Chemical Analysis Report

SO-DIST-2018-03-06-02

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

Event Description: **LaBelle->Lake O.**
Request ID: **RQ-2018-03-05-54**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Maryann Dugan

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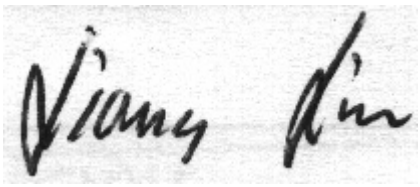
Certified by: Liang Lin, Environmental Administrator

Date Certified: 05-APR-2018 14:38



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: OK Branch @ Eucalyptus **Collection Date/Time: 03/05/2018 10:10**

Field ID: G3SD0099 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972005	EPA 180.1 Rev. 2.0	Turbidity	8.4	A	NTU	P341075	
	EPA 300.0 Rev. 2.1	Chloride	54		mg Cl/L	P341225	
		Sulfate	28		mg SO4/L	P341229	
	SM 2120 B	Color (true)	44	A	PCU	P341021	
	SM 2320 B-97	Total Alkalinity	273		mg CaCO3/L	P341453	
	SM 2540 C-97	TDS	432		mg/L	P341467	
	SM 2540 D-97	TSS	6	I	mg/L	P341375	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P341458	
1972007	EPA 350.1 Rev. 2.0	Ammonia-N	0.078		mg N/L	P341407	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P341176	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.076		mg N/L	P341202	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P341166	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P341194	
1972009	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.019		mg P/L	P341051	
1972055	EPA 200.7 Rev. 4.4	Calcium	109		mg/L	P341089	
		Iron	580		ug/L	P341089	
		Magnesium	7.36		mg/L	P341089	
		Potassium	3.5		mg/L	P341089	
		Sodium	42.3		mg/L	P341089	
		Zinc	5.0	U	ug/L	P341089	
	EPA 200.8 Rev. 5.4	Arsenic	1.81		ug/L	P341089	
		Cadmium	0.020	U	ug/L	P341089	
		Chromium	0.50	I	ug/L	P341089	
		Copper	0.39	I	ug/L	P341089	
		Lead	0.094	I	ug/L	P341089	
		Nickel	1.22		ug/L	P341089	
		Silver	0.010	U	ug/L	P341089	

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: Nine Mile Canal @ SR 80 **Collection Date/Time: 03/05/2018 11:20**

Field ID: G3SD0088 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972006	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P341075	
	EPA 300.0 Rev. 2.1	Chloride	41		mg Cl/L	P341225	
		Sulfate	15		mg SO4/L	P341229	
	SM 2120 B	Color (true)	98		PCU	P341021	
	SM 2320 B-97	Total Alkalinity	112		mg CaCO3/L	P341453	
	SM 2540 C-97	TDS	238		mg/L	P341468	
	SM 2540 D-97	TSS	3	I	mg/L	P341376	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P341458	
1972008	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P341407	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P341176	

Field ID: G3SD0088 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972008	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P341202	
	EPA 365.1 Rev. 2.0	Total-P	0.090		mg P/L	P341166	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P341194	
1972010	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054		mg P/L	P341052	
1972056	EPA 200.7 Rev. 4.4	Calcium	43.1		mg/L	P341089	
		Iron	260		ug/L	P341089	
		Magnesium	8.37		mg/L	P341089	
		Potassium	5.9		mg/L	P341089	
		Sodium	23.9		mg/L	P341089	
		Zinc	5.0	U	ug/L	P341089	
	EPA 200.8 Rev. 5.4	Arsenic	1.20		ug/L	P341089	
		Cadmium	0.020	U	ug/L	P341089	
		Chromium	0.41	I	ug/L	P341089	
		Copper	0.65	I	ug/L	P341089	
		Lead	0.18	I	ug/L	P341089	
		Nickel	0.37	I	ug/L	P341089	
		Silver	0.010	U	ug/L	P341089	

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: Nine Mile Canal @ SR 80 **Collection Date/Time: 03/05/2018 11:20**

Field ID: G3SD0088 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972047	EPA 8321B	Aldicarb	0.020	U	ug/L	P340883	
		Aldicarb Sulfone	0.0020	U	ug/L	P340883	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P340883	
		Carbaryl	0.0020	U	ug/L	P340883	
		Carbofuran	0.0020	U	ug/L	P340883	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P340883	
		Methiocarb	0.0020	U	ug/L	P340883	
		Methomyl	0.0020	U	ug/L	P340883	
		Oxamyl	0.0020	U	ug/L	P340883	
		Propoxur	0.0020	U	ug/L	P340883	
1972049		2,4-D	0.0040	I	ug/L	P340883	
		Sucralose**	0.12		ug/L	P340984	
		Bentazon	0.0045	J	ug/L	P340883	MS
		MCPP	0.0020	UJ	ug/L	P340883	MS
		Triclopyr**	0.0040	UJ	ug/L	P340883	MS
		Imidacloprid	0.0080	IJ	ug/L	P340883	MS
		Diuron	0.0020	U	ug/L	P340883	
		Pyraclostrobin**	0.0020	U	ug/L	P340883	
		Primidone**	0.0040	U	ug/L	P340883	
		Linuron	0.0040	U	ug/L	P340883	
		Acetaminophen**	0.0080	U	ug/L	P340883	

Field ID: G3SD0088 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972049	EPA 8321B	Fenuron	0.0080	U	ug/L	P340883	
		Imazapyr**	0.048	J	ug/L	P340883	MS
		Carbamazepine**	4.0E-04	U	ug/L	P340883	
		Fluridone**	0.0028	I	ug/L	P340883	
		Glyphosate**	0.17	I	ug/L	P340878	
		AMPA**	0.40	I	ug/L	P340878	
1972051	EPA 8270D	Aldrin	4.5	UJ	ng/L	P341342	RPD
		Alpha-BHC	2.3	U	ng/L	P341342	
		Beta-BHC	4.5	UJ	ng/L	P341342	LCS
		Delta-BHC	4.5	U	ng/L	P341342	
		Gamma-BHC	4.5	U	ng/L	P341342	
		Carbophenothion	4.5	U	ng/L	P341342	
		Chlorothalonil	2.3	UJ	ng/L	P341342	RPD
		Cypermethrin	23	U	ng/L	P341342	
		DDD-p,p'	3.4	U	ng/L	P341342	
		DDE-p,p'	3.4	U	ng/L	P341342	
		DDT-p,p'	3.4	U	ng/L	P341342	
		Dieldrin	4.5	U	ng/L	P341342	
		Endosulfan I	4.5	U	ng/L	P341342	
		Endosulfan II	4.5	U	ng/L	P341342	
		Endosulfan Sulfate	2.3	U	ng/L	P341342	
		Endrin	2.3	U	ng/L	P341342	
		Endrin Aldehyde	2.3	U	ng/L	P341342	
		Heptachlor	1.7	U	ng/L	P341342	
		Heptachlor Epoxide	2.3	U	ng/L	P341342	
		Methoxychlor	4.5	U	ng/L	P341342	
		Mirex	2.3	U	ng/L	P341342	
		Permethrin	11	U	ng/L	P341342	
		Trifluralin	1.1	U	ng/L	P341342	
		Alpha-Chlordane	1.1	U	ng/L	P341342	
		Gamma-Chlordane	1.1	U	ng/L	P341342	
		Endrin Ketone	2.3	U	ng/L	P341342	
		Dicofol	34	U	ng/L	P341342	
	EPA 8276	Chlordane**	2.8	U	ng/L	P341342	
		Toxaphene**	34	U	ng/L	P341342	
1972053	EPA 8270D	Alachlor	0.25	U	ng/L	P341343	
		Ametryn	11		ng/L	P341343	
		Atrazine	210		ng/L	P341343	
		Atrazine Desethyl	19		ng/L	P341343	
		Azinphos Methyl	2.2	U	ng/L	P341343	
		Bromacil	4.0		ng/L	P341343	
		Butylate	0.39	U	ng/L	P341343	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P341343	
		Chlorpyrifos Methyl	0.098	U	ng/L	P341343	
		Demeton	2.0	U	ng/L	P341343	

Field ID: G3SD0088 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972053	EPA 8270D	Diazinon	0.12	U	ng/L	P341343	
		Disulfoton	0.49	U	ng/L	P341343	
		EPTC	1.2	U	ng/L	P341343	
		Ethion	0.15	U	ng/L	P341343	
		Ethoprop	0.098	U	ng/L	P341343	
		Fenamiphos	0.25	U	ng/L	P341343	
		Fipronil	0.25	U	ng/L	P341343	
		Fipronil Sulfide	0.15	U	ng/L	P341343	
		Fipronil Sulfone	0.15	U	ng/L	P341343	
		Hexazinone	47		ng/L	P341343	
		Malathion	0.34	U	ng/L	P341343	
		Metribuzin	17		ng/L	P341343	
		Mevinphos	0.49	U	ng/L	P341343	
		Molinate	0.30	U	ng/L	P341343	
		Norflurazon	19		ng/L	P341343	
		Pendimethalin	6.3		ng/L	P341343	
		Phorate	0.25	U	ng/L	P341343	
		Prometon	0.89	U	ng/L	P341343	
		Prometryn	0.26	I	ng/L	P341343	
		Simazine	2.6		ng/L	P341343	
		Terbufos	0.098	U	ng/L	P341343	
		Terbuthylazine	0.42	U	ng/L	P341343	
		Fonofos	0.20	U	ng/L	P341343	
		Metalaxyl	1.5		ng/L	P341343	
		Metolachlor	4.6		ng/L	P341343	
		Acetochlor	0.25	U	ng/L	P341343	
		Cyanazine	0.49	U	ng/L	P341343	
		Parathion Ethyl	0.25	U	ng/L	P341343	
		Parathion Methyl	0.25	U	ng/L	P341343	

