - 127
1963237	DDT-p,p'	79.3	95.0	P/P	49 - 120
1963237	Delta-BHC	126	134	P/P	49 - 187
1963237	Dicofol	88.1	106	P/P	10 - 129
1963237	Dieldrin	69.3	84.2	P/P	46 - 132
1963237	Endosulfan I	86.1	94.3	P/P	57 - 130
1963237	Endosulfan II	105	124	P/P	52 - 148
1963237	Endosulfan Sulfate	89.6	112	P/P	55 - 129
1963237	Endrin	73.5	89.1	P/P	45 - 133
1963237	Endrin Aldehyde	47.6	60.1	P/P	26 - 140
1963237	Endrin Ketone	114	139	P/F	60 - 125
1963237	Gamma-BHC	133	135	P/P	50 - 145
1963237	Gamma-Chlordane	67.4	79.8	P/P	44 - 118
1963237	Heptachlor	59.6	71.1	P/P	35 - 106
1963237	Heptachlor Epoxide	71.7	86.0	P/P	52 - 123
1963237	Methoxychlor	82.7	100	P/P	54 - 132
1963237	Mirex	64.1	77.6	P/P	36 - 107
1963237	Permethrin	71.8	89.9	P/P	47 - 135
1963237	Trifluralin	67.3	89.2	P/P	32 - 228

Reference Method: EPA 8270D

Batch ID: P339294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1962857	Acetochlor	118	106	P/P	67 - 125
1962857	Alachlor	113	109	P/P	69 - 123
1962857	Ametryn	181	166	F/F	52 - 151
1962857	Atrazine Desethyl	81.7	141	P/F	10 - 129
1962857	Azinphos Methyl	150	162	P/P	48 - 200
1962857	Bromacil	107	109	P/P	46 - 130
1962857	Butylate	46.6	52.8	P/P	10 - 85.0
1962857	Chlorpyrifos Ethyl	120	103	F/P	54 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P339294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1962857	Chlorpyrifos Methyl	137	102	F/P	44 - 117
1962857	Cyanazine	145	145	P/P	10 - 262
1962857	Demeton	84.7	105	P/P	24 - 145
1962857	Diazinon	93.5	92.4	P/P	66 - 129
1962857	Disulfoton	88.6	73.8	P/P	45 - 139
1962857	EPTC	47.6	46.7	P/P	10 - 86.0
1962857	Ethion	117	102	P/P	59 - 133
1962857	Ethoprop	112	113	P/P	54 - 116
1962857	Fenamiphos	109	101	P/P	55 - 140
1962857	Fipronil	113	110	P/P	37 - 142
1962857	Fipronil Sulfide	107	89.8	P/P	37 - 130
1962857	Fipronil Sulfone	93.3	52.7	P/P	18 - 143
1962857	Fonofos	103	88.9	P/P	55 - 118
1962857	Hexazinone	123	134	P/P	62 - 140
1962857	Malathion	145	128	F/P	64 - 132
1962857	Metalaxyl	113	102	P/P	55 - 129
1962857	Metolachlor	113	118	P/P	56 - 137
1962857	Metribuzin	185	170	P/P	16 - 218
1962857	Mevinphos	88.7	84.4	P/P	34 - 129
1962857	Molinate	55.1	62.5	P/P	16 - 99.0
1962857	Norflurazon	101	109	P/P	43 - 135
1962857	Parathion Ethyl	107	114	P/F	71 - 112
1962857	Parathion Methyl	134	119	F/P	65 - 127
1962857	Pendimethalin	109	111	P/P	35 - 159
1962857	Phorate	96.2	83.1	P/P	41 - 129
1962857	Prometon	94.8	103	P/P	56 - 140
1962857	Prometryn	112	101	P/P	65 - 130
1962857	Simazine	116	117	P/P	54 - 148
1962857	Terbufos	102	86.7	P/P	53 - 126
1962857	Terbutylazine	99.8	108	P/P	73 - 114

Reference Method: EPA 8276
Batch ID: P339134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963274	Chlordane	76.1	73.7	P/P	41 - 134
1963274	Toxaphene	73.5	74.0	P/P	39 - 158

Reference Method: EPA 8321B
Batch ID: P339013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1962854	2,4-D	51.1	54.2	P/P	40 - 150
1962854	3-Hydroxycarbofuran	91.2	84.6	P/P	40 - 150
1962854	Acetaminophen	117	91.0	P/P	30 - 150
1962854	Aldicarb	63.5	63.9	P/P	30 - 150
1962854	Aldicarb Sulfone	106	105	P/P	40 - 150
1962854	Aldicarb Sulfoxide	86.6	84.3	P/P	40 - 150
1962854	Bentazon	20.5	20.9	F/F	30 - 150
1962854	Carbamazepine	69.9	67.9	P/P	40 - 150
1962854	Carbaryl	49.1	46.7	P/P	40 - 150
1962854	Carbofuran	51.7	48.9	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P339013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1962854	Diuron	53.7	54.6	P/P	40 - 150
1962854	Fenuron	67.6	67.6	P/P	40 - 150
1962854	Fluridone	59.6	55.3	P/P	40 - 150
1962854	Imidacloprid	146	146	P/P	40 - 160
1962854	Linuron	70.6	67.2	P/P	40 - 150
1962854	MCCP	37.2	39.5	F/F	40 - 150
1962854	Methiocarb	66.4	63.8	P/P	40 - 150
1962854	Methomyl	72.8	71.2	P/P	40 - 150
1962854	Oxamyl	74.8	67.3	P/P	40 - 150
1962854	Primidone	89.8	92.4	P/P	40 - 150
1962854	Propoxur	50.0	48.4	P/P	40 - 150
1962854	Pyraclostrobin	67.6	65.4	P/P	40 - 150
1962854	Triclopyr	47.6	51.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P339137

