Chemical Analysis Report

SO-DIST-2024-04-25-02

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **2024 SMP: Shell Creek**
Request ID: **RQ-2024-04-22-20**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
Attn: Nicole Reistad

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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant Date Certified: 05-JUN-2024 11:30

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: SHELLCREEKRESERVOIRMID **Collection Date/Time: 04/24/2024 09:35**

Field ID: G3SD0204 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484850	DEP SOP: NU-094-1	Color (true)	44		PCU	P444799	
	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P444823	
	EPA 300.0 Rev. 2.1	Chloride	120		mg Cl/L	P445269	
		Sulfate	91		mg SO4/L	P445273	
	SM 2320 B-2011	Total Alkalinity	159		mg CaCO3/L	P444981	
	SM 2540 C-2015	TDS	520		mg/L	P445463	
	SM 2540 D-2015	TSS	5	I	mg/L	P445492	
	SM 4500-F- C-2011	Fluoride	0.30		mg F/L	P445603	
2484851	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P445065	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P444920	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.01	I	mg N/L	P445453	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P444932	
	SM 5310 B-2014	Organic Carbon	14		mg C/L	P444941	
2484859	EPA 8321B	Aldicarb	0.020	U	ug/L	P444819	
		Aldicarb Sulfone	0.0020	U	ug/L	P444819	
		Aldicarb Sulfoxide	0.0020	UJ	ug/L	P444819	MS
		Carbaryl	0.0020	U	ug/L	P444819	
		Carbofuran	0.0020	U	ug/L	P444819	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P444819	
		Methiocarb	0.0020	U	ug/L	P444819	
		Methomyl	0.0020	U	ug/L	P444819	
		Oxamyl	0.0020	U	ug/L	P444819	
		Propoxur	0.0020	U	ug/L	P444819	
2484860		2,4-D	0.0025	I	ug/L	P444754	
		Acesulfame K	0.10	U	ug/L	P444847	
		2,4,5-T	0.0040	U	ug/L	P444754	
		AMPA	1.3		ug/L	P444847	
		Acetaminophen	0.0080	U	ug/L	P444754	
		Acetamiprid	0.0020	U	ug/L	P444754	
		Endothall	0.25	U	ug/L	P444847	
		Glufosinate	0.10	U	ug/L	P444847	
		Glyphosate	0.22	I	ug/L	P444847	
		Afidopyropen	0.0020	U	ug/L	P444754	
		Bentazon	0.023		ug/L	P444754	
		Sucralose	0.027	I	ug/L	P444847	
		Benzovindiflupyr	0.0020	U	ug/L	P444754	
		Carbamazepine	8.0E-04	U	ug/L	P444754	
		Clothianidin	0.012		ug/L	P444754	
		Dinotefuran	0.0020	U	ug/L	P444754	
		Diuron	0.019		ug/L	P444754	
		Fenuron	0.032	U	ug/L	P444754	
		Fluridone	0.0028		ug/L	P444754	
		Imazapyr	0.0073	I	ug/L	P444754	
		Hydrocodone	0.0020	U	ug/L	P444754	

Field ID: G3SD0204 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484860	EPA 8321B	Ibuprofen	0.080	U	ug/L	P444754	
		Imidacloprid	0.026		ug/L	P444754	
		Linuron	0.0020	U	ug/L	P444754	
		Mandestrobin	0.0020	U	ug/L	P444754	
		MCPP	0.0020	U	ug/L	P444754	
		Naproxen	0.0080	U	ug/L	P444754	
		Primidone	0.0040	U	ug/L	P444754	
		Pyraclostrobin	0.0020	U	ug/L	P444754	
		Silvex	0.0040	U	ug/L	P444754	
		Thiamethoxam	0.020		ug/L	P444754	
		Tolfenpyrad	0.0020	U	ug/L	P444754	
		Triclopyr	0.0040	U	ug/L	P444754	
2484861	EPA 8270E	Aldrin	0.68	U	ng/L	P444846	
		Alpha-BHC	0.10	U	ng/L	P444846	
		Alpha-Chlordane	0.21	U	ng/L	P444846	
		PCB-1016	2.1	U	ng/L	P444846	
		Beta-BHC	0.10	U	ng/L	P444846	
		PCB-1221	2.1	U	ng/L	P444846	
		Beta-Cyfluthrin	1.3	U	ng/L	P444846	
		PCB-1232	2.1	U	ng/L	P444846	
		Bifenthrin	0.52	U	ng/L	P444846	
		PCB-1242	2.1	U	ng/L	P444846	
		PCB-1248	2.1	U	ng/L	P444846	
		Chlorothalonil	3.7	U	ng/L	P444846	
		PCB-1254	2.1	U	ng/L	P444846	
		Cis-Nonachlor	0.21	U	ng/L	P444846	
		PCB-1260	2.1	U	ng/L	P444846	
		Cypermethrin	1.6	UJ	ng/L	P444846	LCS, MS
		Dacthal	0.16	U	ng/L	P444846	
		DDD-p,p'	0.26	U	ng/L	P444846	
		DDE-p,p'	0.21	U	ng/L	P444846	
		DDT-p,p'	0.83	U	ng/L	P444846	
		Delta-BHC	0.42	U	ng/L	P444846	
		Deltamethrin	1.3	UJ	ng/L	P444846	LCS, MS
		Dichlobenil	0.26	U	ng/L	P444846	
		Dicofol	1.3	U	ng/L	P444846	
		Dieldrin	0.42	U	ng/L	P444846	
		Endosulfan I	0.42	U	ng/L	P444846	
		Endosulfan II	0.94	U	ng/L	P444846	
		Endosulfan Sulfate	0.31	U	ng/L	P444846	
		Endrin	0.94	U	ng/L	P444846	
		Endrin Aldehyde	0.78	U	ng/L	P444846	
		Endrin Ketone	0.42	U	ng/L	P444846	
		Esfenvalerate	0.78	UJ	ng/L	P444846	LCS, MS
		Ethalfluralin	0.16	U	ng/L	P444846	

