Chemical Analysis Report

SW-DIST-2019-05-09-01

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

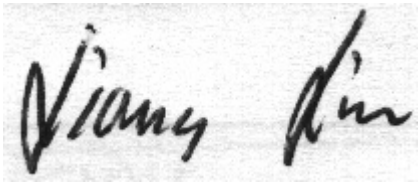
Event Description: **SMP: Run 8**
Request ID: **RQ-2019-05-06-08**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Ben Paswater

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

Certified by: Liang Lin, Environmental Administrator

Date Certified: 29-MAY-2019 11:09



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

A - Value reported is the mean of two or more determinations.
B - Results based on colony counts outside the acceptable range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: GAMBLE CREEK @ GOLF COURSE RD **Collection Date/Time: 05/08/2019 11:00**

Field ID: G2SW0107 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2085173	EPA 180.1 Rev. 2.0	Turbidity	6.4		NTU	P363737	
	EPA 300.0 Rev. 2.1	Chloride	23		mg Cl/L	P363953	
		Sulfate	93		mg SO4/L	P364029	
	SM 2120 B	Color (true)	41		PCU	P363728	
	SM 2320 B-97	Total Alkalinity	109		mg CaCO3/L	P364259	
	SM 2540 C-97	TDS	313		mg/L	P364268	
	SM 2540 D-97	TSS	6	I	mg/L	P364254	
	SM 4500 F-C-97	Fluoride	0.52		mg F/L	P364263	
2085175	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P364045	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P364078	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.030		mg N/L	P364121	
	EPA 365.1 Rev. 2.0	Total-P	0.35		mg P/L	P364080	
	SM 5310 B-00	Organic Carbon	8.3		mg C/L	P364050	
2085177	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.24		mg P/L	P363701	

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: LIL MANATEE RIVER N. FORK @ CARLTON LAKE RD **Collection Date/Time: 05/08/2019 09:50**

Field ID: G2SW0100 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2085207	EPA 8321B	2,4-D	0.0022	I	ug/L	P363672	
		Acesulfame K**	0.10	U	ug/L	P363863	
		AMPA**	0.46		ug/L	P363863	
		Sucralose**	0.010	U	ug/L	P363863	
		Acetaminophen**	0.0080	U	ug/L	P363672	
		Endothall**	0.25	U	ug/L	P363863	
		Glufosinate**	0.10	U	ug/L	P363863	
		Bentazon	8.2E-04	I	ug/L	P363672	
		Glyphosate**	0.30	I	ug/L	P363863	
		Carbamazepine**	8.0E-04	U	ug/L	P363672	
		Diuron	0.0027	I	ug/L	P363672	
		Fenuron	0.016	U	ug/L	P363672	
		Fluridone**	0.0018	I	ug/L	P363672	
		Imazapyr**	0.31		ug/L	P363672	
		Hydrocodone**	0.0020	U	ug/L	P363672	
		Ibuprofen**	0.020	U	ug/L	P363672	
		Imidacloprid	0.061		ug/L	P363672	
		Linuron	0.0040	U	ug/L	P363672	
		MCPP	0.0020	U	ug/L	P363672	MS
		Naproxen**	0.0080	U	ug/L	P363672	
		Primidone**	0.0040	U	ug/L	P363672	
		Pyraclostrobin**	0.0020	U	ug/L	P363672	
		Triclopyr**	0.0040	U	ug/L	P363672	

Sample Location: MILL CREEK @ UPPER MANATEE RVR RD **Collection Date/Time: 05/08/2019 12:20**

Field ID: G2SW0040 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2085208	EPA 8321B	2,4-D	0.025		ug/L	P363672	
		Acesulfame K**	0.10	UJ	ug/L	P363863	SUR
		AMPA**	1.5	I	ug/L	P363863	
		Sucralose**	0.77		ug/L	P363863	
		Acetaminophen**	0.0080	U	ug/L	P363672	
		Endothall**	0.25	UJ	ug/L	P363863	SUR
		Glufosinate**	1.0	U	ug/L	P363863	
		Glyphosate**	1.5	I	ug/L	P363863	
		Bentazon	0.043		ug/L	P363672	
		Carbamazepine**	8.1E-04	I	ug/L	P363672	
		Diuron	0.0091		ug/L	P363672	
		Fenuron	0.016	U	ug/L	P363672	
		Fluridone**	0.031		ug/L	P363672	
		Imazapyr**	0.13		ug/L	P363672	
		Hydrocodone**	0.0020	U	ug/L	P363672	
		Ibuprofen**	0.020	U	ug/L	P363672	
		Imidacloprid	0.012		ug/L	P363672	
		Linuron	0.0040	U	ug/L	P363672	
		MCPP	0.0020	U	ug/L	P363672	MS
		Naproxen**	0.0080	U	ug/L	P363672	
		Primidone**	0.0046	I	ug/L	P363672	
		Pyraclostrobin**	0.0020	U	ug/L	P363672	
		Triclopyr**	0.0040	U	ug/L	P363672	

Ref. Method and Comment:
EPA 8321B: Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in sample duplicate. MDL for some parameters elevated due to matrix interference.

Sample Location: LIL MANATEE RIVER @ SAFFOLD RD **Collection Date/Time: 05/08/2019 10:15**

Field ID: G2SW0103 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2085174	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P363737	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P363953	
		Sulfate	71		mg SO4/L	P363954	
	SM 2120 B	Color (true)	48		PCU	P363728	
	SM 2320 B-97	Total Alkalinity	17		mg CaCO3/L	P364259	
	SM 2540 C-97	TDS	178		mg/L	P364268	
	SM 2540 D-97	TSS	2	I	mg/L	P364254	
	SM 4500 F-C-97	Fluoride	0.27		mg F/L	P364263	
2085176	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P364045	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.41		mg N/L	P364078	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.52		mg N/L	P364121	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P364080	
	SM 5310 B-00	Organic Carbon	7.4		mg C/L	P364050	
2085178	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.21		mg P/L	P363702	
2085205	EPA 8321B	Aldicarb	0.020	U	ug/L	P363505	
		Aldicarb Sulfone	0.0020	U	ug/L	P363505	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P363505	MS
		Carbaryl	0.0020	U	ug/L	P363505	
		Carbofuran	0.0020	U	ug/L	P363505	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P363505	
		Methiocarb	0.0020	U	ug/L	P363505	
		Methomyl	0.0020	U	ug/L	P363505	
		Oxamyl	0.0020	U	ug/L	P363505	
		Propoxur	0.0020	U	ug/L	P363505	
2085206		2,4-D	0.0020	U	ug/L	P363672	
		Acesulfame K**	0.10	U	ug/L	P363863	
		AMPA**	0.19	I	ug/L	P363863	
		Sucralose**	0.010	U	ug/L	P363863	
		Acetaminophen**	0.0080	U	ug/L	P363672	
		Endothall**	0.25	U	ug/L	P363863	
		Glufosinate**	0.10	U	ug/L	P363863	
		Bentazon	0.0036		ug/L	P363672	
		Glyphosate**	0.35	I	ug/L	P363863	
		Carbamazepine**	8.0E-04	U	ug/L	P363672	
		Diuron	0.044		ug/L	P363672	
		Fenuron	0.016	U	ug/L	P363672	
		Fluridone**	8.0E-04	U	ug/L	P363672	
		Imazapyr**	0.078		ug/L	P363672	
		Hydrocodone**	0.0020	U	ug/L	P363672	
		Ibuprofen**	0.020	U	ug/L	P363672	
		Imidacloprid	0.40		ug/L	P363672	
		Linuron	0.0040	U	ug/L	P363672	
		MCPP	0.0020	U	ug/L	P363672	MS

Field ID: G2SW0103 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2085206	EPA 8321B	Naproxen**	0.0080	U	ug/L	P363672	
		Primidone**	0.0040	U	ug/L	P363672	
		Pyraclostrobin**	0.0020	U	ug/L	P363672	
		Triclopyr**	0.0040	U	ug/L	P363672	
2085210	EPA 8270D	Aldrin	4.2	U	ng/L	P363864	
		Alpha-BHC	2.1	U	ng/L	P363864	
		Alpha-Chlordane	1.0	U	ng/L	P363864	
		Beta-BHC	10	UJ	ng/L	P363864	LCS
		Bifenthrin**	4.2	U	ng/L	P363864	
		Delta-BHC	10	U	ng/L	P363864	
		Gamma-BHC	10	U	ng/L	P363864	MS
		Carbophenothion	13	UJ	ng/L	P363864	CCV, MS
		Chlorothalonil	2.1	UJ	ng/L	P363864	CCV, MS, RPD
		Cis-Nonachlor**	1.0	U	ng/L	P363864	
		Cypermethrin	21	U	ng/L	P363864	
		DDD-p,p'	8.4	U	ng/L	P363864	
		DDE-p,p'	8.4	U	ng/L	P363864	
		DDT-p,p'	10	U	ng/L	P363864	
		Dicofol	31	U	ng/L	P363864	
		Dieldrin	4.2	U	ng/L	P363864	
		Endosulfan I	4.2	U	ng/L	P363864	
		Endosulfan II	4.2	U	ng/L	P363864	MS
		Endosulfan Sulfate	2.1	U	ng/L	P363864	
		Endrin	2.1	U	ng/L	P363864	
		Endrin Aldehyde	2.1	U	ng/L	P363864	
		Endrin Ketone	2.1	U	ng/L	P363864	
		Ethalfluralin**	3.1	U	ng/L	P363864	
		Gamma-Chlordane	1.0	U	ng/L	P363864	
		Heptachlor	1.6	U	ng/L	P363864	
		Heptachlor Epoxide	2.1	U	ng/L	P363864	
		Hexachlorobenzene**	2.1	U	ng/L	P363864	
		Methoxychlor	4.2	U	ng/L	P363864	MS
		Mirex	2.1	U	ng/L	P363864	
		Permethrin	10	U	ng/L	P363864	
		Trans-Nonachlor**	1.0	U	ng/L	P363864	
		Trifluralin	2.6	U	ng/L	P363864	
	EPA 8276	Chlordane	5.2	U	ng/L	P363864	
		Toxaphene	31	U	ng/L	P363864	
2085212	EPA 8270E	Acetochlor	0.25	U	ng/L	P363660	
		Alachlor	0.25	U	ng/L	P363660	
		Ametryn	0.61	U	ng/L	P363660	
		Atrazine	0.25	U	ng/L	P363660	
		Atrazine Desethyl	1.5	U	ng/L	P363660	
		Azinphos Methyl	5.1	U	ng/L	P363660	