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963146	AMPA	98.6	96.6	P/P	40 - 150
1963146	Glyphosate	131	129	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P339293

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1962805	Sucralose	105	106	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P339478

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963421	Fluoride	98.3	94.1	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P339266

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1963118	Organic Carbon	102	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P339091

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963094	Turbidity	1.23	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P339189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963044	Calcium	0.327	Spike	P	0 - 20
1963044	Iron	1.98	Spike	P	0 - 20
1963044	Magnesium	1.40	Spike	P	0 - 20
1963044	Potassium	2.56	Spike	P	0 - 20
1963044	Sodium	0.221	Spike	P	0 - 20
1963044	Zinc	0.359	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P339189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963044	Arsenic	1.79	Spike	P	0 - 20
1963044	Cadmium	1.02	Spike	P	0 - 20
1963044	Chromium	1.86	Spike	P	0 - 20
1963044	Copper	1.84	Spike	P	0 - 20
1963044	Lead	0.819	Spike	P	0 - 20
1963044	Nickel	1.63	Spike	P	0 - 20
1963044	Silver	0.921	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963093	Chloride	0.138	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P339291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963098	Ammonia-N	0.828	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963083	Kjeldahl Nitrogen	0.152	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339104

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963163	Kjeldahl Nitrogen	3.02	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P339147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963084	NO2NO3-N	0.506	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P339153