Ref. Method and Comment:
EPA 8321B: Fenuron was detected in the method blank slightly above the MDL. Refer to the narrative for an explanation of QC Codes.
EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Sample Location: Lake Hicpochee in Canal **Collection Date/Time: 03/05/2018 12:15**

Field ID: G3SD0102 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971999	EPA 180.1 Rev. 2.0	Turbidity	19		NTU	P341074	
	EPA 300.0 Rev. 2.1	Chloride	38		mg Cl/L	P341225	
		Sulfate	19		mg SO4/L	P341229	
	SM 2120 B	Color (true)	47	A	PCU	P341031	
	SM 2320 B-97	Total Alkalinity	109		mg CaCO3/L	P341453	
	SM 2540 C-97	TDS	249		mg/L	P341467	
	SM 2540 D-97	TSS	14		mg/L	P341375	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P341458	
1972001	EPA 350.1 Rev. 2.0	Ammonia-N	0.042		mg N/L	P341407	

Field ID: G3SD0102 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972001	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P341173	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.24		mg N/L	P341201	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P341166	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P341194	
1972003	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.092		mg P/L	P341051	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: C-19 @ US 27 **Collection Date/Time: 03/05/2018 12:45**

Field ID: G3SD0087 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972000	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P341074	
	EPA 300.0 Rev. 2.1	Chloride	45		mg Cl/L	P341225	
		Sulfate	15		mg SO4/L	P341229	
	SM 2120 B	Color (true)	92		PCU	P341021	
	SM 2320 B-97	Total Alkalinity	150		mg CaCO3/L	P341453	
	SM 2540 C-97	TDS	293	A	mg/L	P341468	
	SM 2540 D-97	TSS	5	IA	mg/L	P341376	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P341458	
1972002	EPA 350.1 Rev. 2.0	Ammonia-N	0.080		mg N/L	P341407	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P341173	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.072		mg N/L	P341201	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P341166	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P341194	
1972004	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.082		mg P/L	P341051	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Field Blank **Collection Date/Time: 03/05/2018 10:20**

Field ID: Field Blank Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972048	EPA 8321B	Aldicarb	0.020	U	ug/L	P340883	
		Aldicarb Sulfone	0.0020	U	ug/L	P340883	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P340883	
		Carbaryl	0.0020	U	ug/L	P340883	
		Carbofuran	0.0020	U	ug/L	P340883	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P340883	
		Methiocarb	0.0020	U	ug/L	P340883	
		Methomyl	0.0020	U	ug/L	P340883	
		Oxamyl	0.0020	U	ug/L	P340883	
		Propoxur	0.0020	U	ug/L	P340883	
1972050		2,4-D	0.0020	U	ug/L	P340883	

Field ID: Field Blank Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972050	EPA 8321B	Sucralose**	0.010	U	ug/L	P340984	
		Bentazon	8.0E-04	U	ug/L	P340883	MS
		MCPP	0.0020	U	ug/L	P340883	MS
		Triclopyr**	0.0040	U	ug/L	P340883	MS
		Imidacloprid	0.0020	U	ug/L	P340883	MS
		Diuron	0.0020	U	ug/L	P340883	
		Pyraclostrobin**	0.0020	U	ug/L	P340883	
		Primidone**	0.0040	U	ug/L	P340883	
		Linuron	0.0040	U	ug/L	P340883	
		Acetaminophen**	0.0080	U	ug/L	P340883	
		Fenuron	0.0080	U	ug/L	P340883	
		Imazapyr**	0.0040	U	ug/L	P340883	MS
		Carbamazepine**	4.0E-04	U	ug/L	P340883	
		Fluridone**	8.0E-04	U	ug/L	P340883	
		Glyphosate**	0.10	U	ug/L	P340878	
		AMPA**	0.10	U	ug/L	P340878	
1972052	EPA 8270D	Aldrin	4.2	UJ	ng/L	P341342	RPD
		Alpha-BHC	2.1	U	ng/L	P341342	
		Beta-BHC	4.2	UJ	ng/L	P341342	LCS
		Delta-BHC	4.2	U	ng/L	P341342	
		Gamma-BHC	4.2	U	ng/L	P341342	
		Carbophenothion	4.2	U	ng/L	P341342	
		Chlorothalonil	2.1	UJ	ng/L	P341342	RPD
		Cypermethrin	21	U	ng/L	P341342	
		DDD-p,p'	3.2	U	ng/L	P341342	
		DDE-p,p'	3.2	U	ng/L	P341342	
		DDT-p,p'	3.2	U	ng/L	P341342	
		Dieldrin	4.2	U	ng/L	P341342	
		Endosulfan I	4.2	U	ng/L	P341342	
		Endosulfan II	4.2	U	ng/L	P341342	
		Endosulfan Sulfate	2.1	U	ng/L	P341342	
		Endrin	2.1	U	ng/L	P341342	
		Endrin Aldehyde	2.1	U	ng/L	P341342	
		Heptachlor	1.6	U	ng/L	P341342	
		Heptachlor Epoxide	2.1	U	ng/L	P341342	
		Methoxychlor	4.2	U	ng/L	P341342	
		Mirex	2.1	U	ng/L	P341342	
		Permethrin	11	U	ng/L	P341342	
		Trifluralin	1.1	U	ng/L	P341342	
		Alpha-Chlordane	1.1	U	ng/L	P341342	
		Gamma-Chlordane	1.1	U	ng/L	P341342	
		Endrin Ketone	2.1	U	ng/L	P341342	
		Dicofol	32	U	ng/L	P341342	
	EPA 8276	Chlordane**	2.6	U	ng/L	P341342	
		Toxaphene**	32	U	ng/L	P341342	

Field ID: Field Blank Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972054	EPA 8270D	Alachlor	0.27	U	ng/L	P341343	
		Ametryn	0.35	U	ng/L	P341343	
		Atrazine	0.27	U	ng/L	P341343	
		Atrazine Desethyl	1.6	U	ng/L	P341343	
		Azinphos Methyl	2.4	U	ng/L	P341343	
		Bromacil	0.54	U	ng/L	P341343	
		Butylate	0.43	U	ng/L	P341343	
		Chlorpyrifos Ethyl	0.27	U	ng/L	P341343	
		Chlorpyrifos Methyl	0.11	U	ng/L	P341343	
		Demeton	2.1	U	ng/L	P341343	
		Diazinon	0.13	U	ng/L	P341343	
		Disulfoton	0.54	U	ng/L	P341343	
		EPTC	1.3	U	ng/L	P341343	
		Ethion	0.16	U	ng/L	P341343	
		Ethoprop	0.11	U	ng/L	P341343	
		Fenamiphos	0.27	U	ng/L	P341343	
		Fipronil	0.27	U	ng/L	P341343	
		Fipronil Sulfide	0.16	U	ng/L	P341343	
		Fipronil Sulfone	0.16	U	ng/L	P341343	
		Hexazinone	0.54	U	ng/L	P341343	
		Malathion	0.38	U	ng/L	P341343	
		Metribuzin	0.21	U	ng/L	P341343	
		Mevinphos	0.54	U	ng/L	P341343	
		Molinate	0.32	U	ng/L	P341343	
		Norflurazon	0.54	U	ng/L	P341343	
		Pendimethalin	1.1	U	ng/L	P341343	
		Phorate	0.27	U	ng/L	P341343	
		Prometon	0.97	U	ng/L	P341343	
		Prometryn	0.21	U	ng/L	P341343	
		Simazine	0.54	U	ng/L	P341343	
		Terbufos	0.11	U	ng/L	P341343	
		Terbuthylazine	0.46	U	ng/L	P341343	
		Fonofos	0.21	U	ng/L	P341343	
		Metalaxyl	0.27	U	ng/L	P341343	
		Metolachlor	0.81	I	ng/L	P341343	
		Acetochlor	0.27	U	ng/L	P341343	
		Cyanazine	0.54	U	ng/L	P341343	
		Parathion Ethyl	0.27	U	ng/L	P341343	
		Parathion Methyl	0.27	U	ng/L	P341343	

Ref. Method and Comment:
EPA 8321B: Fenuron was detected in the method blank slightly above the MDL.
EPA 8270D: Refer to the narrative for an explanation of QC Codes.
EPA 8270D: Analytical results were confirmed by re-extraction and re-analysis.