Field ID: G3SD0204 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484861	EPA 8270E	Fenpropathrin	0.26	U	ng/L	P444846	
		Gamma-BHC	0.13	U	ng/L	P444846	
		Gamma-Chlordane	0.21	U	ng/L	P444846	
		Heptachlor	0.21	U	ng/L	P444846	
		Heptachlor Epoxide	0.26	U	ng/L	P444846	
		Hexachlorobenzene**	1.0	U	ng/L	P444846	
		Kepone	14	U	ng/L	P444846	
		Lambda-Cyhalothrin	0.78	U	ng/L	P444846	
		Methoprene	0.78	U	ng/L	P444846	
		Methoxychlor	0.31	U	ng/L	P444846	
		MGK-264	0.21	U	ng/L	P444846	
		Mirex	0.36	U	ng/L	P444846	
		Oxychlordane	0.31	U	ng/L	P444846	
		Permethrin	1.7	U	ng/L	P444846	
		Phenothrin	0.94	U	ng/L	P444846	
		Piperonyl Butoxide	0.16	U	ng/L	P444846	
		Prallethrin	2.1	U	ng/L	P444846	
		Tau-Fluvalinate	0.26	UJ	ng/L	P444846	LCS, MS
		Tetramethrin	0.78	U	ng/L	P444846	
		Trans-Nonachlor	0.21	U	ng/L	P444846	
		Triclosan Methyl	0.16	U	ng/L	P444846	
		Trifluralin	0.21	U	ng/L	P444846	
	EPA 8276	Chlordane	2.1	U	ng/L	P444846	
		Toxaphene	16	U	ng/L	P444846	
2484862	EPA 8270E	Oxybenzone**	10	U	ng/L	P444816	
		Acetochlor	0.21	U	ng/L	P444816	
		Octinoxate**	150	U	ng/L	P444816	
		Alachlor	0.41	U	ng/L	P444816	
		Avobenzone**	100	U	ng/L	P444816	
		Ametryn	1.1	U	ng/L	P444816	
		Atrazine	22	J	ng/L	P444816	
		PBDE-47**	4.1	U	ng/L	P444816	
		Atrazine Desethyl	3.3	I	ng/L	P444816	
		PBDE-99**	5.1	U	ng/L	P444816	
		Azinphos Methyl	3.1	U	ng/L	P444816	
		Tri-o-cresyl Phosphate**	6.2	U	ng/L	P444816	
		Azoxystrobin	20	J	ng/L	P444816	
		Bromacil	77	J	ng/L	P444816	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P444816	
		Butylate	0.46	U	ng/L	P444816	
		Dechlorane Plus**	31	U	ng/L	P444816	
		Caffeine**	7.7	U	ng/L	P444816	
		Dechlorane 602**	5.1	U	ng/L	P444816	
		Carbophenothion	0.51	U	ng/L	P444816	

Field ID: G3SD0204 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484862	EPA 8270E	Dechlorane 603**	4.1	U	ng/L	P444816	
		Carfentrazone Ethyl	0.15	U	ng/L	P444816	
		Hexabromobenzene**	6.2	UJ	ng/L	P444816	CCV
		Chlorfenapyr	0.31	U	ng/L	P444816	
		PBB-153**	6.2	U	ng/L	P444816	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P444816	
		Pentabromotoluene**	3.1	U	ng/L	P444816	
		Chlorpyrifos Methyl	0.10	U	ng/L	P444816	
		Tris(2-chloroethyl) phosphate (TCEP)**	56	U	ng/L	P444816	
		Coumaphos	1.1	U	ng/L	P444816	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	26	U	ng/L	P444816	
		Cyanazine	5.1	U	ng/L	P444816	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.6	U	ng/L	P444816	
		Cyprodinil	0.21	U	ng/L	P444816	
		Tetradecachloro-m-terphenyl**	7.7	U	ng/L	P444816	
		Demeton	3.6	U	ng/L	P444816	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	62	UJ	ng/L	P444816	LCS, MS
		Diazinon	0.13	U	ng/L	P444816	
		Difenoconazole	0.62	U	ng/L	P444816	
		Dimethenamid	0.10	U	ng/L	P444816	
		Dimethomorph	0.31	UJ	ng/L	P444816	LCS
		Disulfoton	0.62	U	ng/L	P444816	
		Dithiopyr	1.0	UJ	ng/L	P444816	LCS, MS, RPD
		EPTC	0.51	U	ng/L	P444816	
		Ethion	0.31	U	ng/L	P444816	
		Ethoprop	0.13	U	ng/L	P444816	
		Etridiazole	0.10	U	ng/L	P444816	
		Fenamiphos	0.46	U	ng/L	P444816	
		Fenbuconazole	0.51	U	ng/L	P444816	
		Fipronil	0.21	U	ng/L	P444816	
		Fipronil Desulfinyl**	0.10	U	ng/L	P444816	
		Fipronil Sulfide	0.10	U	ng/L	P444816	
		Fipronil Sulfone	0.10	U	ng/L	P444816	
		Fluazifop-P-butyl	0.10	U	ng/L	P444816	
		Fludioxonil	0.10	U	ng/L	P444816	
		Flumioxazin	3.1	U	ng/L	P444816	
		Flutolanil	0.10	U	ng/L	P444816	
		Fluxapyroxad	0.26	U	ng/L	P444816	
		Fonofos	0.15	U	ng/L	P444816	
		Hexazinone	0.51	U	ng/L	P444816	
		Imazalil	0.67	U	ng/L	P444816	
		Iprodione	0.51	U	ng/L	P444816	
		Loratadine**	0.31	UJ	ng/L	P444816	LCS

Field ID: G3SD0204 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484862	EPA 8270E	Malathion	0.36	U	ng/L	P444816	
		Metalaxyl	17	J	ng/L	P444816	
		Metolachlor	23		ng/L	P444816	
		Metribuzin	0.41	U	ng/L	P444816	
		Mevinphos	1.0	U	ng/L	P444816	
		Molinate	0.26	U	ng/L	P444816	
		Myclobutanil	0.36	U	ng/L	P444816	
		Naled	2.6	U	ng/L	P444816	
		Napropamide	0.72	U	ng/L	P444816	
		Norflurazon	55	J	ng/L	P444816	
		Oxadiazon	0.36	U	ng/L	P444816	
		Oxyfluorfen	0.21	U	ng/L	P444816	
		Parathion Ethyl	0.15	U	ng/L	P444816	
		Parathion Methyl	0.21	U	ng/L	P444816	
		Pendimethalin	1.7	U	ng/L	P444816	
		Phenytoin**	5.4	U	ng/L	P444816	
		Phorate	0.26	U	ng/L	P444816	
		Prodiamine	0.21	U	ng/L	P444816	
		Prometon	3.1	U	ng/L	P444816	
		Prometryn	0.36	U	ng/L	P444816	
		Pronamide	0.10	U	ng/L	P444816	
		Propanil	0.10	U	ng/L	P444816	
		Propargite	0.82	U	ng/L	P444816	
		Propiconazole	0.62	U	ng/L	P444816	
		Pyraflufen Ethyl	0.31	U	ng/L	P444816	
		Pyridaben	1.4	U	ng/L	P444816	
		Pyriproxyfen	0.26	U	ng/L	P444816	
		Simazine	4.1	J	ng/L	P444816	
		Stirophos	0.41	U	ng/L	P444816	
		Sulfentrazone	4.8	I	ng/L	P444816	MS
		Tebuconazole	1.4	U	ng/L	P444816	
		Terbufos	0.21	U	ng/L	P444816	
		Terbuthylazine	0.21	U	ng/L	P444816	
		Thiobencarb	0.51	U	ng/L	P444816	
		Triadimefon	0.15	U	ng/L	P444816	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for bromacil and metalaxyl not assessed due to high content of these parameters in the sample spiked. Estimation for some analytes due to internal standard recovery exceeding control limits. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: PRAIRIE CREEK AT WASHINGTON LOOP **Collection Date/Time: 04/24/2024 10:30**