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963084	Total-P	1.78	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963085	O-Phosphate-P	1.27	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963124	O-Phosphate-P	0.404	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P339134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963237	Aldrin	16.7	Spike	P	0 - 30
1963237	Alpha-BHC	26.2	Spike	P	0 - 30
1963237	Alpha-Chlordane	17.7	Spike	P	0 - 30
1963237	Beta-BHC	25.8	Spike	P	0 - 30
1963237	Carbophenothion	18.6	Spike	P	0 - 30
1963237	Chlorothalonil	18.3	Spike	P	0 - 30
1963237	Cypermethrin	22.2	Spike	P	0 - 30
1963237	DDD-p,p'	17.6	Spike	P	0 - 30
1963237	DDE-p,p'	17.7	Spike	P	0 - 30
1963237	DDT-p,p'	18.0	Spike	P	0 - 30
1963237	Delta-BHC	6.04	Spike	P	0 - 30
1963237	Dicofol	18.7	Spike	P	0 - 30
1963237	Dieldrin	19.4	Spike	P	0 - 30
1963237	Endosulfan I	9.08	Spike	P	0 - 30
1963237	Endosulfan II	16.5	Spike	P	0 - 30
1963237	Endosulfan Sulfate	22.5	Spike	P	0 - 30
1963237	Endrin	19.2	Spike	P	0 - 30
1963237	Endrin Aldehyde	23.1	Spike	P	0 - 30
1963237	Endrin Ketone	19.1	Spike	P	0 - 30
1963237	Gamma-BHC	1.13	Spike	P	0 - 30
1963237	Gamma-Chlordane	16.9	Spike	P	0 - 30
1963237	Heptachlor	17.7	Spike	P	0 - 30
1963237	Heptachlor Epoxide	18.1	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P339134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963237	Methoxychlor	18.9	Spike	P	0 - 30
1963237	Mirex	19.0	Spike	P	0 - 30
1963237	Permethrin	22.4	Spike	P	0 - 30
1963237	Trifluralin	28.1	Spike	P	0 - 30
LFB	Aldrin	5.76	LCS	P	0 - 30
LFB	Alpha-BHC	3.07	LCS	P	0 - 30
LFB	Alpha-Chlordane	11.4	LCS	P	0 - 30
LFB	Beta-BHC	19.9	LCS	P	0 - 30
LFB	Carbophenothion	13.3	LCS	P	0 - 30
LFB	Chlorothalonil	17.2	LCS	P	0 - 30
LFB	Cypermethrin	28.5	LCS	P	0 - 30
LFB	DDD-p,p'	16.3	LCS	P	0 - 30
LFB	DDE-p,p'	9.92	LCS	P	0 - 30
LFB	DDT-p,p'	3.68	LCS	P	0 - 30
LFB	Delta-BHC	4.94	LCS	P	0 - 30
LFB	Dicofol	20.3	LCS	P	0 - 30
LFB	Dieldrin	13.5	LCS	P	0 - 30
LFB	Endosulfan I	5.69	LCS	P	0 - 30
LFB	Endosulfan II	19.2	LCS	P	0 - 30
LFB	Endosulfan Sulfate	15.5	LCS	P	0 - 30
LFB	Endrin	3.69	LCS	P	0 - 30
LFB	Endrin Aldehyde	19.5	LCS	P	0 - 30
LFB	Endrin Ketone	17.4	LCS	P	0 - 30
LFB	Gamma-BHC	5.33	LCS	P	0 - 30
LFB	Gamma-Chlordane	11.6	LCS	P	0 - 30
LFB	Heptachlor	6.20	LCS	P	0 - 30
LFB	Heptachlor Epoxide	12.3	LCS	P	0 - 30
LFB	Methoxychlor	12.3	LCS	P	0 - 30
LFB	Mirex	7.60	LCS	P	0 - 30
LFB	Permethrin	16.3	LCS	P	0 - 30
LFB	Trifluralin	8.46	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P339294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1962857	Acetochlor	10.4	Spike	P	0 - 30
1962857	Alachlor	3.36	Spike	P	0 - 30
1962857	Ametryn	8.86	Spike	P	0 - 30
1962857	Atrazine	2.57	Spike	P	0 - 30
1962857	Atrazine Desethyl	37.5	Spike	F	0 - 30
1962857	Azinphos Methyl	7.62	Spike	P	0 - 30
1962857	Bromacil	2.41	Spike	P	0 - 30
1962857	Butylate	12.5	Spike	P	0 - 30
1962857	Chlorpyrifos Ethyl	15.2	Spike	P	0 - 30
1962857	Chlorpyrifos Methyl	29.2	Spike	P	0 - 30
1962857	Cyanazine	0.181	Spike	P	0 - 30
1962857	Demeton	21.6	Spike	P	0 - 30
1962857	Diazinon	1.27	Spike	P	0 - 30
1962857	Disulfoton	18.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P339294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1962857	EPTC	1.92	Spike	P	0 - 30
1962857	Ethion	13.2	Spike	P	0 - 30
1962857	Ethoprop	1.11	Spike	P	0 - 30
1962857	Fenamiphos	7.62	Spike	P	0 - 30
1962857	Fipronil	2.73	Spike	P	0 - 30
1962857	Fipronil Sulfide	8.27	Spike	P	0 - 30
1962857	Fipronil Sulfone	10.2	Spike	P	0 - 30
1962857	Fonofos	15.1	Spike	P	0 - 30
1962857	Hexazinone	8.40	Spike	P	0 - 30
1962857	Malathion	12.7	Spike	P	0 - 30
1962857	Metalaxyl	10.6	Spike	P	0 - 30
1962857	Metolachlor	3.81	Spike	P	0 - 30
1962857	Metribuzin	8.22	Spike	P	0 - 30
1962857	Mevinphos	4.95	Spike	P	0 - 30
1962857	Molinate	12.5	Spike	P	0 - 30
1962857	Norflurazon	7.66	Spike	P	0 - 30
1962857	Parathion Ethyl	6.24	Spike	P	0 - 30
1962857	Parathion Methyl	11.8	Spike	P	0 - 30
1962857	Pendimethalin	1.77	Spike	P	0 - 30
1962857	Phorate	14.7	Spike	P	0 - 30
1962857	Prometon	8.10	Spike	P	0 - 30
1962857	Prometryn	10.4	Spike	P	0 - 30
1962857	Simazine	0.324	Spike	P	0 - 30
1962857	Terbufos	16.2	Spike	P	0 - 30
1962857	Terbutylazine	7.98	Spike	P	0 - 30
LFB	Acetochlor	22.3	LCS	P	0 - 30
LFB	Alachlor	19.7	LCS	P	0 - 30
LFB	Ametryn	29.7	LCS	P	0 - 30
LFB	Atrazine	6.89	LCS	P	0 - 30
LFB	Atrazine Desethyl	9.23	LCS	P	0 - 30
LFB	Azinphos Methyl	7.92	LCS	P	0 - 30
LFB	Bromacil	15.1	LCS	P	0 - 30
LFB	Butylate	4.69	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.11	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	13.2	LCS	P	0 - 30
LFB	Cyanazine	1.36	LCS	P	0 - 30
LFB	Demeton	1.66	LCS	P	0 - 30
LFB	Diazinon	29.8	LCS	P	0 - 30
LFB	Disulfoton	1.12	LCS	P	0 - 30
LFB	EPTC	60.5	LCS	F	0 - 30
LFB	Ethion	5.83	LCS	P	0 - 30
LFB	Ethoprop	11.4	LCS	P	0 - 30
LFB	Fenamiphos	0.157	LCS	P	0 - 30
LFB	Fipronil	10.7	LCS	P	0 - 30
LFB	Fipronil Sulfide	0.377	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.182	LCS	P	0 - 30
LFB	Fonofos	0.102	LCS	P	0 - 30
LFB	Hexazinone	3.48	LCS	P	0 - 30
LFB	Malathion	6.45	LCS	P	0 - 30
LFB	Metalaxyl	22.8	LCS	P	0 - 30
LFB	Metolachlor	10.4	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P339294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metribuzin	24.2	LCS	P	0 - 30
LFB	Mevinphos	13.5	LCS	P	0 - 30
LFB	Molinate	14.6	LCS	P	0 - 30
LFB	Norflurazon	10.7	LCS	P	0 - 30
LFB	Parathion Ethyl	5.68	LCS	P	0 - 30
LFB	Parathion Methyl	21.3	LCS	P	0 - 30
LFB	Pendimethalin	12.7	LCS	P	0 - 30
LFB	Phorate	8.05	LCS	P	0 - 30
LFB	Prometon	6.59	LCS	P	0 - 30
LFB	Prometryn	22.2	LCS	P	0 - 30
LFB	Simazine	12.9	LCS	P	0 - 30
LFB	Terbufos	0.665	LCS	P	0 - 30
LFB	Terbuthylazine	10.5	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P339134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963274	Chlordane	3.25	Spike	P	0 - 30
1963274	Toxaphene	0.625	Spike	P	0 - 30
LFB	Chlordane	15.9	LCS	P	0 - 30
LFB	Toxaphene	12.5	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P339013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1962854	2,4-D	3.35	Spike	P	0 - 30
1962854	3-Hydroxycarbofuran	7.62	Spike	P	0 - 30
1962854	Acetaminophen	25.1	Spike	P	0 - 30
1962854	Aldicarb	0.628	Spike	P	0 - 30
1962854	Aldicarb Sulfone	0.951	Spike	P	0 - 30
1962854	Aldicarb Sulfoxide	2.67	Spike	P	0 - 30
1962854	Bentazon	0.708	Spike	P	0 - 30
1962854	Carbamazepine	2.79	Spike	P	0 - 30
1962854	Carbaryl	5.09	Spike	P	0 - 30
1962854	Carbofuran	5.51	Spike	P	0 - 30
1962854	Diuron	1.57	Spike	P	0 - 30
1962854	Fenuron	0.0296	Spike	P	0 - 30
1962854	Fluridone	7.28	Spike	P	0 - 30
1962854	Imidacloprid	0.126	Spike	P	0 - 30
1962854	Linuron	4.83	Spike	P	0 - 30
1962854	MCCP	6.05	Spike	P	0 - 30
1962854	Methiocarb	4.10	Spike	P	0 - 30
1962854	Methomyl	2.22	Spike	P	0 - 30
1962854	Oxamyl	10.5	Spike	P	0 - 30
1962854	Primidone	2.64	Spike	P	0 - 30
1962854	Propoxur	3.29	Spike	P	0 - 30
1962854	Pyraclostrobin	3.28	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P339013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1962854	Triclopyr	6.83	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P339137