Field ID: G2SW0103 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2085212	EPA 8270E	Bromacil	570		ng/L	P363660	
		Butylate	0.40	U	ng/L	P363660	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P363660	
		Chlorpyrifos Methyl	0.10	U	ng/L	P363660	
		Cyanazine	3.3	U	ng/L	P363660	
		Demeton	7.1	U	ng/L	P363660	
		Diazinon	0.13	U	ng/L	P363660	
		Dimethenamid**	0.12	IVQ	ng/L	P364350	
		Disulfoton	0.51	U	ng/L	P363660	
		Dithiopyr**	0.10	U	ng/L	P363660	
		EPTC	1.3	U	ng/L	P363660	
		Ethion	0.15	U	ng/L	P363660	
		Ethoprop	0.10	U	ng/L	P363660	
		Fenamiphos	0.51	U	ng/L	P363660	
		Fipronil	0.25	U	ng/L	P363660	
		Fipronil Desulfinyl**	0.13	U	ng/L	P363660	
		Fipronil Sulfide	0.15	U	ng/L	P363660	
		Fipronil Sulfone	0.15	U	ng/L	P363660	
		Fonofos	0.20	U	ng/L	P363660	
		Hexazinone	5.2		ng/L	P363660	
		Malathion	0.35	U	ng/L	P363660	
		Metalaxyl	15		ng/L	P363660	
		Metolachlor	3.3		ng/L	P363660	
		Metribuzin	2.2	I	ng/L	P363660	
		Mevinphos	0.51	U	ng/L	P363660	
		Molinate	0.30	U	ng/L	P363660	
		Norflurazon	22		ng/L	P363660	
		Oxadiazon**	0.10	U	ng/L	P363660	
		Parathion Ethyl	0.25	U	ng/L	P363660	
		Parathion Methyl	0.56	U	ng/L	P363660	
		Pendimethalin	1.0	U	ng/L	P363660	
		Phorate	0.25	U	ng/L	P363660	
		Prodiamine**	0.18	U	ng/L	P363660	
		Prometon	0.91	UJ	ng/L	P363660	LCS, MS, RPD
		Prometryn	0.20	U	ng/L	P363660	
		Simazine	0.51	U	ng/L	P363660	
		Tebuconazole**	0.51	UJ	ng/L	P363660	LCS, RPD
		Terbufos	0.10	U	ng/L	P363660	
		Terbuthylazine	0.43	U	ng/L	P363660	
2085213	EPA 200.7 Rev. 4.4	Barium	18.5		ug/L	P363918	
		Calcium	21.9		mg/L	P363918	
		Iron	260		ug/L	P363918	
		Magnesium	11.3		mg/L	P363918	
		Potassium	7.1		mg/L	P363918	

Field ID: G2SW0103 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2085213	EPA 200.7 Rev. 4.4	Sodium	7.9		mg/L	P363918	
		Zinc	5.0	U	ug/L	P363918	
	EPA 200.8 Rev. 5.4	Aluminum	215		ug/L	P363918	
		Antimony	0.070	I	ug/L	P363918	
		Arsenic	0.36		ug/L	P363918	
		Boron**	34.3		ug/L	P363918	
		Cadmium	0.130		ug/L	P363918	
		Chromium	0.49	I	ug/L	P363918	
		Copper	1.43		ug/L	P363918	
		Lead	0.20	U	ug/L	P363918	
		Nickel	0.51	I	ug/L	P363918	
		Selenium	0.20	I	ug/L	P363918	
		Silver	0.010	U	ug/L	P363918	
		Thallium	0.10	U	ug/L	P363918	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270D: Refer to the narrative for an explanation of QC Codes.
EPA 8270E: Sample expired for preparation for dimethenamid due to re-extraction. Insufficient sample available to perform duplicate matrix spikes in the re-extraction. V - Due to the presence of dimethenamid in both the Method Blank and the sample. 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: P363737

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P363918

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P363918

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363953

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363954

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364029

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364045

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364078

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364121

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364080

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363701

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363702

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

Reference Method: EPA 8270D
Batch ID: P363864

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	10	U	ng/L
Bifenthrin	4.0	U	ng/L
Carbophenothion	12	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	8.0	U	ng/L
DDE-p,p'	8.0	U	ng/L
DDT-p,p'	10	U	ng/L
Delta-BHC	10	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P363864

Component	Result	Code	Units
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
Ethalfluralin	3.0	U	ng/L
Gamma-BHC	10	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E
Batch ID: P363660

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	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	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P363660

Component	Result	Code	Units
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P364350

Component	Result	Code	Units
Dimethenamid	0.30	I	ng/L

Reference Method: EPA 8276
Batch ID: P363864

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P363505

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P363672

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P363672

Component	Result	Code	Units
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P363863

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P363728

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P364259

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

Reference Method: SM 2540 C-97
Batch ID: P364268

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P364254

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P364263

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: P364050

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: P363918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	101		P	85 - 115
Calcium	109		P	85 - 115
Iron	106		P	85 - 115
Magnesium	113		P	85 - 115
Potassium	102		P	85 - 115
Sodium	102		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P363918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	105		P	85 - 115
Boron	101		P	85 - 115
Cadmium	104		P	85 - 115
Chromium	101		P	85 - 115
Copper	104		P	85 - 115
Lead	93.9		P	85 - 115
Nickel	104		P	85 - 115
Selenium	104		P	85 - 115
Silver	103		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363953

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363954

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364029

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364045

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364078

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	106		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364121

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364080

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363701

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363702

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.9		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P363864

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	43.0	37.6	P/P	20 - 93.0
Alpha-BHC	109	107	P/P	57 - 119
Alpha-Chlordane	80.6	71.9	P/P	58 - 112
Beta-BHC	152	168	F/F	56 - 149
Bifenthrin	62.9	63.0	P/P	50 - 130
Carbophenothion	70.0	69.1	P/P	26 - 147
Chlorothalonil	84.5	103	P/P	20 - 155
Cis-Nonachlor	78.8	79.7	P/P	50 - 130
Cypermethrin	67.4	69.3	P/P	40 - 137
DDD-p,p'	87.9	92.8	P/P	65 - 129
DDE-p,p'	79.0	68.1	P/P	57 - 116
DDT-p,p'	91.0	87.4	P/P	53 - 133
Delta-BHC	136	148	P/P	59 - 163
Dicofol	93.6	94.1	P/P	24 - 138
Dieldrin	89.6	80.4	P/P	60 - 120
Endosulfan I	88.9	78.2	P/P	64 - 118
Endosulfan II	97.4	107	P/P	58 - 142
Endosulfan Sulfate	96.6	107	P/P	60 - 127
Endrin	96.8	87.0	P/P	59 - 122
Endrin Aldehyde	94.5	92.7	P/P	49 - 132
Endrin Ketone	98.2	103	P/P	64 - 121
Ethalfluralin	83.3	75.0	P/P	50 - 130

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P363864

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Gamma-BHC	124	127	P/P	56 - 141
Gamma-Chlordane	72.0	67.8	P/P	56 - 110
Heptachlor	64.9	58.0	P/P	46 - 96.0
Heptachlor Epoxide	84.0	79.8	P/P	61 - 112
Hexachlorobenzene	66.4	60.0	P/P	50 - 130
Methoxychlor	108	109	P/P	63 - 134
Mirex	52.1	49.4	P/P	45 - 100
Permethrin	62.2	61.0	P/P	53 - 115
Trans-Nonachlor	74.4	66.5	P/P	50 - 130
Trifluralin	81.7	79.1	P/P	39 - 142