Sample Location: Field Blank **Collection Date/Time: 03/05/2018 10:20**

Field ID: Field Blank Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972011	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P341075	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P341225	
		Sulfate	0.20	U	mg SO4/L	P341229	
	SM 2120 B	Color (true)	2.5	U	PCU	P341021	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P341453	
	SM 2540 C-97	TDS	15	U	mg/L	P341462	
	SM 2540 D-97	TSS	2	U	mg/L	P341370	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P341458	
1972012	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P341407	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P341176	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341202	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P341166	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P341194	
1972013	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P341051	
1972057	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P341089	
		Iron	30	U	ug/L	P341089	
		Magnesium	0.040	U	mg/L	P341089	
		Potassium	0.30	U	mg/L	P341089	
		Sodium	0.50	U	mg/L	P341089	
		Zinc	5.0	U	ug/L	P341089	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P341089	
		Cadmium	0.020	U	ug/L	P341089	
		Chromium	0.40	U	ug/L	P341089	
		Copper	0.20	U	ug/L	P341089	
		Lead	0.050	U	ug/L	P341089	
		Nickel	0.20	U	ug/L	P341089	
		Silver	0.010	U	ug/L	P341089	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341074

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341075

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341089

Component	Result	Code	Units
Calcium	0.075	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341089

Component	Result	Code	Units
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: P341089

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: P341225

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341229

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341407

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341173

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341176

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341201

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341201

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341202

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341166

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341051

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341052

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

Reference Method: EPA 8270D
Batch ID: P341342

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P341342

Component	Result	Code	Units
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: P341343

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
Metalaxyl	0.25	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8276
Batch ID: P341342

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

Reference Method: EPA 8321B
Batch ID: P340878

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

Reference Method: EPA 8321B
Batch ID: P340883

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	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	0.021	I	ug/L
Fluridone	8.0E-04	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
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: P340984

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P341021

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2120 B
Batch ID: P341031

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P341453

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

Reference Method: SM 2540 C-97
Batch ID: P341462

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P341467

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P341468

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341370

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341375

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341376

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P341458

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P341194

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: P341089

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	108		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	106		P	85 - 115
Sodium	103		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341089

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	98.0		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	98.3		P	85 - 115
Copper	96.8		P	85 - 115
Lead	106		P	85 - 115
Nickel	96.9		P	85 - 115
Silver	89.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341225

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341229

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341407

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341173

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341176

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.6		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341201

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341202

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341166

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.9		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341051

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341052

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

Reference Method: EPA 8270D
Batch ID: P341342

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	66.8	31.8	P/P	24 - 89.0
Alpha-BHC	85.1	81.1	P/P	58 - 117
Alpha-Chlordane	87.0	81.4	P/P	56 - 115
Beta-BHC	139	147	F/F	55 - 137
Carbophenothion	98.7	91.9	P/P	37 - 145
Chlorothalonil	48.7	29.8	P/P	26 - 163
Cypermethrin	90.3	83.7	P/P	42 - 156
DDD-p,p'	99.1	105	P/P	59 - 129
DDE-p,p'	81.5	79.7	P/P	52 - 117
DDT-p,p'	92.6	83.4	P/P	48 - 128
Delta-BHC	116	135	P/P	59 - 158
Dicofol	80.5	77.1	P/P	19 - 124
Dieldrin	89.6	88.9	P/P	57 - 126
Endosulfan I	87.3	87.5	P/P	59 - 133
Endosulfan II	104	104	P/P	58 - 148
Endosulfan Sulfate	113	118	P/P	56 - 135

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P341342

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	86.7	83.0	P/P	50 - 140
Endrin Aldehyde	94.4	101	P/P	47 - 141
Endrin Ketone	98.6	102	P/P	63 - 123
Gamma-BHC	88.7	93.0	P/P	59 - 132
Gamma-Chlordane	85.1	78.1	P/P	55 - 112
Heptachlor	71.5	64.4	P/P	45 - 102
Heptachlor Epoxide	88.3	85.1	P/P	61 - 116
Methoxychlor	101	89.6	P/P	60 - 133
Mirex	73.3	64.4	P/P	40 - 98.0
Permethrin	88.6	81.1	P/P	45 - 131
Trifluralin	81.8	75.5	P/P	38 - 179

Reference Method: EPA 8270D
Batch ID: P341343

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	98.2	95.6	P/P	74 - 119
Alachlor	99.4	96.1	P/P	75 - 118
Ametryn	107	105	P/P	59 - 137
Atrazine	101	92.4	P/P	73 - 120
Atrazine Desethyl	93.8	91.9	P/P	19 - 129
Azinphos Methyl	108	103	P/P	65 - 181
Bromacil	91.1	76.2	P/P	43 - 123
Butylate	51.7	53.2	P/P	28 - 85.0
Chlorpyrifos Ethyl	95.4	90.0	P/P	55 - 112
Chlorpyrifos Methyl	99.0	93.8	P/P	35 - 124
Cyanazine	135	121	P/P	26 - 262
Demeton	78.2	84.0	P/P	43 - 122
Diazinon	98.2	99.1	P/P	72 - 120
Disulfoton	79.4	85.7	P/P	45 - 137
EPTC	51.0	55.5	P/P	28 - 95.0
Ethion	83.9	86.8	P/P	63 - 127
Ethoprop	91.3	91.3	P/P	63 - 109
Fenamiphos	103	99.4	P/P	66 - 136
Fipronil	104	99.0	P/P	63 - 126
Fipronil Sulfide	104	92.6	P/P	59 - 123
Fipronil Sulfone	93.3	84.2	P/P	56 - 122
Fonofos	94.0	90.8	P/P	64 - 114
Hexazinone	101	100	P/P	49 - 144
Malathion	101	92.7	P/P	68 - 131
Metalaxyl	99.7	94.7	P/P	57 - 126
Metolachlor	95.8	93.1	P/P	75 - 118
Metribuzin	160	137	P/P	46 - 169
Mevinphos	84.8	80.4	P/P	34 - 126
Molinate	60.2	60.4	P/P	37 - 101
Norflurazon	98.9	94.3	P/P	63 - 127
Parathion Ethyl	93.2	93.2	P/P	78 - 109
Parathion Methyl	103	100	P/P	74 - 123
Pendimethalin	114	116	P/P	51 - 130
Phorate	90.4	88.3	P/P	53 - 116
Prometon	91.4	86.0	P/P	66 - 124
Prometryn	96.3	93.7	P/P	66 - 124

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P341343

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Simazine	103	98.1	P/P	62 - 134
Terbufos	88.6	89.6	P/P	59 - 115
Terbuthylazine	96.2	93.4	P/P	76 - 113

Reference Method: EPA 8276
Batch ID: P341342

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	60.7	61.0	P/P	47 - 125
Toxaphene	75.1	72.6	P/P	46 - 147

Reference Method: EPA 8321B
Batch ID: P340878

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	104		P	40 - 150
Glyphosate	102		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340883

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.0		P	40 - 150
3-Hydroxycarbofuran	91.5		P	40 - 150
Acetaminophen	91.3		P	30 - 150
Aldicarb	79.3		P	30 - 150
Aldicarb Sulfone	92.7		P	40 - 150
Aldicarb Sulfoxide	94.9		P	40 - 150
Bentazon	103		P	30 - 150
Carbamazepine	78.8		P	40 - 150
Carbaryl	66.7		P	40 - 150
Carbofuran	77.3		P	40 - 150
Diuron	65.0		P	40 - 150
Fenuron	95.5		P	40 - 150
Fluridone	66.0		P	40 - 150
Imazapyr	63.3		P	40 - 150
Imidacloprid	89.3		P	40 - 160
Linuron	73.6		P	40 - 150
MCPP	83.2		P	40 - 150
Methiocarb	72.3		P	40 - 150
Methomyl	98.0		P	40 - 150
Oxamyl	87.1		P	40 - 150
Primidone	100		P	40 - 150
Propoxur	73.4		P	40 - 150
Pyraclostrobin	67.9		P	40 - 150
Triclopyr	77.5		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340984

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	100		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P341453

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.4		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P341458

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.0		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P341194

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.5		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341089

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971848	Calcium	104		P	80 - 120
1971848	Iron	110		P	80 - 120
1971848	Magnesium	105		P	80 - 120
1971848	Potassium	107		P	80 - 120
1971848	Sodium	103		P	80 - 120
1971848	Zinc	101		P	80 - 120
1972137	Calcium	107		P	80 - 120
1972137	Iron	108	110	P/P	80 - 120
1972137	Magnesium	107		P	80 - 120
1972137	Potassium	107	110	P/P	80 - 120
1972137	Sodium	105		P	80 - 120
1972137	Zinc	100	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341089

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971848	Arsenic	100		P	80 - 120
1971848	Cadmium	102		P	80 - 120
1971848	Chromium	97.8		P	80 - 120
1971848	Copper	96.9		P	80 - 120
1971848	Lead	107		P	80 - 120
1971848	Nickel	96.4		P	80 - 120
1971848	Silver	89.6		P	80 - 120
1972137	Arsenic	101	101	P/P	80 - 120
1972137	Cadmium	105	103	P/P	80 - 120
1972137	Chromium	98.1	98.2	P/P	80 - 120
1972137	Copper	97.9	98.5	P/P	80 - 120
1972137	Lead	109	110	P/P	80 - 120
1972137	Nickel	98.1	97.9	P/P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341089