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963146	AMPA	1.24	Spike	P	0 - 30
1963146	Glyphosate	0.978	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P339293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1962805	Sucralose	1.57	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P339095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963160	Color (true)	1.24	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P339475

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963421	Total Alkalinity	0.207	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P339571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963117	TDS	1.54	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P339478

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963421	Fluoride	3.81	Spike	F	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P339266

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1963118	Organic Carbon	0.235	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: 1963146
Field Sample ID: G2SW0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	56.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	107	P	30 - 160
EPA 8321B	Carbamazepine-d10	91.1	P	30 - 160
EPA 8321B	Diuron-d6	76.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	120	P	40 - 160
EPA 8321B	Primidone-d5	100	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	40 - 160

Lab Sample ID: 1963147
Field Sample ID: G2SW0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	56.7	P	30 - 160

Lab Sample ID: 1963148
Field Sample ID: G1SW0046

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	51.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	101	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.4	P	30 - 160
EPA 8321B	Diuron-d6	67.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	116	P	40 - 160
EPA 8321B	Primidone-d5	97.2	P	30 - 160
EPA 8321B	Sucralose-d6	99.8	P	40 - 160

Lab Sample ID: 1963149
Field Sample ID: G1SW0066

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	47.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	104	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.2	P	30 - 160
EPA 8321B	Diuron-d6	70.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	112	P	40 - 160
EPA 8321B	Primidone-d5	94.8	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	40 - 160

Lab Sample ID: 1963150
Field Sample ID: G1SW0046

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	52.4	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1963151
Field Sample ID: G1SW0066

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	53.8	P	30 - 160

Lab Sample ID: 1963152
Field Sample ID: G2SW0047

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	57.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.8	P	30 - 160
EPA 8321B	Diuron-d6	79.0	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	40 - 160

Lab Sample ID: 1963153
Field Sample ID: G2SW0046

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	54.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	112	P	30 - 160
EPA 8321B	Carbamazepine-d10	91.4	P	30 - 160
EPA 8321B	Diuron-d6	74.8	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	40 - 160

Lab Sample ID: 1963154
Field Sample ID: G2SW0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	88.1	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	66.8	P	34 - 101
EPA 8276	Decachlorobiphenyl	76.0	P	31 - 108
EPA 8276	PCNB	127	P	62 - 142

Lab Sample ID: 1963155
Field Sample ID: G2SW0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	120	P	71 - 126
EPA 8270D	Terbufos-d10	84.8	P	50 - 130

Lab Sample ID: 1963156
Field Sample ID: G1SW0046

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	88.7	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	59.3	P	34 - 101
EPA 8276	Decachlorobiphenyl	74.1	P	31 - 108
EPA 8276	PCNB	118	P	62 - 142

Quality Assurance Report Surrogates

Lab Sample ID: 1963157
Field Sample ID: G1SW0066

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	76.4	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	63.4	P	34 - 101
EPA 8276	Decachlorobiphenyl	69.6	P	31 - 108
EPA 8276	PCNB	115	P	62 - 142