Reference Method: EPA 8270E
Batch ID: P363660

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	103	111	P/P	71 - 121
Alachlor	96.2	112	P/P	72 - 119
Ametryn	102	112	P/P	47 - 144
Atrazine	105	114	P/P	75 - 123
Atrazine Desethyl	45.7	47.3	P/P	45 - 133
Azinphos Methyl	98.5	109	P/P	66 - 165
Bromacil	83.8	102	P/P	43 - 123
Butylate	78.6	82.0	P/P	27 - 83.0
Chlorpyrifos Ethyl	101	101	P/P	70 - 117
Chlorpyrifos Methyl	96.1	95.3	P/P	71 - 120
Cyanazine	60.9	50.9	P/P	34 - 264
Demeton	80.6	71.3	P/P	41 - 122
Diazinon	99.1	106	P/P	70 - 127
Disulfoton	86.2	77.7	P/P	56 - 127
Dithiopyr	103	110	P/P	67 - 125
EPTC	78.8	79.0	P/P	24 - 84.0
Ethion	111	113	P/P	53 - 132
Ethoprop	102	103	P/P	57 - 117
Fenamiphos	73.3	58.9	P/P	55 - 136
Fipronil	97.5	113	P/P	64 - 126
Fipronil Desulfinyl	94.5	107	P/P	47 - 114
Fipronil Sulfide	106	105	P/P	57 - 120
Fipronil Sulfone	97.3	105	P/P	52 - 115
Fonofos	91.1	91.9	P/P	61 - 121
Hexazinone	86.5	116	P/P	62 - 131
Malathion	108	106	P/P	67 - 126
Metalaxyl	75.9	71.3	P/P	54 - 128
Metolachlor	107	117	P/P	71 - 118
Metribuzin	88.8	87.5	P/P	42 - 221
Mevinphos	96.0	98.0	P/P	45 - 114
Molinate	89.4	90.3	P/P	33 - 91.0
Norflurazon	78.5	102	P/P	60 - 123
Oxadiazon	111	114	P/P	66 - 121
Parathion Ethyl	95.3	102	P/P	73 - 111
Parathion Methyl	96.0	101	P/P	74 - 126
Pendimethalin	94.5	97.2	P/P	63 - 131
Phorate	86.2	77.5	P/P	54 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P363660

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Prodiamine	110	117	P/P	38 - 140
Prometon	54.1	87.6	F/P	61 - 120
Prometryn	91.5	106	P/P	62 - 126
Simazine	97.4	106	P/P	75 - 126
Tebuconazole	16.3	64.0	F/P	21 - 115
Terbufos	89.4	86.2	P/P	65 - 116
Terbuthylazine	103	111	P/P	73 - 117

Reference Method: EPA 8270E
Batch ID: P364350

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dimethenamid	134	135	P/P	46 - 139

Reference Method: EPA 8276
Batch ID: P363864

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	76.4	73.9	P/P	43 - 128
Toxaphene	63.6	65.6	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P363505

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	85.9		P	40 - 150
Aldicarb	84.7		P	30 - 150
Aldicarb Sulfone	94.8		P	40 - 150
Aldicarb Sulfoxide	98.4		P	40 - 150
Carbaryl	80.1		P	40 - 150
Carbofuran	79.4		P	40 - 150
Methiocarb	76.3		P	40 - 150
Methomyl	82.8		P	40 - 150
Oxamyl	97.1		P	40 - 150
Propoxur	77.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P363672

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	109		P	40 - 150
Acetaminophen	88.1		P	30 - 150
Bentazon	127		P	30 - 150
Carbamazepine	95.7		P	40 - 150
Diuron	89.3		P	40 - 150
Fenuron	101		P	40 - 150
Fluridone	103		P	40 - 150
Hydrocodone	95.9		P	40 - 150
Ibuprofen	81.4		P	40 - 150
Imazapyr	102		P	40 - 150
Imidacloprid	96.7		P	40 - 150
Linuron	79.6		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P363672

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MCPP	115		P	40 - 150
Naproxen	82.6		P	40 - 150
Primidone	89.2		P	40 - 150
Pyraclostrobin	72.8		P	40 - 150
Triclopyr	74.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P363863

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	103		P	40 - 150
AMPA	116		P	40 - 150
Endothall	89.0		P	40 - 150
Glufosinate	109		P	40 - 150
Glyphosate	109		P	40 - 140
Sucralose	103		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P363728

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

Reference Method: SM 2320 B-97
Batch ID: P364259

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P364263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P364050

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.1		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P363918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085213	Barium	101		P	80 - 120
2085213	Calcium	104		P	80 - 120
2085213	Iron	109		P	80 - 120
2085213	Magnesium	103		P	80 - 120
2085213	Potassium	99.7		P	80 - 120
2085213	Sodium	101		P	80 - 120
2085213	Zinc	101		P	80 - 120
2085651	Barium	101	101	P/P	80 - 120
2085651	Calcium	107	107	P/P	80 - 120
2085651	Iron	106	105	P/P	80 - 120
2085651	Magnesium	111	110	P/P	80 - 120
2085651	Potassium	106	106	P/P	80 - 120
2085651	Sodium	103	104	P/P	80 - 120
2085651	Zinc	101	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P363918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085213	Aluminum	99.9		P	80 - 120
2085213	Antimony	102		P	80 - 120
2085213	Arsenic	103		P	80 - 120
2085213	Boron	103		P	80 - 120
2085213	Cadmium	104		P	80 - 120
2085213	Chromium	99.9		P	80 - 120
2085213	Copper	99.4		P	80 - 120
2085213	Lead	97.0		P	80 - 120
2085213	Nickel	100		P	80 - 120
2085213	Selenium	101		P	80 - 120
2085213	Silver	101		P	80 - 120
2085213	Thallium	106		P	80 - 120
2085651	Aluminum	111	108	P/P	80 - 120
2085651	Antimony	110	107	P/P	80 - 120
2085651	Arsenic	111	109	P/P	80 - 120
2085651	Boron	116	114	P/P	80 - 120
2085651	Cadmium	113	111	P/P	80 - 120
2085651	Chromium	112	110	P/P	80 - 120
2085651	Copper	111	110	P/P	80 - 120
2085651	Lead	110	107	P/P	80 - 120
2085651	Nickel	112	110	P/P	80 - 120
2085651	Selenium	109	105	P/P	80 - 120
2085651	Silver	112	110	P/P	80 - 120
2085651	Thallium	120	116	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363953

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085101	Chloride	97.2		P	90 - 110
2085181	Chloride	99.1		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363954

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085101	Sulfate	96.8		P	90 - 110
2085181	Sulfate	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085483	Sulfate	97.0		P	90 - 110
2085594	Sulfate	96.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085176	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364078

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085160	Kjeldahl Nitrogen	106	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364121

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085128	NO2NO3-N	100	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364080

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085128	Total-P	93.9	94.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085037	O-Phosphate-P	90.3	91.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085189	O-Phosphate-P	94.2	95.9	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P363864

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2084129	Aldrin	56.2	53.4	P/P	25 - 92.0
2084129	Alpha-BHC	125	120	P/P	49 - 130

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P363864

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2084129	Alpha-Chlordane	82.1	85.4	P/P	50 - 115
2084129	Beta-BHC	151	155	P/P	43 - 157
2084129	Bifenthrin	82.9	76.5	P/P	50 - 130
2084129	Carbophenothion	199	203	F/F	27 - 180
2084129	Chlorothalonil	243	167	F/P	10 - 216
2084129	Cis-Nonachlor	84.5	83.6	P/P	50 - 130
2084129	Cypermethrin	89.3	84.7	P/P	40 - 153
2084129	DDD-p,p'	94.3	95.4	P/P	53 - 128
2084129	DDE-p,p'	77.4	81.9	P/P	48 - 116
2084129	DDT-p,p'	111	102	P/P	47 - 128
2084129	Delta-BHC	161	150	P/P	51 - 196
2084129	Dicofol	103	102	P/P	10 - 147
2084129	Dieldrin	94.4	97.7	P/P	48 - 128
2084129	Endosulfan I	96.3	98.1	P/P	58 - 126
2084129	Endosulfan II	338	371	F/F	50 - 150
2084129	Endosulfan Sulfate	97.5	95.9	P/P	56 - 130
2084129	Endrin	89.4	94.8	P/P	50 - 126
2084129	Endrin Aldehyde	52.9	63.9	P/P	12 - 145
2084129	Endrin Ketone	113	112	P/P	59 - 132
2084129	Ethalfluralin	93.5	92.0	P/P	50 - 130
2084129	Gamma-BHC	200	197	F/F	50 - 155
2084129	Gamma-Chlordane	79.1	81.6	P/P	50 - 112
2084129	Heptachlor	68.4	68.4	P/P	41 - 98.0
2084129	Heptachlor Epoxide	98.7	94.5	P/P	55 - 117
2084129	Hexachlorobenzene	72.0	68.2	P/P	50 - 130
2084129	Methoxychlor	134	114	F/P	55 - 133
2084129	Mirex	67.2	66.4	P/P	44 - 101
2084129	Permethrin	75.2	72.9	P/P	52 - 124
2084129	Trans-Nonachlor	78.5	79.1	P/P	50 - 130
2084129	Trifluralin	92.2	91.1	P/P	10 - 201