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972137	Silver	90.4	90.0	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341225

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972072	Chloride	98.2		P	90 - 110
1972073	Chloride	95.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341229

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972072	Sulfate	99.7		P	90 - 110
1972073	Sulfate	97.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341407

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972008	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972007	Kjeldahl Nitrogen	92.4	94.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341201

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972002	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341202

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972007	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341166

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972001	Total-P	96.4	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341051

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971797	O-Phosphate-P	98.3	98.3	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341052

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972010	O-Phosphate-P	96.6	98.0	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P341342

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973124	Aldrin	59.8	63.0	P/P	26 - 96.0
1973124	Alpha-BHC	87.6	87.3	P/P	51 - 123
1973124	Alpha-Chlordane	84.0	83.3	P/P	45 - 120
1973124	Beta-BHC	137	134	P/P	43 - 146
1973124	Carbophenothion	99.6	111	P/P	26 - 179
1973124	Chlorothalonil	63.9	107	P/P	10 - 215
1973124	Cypermethrin	77.9	87.4	P/P	35 - 169
1973124	DDD-p,p'	96.5	104	P/P	49 - 131
1973124	DDE-p,p'	84.5	83.5	P/P	39 - 127
1973124	DDT-p,p'	84.9	85.9	P/P	49 - 120
1973124	Delta-BHC	124	145	P/P	49 - 187
1973124	Dicofol	79.0	77.1	P/P	10 - 129
1973124	Dieldrin	90.2	87.3	P/P	46 - 132
1973124	Endosulfan I	87.7	94.5	P/P	57 - 130
1973124	Endosulfan II	110	117	P/P	52 - 148
1973124	Endosulfan Sulfate	103	113	P/P	55 - 129
1973124	Endrin	91.6	85.1	P/P	45 - 133
1973124	Endrin Aldehyde	92.4	76.9	P/P	26 - 140
1973124	Endrin Ketone	94.1	99.3	P/P	60 - 125
1973124	Gamma-BHC	82.6	84.7	P/P	50 - 145
1973124	Gamma-Chlordane	81.2	81.5	P/P	44 - 118
1973124	Heptachlor	66.3	66.8	P/P	35 - 106
1973124	Heptachlor Epoxide	87.2	86.6	P/P	52 - 123
1973124	Methoxychlor	90.7	91.7	P/P	54 - 132
1973124	Mirex	67.0	68.9	P/P	36 - 107
1973124	Permethrin	79.4	82.4	P/P	47 - 135
1973124	Trifluralin	77.9	78.1	P/P	32 - 228

Reference Method: EPA 8270D
Batch ID: P341343

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972133	Acetochlor	92.8	96.6	P/P	67 - 125
1972133	Alachlor	90.1	89.0	P/P	69 - 123
1972133	Ametryn	105	110	P/P	52 - 151
1972133	Atrazine	92.5	93.5	P/P	71 - 125
1972133	Atrazine Desethyl	105	110	P/P	10 - 129
1972133	Azinphos Methyl	91.6	101	P/P	48 - 200
1972133	Bromacil	91.8	96.1	P/P	46 - 130
1972133	Butylate	34.4	42.9	P/P	10 - 85.0
1972133	Chlorpyrifos Ethyl	75.1	83.8	P/P	54 - 115
1972133	Chlorpyrifos Methyl	83.9	90.6	P/P	44 - 117
1972133	Cyanazine	115	122	P/P	10 - 262
1972133	Demeton	69.2	78.9	P/P	24 - 145
1972133	Diazinon	101	102	P/P	66 - 129
1972133	Disulfoton	71.3	72.2	P/P	45 - 139

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P341343

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972133	EPTC	33.4	41.9	P/P	10 - 86.0
1972133	Ethion	89.5	84.4	P/P	59 - 133
1972133	Ethoprop	92.4	98.8	P/P	54 - 116
1972133	Fenamiphos	86.7	101	P/P	55 - 140
1972133	Fipronil	103	110	P/P	37 - 142
1972133	Fipronil Sulfide	89.9	103	P/P	37 - 130
1972133	Fipronil Sulfone	82.3	93.5	P/P	18 - 143
1972133	Fonofos	89.9	96.4	P/P	55 - 118
1972133	Hexazinone	108	117	P/P	62 - 140
1972133	Malathion	83.8	87.3	P/P	64 - 132
1972133	Metalaxyl	90.7	96.0	P/P	55 - 129
1972133	Metolachlor	83.7	90.2	P/P	56 - 137
1972133	Metribuzin	162	175	P/P	16 - 218
1972133	Mevinphos	83.5	91.6	P/P	34 - 129
1972133	Molinate	54.1	58.4	P/P	16 - 99.0
1972133	Norflurazon	93.0	103	P/P	43 - 135
1972133	Parathion Ethyl	88.4	96.2	P/P	71 - 112
1972133	Parathion Methyl	96.9	104	P/P	65 - 127
1972133	Pendimethalin	111	117	P/P	35 - 159
1972133	Phorate	79.3	77.7	P/P	41 - 129
1972133	Prometon	92.3	104	P/P	56 - 140
1972133	Prometryn	99.1	104	P/P	65 - 130
1972133	Simazine	107	116	P/P	54 - 148
1972133	Terbufos	83.9	90.0	P/P	53 - 126
1972133	Terbuthylazine	94.8	103	P/P	73 - 114

Reference Method: EPA 8276
Batch ID: P341342

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972669	Chlordane	76.3	67.4	P/P	41 - 134
1972669	Toxaphene	87.6	81.5	P/P	39 - 158

Reference Method: EPA 8321B
Batch ID: P340878

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971373	AMPA	81.5	78.3	P/P	40 - 150
1971373	Glyphosate	95.8	87.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340883

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972049	2,4-D	44.4	44.3	P/P	40 - 150
1972049	3-Hydroxycarbofuran	92.1	90.3	P/P	40 - 150
1972049	Acetaminophen	119	117	P/P	30 - 150
1972049	Aldicarb	66.6	70.8	P/P	30 - 150
1972049	Aldicarb Sulfone	110	113	P/P	40 - 150
1972049	Aldicarb Sulfoxide	86.9	87.6	P/P	40 - 150
1972049	Bentazon	27.9	28.9	F/F	30 - 150
1972049	Carbamazepine	74.3	75.3	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P340883

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972049	Carbaryl	53.7	56.0	P/P	40 - 150
1972049	Carbofuran	59.9	61.0	P/P	40 - 150
1972049	Diuron	55.3	56.0	P/P	40 - 150
1972049	Fenuron	67.5	74.7	P/P	40 - 150
1972049	Fluridone	59.9	59.9	P/P	40 - 150
1972049	Imazapyr	52.1	37.9	P/F	40 - 150
1972049	Imidacloprid	164	161	F/F	40 - 160
1972049	Linuron	77.1	72.0	P/P	40 - 150
1972049	MCPP	30.8	31.9	F/F	40 - 150
1972049	Methiocarb	71.7	66.4	P/P	40 - 150
1972049	Methomyl	87.9	81.4	P/P	40 - 150
1972049	Oxamyl	74.9	76.5	P/P	40 - 150
1972049	Primidone	81.4	91.4	P/P	40 - 150
1972049	Propoxur	55.7	56.4	P/P	40 - 150
1972049	Pyraclostrobin	59.3	61.1	P/P	40 - 150
1972049	Triclopyr	40.0	45.0	F/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340984

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971431	Sucralose	98.3	104	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P341458

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971581	Fluoride	92.6	93.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P341194

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971865	Organic Carbon	95.6	96.6	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971966	Turbidity	6.39	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972005	Turbidity	0.712	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341089

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972137	Calcium	1.51	Spike	P	0 - 20
1972137	Iron	2.11	Spike	P	0 - 20
1972137	Magnesium	2.28	Spike	P	0 - 20
1972137	Potassium	1.63	Spike	P	0 - 20
1972137	Sodium	1.33	Spike	P	0 - 20
1972137	Zinc	0.612	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341089

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972137	Arsenic	0.0864	Spike	P	0 - 20
1972137	Cadmium	1.99	Spike	P	0 - 20
1972137	Chromium	0.171	Spike	P	0 - 20
1972137	Copper	0.534	Spike	P	0 - 20
1972137	Lead	0.528	Spike	P	0 - 20
1972137	Nickel	0.217	Spike	P	0 - 20
1972137	Silver	0.473	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972072	Chloride	0.0448	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341229

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972072	Sulfate	0.223	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341407

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972008	Ammonia-N	0.902	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972001	Kjeldahl Nitrogen	0.338	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972007	Kjeldahl Nitrogen	0.918	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972002	NO2NO3-N	1.09	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341202

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972007	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972001	Total-P	2.05	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971797	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341052