Lab Sample ID: 1963158
Field Sample ID: G1SW0046

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	124	P	71 - 126
EPA 8270D	Terbufos-d10	129	P	50 - 130

Lab Sample ID: 1963159
Field Sample ID: G1SW0066

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	119	P	71 - 126
EPA 8270D	Terbufos-d10	129	P	50 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: 81775
Included Lab Sample IDs: 1963117, 1963120, 1963121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Sulfate	99.8	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A81765
Included Lab Sample IDs: 1963117, 1963120, 1963121

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

Reference Method: SM 2120 B
Run ID: A81766
Included Lab Sample IDs: 1963117, 1963120, 1963121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	105	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A81776
Included Lab Sample IDs: 1963119, 1963124, 1963125

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.5	100	P/P	90 - 110
O-Phosphate-P	99.6	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A81776

Included Lab Sample IDs: 1963119, 1963124, 1963125

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.8	99.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A81787

Included Lab Sample IDs: 1963118, 1963122, 1963123

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A81802

Included Lab Sample IDs: 1963146, 1963148, 1963149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	89.3	95.9	P/P	70 - 130
AMPA	98.2	89.3	P/P	70 - 130
Glyphosate	85.0	87.3	P/P	70 - 160
Glyphosate	87.3	102	P/P	70 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A81808

Included Lab Sample IDs: 1963118, 1963122, 1963123

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

Reference Method: SM 5310 B-00

Run ID: A81830

Included Lab Sample IDs: 1963118, 1963122, 1963123

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	96.6	P/P	90 - 110
Organic Carbon	97.2	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A81832

Included Lab Sample IDs: 1963118, 1963122

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	98.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A81836

Included Lab Sample IDs: 1963166, 1963167, 1963168

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	98.6	P/P	90 - 110
Iron	94.5	97.4	P/P	90 - 110
Magnesium	95.8	98.2	P/P	90 - 110
Potassium	105	98.3	P/P	90 - 110
Sodium	104	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A81836

Included Lab Sample IDs: 1963166, 1963167, 1963168

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A81838

Included Lab Sample IDs: 1963118, 1963122, 1963123

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A81840

Included Lab Sample IDs: 1963123

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.2	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A81856

Included Lab Sample IDs: 1963166, 1963167, 1963168

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	99.0	98.4	P/P	90 - 110
Cadmium	97.4	96.9	P/P	90 - 110
Chromium	97.6	97.4	P/P	90 - 110
Copper	97.5	97.4	P/P	90 - 110
Lead	101	102	P/P	90 - 110
Nickel	97.1	97.1	P/P	90 - 110
Silver	96.8	96.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A81901

Included Lab Sample IDs: 1963117, 1963120, 1963121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.9	94.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A81901

Included Lab Sample IDs: 1963117, 1963120, 1963121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.2	97.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A81928

Included Lab Sample IDs: 1963146, 1963148, 1963149, 1963152, 1963153

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	104	103	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A81930

Included Lab Sample IDs: 1963146, 1963148, 1963149, 1963152, 1963153

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	88.0	85.5	P/P	50 - 150
3-Hydroxycarbofuran	112	117	P/P	60 - 150
Acetaminophen	115	122	P/P	60 - 150
Acetaminophen	122	122	P/P	60 - 150
Aldicarb	100	109	P/P	60 - 150
Aldicarb Sulfone	102	105	P/P	50 - 150
Aldicarb Sulfoxide	103	104	P/P	50 - 150
Bentazon	120	132	P/P	50 - 150
Carbamazepine	107	109	P/P	60 - 150
Carbamazepine	109	111	P/P	60 - 150
Carbaryl	113	112	P/P	60 - 150
Carbofuran	114	119	P/P	50 - 150
Diuron	106	111	P/P	60 - 150
Diuron	111	110	P/P	60 - 150
Fenuron	108	109	P/P	60 - 150
Fenuron	109	107	P/P	60 - 150
Fluridone	107	110	P/P	60 - 160
Fluridone	110	107	P/P	60 - 160
Imidacloprid	108	103	P/P	60 - 150
Imidacloprid	99.2	108	P/P	60 - 150
Linuron	112	119	P/P	60 - 150
Linuron	119	115	P/P	60 - 150
MCPP	95.5	100	P/P	50 - 150
Methiocarb	115	125	P/P	50 - 150
Methomyl	102	103	P/P	50 - 150
Oxamyl	112	107	P/P	50 - 150
Primidone	104	103	P/P	60 - 150
Primidone	93.0	104	P/P	60 - 150
Propoxur	109	119	P/P	50 - 150
Pyraclostrobin	116	120	P/P	60 - 150
Triclopyr	99.5	105	P/P	50 - 150

Reference Method: EPA 8270D

Run ID: A81978

Included Lab Sample IDs: 1963154, 1963156, 1963157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	88.2		P	80 - 120
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	93.0		P	80 - 120
Beta-BHC	97.5		P	80 - 120
Carbophenothion	101		P	80 - 120
Chlorothalonil	86.6		P	80 - 120
Cypermethrin	99.3		P	80 - 120
DDD-p,p'	98.1		P	80 - 120
DDE-p,p'	94.9		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	92.3		P	80 - 120
Dicofol	114		P	80 - 120
Dieldrin	92.9		P	80 - 120
Endosulfan I	90.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A81978