Field ID: G3SD0067 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484863	EPA 8270E	Oxybenzone**	10	U	ng/L	P444816	
		Acetochlor	0.21	U	ng/L	P444816	
		Octinoxate**	160	U	ng/L	P444816	
		Alachlor	0.42	U	ng/L	P444816	
		Avobenzone**	100	U	ng/L	P444816	
		Ametryn	1.1	U	ng/L	P444816	
		Atrazine	14	J	ng/L	P444816	
		PBDE-47**	4.2	U	ng/L	P444816	
		Atrazine Desethyl	2.6	I	ng/L	P444816	
		PBDE-99**	5.2	U	ng/L	P444816	
		Azinphos Methyl	3.1	U	ng/L	P444816	
		Tri-o-cresyl Phosphate**	6.3	U	ng/L	P444816	
		Azoxystrobin	23	J	ng/L	P444816	
		Bromacil	92	J	ng/L	P444816	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	13	U	ng/L	P444816	
		Butylate	0.47	U	ng/L	P444816	
		Dechlorane Plus**	31	U	ng/L	P444816	
		Caffeine**	29	I	ng/L	P444816	
		Dechlorane 602**	5.2	U	ng/L	P444816	
		Carbophenothion	0.52	U	ng/L	P444816	
		Dechlorane 603**	4.2	U	ng/L	P444816	
		Carfentrazone Ethyl	0.16	U	ng/L	P444816	
		Hexabromobenzene**	6.3	UJ	ng/L	P444816	CCV
		Chlorfenapyr	0.31	U	ng/L	P444816	
		PBB-153**	6.3	U	ng/L	P444816	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P444816	
		Pentabromotoluene**	3.1	U	ng/L	P444816	
		Chlorpyrifos Methyl	0.10	U	ng/L	P444816	
		Tris(2-chloroethyl) phosphate (TCEP)**	57	U	ng/L	P444816	
		Coumaphos	1.1	U	ng/L	P444816	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	26	U	ng/L	P444816	
		Cyanazine	5.2	U	ng/L	P444816	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.6	U	ng/L	P444816	
		Cyprodinil	0.21	U	ng/L	P444816	
		Tetradecachloro-m-terphenyl**	7.8	U	ng/L	P444816	
		Demeton	3.7	U	ng/L	P444816	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	63	UJ	ng/L	P444816	LCS, MS
		Diazinon	0.13	U	ng/L	P444816	
		Difenoconazole	0.63	U	ng/L	P444816	
		Dimethenamid	0.10	U	ng/L	P444816	
		Dimethomorph	0.31	UJ	ng/L	P444816	LCS
		Disulfoton	0.63	U	ng/L	P444816	

Field ID: G3SD0067 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484863	EPA 8270E	Dithiopyr	1.0	UJ	ng/L	P444816	LCS, MS, RPD
		EPTC	0.52	U	ng/L	P444816	
		Ethion	0.31	U	ng/L	P444816	
		Ethoprop	0.13	U	ng/L	P444816	
		Etridiazole	0.10	U	ng/L	P444816	
		Fenamiphos	0.47	U	ng/L	P444816	
		Fenbuconazole	0.52	U	ng/L	P444816	
		Fipronil	0.21	U	ng/L	P444816	
		Fipronil Desulfinyl**	0.10	U	ng/L	P444816	
		Fipronil Sulfide	0.10	U	ng/L	P444816	
		Fipronil Sulfone	0.10	U	ng/L	P444816	
		Fluazifop-P-butyl	0.10	U	ng/L	P444816	
		Fludioxonil	0.10	U	ng/L	P444816	
		Flumioxazin	3.1	U	ng/L	P444816	
		Flutolanil	0.10	U	ng/L	P444816	
		Fluxapyroxad	0.26	U	ng/L	P444816	
		Fonofos	0.16	U	ng/L	P444816	
		Hexazinone	0.52	U	ng/L	P444816	
		Imazalil	0.68	U	ng/L	P444816	
		Iprodione	0.52	U	ng/L	P444816	
		Loratadine**	0.31	UJ	ng/L	P444816	LCS
		Malathion	0.37	U	ng/L	P444816	
		Metalaxyl	26	J	ng/L	P444816	
		Metolachlor	73		ng/L	P444816	
		Metribuzin	0.42	U	ng/L	P444816	
		Mevinphos	1.0	U	ng/L	P444816	
		Molinate	0.26	U	ng/L	P444816	
		Myclobutanil	0.37	U	ng/L	P444816	
		Naled	2.6	U	ng/L	P444816	
		Napropamide	0.73	U	ng/L	P444816	
		Norflurazon	87	J	ng/L	P444816	
		Oxadiazon	0.37	U	ng/L	P444816	
		Oxyfluorfen	0.21	U	ng/L	P444816	
		Parathion Ethyl	0.16	U	ng/L	P444816	
		Parathion Methyl	0.21	U	ng/L	P444816	
		Pendimethalin	1.8	U	ng/L	P444816	
		Phenytoin**	5.5	U	ng/L	P444816	
		Phorate	0.26	U	ng/L	P444816	
		Prodiamine	0.21	U	ng/L	P444816	
		Prometon	3.1	U	ng/L	P444816	
		Prometryn	0.37	U	ng/L	P444816	
		Pronamide	0.10	U	ng/L	P444816	
		Propanil	0.10	U	ng/L	P444816	
		Propargite	0.84	U	ng/L	P444816	

Field ID: G3SD0067 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484863	EPA 8270E	Propiconazole	0.63	U	ng/L	P444816	
		Pyraflufen Ethyl	0.31	U	ng/L	P444816	
		Pyridaben	1.5	U	ng/L	P444816	
		Pyriproxyfen	0.26	U	ng/L	P444816	
		Simazine	0.26	U	ng/L	P444816	
		Stirophos	0.42	U	ng/L	P444816	
		Sulfentrazone	9.3	J	ng/L	P444816	MS
		Tebuconazole	1.5	U	ng/L	P444816	
		Terbufos	0.21	U	ng/L	P444816	
		Terbuthylazine	0.21	U	ng/L	P444816	
		Thiobencarb	0.52	U	ng/L	P444816	
		Triadimefon	0.16	U	ng/L	P444816	
2484867	EPA 200.7 Rev. 4.4	Calcium	89.5		mg/L	P444929	
		Iron	260		ug/L	P444929	
		Magnesium	23.9		mg/L	P444929	
		Potassium	9.1		mg/L	P444929	
		Sodium	58.6		mg/L	P444929	
		Strontium	5.76E+03		ug/L	P444929	
		Tin	3.0	U	ug/L	P444929	
		Titanium	1.2	I	ug/L	P444929	
		Vanadium	2.0	I	ug/L	P444929	
		Zinc	11	I	ug/L	P444929	
	EPA 200.8 Rev. 5.4	Aluminum	41		ug/L	P444929	
		Antimony	0.17	I	ug/L	P444929	
		Arsenic	1.01		ug/L	P444929	
		Barium	47.9		ug/L	P444929	
		Beryllium	0.010	U	ug/L	P444929	
		Boron	62.0		ug/L	P444929	
		Cadmium	0.020	U	ug/L	P444929	
		Chromium	0.40	U	ug/L	P444929	
		Cobalt	0.127		ug/L	P444929	
		Copper	0.51	I	ug/L	P444929	
		Lead	0.20	U	ug/L	P444929	
		Manganese	78.0		ug/L	P444929	
		Molybdenum	0.72		ug/L	P444929	
		Nickel	1.0	I	ug/L	P444929	
		Selenium	0.30	I	ug/L	P444929	
		Silver	0.010	U	ug/L	P444929	
		Thallium	0.10	U	ug/L	P444929	
	SM 2340 B-2011	Hardness	322		mg/L	P444929	

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for bromacil and metalaxyl not assessed due to high content of these parameters in the sample spiked. Estimation for some analytes due to internal standard recovery exceeding control limits. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: FB **Collection Date/Time: 04/24/2024 10:35**