Reference Method: EPA 8270E
Batch ID: P363660

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2084294	Acetochlor	90.2	90.5	P/P	63 - 129
2084294	Alachlor	88.1	91.6	P/P	65 - 127
2084294	Ametryn	114	112	P/P	40 - 164
2084294	Atrazine	99.5	103	P/P	66 - 135
2084294	Atrazine Desethyl	69.1	66.6	P/P	14 - 157
2084294	Azinphos Methyl	81.0	89.9	P/P	49 - 180
2084294	Bromacil	123	125	P/P	48 - 130
2084294	Butylate	47.8	50.0	P/P	10 - 94.0
2084294	Chlorpyrifos Ethyl	89.9	87.8	P/P	58 - 123
2084294	Chlorpyrifos Methyl	84.7	83.7	P/P	58 - 125
2084294	Cyanazine	76.4	81.0	P/P	24 - 253
2084294	Demeton	70.0	72.6	P/P	25 - 149
2084294	Diazinon	87.8	86.3	P/P	59 - 144
2084294	Disulfoton	79.9	77.2	P/P	54 - 132
2084294	Dithiopyr	88.4	88.0	P/P	64 - 130
2084294	EPTC	45.0	53.3	P/P	10 - 92.0
2084294	Ethion	93.9	93.3	P/P	30 - 148

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P363660

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2084294	Ethoprop	90.5	88.7	P/P	50 - 130
2084294	Fenamiphos	85.6	85.1	P/P	49 - 142
2084294	Fipronil	90.8	95.5	P/P	46 - 140
2084294	Fipronil Desulfinyl	83.0	87.7	P/P	30 - 121
2084294	Fipronil Sulfide	95.1	113	P/P	31 - 136
2084294	Fipronil Sulfone	90.3	92.9	P/P	16 - 136
2084294	Fonofos	84.9	82.1	P/P	55 - 129
2084294	Hexazinone	117	121	P/P	56 - 141
2084294	Malathion	96.8	95.8	P/P	56 - 135
2084294	Metalaxyl	81.8	84.1	P/P	54 - 135
2084294	Metolachlor	92.2	93.3	P/P	51 - 140
2084294	Metribuzin	93.9	98.7	P/P	45 - 254
2084294	Mevinphos	93.7	95.0	P/P	33 - 131
2084294	Molinate	66.7	70.6	P/P	14 - 98.0
2084294	Norflurazon	85.8	90.4	P/P	34 - 136
2084294	Oxadiazon	89.3	91.0	P/P	67 - 116
2084294	Parathion Ethyl	91.8	89.3	P/P	66 - 118
2084294	Parathion Methyl	98.6	93.2	P/P	64 - 136
2084294	Pendimethalin	90.2	85.2	P/P	59 - 144
2084294	Phorate	79.5	77.7	P/P	42 - 130
2084294	Prodiamine	99.2	101	P/P	42 - 148
2084294	Prometon	147	124	F/P	59 - 134
2084294	Prometryn	86.9	86.8	P/P	54 - 135
2084294	Simazine	93.6	97.1	P/P	53 - 156
2084294	Tebuconazole	79.0	81.4	P/P	10 - 131
2084294	Terbufos	85.4	85.0	P/P	57 - 131
2084294	Terbuthylazine	91.0	94.7	P/P	68 - 125

Reference Method: EPA 8270E
Batch ID: P364350

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2084283	Dimethenamid	92.0		P	46 - 139

Reference Method: EPA 8276
Batch ID: P363864

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2084440	Chlordane	68.5	68.0	P/P	34 - 136
2084440	Toxaphene	61.0	63.6	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P363505

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2084405	3-Hydroxycarbofuran	67.4	66.3	P/P	40 - 150
2084405	Aldicarb	60.1	54.5	P/P	30 - 150
2084405	Aldicarb Sulfone	75.7	72.9	P/P	40 - 150
2084405	Aldicarb Sulfoxide	42.2	39.4	P/F	40 - 150
2084405	Carbaryl	47.2	46.9	P/P	40 - 150
2084405	Carbofuran	51.2	46.5	P/P	40 - 150
2084405	Methiocarb	49.6	48.1	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P363505

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2084405	Methomyl	60.1	59.8	P/P	40 - 150
2084405	Oxamyl	68.7	72.5	P/P	40 - 150
2084405	Propoxur	47.8	47.2	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P363672

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085164	2,4-D	117	106	P/P	40 - 150
2085164	Acetaminophen	85.4	82.1	P/P	30 - 150
2085164	Bentazon	69.6	65.8	P/P	30 - 150
2085164	Carbamazepine	73.4	69.2	P/P	40 - 150
2085164	Diuron	65.6	61.7	P/P	40 - 150
2085164	Fenuron	81.6	76.2	P/P	40 - 150
2085164	Fluridone	95.4	91.7	P/P	40 - 150
2085164	Hydrocodone	86.7	81.4	P/P	40 - 150
2085164	Ibuprofen	83.4	75.3	P/P	40 - 150
2085164	Imazapyr	122	111	P/P	40 - 150
2085164	Imidacloprid	140	129	P/P	40 - 150
2085164	Linuron	62.3	59.7	P/P	40 - 150
2085164	MCPP	156	145	F/P	40 - 150
2085164	Naproxen	95.0	87.5	P/P	40 - 150
2085164	Primidone	95.8	89.2	P/P	40 - 150
2085164	Pyraclostrobin	91.3	90.7	P/P	40 - 150
2085164	Triclopyr	101	92.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P363863

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085206	Acesulfame K	94.6	93.5	P/P	40 - 150
2085206	AMPA	62.3	64.7	P/P	40 - 150
2085206	Endothall	73.1	72.8	P/P	40 - 150
2085206	Glufosinate	89.2	90.0	P/P	40 - 150
2085206	Glyphosate	109	115	P/P	40 - 140
2085206	Sucralose	83.1	91.1	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P364263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085112	Fluoride	100	98.1	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P364050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085035	Organic Carbon	98.2	97.3	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P363737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085131	Turbidity	0.391	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P363918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085651	Barium	0.0602	Spike	P	0 - 20
2085651	Calcium	0.593	Spike	P	0 - 20
2085651	Iron	0.571	Spike	P	0 - 20
2085651	Magnesium	0.604	Spike	P	0 - 20
2085651	Potassium	0.566	Spike	P	0 - 20
2085651	Sodium	0.473	Spike	P	0 - 20
2085651	Zinc	0.163	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P363918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085651	Aluminum	2.12	Spike	P	0 - 20
2085651	Antimony	2.69	Spike	P	0 - 20
2085651	Arsenic	1.91	Spike	P	0 - 20
2085651	Boron	1.65	Spike	P	0 - 20
2085651	Cadmium	1.88	Spike	P	0 - 20
2085651	Chromium	1.70	Spike	P	0 - 20
2085651	Copper	0.900	Spike	P	0 - 20
2085651	Lead	3.23	Spike	P	0 - 20
2085651	Nickel	1.79	Spike	P	0 - 20
2085651	Selenium	4.15	Spike	P	0 - 20
2085651	Silver	1.65	Spike	P	0 - 20
2085651	Thallium	2.80	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085101	Chloride	0.711	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363954

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085101	Sulfate	0.00855	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085483	Sulfate	0.810	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085176	Ammonia-N	1.37	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085160	Kjeldahl Nitrogen	1.92	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364121

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085128	NO2NO3-N	0.633	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364080

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085128	Total-P	0.644	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085037	O-Phosphate-P	1.54	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085189	O-Phosphate-P	1.79	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P363864

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2084129	Aldrin	5.10	Spike	P	0 - 30
2084129	Alpha-BHC	3.66	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P363864

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2084129	Alpha-Chlordane	3.88	Spike	P	0 - 30
2084129	Beta-BHC	2.00	Spike	P	0 - 30
2084129	Bifenthrin	8.08	Spike	P	0 - 30
2084129	Carbophenothion	1.66	Spike	P	0 - 30
2084129	Chlorothalonil	37.4	Spike	F	0 - 30
2084129	Cis-Nonachlor	1.00	Spike	P	0 - 30
2084129	Cypermethrin	5.21	Spike	P	0 - 30
2084129	DDD-p,p'	1.20	Spike	P	0 - 30
2084129	DDE-p,p'	5.56	Spike	P	0 - 30
2084129	DDT-p,p'	8.17	Spike	P	0 - 30
2084129	Delta-BHC	7.15	Spike	P	0 - 30
2084129	Dicofol	0.526	Spike	P	0 - 30
2084129	Dieldrin	3.38	Spike	P	0 - 30
2084129	Endosulfan I	1.85	Spike	P	0 - 30
2084129	Endosulfan II	9.15	Spike	P	0 - 30
2084129	Endosulfan Sulfate	1.65	Spike	P	0 - 30
2084129	Endrin	5.86	Spike	P	0 - 30
2084129	Endrin Aldehyde	18.8	Spike	P	0 - 30
2084129	Endrin Ketone	0.438	Spike	P	0 - 30
2084129	Ethalfluralin	1.65	Spike	P	0 - 30
2084129	Gamma-BHC	1.18	Spike	P	0 - 30
2084129	Gamma-Chlordane	3.20	Spike	P	0 - 30
2084129	Heptachlor	0.0105	Spike	P	0 - 30
2084129	Heptachlor Epoxide	4.33	Spike	P	0 - 30
2084129	Hexachlorobenzene	5.41	Spike	P	0 - 30
2084129	Methoxychlor	16.7	Spike	P	0 - 30
2084129	Mirex	1.16	Spike	P	0 - 30
2084129	Permethrin	3.08	Spike	P	0 - 30
2084129	Trans-Nonachlor	0.806	Spike	P	0 - 30
2084129	Trifluralin	1.28	Spike	P	0 - 30
LFB	Aldrin	13.5	LCS	P	0 - 30
LFB	Alpha-BHC	1.93	LCS	P	0 - 30
LFB	Alpha-Chlordane	11.4	LCS	P	0 - 30
LFB	Beta-BHC	9.99	LCS	P	0 - 30
LFB	Bifenthrin	0.146	LCS	P	0 - 30
LFB	Carbophenothion	1.37	LCS	P	0 - 30
LFB	Chlorothalonil	19.3	LCS	P	0 - 30
LFB	Cis-Nonachlor	1.07	LCS	P	0 - 30
LFB	Cypermethrin	2.81	LCS	P	0 - 30
LFB	DDD-p,p'	5.40	LCS	P	0 - 30
LFB	DDE-p,p'	14.9	LCS	P	0 - 30
LFB	DDT-p,p'	4.11	LCS	P	0 - 30
LFB	Delta-BHC	8.35	LCS	P	0 - 30
LFB	Dicofol	0.462	LCS	P	0 - 30
LFB	Dieldrin	10.8	LCS	P	0 - 30
LFB	Endosulfan I	12.8	LCS	P	0 - 30
LFB	Endosulfan II	9.26	LCS	P	0 - 30
LFB	Endosulfan Sulfate	10.2	LCS	P	0 - 30
LFB	Endrin	10.7	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.93	LCS	P	0 - 30
LFB	Endrin Ketone	4.80	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P363864