Included Lab Sample IDs: 1963154, 1963156, 1963157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endosulfan II	99.7		P	80 - 120
Endosulfan Sulfate	107		P	80 - 120
Endrin	92.0		P	80 - 120
Endrin Aldehyde	85.3		P	80 - 120
Endrin Ketone	98.5		P	80 - 120
Gamma-BHC	99.1		P	80 - 120
Gamma-Chlordane	93.4		P	80 - 120
Heptachlor	90.3		P	80 - 120
Heptachlor Epoxide	93.8		P	80 - 120
Methoxychlor	99.8		P	80 - 120
Mirex	98.9		P	80 - 120
Permethrin	93.3		P	80 - 120
Trifluralin	97.4		P	80 - 120

Reference Method: EPA 8270D

Run ID: A82006

Included Lab Sample IDs: 1963155, 1963158, 1963159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.3		P	80 - 120
Alachlor	105		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine Desethyl	112		P	80 - 120
Azinphos Methyl	105		P	80 - 120
Bromacil	97.6		P	80 - 120
Butylate	107		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	94.7		P	80 - 120
Cyanazine	108		P	80 - 120
Demeton	110		P	80 - 120
Diazinon	91.3		P	80 - 120
Disulfoton	83.6		P	80 - 120
EPTC	111		P	80 - 120
Ethion	103		P	80 - 120
Ethoprop	111		P	80 - 120
Fenamiphos	109		P	80 - 120
Fipronil	116		P	80 - 120
Fipronil Sulfide	114		P	80 - 120
Fipronil Sulfone	120		P	80 - 120
Fonofos	88.8		P	80 - 120
Hexazinone	110		P	80 - 120
Malathion	105		P	80 - 120
Metalaxyl	105		P	80 - 120
Metolachlor	112		P	80 - 120
Metribuzin	99.2		P	80 - 120
Mevinphos	105		P	80 - 120
Molinate	108		P	80 - 120
Norflurazon	103		P	80 - 120
Parathion Ethyl	112		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	112		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A82006

Included Lab Sample IDs: 1963155, 1963158, 1963159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Phorate	108		P	80 - 120
Prometon	105		P	80 - 120
Prometryn	104		P	80 - 120
Simazine	106		P	80 - 120
Terbufos	94.6		P	80 - 120
Terbutylazine	101		P	80 - 120

Reference Method: EPA 8270D

Run ID: A82008

Included Lab Sample IDs: 1963155, 1963158, 1963159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	118		P	80 - 120
Metolachlor	106		P	80 - 120
Simazine	98.5		P	80 - 120

Reference Method: EPA 8276

Run ID: A82031

Included Lab Sample IDs: 1963154, 1963156

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.5		P	80 - 120
Toxaphene	106		P	80 - 120

Reference Method: EPA 8276

Run ID: A82103

Included Lab Sample IDs: 1963157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	105		P	80 - 120
Toxaphene	103		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				1.23	
EPA 200.7 Rev. 4.4	Calcium	105	99.8	103		0.327
	Iron	104	105	104		1.98
	Magnesium	109	103	106		1.40
	Potassium	102	104	99.2		2.56
	Sodium	108	105	102		0.221
	Zinc	102	99.4	100		0.359
EPA 200.8 Rev. 5.4	Arsenic	105	102	99.9		1.79
	Cadmium	102	101	99.2		1.02