Field ID: FB_04242024 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484868	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P444929	
		Iron	30	U	ug/L	P444929	
		Magnesium	0.040	U	mg/L	P444929	
		Potassium	0.30	U	mg/L	P444929	
		Sodium	0.50	U	mg/L	P444929	
		Strontium	2.0	U	ug/L	P444929	
		Tin	3.0	U	ug/L	P444929	
		Titanium	0.75	U	ug/L	P444929	
		Vanadium	2.0	U	ug/L	P444929	
		Zinc	5.0	U	ug/L	P444929	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P444929	
		Antimony	0.050	U	ug/L	P444929	
		Arsenic	0.050	U	ug/L	P444929	
		Barium	0.20	U	ug/L	P444929	
		Beryllium	0.010	U	ug/L	P444929	
		Boron	7.3	I	ug/L	P444929	
		Cadmium	0.020	U	ug/L	P444929	
		Chromium	0.40	U	ug/L	P444929	
		Cobalt	0.020	U	ug/L	P444929	
		Copper	0.40	U	ug/L	P444929	
		Lead	0.20	U	ug/L	P444929	
		Manganese	0.10	U	ug/L	P444929	
		Molybdenum	0.15	U	ug/L	P444929	
		Nickel	0.50	U	ug/L	P444929	
		Selenium	0.20	U	ug/L	P444929	
		Silver	0.010	U	ug/L	P444929	
		Thallium	0.10	U	ug/L	P444929	

Ref. Method and Comment:
EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample. The boron result was confirmed in the undigested sample on 04/30/2024.

Sample Location: LEEBRANCHATRAILROAD **Collection Date/Time: 04/24/2024 10:50**

Field ID: G3SD0212 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484852	DEP SOP: NU-094-1	Color (true)	27		PCU	P444799	
	EPA 180.1 Rev. 2.0	Turbidity	7.0		NTU	P444823	
	EPA 300.0 Rev. 2.1	Chloride	270		mg Cl/L	P445269	
		Sulfate	58		mg SO4/L	P445273	
	SM 2320 B-2011	Total Alkalinity	138		mg CaCO3/L	P444981	
	SM 2540 C-2015	TDS	684		mg/L	P445463	
	SM 2540 D-2015	TSS	5	I	mg/L	P445492	
	SM 4500-F- C-2011	Fluoride	0.51		mg F/L	P445603	
2484853	EPA 350.1 Rev. 2.0	Ammonia-N	0.045		mg N/L	P445065	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P444920	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.054		mg N/L	P445453	
	EPA 365.1 Rev. 2.0	Total-P	0.43		mg P/L	P444932	
	SM 5310 B-2014	Organic Carbon	10		mg C/L	P444941	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P444799

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P444823

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P444929

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P444929

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	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: P445269

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445273

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P445065

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P444920

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P445453

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P444932

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

Reference Method: EPA 8270E
Batch ID: P444816

Component	Result	Code	Units
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	60	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.45	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P444816

Component	Result	Code	Units
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	150	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	6.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.7	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	5.3	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P444816

Component	Result	Code	Units
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	25	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	55	U	ng/L

Reference Method: EPA 8270E
Batch ID: P444846

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P444846

Component	Result	Code	Units
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfluralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276
Batch ID: P444846

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B
Batch ID: P444754

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P444754

Component	Result	Code	Units
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0020	U	ug/L
Mandestrobin	0.0020	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
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P444819

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: P444847

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 2320 B-2011
Batch ID: P444981

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P445463

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P445492

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P445603

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P444941

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P444799

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.8		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P444823

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P444929

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	107		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	98.9		P	85 - 115
Sodium	102		P	85 - 115
Strontium	101		P	85 - 115
Tin	99.1		P	85 - 115
Titanium	101		P	85 - 115
Vanadium	96.3		P	85 - 115
Zinc	99.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P444929

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	96.6		P	85 - 115
Antimony	98.1		P	85 - 115
Arsenic	93.7		P	85 - 115
Barium	99.5		P	85 - 115
Beryllium	94.6		P	85 - 115
Boron	101		P	85 - 115
Cadmium	97.0		P	85 - 115
Chromium	94.0		P	85 - 115
Cobalt	92.9		P	85 - 115
Copper	90.0		P	85 - 115
Lead	95.9		P	85 - 115
Manganese	96.3		P	85 - 115
Molybdenum	93.4		P	85 - 115
Nickel	91.2		P	85 - 115
Selenium	97.3		P	85 - 115
Silver	110		P	85 - 115
Thallium	93.6		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445269

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445273

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P445065

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P444920

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P445453

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P444932

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

Reference Method: EPA 8270E
Batch ID: P444816

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	29.5		F	50 - 150
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	39.9		P	37 - 154
Acetochlor	97.0		P	64 - 124
Alachlor	72.3		P	61 - 118
Ametryn	91.0		P	47 - 158
Atrazine	84.8		P	68 - 121
Atrazine Desethyl	69.7		P	30 - 119
Avobenzone	128		P	48 - 193
Azinphos Methyl	142		P	30 - 194
Azoxystrobin	94.5		P	58 - 154
Bromacil	68.2		P	47 - 126
Butylate	59.4		P	31 - 83.0
Caffeine	117		P	10 - 180
Carbophenothion	103		P	59 - 133
Carfentrazone Ethyl	107		P	59 - 147
Chlorfenapyr	60.2		P	52 - 118
Chlorpyrifos Ethyl	76.8		P	59 - 119
Chlorpyrifos Methyl	99.8		P	65 - 123
Coumaphos	125		P	11 - 223
Cyanazine	113		P	63 - 250
Cyprodinil	75.2		P	52 - 143
Dechlorane 602	44.0		P	23 - 142

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P444816

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dechlorane 603	87.7		P	51 - 171
Dechlorane Plus	81.9		P	46 - 161
Demeton	61.5		P	42 - 119
Diazinon	101		P	67 - 132
Difenoconazole	88.0		P	12 - 204
Dimethenamid	79.2		P	53 - 113
Dimethomorph	281		F	13 - 238
Disulfoton	96.3		P	56 - 126
Dithiopyr	54.0		F	58 - 127
EPTC	48.3		P	31 - 78.0
Ethion	53.5		P	24 - 127
Ethoprop	77.7		P	60 - 118
Etridiazole	65.2		P	32 - 91.0
Fenamiphos	83.8		P	54 - 129
Fenbuconazole	78.0		P	31 - 162
Fipronil	90.1		P	56 - 131
Fipronil Desulfinyl	76.1		P	58 - 132
Fipronil Sulfide	71.8		P	51 - 123
Fipronil Sulfone	75.8		P	50 - 125
Fluazifop-P-butyl	94.2		P	52 - 132
Fludioxonil	72.8		P	52 - 129
Flumioxazin	145		P	34 - 250
Flutolanil	53.1		P	45 - 128
Fluxapyroxad	59.4		P	31 - 150
Fonofos	86.7		P	60 - 116
Hexabromobenzene	57.2		P	52 - 165
Hexazinone	77.7		P	59 - 120
Imazalil	78.6		P	39 - 134
Iprodione	86.8		P	39 - 243
Loratadine	319		F	10 - 240
Malathion	73.6		P	53 - 145
Metalaxyl	98.2		P	59 - 120
Metolachlor	87.0		P	64 - 122
Metribuzin	106		P	33 - 128
Mevinphos	77.1		P	48 - 119
Molinate	59.9		P	42 - 89.0
Myclobutanil	61.9		P	54 - 129
Naled	41.2		P	10 - 138
Napropamide	60.3		P	40 - 122
Norflurazon	70.6		P	49 - 132
Octinoxate	107		P	29 - 176
Oxadiazon	63.0		P	50 - 115
Oxybenzone	67.4		P	45 - 145
Oxyfluorfen	98.2		P	62 - 149
Parathion Ethyl	77.2		P	68 - 119
Parathion Methyl	135		P	68 - 147
PBB-153	63.9		P	42 - 179
PBDE-47	71.2		P	44 - 141
PBDE-99	53.3		P	36 - 141
Pendimethalin	108		P	59 - 158
Pentabromotoluene	93.1		P	58 - 148
Phenytoin	37.2		P	10 - 151