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972010	O-Phosphate-P	0.928	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P341342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973124	Aldrin	5.24	Spike	P	0 - 30
1973124	Alpha-BHC	0.364	Spike	P	0 - 30
1973124	Alpha-Chlordane	0.866	Spike	P	0 - 30
1973124	Beta-BHC	2.01	Spike	P	0 - 30
1973124	Carbophenothion	10.5	Spike	P	0 - 30
1973124	Chlorothalonil	50.7	Spike	F	0 - 30
1973124	Cypermethrin	11.6	Spike	P	0 - 30
1973124	DDD-p,p'	7.60	Spike	P	0 - 30
1973124	DDE-p,p'	1.20	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P341342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973124	DDT-p,p'	1.17	Spike	P	0 - 30
1973124	Delta-BHC	15.9	Spike	P	0 - 30
1973124	Dicofol	2.33	Spike	P	0 - 30
1973124	Dieldrin	3.32	Spike	P	0 - 30
1973124	Endosulfan I	7.41	Spike	P	0 - 30
1973124	Endosulfan II	5.50	Spike	P	0 - 30
1973124	Endosulfan Sulfate	8.82	Spike	P	0 - 30
1973124	Endrin	7.38	Spike	P	0 - 30
1973124	Endrin Aldehyde	18.4	Spike	P	0 - 30
1973124	Endrin Ketone	5.31	Spike	P	0 - 30
1973124	Gamma-BHC	2.49	Spike	P	0 - 30
1973124	Gamma-Chlordane	0.308	Spike	P	0 - 30
1973124	Heptachlor	0.748	Spike	P	0 - 30
1973124	Heptachlor Epoxide	0.655	Spike	P	0 - 30
1973124	Methoxychlor	1.14	Spike	P	0 - 30
1973124	Mirex	2.79	Spike	P	0 - 30
1973124	Permethrin	3.79	Spike	P	0 - 30
1973124	Trifluralin	0.211	Spike	P	0 - 30
LFB	Aldrin	71.0	LCS	F	0 - 30
LFB	Alpha-BHC	4.89	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.66	LCS	P	0 - 30
LFB	Beta-BHC	5.36	LCS	P	0 - 30
LFB	Carbophenothion	7.14	LCS	P	0 - 30
LFB	Chlorothalonil	48.2	LCS	F	0 - 30
LFB	Cypermethrin	7.66	LCS	P	0 - 30
LFB	DDD-p,p'	5.95	LCS	P	0 - 30
LFB	DDE-p,p'	2.26	LCS	P	0 - 30
LFB	DDT-p,p'	10.4	LCS	P	0 - 30
LFB	Delta-BHC	15.5	LCS	P	0 - 30
LFB	Dicofol	4.29	LCS	P	0 - 30
LFB	Dieldrin	0.755	LCS	P	0 - 30
LFB	Endosulfan I	0.221	LCS	P	0 - 30
LFB	Endosulfan II	0.916	LCS	P	0 - 30
LFB	Endosulfan Sulfate	4.19	LCS	P	0 - 30
LFB	Endrin	4.30	LCS	P	0 - 30
LFB	Endrin Aldehyde	6.31	LCS	P	0 - 30
LFB	Endrin Ketone	3.20	LCS	P	0 - 30
LFB	Gamma-BHC	4.78	LCS	P	0 - 30
LFB	Gamma-Chlordane	8.60	LCS	P	0 - 30
LFB	Heptachlor	10.4	LCS	P	0 - 30
LFB	Heptachlor Epoxide	3.63	LCS	P	0 - 30
LFB	Methoxychlor	11.5	LCS	P	0 - 30
LFB	Mirex	12.8	LCS	P	0 - 30
LFB	Permethrin	8.88	LCS	P	0 - 30
LFB	Trifluralin	8.05	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P341343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P341343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972133	Acetochlor	4.05	Spike	P	0 - 30
1972133	Alachlor	1.30	Spike	P	0 - 30
1972133	Ametryn	2.49	Spike	P	0 - 30
1972133	Atrazine	0.489	Spike	P	0 - 30
1972133	Atrazine Desethyl	4.55	Spike	P	0 - 30
1972133	Azinphos Methyl	10.2	Spike	P	0 - 30
1972133	Bromacil	4.61	Spike	P	0 - 30
1972133	Butylate	22.1	Spike	P	0 - 30
1972133	Chlorpyrifos Ethyl	10.9	Spike	P	0 - 30
1972133	Chlorpyrifos Methyl	7.72	Spike	P	0 - 30
1972133	Cyanazine	6.21	Spike	P	0 - 30
1972133	Demeton	13.1	Spike	P	0 - 30
1972133	Diazinon	0.906	Spike	P	0 - 30
1972133	Disulfoton	1.21	Spike	P	0 - 30
1972133	EPTC	22.8	Spike	P	0 - 30
1972133	Ethion	5.88	Spike	P	0 - 30
1972133	Ethoprop	6.72	Spike	P	0 - 30
1972133	Fenamiphos	15.4	Spike	P	0 - 30
1972133	Fipronil	7.00	Spike	P	0 - 30
1972133	Fipronil Sulfide	13.3	Spike	P	0 - 30
1972133	Fipronil Sulfone	12.8	Spike	P	0 - 30
1972133	Fonofos	6.96	Spike	P	0 - 30
1972133	Hexazinone	7.85	Spike	P	0 - 30
1972133	Malathion	4.15	Spike	P	0 - 30
1972133	Metalaxyl	5.72	Spike	P	0 - 30
1972133	Metolachlor	6.88	Spike	P	0 - 30
1972133	Metribuzin	7.76	Spike	P	0 - 30
1972133	Mevinphos	9.29	Spike	P	0 - 30
1972133	Molinate	7.55	Spike	P	0 - 30
1972133	Norflurazon	10.2	Spike	P	0 - 30
1972133	Parathion Ethyl	8.43	Spike	P	0 - 30
1972133	Parathion Methyl	7.05	Spike	P	0 - 30
1972133	Pendimethalin	5.13	Spike	P	0 - 30
1972133	Phorate	1.68	Spike	P	0 - 30
1972133	Prometon	11.6	Spike	P	0 - 30
1972133	Prometryn	4.46	Spike	P	0 - 30
1972133	Simazine	7.93	Spike	P	0 - 30
1972133	Terbufos	7.02	Spike	P	0 - 30
1972133	Terbuthylazine	7.90	Spike	P	0 - 30
LFB	Acetochlor	2.75	LCS	P	0 - 30
LFB	Alachlor	3.39	LCS	P	0 - 30
LFB	Ametryn	2.45	LCS	P	0 - 30
LFB	Atrazine	9.33	LCS	P	0 - 30
LFB	Atrazine Desethyl	2.07	LCS	P	0 - 30
LFB	Azinphos Methyl	5.53	LCS	P	0 - 30
LFB	Bromacil	17.8	LCS	P	0 - 30
LFB	Butylate	2.92	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	5.83	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.39	LCS	P	0 - 30
LFB	Cyanazine	10.7	LCS	P	0 - 30
LFB	Demeton	7.15	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P341343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Diazinon	0.963	LCS	P	0 - 30
LFB	Disulfoton	7.59	LCS	P	0 - 30
LFB	EPTC	8.40	LCS	P	0 - 30
LFB	Ethion	3.48	LCS	P	0 - 30
LFB	Ethoprop	0.0397	LCS	P	0 - 30
LFB	Fenamiphos	3.71	LCS	P	0 - 30
LFB	Fipronil	5.07	LCS	P	0 - 30
LFB	Fipronil Sulfide	11.6	LCS	P	0 - 30
LFB	Fipronil Sulfone	10.2	LCS	P	0 - 30
LFB	Fonofos	3.41	LCS	P	0 - 30
LFB	Hexazinone	1.10	LCS	P	0 - 30
LFB	Malathion	8.20	LCS	P	0 - 30
LFB	Metalaxyl	5.14	LCS	P	0 - 30
LFB	Metolachlor	2.84	LCS	P	0 - 30
LFB	Metribuzin	15.4	LCS	P	0 - 30
LFB	Mevinphos	5.27	LCS	P	0 - 30
LFB	Molinate	0.246	LCS	P	0 - 30
LFB	Norflurazon	4.79	LCS	P	0 - 30
LFB	Parathion Ethyl	0.0201	LCS	P	0 - 30
LFB	Parathion Methyl	2.74	LCS	P	0 - 30
LFB	Pendimethalin	2.17	LCS	P	0 - 30
LFB	Phorate	2.41	LCS	P	0 - 30
LFB	Prometon	6.09	LCS	P	0 - 30
LFB	Prometryn	2.79	LCS	P	0 - 30
LFB	Simazine	5.17	LCS	P	0 - 30
LFB	Terbufos	1.19	LCS	P	0 - 30
LFB	Terbuthylazine	2.93	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P341342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972669	Chlordane	12.4	Spike	P	0 - 30
1972669	Toxaphene	7.16	Spike	P	0 - 30
LFB	Chlordane	0.418	LCS	P	0 - 30
LFB	Toxaphene	3.46	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971373	AMPA	3.05	Spike	P	0 - 30
1971373	Glyphosate	8.08	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340883