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Ethalfluralin	10.4	LCS	P	0 - 30
LFB	Gamma-BHC	2.90	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.04	LCS	P	0 - 30
LFB	Heptachlor	11.2	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.16	LCS	P	0 - 30
LFB	Hexachlorobenzene	10.2	LCS	P	0 - 30
LFB	Methoxychlor	0.436	LCS	P	0 - 30
LFB	Mirex	5.37	LCS	P	0 - 30
LFB	Permethrin	2.04	LCS	P	0 - 30
LFB	Trans-Nonachlor	11.2	LCS	P	0 - 30
LFB	Trifluralin	3.17	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P363660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2084294	Acetochlor	0.379	Spike	P	0 - 30
2084294	Alachlor	3.83	Spike	P	0 - 30
2084294	Ametryn	1.08	Spike	P	0 - 30
2084294	Atrazine	1.53	Spike	P	0 - 30
2084294	Atrazine Desethyl	3.66	Spike	P	0 - 30
2084294	Azinphos Methyl	10.4	Spike	P	0 - 30
2084294	Bromacil	0.827	Spike	P	0 - 30
2084294	Butylate	4.53	Spike	P	0 - 30
2084294	Chlorpyrifos Ethyl	2.37	Spike	P	0 - 30
2084294	Chlorpyrifos Methyl	1.19	Spike	P	0 - 30
2084294	Cyanazine	5.83	Spike	P	0 - 30
2084294	Demeton	3.66	Spike	P	0 - 30
2084294	Diazinon	1.73	Spike	P	0 - 30
2084294	Disulfoton	3.40	Spike	P	0 - 30
2084294	Dithiopyr	0.472	Spike	P	0 - 30
2084294	EPTC	16.8	Spike	P	0 - 30
2084294	Ethion	0.652	Spike	P	0 - 30
2084294	Ethoprop	2.02	Spike	P	0 - 30
2084294	Fenamiphos	0.635	Spike	P	0 - 30
2084294	Fipronil	5.00	Spike	P	0 - 30
2084294	Fipronil Desulfinyl	5.53	Spike	P	0 - 30
2084294	Fipronil Sulfide	17.2	Spike	P	0 - 30
2084294	Fipronil Sulfone	2.86	Spike	P	0 - 30
2084294	Fonofos	3.32	Spike	P	0 - 30
2084294	Hexazinone	0.863	Spike	P	0 - 30
2084294	Malathion	1.05	Spike	P	0 - 30
2084294	Metalaxyl	2.83	Spike	P	0 - 30
2084294	Metolachlor	0.996	Spike	P	0 - 30
2084294	Metribuzin	4.99	Spike	P	0 - 30
2084294	Mevinphos	1.43	Spike	P	0 - 30
2084294	Molinate	5.75	Spike	P	0 - 30
2084294	Norflurazon	5.30	Spike	P	0 - 30
2084294	Oxadiazon	1.95	Spike	P	0 - 30
2084294	Parathion Ethyl	2.81	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P363660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2084294	Parathion Methyl	5.70	Spike	P	0 - 30
2084294	Pendimethalin	5.64	Spike	P	0 - 30
2084294	Phorate	2.29	Spike	P	0 - 30
2084294	Prodiamine	2.26	Spike	P	0 - 30
2084294	Prometon	4.83	Spike	P	0 - 30
2084294	Prometryn	0.119	Spike	P	0 - 30
2084294	Simazine	2.82	Spike	P	0 - 30
2084294	Tebuconazole	2.58	Spike	P	0 - 30
2084294	Terbufos	0.497	Spike	P	0 - 30
2084294	Terbuthylazine	3.99	Spike	P	0 - 30
LFB	Acetochlor	7.02	LCS	P	0 - 30
LFB	Alachlor	15.3	LCS	P	0 - 30
LFB	Ametryn	9.64	LCS	P	0 - 30
LFB	Atrazine	8.17	LCS	P	0 - 30
LFB	Atrazine Desethyl	3.54	LCS	P	0 - 30
LFB	Azinphos Methyl	9.98	LCS	P	0 - 30
LFB	Bromacil	19.7	LCS	P	0 - 30
LFB	Butylate	4.23	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	0.0112	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	0.836	LCS	P	0 - 30
LFB	Cyanazine	17.8	LCS	P	0 - 30
LFB	Demeton	12.3	LCS	P	0 - 30
LFB	Diazinon	6.50	LCS	P	0 - 30
LFB	Disulfoton	10.4	LCS	P	0 - 30
LFB	Dithiopyr	6.32	LCS	P	0 - 30
LFB	EPTC	0.243	LCS	P	0 - 30
LFB	Ethion	2.02	LCS	P	0 - 30
LFB	Ethoprop	1.61	LCS	P	0 - 30
LFB	Fenamiphos	21.7	LCS	P	0 - 30
LFB	Fipronil	14.3	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	12.1	LCS	P	0 - 30
LFB	Fipronil Sulfide	0.276	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.59	LCS	P	0 - 30
LFB	Fonofos	0.875	LCS	P	0 - 30
LFB	Hexazinone	29.6	LCS	P	0 - 30
LFB	Malathion	1.32	LCS	P	0 - 30
LFB	Metalaxyl	6.20	LCS	P	0 - 30
LFB	Metolachlor	8.95	LCS	P	0 - 30
LFB	Metribuzin	1.50	LCS	P	0 - 30
LFB	Mevinphos	2.08	LCS	P	0 - 30
LFB	Molinate	0.950	LCS	P	0 - 30
LFB	Norflurazon	25.8	LCS	P	0 - 30
LFB	Oxadiazon	2.17	LCS	P	0 - 30
LFB	Parathion Ethyl	6.30	LCS	P	0 - 30
LFB	Parathion Methyl	5.56	LCS	P	0 - 30
LFB	Pendimethalin	2.78	LCS	P	0 - 30
LFB	Phorate	10.6	LCS	P	0 - 30
LFB	Prodiamine	6.57	LCS	P	0 - 30
LFB	Prometon	47.2	LCS	F	0 - 30
LFB	Prometryn	14.4	LCS	P	0 - 30
LFB	Simazine	8.89	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P363660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Tebuconazole	119	LCS	F	0 - 30
LFB	Terbufos	3.57	LCS	P	0 - 30
LFB	Terbuthylazine	7.96	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P364350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dimethenamid	0.842	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P363864

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2084440	Chlordane	0.723	Spike	P	0 - 30
2084440	Toxaphene	4.14	Spike	P	0 - 30
LFB	Chlordane	3.33	LCS	P	0 - 30
LFB	Toxaphene	3.06	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P363505

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2084405	3-Hydroxycarbofuran	1.64	Spike	P	0 - 30
2084405	Aldicarb	9.77	Spike	P	0 - 30
2084405	Aldicarb Sulfone	3.83	Spike	P	0 - 30
2084405	Aldicarb Sulfoxide	6.76	Spike	P	0 - 30
2084405	Carbaryl	0.697	Spike	P	0 - 30
2084405	Carbofuran	9.50	Spike	P	0 - 30
2084405	Methiocarb	3.00	Spike	P	0 - 30
2084405	Methomyl	0.541	Spike	P	0 - 30
2084405	Oxamyl	5.34	Spike	P	0 - 30
2084405	Propoxur	1.24	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P363672

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085164	2,4-D	6.85	Spike	P	0 - 30
2085164	Acetaminophen	3.92	Spike	P	0 - 30
2085164	Bentazon	5.52	Spike	P	0 - 30
2085164	Carbamazepine	5.85	Spike	P	0 - 30
2085164	Diuron	6.11	Spike	P	0 - 30
2085164	Fenuron	6.74	Spike	P	0 - 30
2085164	Fluridone	3.71	Spike	P	0 - 30
2085164	Hydrocodone	6.36	Spike	P	0 - 30
2085164	Ibuprofen	10.1	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P363672