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P444816

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	69.7		P	44 - 124
Prodiamine	66.6		P	10 - 136
Prometon	84.9		P	45 - 131
Prometryn	113		P	52 - 140
Pronamide	97.1		P	70 - 129
Propanil	73.2		P	54 - 144
Propargite	62.2		P	10 - 191
Propiconazole	67.1		P	49 - 128
Pyraflufen Ethyl	51.7		P	46 - 141
Pyridaben	109		P	29 - 198
Pyriproxyfen	66.7		P	33 - 221
Simazine	85.7		P	62 - 119
Stirophos	29.7		P	13 - 144
Sulfentrazone	42.0		P	12 - 152
Tebuconazole	42.3		P	10 - 135
Terbufos	84.6		P	67 - 136
Terbuthylazine	76.1		P	66 - 113
Tetradecachloro-m-terphenyl	133		P	30 - 235
Thiobencarb	80.7		P	51 - 125
Tri-o-cresyl Phosphate	113		P	50 - 150
Triadimefon	73.7		P	57 - 118
Tris(1-chloro-2-propyl) phosphate (TCPP)	119		P	60 - 160
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	112		P	66 - 141
Tris(2-chloroethyl) phosphate (TCEP)	123		P	59 - 166

Reference Method: EPA 8270E
Batch ID: P444846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	61.2		P	30 - 96.0
Alpha-BHC	93.8		P	70 - 109
Alpha-Chlordane	81.1		P	45 - 107
Beta-BHC	112		P	64 - 138
Beta-Cyfluthrin	139		P	17 - 141
Bifenthrin	99.2		P	10 - 113
Chlorothalonil	122		P	26 - 180
Cis-Nonachlor	82.3		P	37 - 102
Cypermethrin	145		F	20 - 133
Dacthal	91.8		P	69 - 114
DDD-p,p'	82.4		P	42 - 105
DDE-p,p'	86.6		P	42 - 106
DDT-p,p'	82.6		P	42 - 107
Delta-BHC	128		P	67 - 144
Deltamethrin	248		F	15 - 149
Dichlobenil	55.5		P	46 - 117
Dicofol	78.2		P	34 - 114
Dieldrin	81.8		P	50 - 108
Endosulfan I	92.4		P	55 - 104
Endosulfan II	92.5		P	51 - 111
Endosulfan Sulfate	102		P	56 - 121
Endrin	88.6		P	10 - 106
Endrin Aldehyde	63.8		P	34 - 114

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P444846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin Ketone	86.3		P	63 - 177
Esfenvalerate	196		F	29 - 143
Ethalfluralin	82.0		P	46 - 96.0
Fenpropathrin	97.8		P	28 - 115
Gamma-BHC	84.2		P	65 - 121
Gamma-Chlordane	87.0		P	39 - 103
Heptachlor	78.0		P	39 - 94.0
Heptachlor Epoxide	86.2		P	54 - 104
Hexachlorobenzene	84.4		P	36 - 100
Kepone	113		P	10 - 225
Lambda-Cyhalothrin	116		P	10 - 135
Methoprene	84.2		P	10 - 109
Methoxychlor	103		P	52 - 112
MGK-264	73.8		P	44 - 117
Mirex	85.8		P	20 - 90.0
Oxychlordane	81.0		P	44 - 102
PCB-1016	51.8		P	45 - 107
PCB-1260	77.1		P	40 - 118
Permethrin	128		P	18 - 135
Phenothrin	83.4		P	10 - 102
Piperonyl Butoxide	85.8		P	28 - 156
Prallethrin	78.3		P	28 - 113
Tau-Fluvalinate	183		F	10 - 123
Tetramethrin	87.4		P	18 - 158
Trans-Nonachlor	89.9		P	39 - 104
Triclosan Methyl	91.2		P	54 - 108
Trifluralin	80.9		P	46 - 97.0

Reference Method: EPA 8276
Batch ID: P444846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	75.7		P	52 - 117
Toxaphene	74.3		P	44 - 125

Reference Method: EPA 8321B
Batch ID: P444754

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	129		P	40 - 150
2,4,5-T	121		P	40 - 150
Acetaminophen	79.5		P	30 - 150
Acetamiprid	75.1		P	40 - 150
Afidopyropen	55.5		P	30 - 150
Bentazon	105		P	30 - 150
Benzovindiflupyr	72.9		P	40 - 150
Carbamazepine	79.7		P	40 - 150
Clothianidin	87.3		P	40 - 150
Dinotefuran	93.2		P	40 - 150
Diuron	72.4		P	40 - 150
Fenuron	85.0		P	40 - 150
Fluridone	79.2		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P444754

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Hydrocodone	86.6		P	40 - 150
Ibuprofen	71.1		P	40 - 150
Imazapyr	84.0		P	40 - 150
Imidacloprid	84.4		P	40 - 150
Linuron	72.9		P	40 - 150
Mandestrobin	70.0		P	40 - 150
MCPP	121		P	40 - 150
Naproxen	76.4		P	40 - 150
Primidone	83.4		P	40 - 150
Pyraclostrobin	71.5		P	40 - 150
Silvex	101		P	40 - 150
Thiamethoxam	90.7		P	40 - 150
Tolfenpyrad	47.2		P	30 - 150
Triclopyr	114		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P444819

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	85.2		P	40 - 150
Aldicarb	72.7		P	30 - 150
Aldicarb Sulfone	94.8		P	40 - 150
Aldicarb Sulfoxide	86.4		P	40 - 150
Carbaryl	77.2		P	40 - 150
Carbofuran	76.7		P	40 - 150
Methiocarb	73.9		P	40 - 150
Methomyl	91.5		P	40 - 150
Oxamyl	93.0		P	40 - 150
Propoxur	75.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P444847

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	94.7		P	40 - 150
AMPA	89.8		P	40 - 160
Endothall	85.4		P	40 - 160
Glufosinate	82.7		P	40 - 160
Glyphosate	81.0		P	40 - 160
Sucralose	113		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P444981

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P445463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	93.6		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P445492

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	102		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P445603