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P340883

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972049	2,4-D	0.162	Spike	P	0 - 30
1972049	3-Hydroxycarbofuran	1.97	Spike	P	0 - 30
1972049	Acetaminophen	2.37	Spike	P	0 - 30
1972049	Aldicarb	6.10	Spike	P	0 - 30
1972049	Aldicarb Sulfone	2.78	Spike	P	0 - 30
1972049	Aldicarb Sulfoxide	0.871	Spike	P	0 - 30
1972049	Bentazon	2.71	Spike	P	0 - 30
1972049	Carbamazepine	1.32	Spike	P	0 - 30
1972049	Carbaryl	4.05	Spike	P	0 - 30
1972049	Carbofuran	1.95	Spike	P	0 - 30
1972049	Diuron	1.26	Spike	P	0 - 30
1972049	Fenuron	10.2	Spike	P	0 - 30
1972049	Fluridone	0.0788	Spike	P	0 - 30
1972049	Imazapyr	13.5	Spike	P	0 - 30
1972049	Imidacloprid	1.62	Spike	P	0 - 30
1972049	Linuron	6.78	Spike	P	0 - 30
1972049	MCPP	3.48	Spike	P	0 - 30
1972049	Methiocarb	7.61	Spike	P	0 - 30
1972049	Methomyl	7.62	Spike	P	0 - 30
1972049	Oxamyl	2.13	Spike	P	0 - 30
1972049	Primidone	11.7	Spike	P	0 - 30
1972049	Propoxur	1.30	Spike	P	0 - 30
1972049	Pyraclostrobin	2.97	Spike	P	0 - 30
1972049	Triclopyr	11.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971431	Sucralose	5.28	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P341021

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972005	Color (true)	0.582	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P341031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971999	Color (true)	1.01	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P341453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: SM 2320 B-97
Batch ID: P341453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971581	Total Alkalinity	0.296	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P341462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971225	TDS	2.37	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P341467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971792	TDS	0.484	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P341468

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972000	TDS	2.05	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P341370

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971225	TSS	6.67	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P341458

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971581	Fluoride	0.987	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P341194

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971865	Organic Carbon	0.624	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

Quality Assurance Report
Surrogates

Lab Sample ID: 1972047
Field Sample ID: G3SD0088

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	42.1	P	30 - 160

Lab Sample ID: 1972048
Field Sample ID: Field Blank

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	48.3	P	30 - 160

Lab Sample ID: 1972049
Field Sample ID: G3SD0088

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	43.5	P	30 - 160
EPA 8321B	2,4-D-d3	43.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	121	P	30 - 160
EPA 8321B	Acetaminophen-d4	121	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.4	P	30 - 160
EPA 8321B	Diuron-d6	58.8	P	30 - 160
EPA 8321B	Diuron-d6	58.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	86.3	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	86.3	P	40 - 160
EPA 8321B	Primidone-d5	79.8	P	30 - 160
EPA 8321B	Primidone-d5	79.8	P	30 - 160
EPA 8321B	Sucralose-d6	130	P	40 - 160

Lab Sample ID: 1972050
Field Sample ID: Field Blank

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	49.3	P	30 - 160
EPA 8321B	2,4-D-d3	49.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	85.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	85.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.8	P	30 - 160
EPA 8321B	Diuron-d6	61.6	P	30 - 160
EPA 8321B	Diuron-d6	61.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	95.6	P	40 - 160
EPA 8321B	Primidone-d5	90.5	P	30 - 160
EPA 8321B	Primidone-d5	90.5	P	30 - 160
EPA 8321B	Sucralose-d6	128	P	40 - 160

Lab Sample ID: 1972051
Field Sample ID: G3SD0088

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	59.8	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	44.4	P	34 - 101
EPA 8276	Decachlorobiphenyl	53.2	P	31 - 108
EPA 8276	PCNB	100	P	62 - 142

Quality Assurance Report
Surrogates

Lab Sample ID: 1972052
Field Sample ID: Field Blank

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	64.7	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	49.2	P	34 - 101
EPA 8276	Decachlorobiphenyl	55.9	P	31 - 108
EPA 8276	PCNB	109	P	62 - 142

Lab Sample ID: 1972053
Field Sample ID: G3SD0088

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	120	P	71 - 126
EPA 8270D	Terbufos-d10	103	P	50 - 130

Lab Sample ID: 1972054
Field Sample ID: Field Blank

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	116	P	71 - 126
EPA 8270D	Terbufos-d10	97.6	P	50 - 130

Quality Assurance Report
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Reference Method: SM 2120 B
Run ID: A82460
Included Lab Sample IDs: 1972000, 1972005, 1972006, 1972011

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	85 - 115

Reference Method: SM 2120 B
Run ID: A82462
Included Lab Sample IDs: 1971999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.1	101	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A82474
Included Lab Sample IDs: 1972003, 1972004, 1972009, 1972010, 1972013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	101	98.2	P/P	90 - 110
O-Phosphate-P	98.9	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82476
Included Lab Sample IDs: 1971999, 1972000, 1972005, 1972006, 1972011

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

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Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82476
Included Lab Sample IDs: 1971999, 1972000, 1972005, 1972006, 1972011

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

Reference Method: EPA 8321B
Run ID: A82481
Included Lab Sample IDs: 1972049, 1972050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	71.7	70.9	P/P	70 - 130
Glyphosate	93.3	110	P/P	70 - 160

Reference Method: EPA 8321B
Run ID: A82499
Included Lab Sample IDs: 1972049, 1972050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	99.4	102	P/P	60 - 150

Reference Method: SM 5310 B-00
Run ID: A82505
Included Lab Sample IDs: 1972001, 1972002, 1972007, 1972008, 1972012

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.8	97.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A82506
Included Lab Sample IDs: 1972001, 1972002, 1972007, 1972008, 1972012

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	100	P/P	90 - 110
NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A82509
Included Lab Sample IDs: 1971999, 1972000, 1972005, 1972006, 1972011

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	94.1	95.4	P/P	90 - 110
Sulfate	95.7	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A82521
Included Lab Sample IDs: 1972001, 1972002

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	109	105	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A82526
Included Lab Sample IDs: 1972001, 1972002, 1972007, 1972008

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A82533
Included Lab Sample IDs: 1972012

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A82539
Included Lab Sample IDs: 1972007, 1972008, 1972012

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A82540
Included Lab Sample IDs: 1972055, 1972056, 1972057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	103	101	P/P	90 - 110
Arsenic	97.8	98.5	P/P	90 - 110
Cadmium	100	101	P/P	90 - 110
Cadmium	99.0	99.4	P/P	90 - 110
Chromium	94.3	96.4	P/P	90 - 110
Chromium	97.8	98.2	P/P	90 - 110
Copper	101	99.8	P/P	90 - 110
Copper	95.7	97.4	P/P	90 - 110
Lead	105	105	P/P	90 - 110
Lead	107	107	P/P	90 - 110
Nickel	101	99.8	P/P	90 - 110
Nickel	95.6	96.6	P/P	90 - 110
Silver	101	101	P/P	90 - 110
Silver	104	104	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A82542
Included Lab Sample IDs: 1972055, 1972056, 1972057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	103	P/P	95 - 105
Calcium	103	99.8	P/P	90 - 110
Iron	101	103	P/P	95 - 105
Iron	103	99.8	P/P	90 - 110
Magnesium	103	104	P/P	95 - 105
Magnesium	104	101	P/P	90 - 110
Potassium	103	102	P/P	90 - 110
Potassium	99.9	103	P/P	95 - 105
Sodium	101	99.6	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A82542
Included Lab Sample IDs: 1972055, 1972056, 1972057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	99.4	101	P/P	95 - 105
Zinc	102	99.8	P/P	95 - 105
Zinc	99.8	98.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A82558
Included Lab Sample IDs: 1972001, 1972002, 1972007, 1972008, 1972012

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	104	P/P	90 - 110
Ammonia-N	103	102	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A82571
Included Lab Sample IDs: 1971999, 1972000, 1972005, 1972006, 1972011

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.7	97.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A82571
Included Lab Sample IDs: 1971999, 1972000, 1972005, 1972006, 1972011