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085164	Imazapyr	5.05	Spike	P	0 - 30
2085164	Imidacloprid	7.78	Spike	P	0 - 30
2085164	Linuron	4.24	Spike	P	0 - 30
2085164	MCPP	7.15	Spike	P	0 - 30
2085164	Naproxen	8.25	Spike	P	0 - 30
2085164	Primidone	7.15	Spike	P	0 - 30
2085164	Pyraclostrobin	0.699	Spike	P	0 - 30
2085164	Triclopyr	9.34	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P363863

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085206	Acesulfame K	1.09	Spike	P	0 - 30
2085206	AMPA	2.87	Spike	P	0 - 30
2085206	Endothall	0.442	Spike	P	0 - 30
2085206	Glufosinate	0.901	Spike	P	0 - 30
2085206	Glyphosate	3.88	Spike	P	0 - 30
2085206	Sucralose	9.19	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P363728

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085159	Color (true)	3.01	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P364259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085112	Total Alkalinity	0.366	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P364268

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085127	TDS	2.25	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P364263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085112	Fluoride	1.45	Spike	P	0 - 2.5

Quality Assurance Report
Precision

Reference Method: SM 5310 B-00
Batch ID: P364050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085035	Organic Carbon	0.641	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2085205
Field Sample ID: G2SW0103

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	67.3	P	30 - 160

Lab Sample ID: 2085206
Field Sample ID: G2SW0103

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	116	P	30 - 160
EPA 8321B	Acetaminophen-d4	90.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.0	P	30 - 160
EPA 8321B	Diuron-d6	75.7	P	30 - 160
EPA 8321B	Endothall-d6	62.1	P	30 - 160
EPA 8321B	Endothall-d6	62.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	154	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	154	P	30 - 160
EPA 8321B	Ibuprofen-d3	96.7	P	30 - 160
EPA 8321B	Primidone-d5	107	P	30 - 160
EPA 8321B	Sucralose-d6	92.9	P	30 - 160
EPA 8321B	Sucralose-d6	92.9	P	30 - 160

Lab Sample ID: 2085207
Field Sample ID: G2SW0100

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	106	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.5	P	30 - 160
EPA 8321B	Diuron-d6	68.2	P	30 - 160
EPA 8321B	Endothall-d6	82.9	P	30 - 160
EPA 8321B	Endothall-d6	82.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	141	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	141	P	30 - 160
EPA 8321B	Ibuprofen-d3	87.6	P	30 - 160
EPA 8321B	Primidone-d5	93.7	P	30 - 160
EPA 8321B	Sucralose-d6	39.7	P	30 - 160
EPA 8321B	Sucralose-d6	39.7	P	30 - 160

Lab Sample ID: 2085208
Field Sample ID: G2SW0040

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	127	P	30 - 160
EPA 8321B	Acetaminophen-d4	85.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.3	P	30 - 160
EPA 8321B	Diuron-d6	72.5	P	30 - 160
EPA 8321B	Endothall-d6	532	F	30 - 160
EPA 8321B	Endothall-d6	532	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	157	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	157	P	30 - 160
EPA 8321B	Ibuprofen-d3	94.6	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	84.0	P	30 - 160
EPA 8321B	Sucralose-d6	84.0	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 2085210
Field Sample ID: G2SW0103

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	81.6	P	39 - 109
EPA 8270D	Tetrachloro-m-xylene	59.6	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	64.0	P	30 - 103
EPA 8276	PCNB	86.3	P	37 - 143

Lab Sample ID: 2085212
Field Sample ID: G2SW0103

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	95.3	P	68 - 130
EPA 8270E	Simazine-d10	99.8	P	68 - 130
EPA 8270E	Terbufos-d10	73.7	P	61 - 136
EPA 8270E	Terbufos-d10	87.8	P	61 - 136

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A91331
Included Lab Sample IDs: 2085177, 2085178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.0	97.7	P/P	90 - 110
O-Phosphate-P	99.9	98.1	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A91338
Included Lab Sample IDs: 2085173, 2085174

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A91343
Included Lab Sample IDs: 2085173, 2085174

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

Reference Method: EPA 8270E
Run ID: A91401
Included Lab Sample IDs: 2085212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	105		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine	102		P	80 - 120
Atrazine Desethyl	90.4		P	80 - 120
Azinphos Methyl	96.0		P	80 - 120
Butylate	99.7		P	80 - 120
Chlorpyrifos Ethyl	97.9		P	80 - 120
Chlorpyrifos Methyl	100		P	80 - 120
Cyanazine	86.2		P	80 - 120
Demeton	98.8		P	80 - 120
Diazinon	99.5		P	80 - 120
Disulfoton	97.1		P	80 - 120
Dithiopyr	98.1		P	80 - 120
EPTC	97.8		P	80 - 120
Ethion	99.5		P	80 - 120
Ethoprop	97.3		P	80 - 120
Fenamiphos	97.5		P	80 - 120
Fipronil	99.5		P	80 - 120
Fipronil Desulfinyl	96.6		P	80 - 120
Fipronil Sulfide	96.8		P	80 - 120
Fipronil Sulfone	94.0		P	80 - 120
Fonofos	98.7		P	80 - 120
Hexazinone	97.4		P	80 - 120
Malathion	96.1		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	105		P	80 - 120
Metribuzin	89.1		P	80 - 120
Mevinphos	103		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A91401
Included Lab Sample IDs: 2085212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molinate	99.2		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	104		P	80 - 120
Parathion Ethyl	95.5		P	80 - 120
Parathion Methyl	97.9		P	80 - 120
Pendimethalin	91.4		P	80 - 120
Phorate	96.9		P	80 - 120
Prodiamine	87.8		P	80 - 120
Prometon	98.0		P	80 - 120
Prometryn	103		P	80 - 120
Simazine	99.4		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	98.5		P	80 - 120
Terbuthylazine	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A91404
Included Lab Sample IDs: 2085173, 2085174

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

Reference Method: EPA 8321B
Run ID: A91439
Included Lab Sample IDs: 2085206, 2085207, 2085208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	148	70.8	P/P	60 - 160
Endothall	68.1	109	P/P	60 - 160

Reference Method: EPA 8270E
Run ID: A91440
Included Lab Sample IDs: 2085212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	101		P	80 - 120

Reference Method: EPA 8321B
Run ID: A91442
Included Lab Sample IDs: 2085206, 2085207, 2085208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	86.3	P/P	60 - 160
AMPA	97.3	92.7	P/P	60 - 160
Glufosinate	91.7	88.3	P/P	60 - 160
Glufosinate	94.7	91.2	P/P	60 - 160
Glyphosate	94.4	88.7	P/P	60 - 160
Glyphosate	98.3	90.1	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A91464
Included Lab Sample IDs: 2085205

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	104	110	P/P	60 - 150
Aldicarb	89.5	98.2	P/P	60 - 150
Aldicarb Sulfone	106	100	P/P	50 - 150
Aldicarb Sulfoxide	103	110	P/P	50 - 150
Carbaryl	98.5	93.9	P/P	60 - 150
Carbofuran	97.8	97.7	P/P	50 - 150
Methiocarb	94.9	94.8	P/P	50 - 150
Methomyl	103	106	P/P	50 - 150
Oxamyl	105	99.1	P/P	50 - 150
Propoxur	99.4	96.2	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A91468
Included Lab Sample IDs: 2085175, 2085176

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	104	105	P/P	90 - 110
Ammonia-N	104	104	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A91470
Included Lab Sample IDs: 2085175, 2085176

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.2	99.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A91484
Included Lab Sample IDs: 2085213

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	100	99.8	P/P	90 - 110
Calcium	103	101	P/P	90 - 110
Iron	101	101	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	100	100	P/P	90 - 110
Sodium	99.8	100	P/P	90 - 110
Zinc	102	102	P/P	90 - 110

Reference Method: EPA 8270D
Run ID: A91488
Included Lab Sample IDs: 2085210

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	93.0		P	80 - 120
Alpha-BHC	92.8		P	80 - 120
Alpha-Chlordane	94.9		P	80 - 120
Beta-BHC	91.2		P	80 - 120
Bifenthrin	91.4		P	80 - 120
Carbophenothion	172*		F	80 - 120
Chlorothalonil	79.4*		F	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A91488
Included Lab Sample IDs: 2085210

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cis-Nonachlor	91.9		P	80 - 120
Cypermethrin	84.9		P	80 - 120
DDD-p,p'	91.4		P	80 - 120
DDE-p,p'	95.9		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	83.0		P	80 - 120
Dicofol	100		P	80 - 120
Dieldrin	95.1		P	80 - 120
Endosulfan I	90.9		P	80 - 120
Endosulfan II	89.6		P	80 - 120
Endosulfan Sulfate	91.3		P	80 - 120
Endrin	93.9		P	80 - 120
Endrin Aldehyde	84.2		P	80 - 120
Endrin Ketone	93.2		P	80 - 120
Ethalfluralin	94.3		P	80 - 120
Gamma-BHC	91.2		P	80 - 120
Gamma-Chlordane	94.4		P	80 - 120
Heptachlor	92.4		P	80 - 120
Heptachlor Epoxide	94.2		P	80 - 120
Hexachlorobenzene	95.2		P	80 - 120
Methoxychlor	99.0		P	80 - 120
Mirex	94.8		P	80 - 120
Permethrin	90.3		P	80 - 120
Trans-Nonachlor	94.3		P	80 - 120
Trifluralin	93.8		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A91494
Included Lab Sample IDs: 2085175, 2085176