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.0		P	95 - 106

Reference Method: SM 5310 B-2014
Batch ID: P444941

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P444929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484804	Calcium	104		P	80 - 120
2484804	Iron	105	105	P/P	80 - 120
2484804	Magnesium	104		P	80 - 120
2484804	Potassium	101		P	80 - 120
2484804	Sodium	102		P	80 - 120
2484804	Strontium	99.9	99.8	P/P	80 - 120
2484804	Tin	97.7	98.6	P/P	80 - 120
2484804	Titanium	102	103	P/P	80 - 120
2484804	Vanadium	100	101	P/P	80 - 120
2484804	Zinc	99.5	99.2	P/P	80 - 120
2485372	Calcium	104		P	80 - 120
2485372	Iron	107		P	80 - 120
2485372	Magnesium	104		P	80 - 120
2485372	Potassium	103		P	80 - 120
2485372	Sodium	103		P	80 - 120
2485372	Strontium	99.4		P	80 - 120
2485372	Tin	98.0		P	80 - 120
2485372	Titanium	102		P	80 - 120
2485372	Vanadium	97.8		P	80 - 120
2485372	Zinc	98.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P444929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484804	Aluminum	95.9	94.3	P/P	80 - 120
2484804	Antimony	100	99.4	P/P	80 - 120
2484804	Arsenic	97.1	96.6	P/P	80 - 120
2484804	Barium	101	101	P/P	80 - 120
2484804	Beryllium	99.4	99.2	P/P	80 - 120
2484804	Boron	101	98.9	P/P	80 - 120
2484804	Cadmium	98.1	98.8	P/P	80 - 120
2484804	Chromium	94.2	92.9	P/P	80 - 120
2484804	Cobalt	92.6	91.4	P/P	80 - 120
2484804	Copper	90.0	88.8	P/P	80 - 120
2484804	Lead	98.1	96.6	P/P	80 - 120
2484804	Molybdenum	96.8	96.8	P/P	80 - 120
2484804	Nickel	91.5	90.0	P/P	80 - 120
2484804	Selenium	97.7	96.5	P/P	80 - 120
2484804	Silver	110	110	P/P	80 - 120
2484804	Thallium	97.8	96.7	P/P	80 - 120
2485372	Aluminum	93.5		P	80 - 120
2485372	Antimony	99.1		P	80 - 120
2485372	Arsenic	94.7		P	80 - 120
2485372	Barium	96.6		P	80 - 120
2485372	Beryllium	92.5		P	80 - 120
2485372	Boron	101		P	80 - 120
2485372	Cadmium	97.6		P	80 - 120
2485372	Chromium	93.6		P	80 - 120
2485372	Cobalt	91.4		P	80 - 120
2485372	Copper	88.6		P	80 - 120
2485372	Lead	95.5		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P444929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2485372	Manganese	95.0		P	80 - 120
2485372	Molybdenum	95.2		P	80 - 120
2485372	Nickel	89.4		P	80 - 120
2485372	Selenium	95.1		P	80 - 120
2485372	Silver	108		P	80 - 120
2485372	Thallium	94.8		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445269

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484810	Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445273

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484810	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P445065

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484812	Ammonia-N	97.0	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P444920

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484813	Kjeldahl Nitrogen	95.2	94.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P445453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484812	NO2NO3-N	98.0	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P444932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484879	Total-P	102	98.0	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P444816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484805	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25.0	28.0	F/F	50 - 150
2484805	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	48.6	60.3	P/P	29 - 155
2484805	Acetochlor	91.2	87.8	P/P	60 - 124
2484805	Alachlor	77.7	78.7	P/P	54 - 122
2484805	Ametryn	86.8	76.0	P/P	51 - 208

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P444816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484805	Atrazine	73.9	80.2	P/P	57 - 131
2484805	Atrazine Desethyl	53.8	58.8	P/P	13 - 124
2484805	Avobenzone	106	110	P/P	35 - 187
2484805	Azinphos Methyl	109	111	P/P	43 - 276
2484805	Azoxystrobin	105	111	P/P	52 - 300
2484805	Butylate	54.7	60.5	P/P	23 - 82.0
2484805	Caffeine	133	101	P/P	10 - 277
2484805	Carbophenothion	95.1	87.6	P/P	47 - 135
2484805	Carfentrazone Ethyl	89.7	76.0	P/P	46 - 147
2484805	Chlorfenapyr	59.7	62.9	P/P	43 - 114
2484805	Chlorpyrifos Ethyl	72.4	75.4	P/P	47 - 124
2484805	Chlorpyrifos Methyl	101	96.4	P/P	60 - 135
2484805	Coumaphos	92.3	97.9	P/P	10 - 222
2484805	Cyanazine	93.9	93.0	P/P	10 - 257
2484805	Cyprodinil	80.6	70.9	P/P	42 - 148
2484805	Dechlorane 602	29.0	28.2	P/P	14 - 133
2484805	Dechlorane 603	70.0	66.5	P/P	18 - 191
2484805	Dechlorane Plus	65.8	57.9	P/P	23 - 154
2484805	Demeton	60.9	60.0	P/P	41 - 137
2484805	Diazinon	107	101	P/P	64 - 139
2484805	Difenoconazole	105	118	P/P	46 - 254
2484805	Dimethenamid	69.2	70.5	P/P	47 - 117
2484805	Dimethomorph	199	151	P/P	14 - 255
2484805	Disulfoton	92.2	91.3	P/P	52 - 130
2484805	Dithiopyr	24.9	50.7	F/P	40 - 121
2484805	EPTC	49.3	52.4	P/P	19 - 78.0
2484805	Ethion	35.1	35.9	P/P	12 - 124
2484805	Ethoprop	75.7	84.5	P/P	68 - 144
2484805	Etridiazole	58.6	58.9	P/P	26 - 96.0
2484805	Fenamiphos	93.3	102	P/P	41 - 129
2484805	Fenbuconazole	62.2	88.9	P/P	26 - 169
2484805	Fipronil	78.1	72.3	P/P	46 - 145
2484805	Fipronil Desulfinyl	70.6	61.6	P/P	47 - 136
2484805	Fipronil Sulfide	80.0	77.8	P/P	41 - 127
2484805	Fipronil Sulfone	72.6	79.9	P/P	35 - 133
2484805	Fluazifop-P-butyl	98.2	106	P/P	46 - 131
2484805	Fludioxonil	70.8	66.9	P/P	51 - 124
2484805	Flumioxazin	94.4	108	P/P	10 - 289
2484805	Flutolanil	66.4	78.4	P/P	34 - 130
2484805	Fluxapyroxad	43.8	42.5	P/P	10 - 197
2484805	Fonofos	91.5	87.6	P/P	42 - 131
2484805	Hexabromobenzene	57.1	65.5	P/P	47 - 178
2484805	Hexazinone	81.8	81.6	P/P	64 - 125
2484805	Imazalil	76.2	73.4	P/P	37 - 252
2484805	Iprodione	66.2	64.7	P/P	34 - 265
2484805	Loratadine	213	131	P/P	20 - 231
2484805	Malathion	68.3	73.3	P/P	34 - 164
2484805	Metolachlor	72.6	80.6	P/P	54 - 125
2484805	Metribuzin	82.4	91.5	P/P	51 - 139
2484805	Mevinphos	74.9	75.8	P/P	46 - 130
2484805	Molinate	56.6	60.0	P/P	39 - 93.0
2484805	Myclobutanil	50.0	51.9	P/P	50 - 130