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	106	101	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A82580
Included Lab Sample IDs: 1972049, 1972050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	80.8	92.7	P/P	50 - 150
2,4-D	93.1	93.5	P/P	50 - 150
3-Hydroxycarbofuran	100	99.5	P/P	60 - 150
Acetaminophen	93.6	98.4	P/P	60 - 150
Acetaminophen	98.4	96.0	P/P	60 - 150
Aldicarb	103	93.1	P/P	60 - 150
Aldicarb Sulfone	99.1	97.2	P/P	50 - 150
Aldicarb Sulfoxide	94.4	101	P/P	50 - 150
Bentazon	127	136	P/P	50 - 150
Bentazon	98.2	139	P/P	50 - 150
Carbamazepine	102	97.6	P/P	60 - 150
Carbamazepine	97.6	96.6	P/P	60 - 150
Carbaryl	111	109	P/P	60 - 150
Carbofuran	115	116	P/P	50 - 150
Diuron	102	88.6	P/P	60 - 150
Diuron	88.6	99.0	P/P	60 - 150
Fenuron	94.7	95.6	P/P	60 - 150
Fenuron	95.6	92.8	P/P	60 - 150
Fluridone	109	105	P/P	60 - 160
Fluridone	109	109	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A82580
Included Lab Sample IDs: 1972049, 1972050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	79.4	79.8	P/P	50 - 150
Imazapyr	79.8	75.7	P/P	50 - 150
Imidacloprid	105	91.5	P/P	60 - 150
Imidacloprid	91.5	97.5	P/P	60 - 150
Linuron	107	96.0	P/P	60 - 150
Linuron	112	107	P/P	60 - 150
MCPP	89.1	94.3	P/P	50 - 150
MCPP	99.2	98.4	P/P	50 - 150
Methiocarb	105	106	P/P	50 - 150
Methomyl	98.1	107	P/P	50 - 150
Oxamyl	94.9	105	P/P	50 - 150
Primidone	92.8	97.2	P/P	60 - 150
Primidone	97.2	90.8	P/P	60 - 150
Propoxur	104	110	P/P	50 - 150
Pyraclostrobin	104	96.2	P/P	60 - 150
Pyraclostrobin	96.2	93.5	P/P	60 - 150
Triclopyr	88.5	83.7	P/P	50 - 150
Triclopyr	96.4	93.8	P/P	50 - 150

Reference Method: EPA 8270D
Run ID: A82637
Included Lab Sample IDs: 1972051, 1972052

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.1		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	98.0		P	80 - 120
Beta-BHC	105		P	80 - 120
Carbophenothion	101		P	80 - 120
Chlorothalonil	108		P	80 - 120
Cypermethrin	88.1		P	80 - 120
DDD-p,p'	100		P	80 - 120
DDE-p,p'	98.6		P	80 - 120
DDT-p,p'	106		P	80 - 120
Delta-BHC	101		P	80 - 120
Dicofol	102		P	80 - 120
Dieldrin	98.9		P	80 - 120
Endosulfan I	95.1		P	80 - 120
Endosulfan II	97.0		P	80 - 120
Endosulfan Sulfate	102		P	80 - 120
Endrin	94.5		P	80 - 120
Endrin Aldehyde	97.3		P	80 - 120
Endrin Ketone	94.6		P	80 - 120
Gamma-BHC	99.3		P	80 - 120
Gamma-Chlordane	97.5		P	80 - 120
Heptachlor	96.3		P	80 - 120
Heptachlor Epoxide	98.8		P	80 - 120
Methoxychlor	105		P	80 - 120
Mirex	96.0		P	80 - 120
Permethrin	92.1		P	80 - 120
Trifluralin	98.7		P	80 - 120

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Calibration Verification

Reference Method: EPA 8276
Run ID: A82682
Included Lab Sample IDs: 1972051, 1972052

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	89.0		P	80 - 120
Toxaphene	86.7		P	80 - 120

Reference Method: EPA 8270D
Run ID: A82759
Included Lab Sample IDs: 1972053, 1972054

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	108		P	80 - 120
Atrazine	92.7		P	80 - 120
Atrazine Desethyl	99.8		P	80 - 120
Azinphos Methyl	96.7		P	80 - 120
Bromacil	104		P	80 - 120
Butylate	98.2		P	80 - 120
Chlorpyrifos Ethyl	94.9		P	80 - 120
Chlorpyrifos Methyl	95.7		P	80 - 120
Cyanazine	93.5		P	80 - 120
Demeton	99.5		P	80 - 120
Diazinon	99.9		P	80 - 120
Disulfoton	92.3		P	80 - 120
EPTC	102		P	80 - 120
Ethion	85.4		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	95.5		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Sulfide	96.5		P	80 - 120
Fipronil Sulfone	96.9		P	80 - 120
Fonofos	95.9		P	80 - 120
Hexazinone	96.7		P	80 - 120
Malathion	95.9		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	85.7		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	102		P	80 - 120
Norflurazon	104		P	80 - 120
Parathion Ethyl	92.5		P	80 - 120
Parathion Methyl	94.1		P	80 - 120
Pendimethalin	100		P	80 - 120
Phorate	98.5		P	80 - 120
Prometon	100		P	80 - 120
Prometryn	103		P	80 - 120
Simazine	95.8		P	80 - 120
Terbufos	94.8		P	80 - 120
Terbuthylazine	98.8		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A82780
Included Lab Sample IDs: 1972053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	93.5		P	80 - 120

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							6.39	
	Turbidity							0.712	
EPA 200.7 Rev. 4.4	Calcium	105		104	107				1.51
	Iron	108		110	108	110			2.11
	Magnesium	105		105	107				2.28
	Potassium	106		107	107	110			1.63
	Sodium	103		103	105				1.33
	Zinc	101		101	100	101			0.612
EPA 200.8 Rev. 5.4	Arsenic	98.0		100	101	101			0.0864
	Cadmium	100		102	105	103			1.99
	Chromium	98.3		97.8	98.1	98.2			0.171
	Copper	96.8		96.9	97.9	98.5			0.534
	Lead	106		107	109	110			0.528
	Nickel	96.9		96.4	98.1	97.9			0.217
	Silver	89.2		89.6	90.4	90.0			0.473
EPA 300.0 Rev. 2.1	Chloride	97.3		98.2	95.0			0.0448	
	Sulfate	98.5		99.7	97.0			0.223	
EPA 350.1 Rev. 2.0	Ammonia-N	101		101	103				0.902
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102							0.338
	Kjeldahl Nitrogen	99.6		92.4	94.0				0.918
EPA 353.2 Rev. 2.0	NO2NO3-N	104		101	102				1.09
	NO2NO3-N	103		102	102				0.0
EPA 365.1 Rev. 2.0	Total-P	98.9		96.4	99.2				2.05
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		98.3	98.3				0.0
	O-Phosphate-P	98.8		96.6	98.0				0.928
EPA 8270D	Acetochlor	98.2	95.6	92.8	96.6		2.75		4.05
	Alachlor	99.4	96.1	90.1	89.0		3.39		1.30
	Aldrin	66.8	31.8	59.8	63.0		71.0		5.24
	Alpha-BHC	85.1	81.1	87.6	87.3		4.89		0.364
	Alpha-Chlordane	87.0	81.4	84.0	83.3		6.66		0.866
	Ametryn	107	105	105	110		2.45		2.49
	Atrazine	101	92.4	92.5	93.5		9.33		0.489
	Atrazine Desethyl	93.8	91.9	105	110		2.07		4.55
	Azinphos Methyl	108	103	91.6	101		5.53		10.2
	Beta-BHC	139	147	137	134		5.36		2.01
	Bromacil	91.1	76.2	91.8	96.1		17.8		4.61
	Butylate	51.7	53.2	34.4	42.9		2.92		22.1
	Carbophenothion	91.9	98.7	99.6	111		7.14		10.5
	Chlorothalonil	29.8	48.7	63.9	107		48.2		50.7

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Chlorpyrifos Ethyl	95.4	90.0	75.1	83.8	5.83		10.9
	Chlorpyrifos Methyl	99.0	93.8	83.9	90.6	5.39		7.72
	Cyanazine	135	121	115	122	10.7		6.21
	Cypermethrin	83.7	90.3	77.9	87.4	7.66		11.6
	DDD-p,p'	105	99.1	96.5	104	5.95		7.60
	DDE-p,p'	81.5	79.7	84.5	83.5	2.26		1.20
	DDT-p,p'	92.6	83.4	84.9	85.9	10.4		1.17
	Delta-BHC	135	116	124	145	15.5		15.9
	Demeton	78.2	84.0	69.2	78.9	7.15		13.1
	Diazinon	98.2	99.1	101	102	0.963		0.906
	Dicofol	80.5	77.1	79.0	77.1	4.29		2.33
	Dieldrin	89.6	88.9	90.2	87.3	0.755		3.32
	Disulfoton	79.4	85.7	71.3	72.2	7.59		1.21
	Endosulfan I	87.3	87.5	87.7	94.5	0.221		7.41
	Endosulfan II	104	104	110	117	0.916		5.50
	Endosulfan Sulfate	113	118	103	113	4.19		8.82
	Endrin	86.7	83.0	91.6	85.1	4.30		7.38
	Endrin Aldehyde	94.4	101	92.4	76.9	6.31		18.4
	Endrin Ketone	98.6	102	94.1	99.3	3.20		5.31
	EPTC	51.0	55.5	33.4	41.9	8.40		22.8
	Ethion	83.9	86.8	89.5	84.4	3.48		5.88
	Ethoprop	91.3	91.3	92.4	98.8	0.0397		6.72
	Fenamiphos	103	99.4	86.7	101	3.71		15.4
	Fipronil	104	99.0	103	110	5.07		7.00
	Fipronil Sulfide	104	92.6	89.9	103	11.6		13.3
	Fipronil Sulfone	93.3	84.2	82.3	93.5	10.2		12.8
	Fonofos	94.0	90.8	89.9	96.4	3.41		6.96
	Gamma-BHC	93.0	88.7	82.6	84.7	4.78		2.49
	Gamma-Chlordane	85.1	78.1	81.2	81.5	8.60		0.308
	Heptachlor	71.5	64.4	66.3	66.8	10.4		0.748
	Heptachlor Epoxide	88.3	85.1	87.2	86.6	3.63		0.655
	Hexazinone	101	100	108	117	1.10		7.85
	Malathion	101	92.7	83.8	87.3	8.20		4.15
	Metalaxyl	99.7	94.7	90.7	96.0	5.14		5.72
	Methoxychlor	101	89.6	90.7	91.7	11.5		1.14
	Metolachlor	95.8	93.1	83.7	90.2	2.84		6.88
	Metribuzin	160	137	162	175	15.4		7.76
	Mevinphos	84.8	80.4	83.5	91.6	5.27		9.29
	Mirex	73.3	64.4	67.0	68.9	12.8		2.79
	Molinate	60.2	60.4	54.1	58.4	0.246		7.55
	Norflurazon	98.9	94.3	93.0	103	4.79		10.2
	Parathion Ethyl	93.2	93.2	88.4	96.2	0.0201		8.43
	Parathion Methyl	103	100	96.9	104	2.74		7.05
	Pendimethalin	114	116	111	117	2.17		5.13
	Permethrin	88.6	81.1	79.4	82.4	8.88		3.79
	Phorate	90.4	88.3	79.3	77.7	2.41		1.68
	Prometon	91.4	86.0	92.3	104	6.09		11.6
	Prometryn	96.3	93.7	99.1	104	2.79		4.46
	Simazine	103	98.1	107	116	5.17		7.93
	Terbufos	88.6	89.6	83.9	90.0	1.19		7.02
	Terbuthylazine	96.2	93.4	94.8	103	2.93		7.90
	Trifluralin	81.8	75.5	77.9	78.1	8.05		0.211
EPA 8276	Chlordane	60.7	61.0	76.3	67.4	0.418		12.4
	Toxaphene	75.1	72.6	87.6	81.5	3.46		7.16