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A91515
Included Lab Sample IDs: 2085213

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.3	98.7	P/P	90 - 110
Antimony	96.7	96.4	P/P	90 - 110
Arsenic	103	101	P/P	90 - 110
Boron	95.9	102	P/P	90 - 110
Cadmium	98.8	99.4	P/P	90 - 110
Chromium	99.7	101	P/P	90 - 110
Lead	93.5	94.2	P/P	90 - 110
Nickel	101	100	P/P	90 - 110
Selenium	102	101	P/P	90 - 110
Silver	98.6	98.6	P/P	90 - 110
Thallium	95.8	95.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A91516
Included Lab Sample IDs: 2085175, 2085176

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	98.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A91524
Included Lab Sample IDs: 2085206, 2085207, 2085208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	100	101	P/P	50 - 150
Acetaminophen	107	106	P/P	60 - 160
Bentazon	110	99.9	P/P	50 - 160
Carbamazepine	106	105	P/P	60 - 150
Diuron	108	104	P/P	60 - 150
Fenuron	100	99.3	P/P	60 - 150
Fluridone	105	103	P/P	60 - 160
Hydrocodone	100	98.3	P/P	60 - 150
Ibuprofen	119	111	P/P	50 - 160
Imazapyr	105	102	P/P	50 - 150
Imidacloprid	97.5	99.7	P/P	60 - 150
Linuron	104	97.0	P/P	60 - 150
MCPP	105	113	P/P	50 - 150
Naproxen	111	97.6	P/P	50 - 160
Primidone	96.7	94.0	P/P	60 - 150
Pyraclostrobin	103	102	P/P	60 - 150
Triclopyr	100	104	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A91536
Included Lab Sample IDs: 2085175, 2085176

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A91542
Included Lab Sample IDs: 2085213

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

Reference Method: SM 2320 B-97
Run ID: A91544
Included Lab Sample IDs: 2085173, 2085174

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A91544
Included Lab Sample IDs: 2085173, 2085174

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A91544
Included Lab Sample IDs: 2085173, 2085174

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	99.5	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A91581
Included Lab Sample IDs: 2085212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dimethenamid	101		P	80 - 120

Reference Method: EPA 8276
Run ID: A91627
Included Lab Sample IDs: 2085210

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	103		P	80 - 120
Toxaphene	90.7		P	80 - 120

Reference Method: EPA 8321B
Run ID: A91628
Included Lab Sample IDs: 2085206, 2085207, 2085208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	104	95.1	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A91688
Included Lab Sample IDs: 2085208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endothall	68.1	109	P/P	60 - 160

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							0.391	
EPA 200.7 Rev. 4.4	Barium	101		101	101	101			0.0602
	Calcium	109		104	107	107			0.593
	Iron	106		109	106	105			0.571
	Magnesium	113		103	111	110			0.604
	Potassium	102		99.7	106	106			0.566
	Sodium	102		101	103	104			0.473
	Zinc	100		101	101	101			0.163
EPA 200.8 Rev. 5.4	Aluminum	101		99.9	111	108			2.12
	Antimony	101		102	110	107			2.69
	Arsenic	105		103	111	109			1.91
	Boron	101		103	116	114			1.65
	Cadmium	104		104	113	111			1.88
	Chromium	101		99.9	112	110			1.70
	Copper	104		99.4	111	110			0.900
	Lead	93.9		97.0	110	107			3.23
	Nickel	104		100	112	110			1.79
	Selenium	104		101	109	105			4.15
	Silver	103		101	112	110			1.65
	Thallium	101		106	120	116			2.80
EPA 300.0 Rev. 2.1	Chloride	98.6		97.2	99.1			0.711	
	Sulfate	98.5		96.8	98.7			0.0085	
	Sulfate	97.7		97.0	96.5			0.810	
EPA 350.1 Rev. 2.0	Ammonia-N	101		101	103				1.37
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106		106	109				1.92
EPA 353.2 Rev. 2.0	NO2NO3-N	98.0		100	99.0				0.633
EPA 365.1 Rev. 2.0	Total-P	98.0		93.9	94.6				0.644
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		90.3	91.7				1.54
	O-Phosphate-P	97.9		94.2	95.9				1.79
EPA 8270D	Aldrin	43.0	37.6	56.2	53.4		13.5		5.10
	Alpha-BHC	109	107	125	120		1.93		3.66
	Alpha-Chlordane	80.6	71.9	82.1	85.4		11.4		3.88
	Beta-BHC	152	168	151	155		9.99		2.00
	Bifenthrin	62.9	63.0	82.9	76.5		0.146		8.08
	Carbophenothion	70.0	69.1	199	203		1.37		1.66
	Chlorothalonil	84.5	103	243	167		19.3		37.4
	Cis-Nonachlor	78.8	79.7	84.5	83.6		1.07		1.00
	Cypermethrin	67.4	69.3	89.3	84.7		2.81		5.21
	DDD-p,p'	87.9	92.8	94.3	95.4		5.40		1.20
	DDE-p,p'	79.0	68.1	77.4	81.9		14.9		5.56
	DDT-p,p'	91.0	87.4	111	102		4.11		8.17
	Delta-BHC	136	148	161	150		8.35		7.15
	Dicofol	93.6	94.1	103	102		0.462		0.526
	Dieldrin	89.6	80.4	94.4	97.7		10.8		3.38
	Endosulfan I	88.9	78.2	96.3	98.1		12.8		1.85
	Endosulfan II	97.4	107	338	371		9.26		9.15
	Endosulfan Sulfate	96.6	107	97.5	95.9		10.2		1.65
	Endrin	96.8	87.0	89.4	94.8		10.7		5.86
	Endrin Aldehyde	94.5	92.7	52.9	63.9		1.93		18.8
	Endrin Ketone	98.2	103	113	112		4.80		0.438
	Ethalfluralin	83.3	75.0	93.5	92.0		10.4		1.65
	Gamma-BHC	124	127	200	197		2.90		1.18
	Gamma-Chlordane	72.0	67.8	79.1	81.6		6.04		3.20
	Heptachlor	64.9	58.0	68.4	68.4		11.2		0.0105

Quality Assurance Report
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Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Heptachlor Epoxide	84.0	79.8	98.7	94.5	5.16		4.33
	Hexachlorobenzene	66.4	60.0	72.0	68.2	10.2		5.41
	Methoxychlor	108	109	134	114	0.436		16.7
	Mirex	52.1	49.4	67.2	66.4	5.37		1.16
	Permethrin	62.2	61.0	75.2	72.9	2.04		3.08
	Trans-Nonachlor	74.4	66.5	78.5	79.1	11.2		0.806
	Trifluralin	81.7	79.1	92.2	91.1	3.17		1.28
EPA 8270E	Acetochlor	103	111	90.2	90.5	7.02		0.379
	Alachlor	96.2	112	88.1	91.6	15.3		3.83
	Ametryn	102	112	114	112	9.64		1.08
	Atrazine	105	114	99.5	103	8.17		1.53
	Atrazine Desethyl	45.7	47.3	69.1	66.6	3.54		3.66
	Azinphos Methyl	98.5	109	81.0	89.9	9.98		10.4
	Bromacil	83.8	102	123	125	19.7		0.827
	Butylate	78.6	82.0	47.8	50.0	4.23		4.53
	Chlorpyrifos Ethyl	101	101	89.9	87.8	0.0112		2.37
	Chlorpyrifos Methyl	96.1	95.3	84.7	83.7	0.836		1.19
	Cyanazine	60.9	50.9	76.4	81.0	17.8		5.83
	Demeton	80.6	71.3	70.0	72.6	12.3		3.66
	Diazinon	99.1	106	87.8	86.3	6.50		1.73
	Dimethenamid	134	135	92.0		0.842		
	Disulfoton	86.2	77.7	79.9	77.2	10.4		3.40
	Dithiopyr	103	110	88.4	88.0	6.32		0.472
	EPTC	78.8	79.0	45.0	53.3	0.243		16.8
	Ethion	111	113	93.9	93.3	2.02		0.652
	Ethoprop	102	103	90.5	88.7	1.61		2.02
	Fenamiphos	73.3	58.9	85.6	85.1	21.7		0.635
	Fipronil	97.5	113	90.8	95.5	14.3		5.00
	Fipronil Desulfinyl	94.5	107	83.0	87.7	12.1		5.53
	Fipronil Sulfide	106	105	95.1	113	0.276		17.2
	Fipronil Sulfone	97.3	105	90.3	92.9	7.59		2.86
	Fonofos	91.1	91.9	84.9	82.1	0.875		3.32
	Hexazinone	86.5	116	117	121	29.6		0.863
	Malathion	108	106	96.8	95.8	1.32		1.05
	Metalaxyl	75.9	71.3	81.8	84.1	6.20		2.83
	Metolachlor	107	117	92.2	93.3	8.95		0.996
	Metribuzin	88.8	87.5	93.9	98.7	1.50		4.99
	Mevinphos	96.0	98.0	93.7	95.0	2.08		1.43
	Molinate	89.4	90.3	66.7	70.6	0.950		5.75
	Norflurazon	78.5	102	85.8	90.4	25.8		5.30
	Oxadiazon	111	114	89.3	91.0	2.17		1.95
	Parathion Ethyl	95.3	102	91.8	89.3	6.30		2.81
	Parathion Methyl	96.0	101	98.6	93.2	5.56		5.70
	Pendimethalin	94.5	97.2	90.2	85.2	2.78		5.64
	Phorate	86.2	77.5	79.5	77.7	10.6		2.29
	Prodiamine	110	117	99.2	101	6.57		2.26
	Prometon	54.1	87.6	147	124	47.2		4.83
	Prometryn	91.5	106	86.9	86.8	14.4		0.119
	Simazine	97.4	106	93.6	97.1	8.89		2.82
	Tebuconazole	16.3	64.0	79.0	81.4	119		2.58
	Terbufos	89.4	86.2	85.4	85.0	3.57		0.497
	Terbuthylazine	103	111	91.0	94.7	7.96		3.99
EPA 8276	Chlordane	76.4	73.9	68.5	68.0	3.33		0.723
	Toxaphene	63.6	65.6	61.0	63.6	3.06		4.14