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P444816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484805	Naled	34.4	43.0	P/P	10 - 150
2484805	Napropamide	32.1	40.3	P/P	10 - 109
2484805	Norflurazon	106	119	P/P	36 - 134
2484805	Octinoxate	88.5	88.4	P/P	18 - 170
2484805	Oxadiazon	58.4	65.7	P/P	43 - 112
2484805	Oxybenzone	125	76.0	P/P	33 - 154
2484805	Oxyfluorfen	82.6	87.8	P/P	62 - 154
2484805	Parathion Ethyl	76.0	76.1	P/P	65 - 120
2484805	Parathion Methyl	125	124	P/P	77 - 185
2484805	PBB-153	69.5	82.4	P/P	23 - 193
2484805	PBDE-47	52.0	50.6	P/P	31 - 139
2484805	PBDE-99	43.9	45.7	P/P	24 - 138
2484805	Pendimethalin	101	102	P/P	50 - 146
2484805	Pentabromotoluene	79.0	76.3	P/P	54 - 152
2484805	Phenytoin	32.1	34.7	P/P	10 - 157
2484805	Phorate	77.3	71.2	P/P	54 - 161
2484805	Prodiamine	79.3	83.9	P/P	29 - 160
2484805	Prometon	63.7	58.6	P/P	38 - 145
2484805	Prometryn	113	100	P/P	32 - 151
2484805	Pronamide	83.7	87.4	P/P	61 - 140
2484805	Propanil	72.3	70.8	P/P	50 - 147
2484805	Propargite	47.8	51.4	P/P	10 - 190
2484805	Propiconazole	66.3	73.0	P/P	30 - 146
2484805	Pyraflufen Ethyl	58.3	61.7	P/P	30 - 147
2484805	Pyridaben	104	133	P/P	15 - 195
2484805	Pyriproxyfen	51.3	56.6	P/P	31 - 218
2484805	Simazine	74.6	79.4	P/P	45 - 139
2484805	Stirophos	38.3	35.1	P/P	10 - 134
2484805	Sulfentrazone	27.5	28.2	F/F	53 - 186
2484805	Tebuconazole	29.6	32.0	P/P	10 - 133
2484805	Terbufos	89.1	87.2	P/P	65 - 151
2484805	Terbuthylazine	68.7	73.1	P/P	62 - 117
2484805	Tetradecachloro-m-terphenyl	137	116	P/P	10 - 260
2484805	Thiobencarb	75.3	80.5	P/P	48 - 122
2484805	Tri-o-cresyl Phosphate	93.2	91.6	P/P	32 - 151
2484805	Triadimefon	73.6	65.9	P/P	46 - 124
2484805	Tris(1-chloro-2-propyl) phosphate (TCPP)	106	104	P/P	51 - 154
2484805	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	94.0	92.2	P/P	59 - 147
2484805	Tris(2-chloroethyl) phosphate (TCEP)	110	112	P/P	65 - 156

Reference Method: EPA 8270E
Batch ID: P444846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484861	Aldrin	68.1	67.3	P/P	24 - 81.0
2484861	Alpha-BHC	92.2	92.7	P/P	65 - 110
2484861	Alpha-Chlordane	73.9	86.1	P/P	43 - 119
2484861	Beta-BHC	106	105	P/P	54 - 165
2484861	Beta-Cyfluthrin	136	153	P/P	27 - 165
2484861	Bifenthrin	93.1	102	P/P	17 - 117
2484861	Chlorothalonil	172	231	P/P	10 - 255
2484861	Cis-Nonachlor	76.0	73.0	P/P	34 - 98.0

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P444846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484861	Cypermethrin	147	174	F/F	25 - 143
2484861	Dacthal	87.6	93.2	P/P	55 - 139
2484861	DDD-p,p'	79.4	74.9	P/P	30 - 109
2484861	DDE-p,p'	74.7	75.6	P/P	35 - 106
2484861	DDT-p,p'	81.4	87.4	P/P	41 - 101
2484861	Delta-BHC	123	149	P/P	58 - 165
2484861	Deltamethrin	184	227	P/F	10 - 194
2484861	Dichlobenil	63.5	55.1	P/P	22 - 114
2484861	Dicofol	71.9	65.7	P/P	17 - 133
2484861	Dieldrin	75.5	77.0	P/P	45 - 129
2484861	Endosulfan I	87.9	103	P/P	49 - 104
2484861	Endosulfan II	90.4	104	P/P	37 - 117
2484861	Endosulfan Sulfate	89.3	95.2	P/P	38 - 128
2484861	Endrin	82.3	80.0	P/P	35 - 116
2484861	Endrin Aldehyde	64.2	77.3	P/P	19 - 108
2484861	Endrin Ketone	81.8	87.7	P/P	44 - 134
2484861	Esfenvalerate	172	206	P/F	27 - 176
2484861	Ethalfluralin	80.7	71.8	P/P	49 - 100
2484861	Fenpropathrin	93.4	100	P/P	34 - 117
2484861	Gamma-BHC	85.4	90.4	P/P	59 - 129
2484861	Gamma-Chlordane	78.4	86.8	P/P	33 - 107
2484861	Heptachlor	72.7	71.7	P/P	37 - 94.0
2484861	Heptachlor Epoxide	80.7	85.8	P/P	38 - 118
2484861	Hexachlorobenzene	74.7	63.8	P/P	35 - 97.0
2484861	Kepone	95.4	95.8	P/P	10 - 221
2484861	Lambda-Cyhalothrin	136	149	P/P	23 - 190
2484861	Methoprene	87.9	97.9	P/P	21 - 109
2484861	Methoxychlor	89.3	106	P/P	46 - 118
2484861	MGK-264	87.3	95.7	P/P	39 - 122
2484861	Mirex	74.7	85.2	P/P	25 - 90.0
2484861	Oxychlordane	79.2	89.6	P/P	42 - 100
2484861	Permethrin	130	142	P/P	33 - 181
2484861	Phenothrin	113	117	P/P	12 - 125
2484861	Piperonyl Butoxide	79.8	78.8	P/P	10 - 178
2484861	Prallethrin	96.5	97.0	P/P	24 - 122
2484861	Tau-Fluvalinate	196	224	F/F	13 - 151
2484861	Tetramethrin	104	109	P/P	16 - 172
2484861	Trans-Nonachlor	77.5	90.2	P/P	39 - 100
2484861	Triclosan Methyl	83.2	88.5	P/P	43 - 110
2484861	Trifluralin	73.5	69.7	P/P	45 - 94.0
2485219	PCB-1016	62.1	65.1	P/P	45 - 107
2485219	PCB-1260	84.6	91.3	P/P	40 - 112

Reference Method: EPA 8276
Batch ID: P444846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2485219	Chlordane	79.6	87.9	P/P	43 - 123
2485219	Toxaphene	89.7	94.3	P/P	27 - 156

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P444754

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484362	2,4-D	148	147	P/P	40 - 150
2484362	2,4,5-T	140	127	P/P	40 - 150
2484362	Acetaminophen	96.5	102	P/P	30 - 150
2484362	Acetamiprid	74.8	80.1	P/P	40 - 150
2484362	Afidopyropen	56.6	64.3	P/P	30 - 150
2484362	Bentazon	86.6	96.7	P/P	30 - 150
2484362	Benzovindiflupyr	79.9	81.7	P/P	40 - 150
2484362	Carbamazepine	78.0	80.8	P/P	40 - 150
2484362	Clothianidin	100	107	P/P	40 - 150
2484362	Dinotefuran	114	119	P/P	40 - 150
2484362	Diuron	66.3	69.8	P/P	40 - 150
2484362	Fenuron	92.5	98.8	P/P	40 - 150
2484362	Fluridone	84.9	88.6	P/P	40 - 150
2484362	Hydrocodone	101	107	P/P	40 - 150
2484362	Ibuprofen	73.3	75.8	P/P	40 - 150
2484362	Imazapyr	99.8	112	P/P	40 - 150
2484362	Imidacloprid	105	117	P/P	40 - 150
2484362	Linuron	70.0	73.3	P/P	40 - 150
2484362	Mandestrobin	72.0	76.4	P/P	40 - 150
2484362	MCPP	133	132	P/P	40 - 150
2484362	Naproxen	59.7	79.7	P/P	40 - 150
2484362	Primidone	92.7	99.9	P/P	40 - 150
2484362	Pyraclostrobin	75.6	79.6	P/P	40 - 150
2484362	Silvex	98.5	98.2	P/P	40 - 150
2484362	Thiamethoxam	108	118	P/P	40 - 150
2484362	Tolfenpyrad	52.8	59.3	P/P	30 - 150
2484362	Triclopyr	124	124	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P444819