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision SMP	MS
EPA 200.8 Rev. 5.4	Chromium	101		99.2	96.8	98.6		1.86
	Copper	100		93.3	94.8	96.6		1.84
	Lead	105		103	103	104		0.819
	Nickel	103		96.9	88.1	89.7		1.63
	Silver	99.1		96.7	96.3	95.4		0.921
EPA 300.0 Rev. 2.1	Chloride	98.8		93.5	97.4		0.138	
	Sulfate	97.6		94.5	100			
EPA 350.1 Rev. 2.0	Ammonia-N	96.7		100	102			0.828
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		91.3	91.5			0.152
	Kjeldahl Nitrogen	96.2		97.8	94.5			3.02
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	105		101				0.506
EPA 365.1 Rev. 2.0	Total-P	100		100	98.0			1.78
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.8		95.8	97.2			1.27
	O-Phosphate-P	101						0.404
EPA 8270D	Acetochlor	113	90.2	118	106	22.3		10.4
	Alachlor	116	95.3	113	109	19.7		3.36
	Aldrin	59.5	56.2	52.5	62.1	5.76		16.7
	Alpha-BHC	100	97.2	83.0	108	3.07		26.2
	Alpha-Chlordane	94.4	84.2	69.0	82.4	11.4		17.7
	Ametryn	221	164	181	166	29.7		8.86
	Atrazine	119	111			6.89		2.57
	Atrazine Desethyl	102	93.3	81.7	141	9.23		37.5
	Azinphos Methyl	152	141	150	162	7.92		7.62
	Beta-BHC	122	100	80.3	104	19.9		25.8
	Bromacil	89.2	76.7	107	109	15.1		2.41
	Butylate	52.5	50.1	46.6	52.8	4.69		12.5
	Carbophenothion	110	96.6	85.2	103	13.3		18.6
	Chlorothalonil	98.1	82.6	52.3	62.8	17.2		18.3
	Chlorpyrifos Ethyl	111	110	120	103	1.11		15.2
	Chlorpyrifos Methyl	122	107	137	102	13.2		29.2
	Cyanazine	149	147	145	145	1.36		0.181
	Cypermethrin	117	87.4	77.9	97.4	28.5		22.2
	DDD-p,p'	111	93.9	78.4	93.5	16.3		17.6
	DDE-p,p'	94.4	85.5	67.4	80.5	9.92		17.7
	DDT-p,p'	102	98.5	79.3	95.0	3.68		18.0
	Delta-BHC	118	124	126	134	4.94		6.04
	Demeton	103	105	84.7	105	1.66		21.6
	Diazinon	108	79.7	93.5	92.4	29.8		1.27
	Dicofol	116	95.0	88.1	106	20.3		18.7
	Dieldrin	100	87.8	69.3	84.2	13.5		19.4
	Disulfoton	77.6	78.5	88.6	73.8	1.12		18.2
	Endosulfan I	95.9	90.6	86.1	94.3	5.69		9.08
	Endosulfan II	122	101	105	124	19.2		16.5
	Endosulfan Sulfate	124	106	89.6	112	15.5		22.5
	Endrin	97.1	93.6	73.5	89.1	3.69		19.2
	Endrin Aldehyde	104	85.3	47.6	60.1	19.5		23.1
	Endrin Ketone	116	97.5	114	139	17.4		19.1
	EPTC	33.3	17.8	47.6	46.7	60.5		1.92
	Ethion	120	113	117	102	5.83		13.2
	Ethoprop	106	94.4	112	113	11.4		1.11
	Fenamiphos	107	106	109	101	0.157		7.62
	Fipronil	103	92.9	113	110	10.7		2.73
	Fipronil Sulfide	94.0	94.3	107	89.8	0.377		8.27
	Fipronil Sulfone	109	108	93.3	52.7	0.182		10.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Fonofos	95.5	95.6	103	88.9	0.102	15.1
	Gamma-BHC	111	117	133	135	5.33	1.13
	Gamma-Chlordane	92.4	82.3	67.4	79.8	11.6	16.9
	Heptachlor	75.0	70.5	59.6	71.1	6.20	17.7
	Heptachlor Epoxide	98.9	87.4	71.7	86.0	12.3	18.1
	Hexazinone	117	113	123	134	3.48	8.40
	Malathion	112	120	145	128	6.45	12.7
	Metalaxyl	110	87.8	113	102	22.8	10.6
	Methoxychlor	111	98.5	82.7	100	12.3	18.9
	Metolachlor	110	99.2	113	118	10.4	3.81
	Metribuzin	167	131	185	170	24.2	8.22
	Mevinphos	86.9	99.4	88.7	84.4	13.5	4.95
	Mirex	81.5	75.5	64.1	77.6	7.60	19.0
	Molinate	53.5	46.2	55.1	62.5	14.6	12.5
	Norflurazon	99.4	89.2	101	109	10.7	7.66
	Parathion Ethyl	104	98.4	107	114	5.68	6.24
	Parathion Methyl	132	107	134	119	21.3	11.8
	Pendimethalin	107	94.3	109	111	12.7	1.77
	Permethrin	102	86.3	71.8	89.9	16.3	22.4
	Phorate	89.9	82.9	96.2	83.1	8.05	14.7
	Prometon	95.8	102	94.8	103	6.59	8.10
	Prometryn	91.4	73.1	112	101	22.2	10.4
	Simazine	111	97.4	116	117	12.9	0.324
	Terbufos	110	109	102	86.7	0.665	16.2
	Terbutylazine	111	99.8	99.8	108	10.5	7.98
	Trifluralin	92.3	84.8	67.3	89.2	8.46	28.1
EPA 8276	Chlordane	80.6	68.7	76.1	73.7	15.9	3.25
	Toxaphene	78.8	69.6	73.5	74.0	12.5	0.625
	2,4-D	74.4		54.2	51.1		3.35
EPA 8321B	3-Hydroxycarbofuran	84.2		91.2	84.6		7.62
	Acetaminophen	80.0		117	91.0		25.1
	Aldicarb	74.6		63.5	63.9		0.628
	Aldicarb Sulfone	91.3		106	105		0.951
	Aldicarb Sulfoxide	83.2		86.6	84.3		2.67
	AMPA	118		98.6	96.6		1.24
	Bentazon	105		20.9	20.5		0.708
	Carbamazepine	80.7		69.9	67.9		2.79
	Carbaryl	64.4		49.1	46.7		5.09
	Carbofuran	66.4		51.7	48.9		5.51
	Diuron	63.0		53.7	54.6		1.57
	Fenuron	86.5		67.6	67.6		0.0296
	Fluridone	73.0		59.6	55.3		7.28
	Glyphosate	121		131	129		0.978
	Imidacloprid	85.9		146	146		0.126
	Linuron	74.0		70.6	67.2		4.83
	MCPP	75.2		39.5	37.2		6.05
	Methiocarb	66.3		66.4	63.8		4.10
	Methomyl	88.6		72.8	71.2		2.22
	Oxamyl	84.8		74.8	67.3		10.5
	Primidone	94.0		89.8	92.4		2.64
	Propoxur	66.6		50.0	48.4		3.29
	Pyraclostrobin	67.9		67.6	65.4		3.28
	Sucralose	93.2		105	106		1.57
	Triclopyr	72.0		51.0	47.6		6.83