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	2,4-D	109	117	106			6.85
	3-Hydroxycarbofuran	85.9	67.4	66.3			1.64
	Acesulfame K	103	94.6	93.5			1.09
	Acetaminophen	88.1	85.4	82.1			3.92
	Aldicarb	84.7	60.1	54.5			9.77
	Aldicarb Sulfone	94.8	75.7	72.9			3.83
	Aldicarb Sulfoxide	98.4	42.2	39.4			6.76
	AMPA	116	62.3	64.7			2.87
	Bentazon	127	69.6	65.8			5.52
	Carbamazepine	95.7	73.4	69.2			5.85
	Carbaryl	80.1	47.2	46.9			0.697
	Carbofuran	79.4	51.2	46.5			9.50
	Diuron	89.3	65.6	61.7			6.11
	Endothall	89.0	73.1	72.8			0.442
	Fenuron	101	81.6	76.2			6.74
	Fluridone	103	95.4	91.7			3.71
	Glufosinate	109	89.2	90.0			0.901
	Glyphosate	109	109	115			3.88
	Hydrocodone	95.9	86.7	81.4			6.36
	Ibuprofen	81.4	83.4	75.3			10.1
	Imazapyr	102	122	111			5.05
	Imidacloprid	96.7	140	129			7.78
	Linuron	79.6	62.3	59.7			4.24
	MCPP	115	156	145			7.15
	Methiocarb	76.3	49.6	48.1			3.00
	Methomyl	82.8	60.1	59.8			0.541
	Naproxen	82.6	95.0	87.5			8.25
	Oxamyl	97.1	68.7	72.5			5.34
	Primidone	89.2	95.8	89.2			7.15
	Propoxur	77.4	47.8	47.2			1.24
	Pyraclostrobin	72.8	91.3	90.7			0.699
	Sucralose	103	83.1	91.1			9.19
	Triclopyr	74.8	101	92.0			9.34
SM 2120 B	Color (true)	100				3.01	
SM 2320 B-97	Total Alkalinity	102				0.366	
SM 2540 C-97	TDS					2.25	
SM 4500 F-C-97	Fluoride	98.5	100	98.1			1.45
SM 5310 B-00	Organic Carbon	98.1	98.2	97.3			0.641

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2085173, 2085174
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2085213
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2085213
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2085173, 2085174
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2085173, 2085174
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2085175, 2085176

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2085175, 2085176
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2085175, 2085176
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2085175, 2085176
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2085177, 2085178
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2085210
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2085212
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2085210
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2085205
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2085206, 2085207, 2085208
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2085206, 2085207, 2085208
SM 2120 B / E31780	True Color measured at 450 nm	2085173, 2085174
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2085173, 2085174
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2085173, 2085174
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2085173, 2085174
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2085173, 2085174
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2085175, 2085176

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	05/09/2019			05/09/2019 16:45	Sima Feizi	2085173, 2085174
EPA 200.7 Rev. 4.4	05/09/2019	05/14/2019 13:50	Elliott D. Healy	05/15/2019 15:32	Betina Topolski	2085213
EPA 200.8 Rev. 5.4	05/09/2019	05/14/2019 13:50	Elliott D. Healy	05/15/2019 19:56	Robert K Palmer	2085213
	05/09/2019	05/14/2019 13:50	Elliott D. Healy	05/20/2019 16:36	Robert K Palmer	2085213
EPA 300.0 Rev. 2.1	05/09/2019			05/14/2019 18:16	Lipi Saha	2085173
	05/09/2019			05/14/2019 18:28	Lipi Saha	2085174
	05/09/2019			05/15/2019 15:39	Lipi Saha	2085173
EPA 350.1 Rev. 2.0	05/09/2019			05/15/2019 12:21	Ping Hua	2085176
	05/09/2019			05/15/2019 12:40	Ping Hua	2085175
EPA 351.2 Rev. 2.0	05/09/2019	05/16/2019 12:45	Adrian Shelby	05/17/2019 17:12	Joseph Suarez	2085175
	05/09/2019	05/16/2019 12:45	Adrian Shelby	05/17/2019 17:14	Joseph Suarez	2085176
EPA 353.2 Rev. 2.0	05/09/2019			05/17/2019 10:09	Beverly Y. Sanders	2085175
	05/09/2019			05/17/2019 10:10	Beverly Y. Sanders	2085176
EPA 365.1 Rev. 2.0	05/09/2019	05/16/2019 14:45	Adrian Shelby	05/17/2019 18:35	Rosalyn Ballman	2085175
	05/09/2019	05/16/2019 14:45	Adrian Shelby	05/17/2019 18:36	Rosalyn Ballman	2085176
EPA 365.1 Rev. 2.0 dissolved	05/09/2019			05/09/2019 14:43	Jhamieka S. Greenwood	2085177
	05/09/2019			05/09/2019 15:24	Jhamieka S. Greenwood	2085178
EPA 8270D	05/09/2019	05/13/2019 08:00	Rasheda Ghaffari	05/17/2019 06:17	Arthur Maknenko	2085210
EPA 8270E	05/09/2019	05/09/2019 11:30	Rasheda Ghaffari	05/13/2019 19:02	Dinesh Mishra	2085212
	05/09/2019	05/09/2019 11:30	Rasheda Ghaffari	05/14/2019 21:22	Dinesh Mishra	2085212
	05/09/2019	05/17/2019 08:00	Rasheda Ghaffari	05/21/2019 19:14	Dinesh Mishra	2085212
EPA 8276	05/09/2019	05/13/2019 08:00	Rasheda Ghaffari	05/23/2019 10:18	Dinesh Mishra	2085210
EPA 8321B	05/09/2019	05/09/2019 13:00	Hoor Shaik	05/16/2019 22:53	Juyoung Kim	2085205
	05/09/2019	05/10/2019 10:00	Hoor Shaik	05/18/2019 00:17	Juyoung Kim	2085206
	05/09/2019	05/10/2019 10:00	Hoor Shaik	05/18/2019 00:51	Juyoung Kim	2085207
	05/09/2019	05/10/2019 10:00	Hoor Shaik	05/18/2019 01:26	Juyoung Kim	2085208
	05/09/2019	05/14/2019 09:30	Rebecca Ware	05/14/2019 11:23	Rebecca Ware	2085206
	05/09/2019	05/14/2019 09:30	Rebecca Ware	05/14/2019 11:51	Rebecca Ware	2085207
	05/09/2019	05/14/2019 09:30	Rebecca Ware	05/14/2019 12:04	Rebecca Ware	2085208
	05/09/2019	05/14/2019 09:30	Rebecca Ware	05/14/2019 16:25	Rebecca Ware	2085206
	05/09/2019	05/14/2019 09:30	Rebecca Ware	05/14/2019 16:47	Rebecca Ware	2085207
	05/09/2019	05/14/2019 09:30	Rebecca Ware	05/15/2019 10:37	Rebecca Ware	2085208
	05/09/2019	05/14/2019 09:30	Rebecca Ware	05/23/2019 11:46	Rebecca Ware	2085206
	05/09/2019	05/14/2019 09:30	Rebecca Ware	05/23/2019 12:10	Rebecca Ware	2085207
	05/09/2019	05/14/2019 09:30	Rebecca Ware	05/23/2019 12:21	Rebecca Ware	2085208
SM 2120 B	05/09/2019			05/09/2019 15:02	Blanca Fach	2085173
	05/09/2019			05/09/2019 15:03	Blanca Fach	2085174
SM 2320 B-97	05/09/2019			05/18/2019 07:47	Dale L. Simmons	2085173
	05/09/2019			05/18/2019 07:59	Dale L. Simmons	2085174
SM 2540 C-97	05/09/2019			05/14/2019 14:06	Yijie Li	2085173, 2085174

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-97	05/09/2019			05/14/2019 14:06	Yijie Li	2085173, 2085174
SM 4500 F-C-97	05/09/2019			05/18/2019 07:47	Dale L. Simmons	2085173
	05/09/2019			05/18/2019 07:59	Dale L. Simmons	2085174
SM 5310 B-00	05/09/2019			05/16/2019 03:47	Julia Storbeck	2085175
	05/09/2019			05/16/2019 04:02	Julia Storbeck	2085176