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	2,4-D	81.0	44.4	44.3			0.162
	3-Hydroxycarbofuran	91.5	92.1	90.3			1.97
	Acetaminophen	91.3	119	117			2.37
	Aldicarb	79.3	66.6	70.8			6.10
	Aldicarb Sulfone	92.7	110	113			2.78
	Aldicarb Sulfoxide	94.9	86.9	87.6			0.871
	AMPA	104	81.5	78.3			3.05
	Bentazon	103	27.9	28.9			2.71
	Carbamazepine	78.8	74.3	75.3			1.32
	Carbaryl	66.7	53.7	56.0			4.05
	Carbofuran	77.3	59.9	61.0			1.95
	Diuron	65.0	55.3	56.0			1.26
	Fenuron	95.5	67.5	74.7			10.2
	Fluridone	66.0	59.9	59.9			0.0788
	Glyphosate	102	95.8	87.4			8.08
	Imazapyr	63.3	52.1	37.9			13.5
	Imidacloprid	89.3	164	161			1.62
	Linuron	73.6	77.1	72.0			6.78
	MCPP	83.2	30.8	31.9			3.48
	Methiocarb	72.3	71.7	66.4			7.61
	Methomyl	98.0	87.9	81.4			7.62
	Oxamyl	87.1	74.9	76.5			2.13
	Primidone	100	81.4	91.4			11.7
	Propoxur	73.4	55.7	56.4			1.30
	Pyraclostrobin	67.9	59.3	61.1			2.97
	Sucralose	100	98.3	104			5.28
	Triclopyr	77.5	40.0	45.0			11.9
SM 2120 B	Color (true)					0.582	
	Color (true)					1.01	
SM 2320 B-97	Total Alkalinity	99.4				0.296	
SM 2540 C-97	TDS					2.37	
	TDS					0.484	
	TDS					2.05	
SM 2540 D-97	TSS					6.67	
SM 4500 F-C-97	Fluoride	95.0	92.6	93.7			0.987
SM 5310 B-00	Organic Carbon	96.5	95.6	96.6			0.624

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1971999, 1972000, 1972005, 1972006, 1972011
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1972055, 1972056, 1972057
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1972055, 1972056, 1972057
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1971999, 1972000, 1972005, 1972006, 1972011
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1971999, 1972000, 1972005, 1972006, 1972011
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1972001, 1972002, 1972007, 1972008, 1972012
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1972001, 1972002, 1972007, 1972008, 1972012

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1972001, 1972002, 1972007, 1972008, 1972012
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1972001, 1972002, 1972007, 1972008, 1972012
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1972003, 1972004, 1972009, 1972010, 1972013
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1972051, 1972052
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1972053, 1972054
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1972051, 1972052
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	1972047, 1972048
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1972049, 1972050
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1972049, 1972050
SM 2120 B / E31780	True Color measured at 450 nm	1971999, 1972000, 1972005, 1972006, 1972011
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1971999, 1972000, 1972005, 1972006, 1972011
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1971999, 1972000, 1972005, 1972006, 1972011
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1971999, 1972000, 1972005, 1972006, 1972011
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1971999, 1972000, 1972005, 1972006, 1972011
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1972001, 1972002, 1972007, 1972008, 1972012

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	03/06/2018			03/06/2018 17:11	DeAsia Armster	1971999, 1972000, 1972005, 1972006, 1972011
EPA 200.7 Rev. 4.4	03/06/2018	03/07/2018	Elliott D. Healy	03/09/2018	Betina Topolski	1972055, 1972056, 1972057
EPA 200.8 Rev. 5.4	03/06/2018	03/07/2018	Elliott D. Healy	03/09/2018	Nadine Brooks	1972055, 1972056, 1972057
EPA 300.0 Rev. 2.1	03/06/2018			03/08/2018	Julia Storbeck	1971999, 1972000, 1972005, 1972006, 1972011
EPA 350.1 Rev. 2.0	03/06/2018			03/09/2018	Ping Hua	1972001, 1972002, 1972007, 1972008, 1972012
EPA 351.2 Rev. 2.0	03/06/2018	03/08/2018	Adrian Shelby	03/09/2018	Joseph Suarez	1972001, 1972002, 1972007, 1972008, 1972012
EPA 353.2 Rev. 2.0	03/06/2018			03/08/2018	Lauren Bottorf	1972001, 1972002, 1972007, 1972008, 1972012
EPA 365.1 Rev. 2.0	03/06/2018	03/08/2018	Lipi Saha	03/09/2018	Lipi Saha	1972001, 1972002, 1972007, 1972008, 1972012
EPA 365.1 Rev. 2.0 dissolved	03/06/2018			03/06/2018 16:15	Megan Treadwell	1972010
	03/06/2018			03/06/2018 17:01	Megan Treadwell	1972003
	03/06/2018			03/06/2018 17:06	Megan Treadwell	1972004
	03/06/2018			03/06/2018 17:07	Megan Treadwell	1972009
	03/06/2018			03/06/2018 17:08	Megan Treadwell	1972013
EPA 8270D	03/06/2018	03/09/2018	Rasheda Ghaffari	03/13/2018	Marek Topolski	1972051, 1972052
	03/06/2018	03/12/2018	John Kaba	03/14/2018	Vandana T. Nagar	1972053, 1972054
	03/06/2018	03/12/2018	John Kaba	03/15/2018	Vandana T. Nagar	1972053
EPA 8276	03/06/2018	03/09/2018	Rasheda Ghaffari	03/14/2018	John P. Burgos	1972051, 1972052
EPA 8321B	03/06/2018	03/07/2018	Hoor Shaik	03/08/2018	Julie Michelle Frank	1972047, 1972048
	03/06/2018	03/07/2018	Hoor Shaik	03/09/2018	Julie Michelle Frank	1972049, 1972050
	03/06/2018	03/07/2018	Julie Michelle Frank	03/07/2018	Julie Michelle Frank	1972049, 1972050
	03/06/2018	03/07/2018	Julie Michelle Frank	03/08/2018	Juyoung Kim	1972049, 1972050
SM 2120 B	03/06/2018			03/06/2018 14:40	Tanya Welborn	1972000
	03/06/2018			03/06/2018 14:42	Tanya Welborn	1972005
	03/06/2018			03/06/2018 14:43	Tanya Welborn	1972006
	03/06/2018			03/06/2018 14:44	Tanya Welborn	1972011
	03/06/2018			03/06/2018 16:53	Tanya Welborn	1971999
SM 2320 B-97	03/06/2018			03/13/2018	Dale L. Simmons	1971999, 1972000, 1972005, 1972006, 1972011
SM 2540 C-97	03/06/2018			03/07/2018	Yijie Li	1971999, 1972000, 1972005, 1972006, 1972011
SM 2540 D-97	03/06/2018			03/07/2018	Yijie Li	1971999, 1972000, 1972005, 1972006, 1972011
SM 4500 F-C-97	03/06/2018			03/13/2018	Dale L. Simmons	1971999, 1972000, 1972005, 1972006, 1972011
SM 5310 B-00	03/06/2018			03/08/2018	Megan Treadwell	1972001, 1972002, 1972007, 1972008, 1972012