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 2120 B	Color (true)				1.24	
SM 2320 B-97	Total Alkalinity	97.7			0.207	
SM 2540 C-97	TDS				1.54	
SM 4500 F-C-97	Fluoride	97.4	98.3	94.1		3.81
SM 5310 B-00	Organic Carbon	96.6	102	102		0.235

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1963117, 1963120, 1963121
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1963166, 1963167, 1963168
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1963166, 1963167, 1963168
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1963117, 1963120, 1963121
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1963117, 1963120, 1963121
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1963118, 1963122, 1963123
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1963118, 1963122, 1963123
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1963118, 1963122, 1963123
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1963118, 1963122, 1963123
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1963119, 1963124, 1963125
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1963154, 1963156, 1963157
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1963155, 1963158, 1963159
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1963154, 1963156, 1963157
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	1963147, 1963150, 1963151
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1963146, 1963148, 1963149
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1963146, 1963148, 1963149, 1963152, 1963153
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1963146, 1963148, 1963149, 1963152, 1963153
SM 2120 B / E31780	True Color measured at 450 nm	1963117, 1963120, 1963121
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1963117, 1963120, 1963121
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1963117, 1963120, 1963121
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1963117, 1963120, 1963121
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1963117, 1963120, 1963121
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1963118, 1963122, 1963123

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	01/31/2018			01/31/2018 15:52	DeAsia Armster	1963117, 1963120, 1963121
EPA 200.7 Rev. 4.4	01/31/2018	02/01/2018	Elliott D. Healy	02/02/2018	Martin Acosta	1963166, 1963167, 1963168
EPA 200.8 Rev. 5.4	01/31/2018	02/01/2018	Elliott D. Healy	02/05/2018	Nadine Brooks	1963166, 1963167, 1963168
EPA 300.0 Rev. 2.1	01/31/2018			02/01/2018	Julia Storbeck	1963117, 1963120, 1963121
EPA 350.1 Rev. 2.0	01/31/2018			02/02/2018	Ping Hua	1963118, 1963122, 1963123
EPA 351.2 Rev. 2.0	01/31/2018	02/01/2018	Adrian Shelby	02/02/2018	Joseph Suarez	1963118, 1963122
	01/31/2018	02/01/2018	Adrian Shelby	02/05/2018	Joseph Suarez	1963123
EPA 353.2 Rev. 2.0	01/31/2018			02/01/2018	Beverly Y. Sanders	1963118, 1963122, 1963123
EPA 365.1 Rev. 2.0	01/31/2018	02/01/2018	Sima Feizi	02/02/2018	Beverly Y. Sanders	1963118, 1963122, 1963123
EPA 365.1 Rev. 2.0 dissolved	01/31/2018			01/31/2018 16:40	Megan Treadwell	1963124
	01/31/2018			01/31/2018 17:12	Megan Treadwell	1963125
	01/31/2018			01/31/2018 17:30	Megan Treadwell	1963119
EPA 8270D	01/31/2018	02/05/2018	Fe-Val Siddell	02/07/2018	Marek Topolski	1963154, 1963156, 1963157
	01/31/2018	02/05/2018	John Kaba	02/08/2018	Vandana T. Nagar	1963155, 1963158, 1963159
	01/31/2018	02/05/2018	John Kaba	02/09/2018	Vandana T. Nagar	1963155, 1963158, 1963159
EPA 8276	01/31/2018	02/05/2018	Fe-Val Siddell	02/09/2018	John P. Burgos	1963154, 1963156
	01/31/2018	02/05/2018	Fe-Val Siddell	02/14/2018	John P. Burgos	1963157
EPA 8321B	01/31/2018	02/01/2018	Hoor Shaik	02/03/2018	Julie Michelle Frank	1963146, 1963148, 1963149, 1963152, 1963153
	01/31/2018	02/01/2018	Hoor Shaik	02/04/2018	Julie Michelle Frank	1963149, 1963152, 1963153
	01/31/2018	02/01/2018	Juyoung Kim	02/01/2018	Juyoung Kim	1963146, 1963148, 1963149
	01/31/2018	02/06/2018	Juyoung Kim	02/07/2018	Juyoung Kim	1963146, 1963148, 1963149, 1963152, 1963153
SM 2120 B	01/31/2018			01/31/2018 16:07	Julia Storbeck	1963117
	01/31/2018			01/31/2018 16:08	Julia Storbeck	1963120, 1963121
SM 2320 B-97	01/31/2018			02/07/2018	Lauren Bottorf	1963117, 1963120, 1963121
SM 2540 C-97	01/31/2018			02/03/2018	Yijie Li	1963117, 1963120, 1963121
SM 2540 D-97	01/31/2018			02/03/2018	Yijie Li	1963117, 1963120, 1963121
SM 4500 F-C-97	01/31/2018			02/07/2018	Lauren Bottorf	1963117, 1963120, 1963121
SM 5310 B-00	01/31/2018			02/02/2018	Megan Treadwell	1963118
	01/31/2018			02/03/2018	Megan Treadwell	1963122, 1963123