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484859	3-Hydroxycarbofuran	78.3	81.5	P/P	40 - 150
2484859	Aldicarb	38.5	44.4	P/P	30 - 150
2484859	Aldicarb Sulfone	82.3	80.6	P/P	40 - 150
2484859	Aldicarb Sulfoxide	33.7	30.2	F/F	40 - 150
2484859	Carbaryl	53.0	53.2	P/P	40 - 150
2484859	Carbofuran	47.7	46.3	P/P	40 - 150
2484859	Methiocarb	68.4	63.8	P/P	40 - 150
2484859	Methomyl	69.1	67.1	P/P	40 - 150
2484859	Oxamyl	77.6	78.3	P/P	40 - 150
2484859	Propoxur	42.6	43.7	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P444847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484803	Acesulfame K	101	104	P/P	40 - 150
2484803	AMPA	80.8	81.3	P/P	40 - 160
2484803	Endothall	99.7	101	P/P	40 - 160
2484803	Glufosinate	75.3	72.3	P/P	40 - 160
2484803	Glyphosate	72.2	75.2	P/P	40 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P444847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484803	Sucralose	104	105	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P445603

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2485831	Fluoride	99.7	101	P/P	95 - 107

Reference Method: SM 5310 B-2014
Batch ID: P444941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484846	Organic Carbon	96.5	98.1	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P444799

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484811	Color (true)	1.30	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P444823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484770	Turbidity	2.44	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P444929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484804	Calcium	0.0242	Spike	P	0 - 20
2484804	Iron	0.0161	Spike	P	0 - 20
2484804	Magnesium	0.355	Spike	P	0 - 20
2484804	Potassium	0.803	Spike	P	0 - 20
2484804	Sodium	0.585	Spike	P	0 - 20
2484804	Strontium	0.0395	Spike	P	0 - 20
2484804	Tin	0.924	Spike	P	0 - 20
2484804	Titanium	0.619	Spike	P	0 - 20
2484804	Vanadium	0.537	Spike	P	0 - 20
2484804	Zinc	0.250	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P444929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484804	Aluminum	1.53	Spike	P	0 - 20
2484804	Antimony	0.617	Spike	P	0 - 20
2484804	Arsenic	0.513	Spike	P	0 - 20
2484804	Barium	0.387	Spike	P	0 - 20
2484804	Beryllium	0.214	Spike	P	0 - 20
2484804	Boron	1.79	Spike	P	0 - 20
2484804	Cadmium	0.697	Spike	P	0 - 20
2484804	Chromium	1.44	Spike	P	0 - 20
2484804	Cobalt	1.33	Spike	P	0 - 20
2484804	Copper	1.33	Spike	P	0 - 20
2484804	Lead	1.46	Spike	P	0 - 20
2484804	Manganese	1.56	Spike	P	0 - 20
2484804	Molybdenum	0.00116	Spike	P	0 - 20
2484804	Nickel	1.61	Spike	P	0 - 20
2484804	Selenium	1.23	Spike	P	0 - 20
2484804	Silver	0.0790	Spike	P	0 - 20
2484804	Thallium	1.09	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445269

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484810	Chloride	1.63	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484810	Sulfate	1.27	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P445065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484812	Ammonia-N	1.14	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P444920

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484813	Kjeldahl Nitrogen	0.209	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P445453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484812	NO2NO3-N	1.54	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P444932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484879	Total-P	3.40	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P444816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484805	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	11.3	Spike	P	0 - 30
2484805	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	21.4	Spike	P	0 - 35
2484805	Acetochlor	3.75	Spike	P	0 - 28
2484805	Alachlor	1.19	Spike	P	0 - 30
2484805	Ametryn	13.2	Spike	P	0 - 32
2484805	Atrazine	3.57	Spike	P	0 - 33
2484805	Atrazine Desethyl	8.93	Spike	P	0 - 36
2484805	Avobenzone	3.34	Spike	P	0 - 35
2484805	Azinphos Methyl	1.15	Spike	P	0 - 62

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P444816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484805	Azoxystrobin	5.77	Spike	P	0 - 39
2484805	Bromacil	8.25	Spike	P	0 - 33
2484805	Butylate	9.99	Spike	P	0 - 51
2484805	Caffeine	28.1	Spike	P	0 - 100
2484805	Carbophenothion	8.13	Spike	P	0 - 34
2484805	Carfentrazone Ethyl	16.4	Spike	P	0 - 33
2484805	Chlorfenapyr	5.20	Spike	P	0 - 28
2484805	Chlorpyrifos Ethyl	4.14	Spike	P	0 - 31
2484805	Chlorpyrifos Methyl	4.29	Spike	P	0 - 27
2484805	Coumaphos	5.91	Spike	P	0 - 62
2484805	Cyanazine	0.955	Spike	P	0 - 48
2484805	Cyprodinil	12.9	Spike	P	0 - 29
2484805	Dechlorane 602	2.88	Spike	P	0 - 60
2484805	Dechlorane 603	5.07	Spike	P	0 - 40
2484805	Dechlorane Plus	12.8	Spike	P	0 - 38
2484805	Demeton	1.46	Spike	P	0 - 33
2484805	Diazinon	5.33	Spike	P	0 - 32
2484805	Difenoconazole	11.4	Spike	P	0 - 71
2484805	Dimethenamid	1.84	Spike	P	0 - 60
2484805	Dimethomorph	27.3	Spike	P	0 - 61
2484805	Disulfoton	0.977	Spike	P	0 - 30
2484805	Dithiopyr	68.2	Spike	F	0 - 28
2484805	EPTC	6.19	Spike	P	0 - 56
2484805	Ethion	2.36	Spike	P	0 - 79
2484805	Ethoprop	11.1	Spike	P	0 - 31
2484805	Etridiazole	0.620	Spike	P	0 - 43
2484805	Fenamiphos	9.29	Spike	P	0 - 43
2484805	Fenbuconazole	35.2	Spike	P	0 - 79
2484805	Fipronil	7.62	Spike	P	0 - 46
2484805	Fipronil Desulfinyl	13.7	Spike	P	0 - 36
2484805	Fipronil Sulfide	2.77	Spike	P	0 - 34
2484805	Fipronil Sulfone	9.62	Spike	P	0 - 47
2484805	Fluazifop-P-butyl	7.56	Spike	P	0 - 38
2484805	Fludioxonil	5.69	Spike	P	0 - 29
2484805	Flumioxazin	13.1	Spike	P	0 - 63
2484805	Flutolanil	16.6	Spike	P	0 - 36
2484805	Fluxapyroxad	3.02	Spike	P	0 - 65
2484805	Fonofos	4.36	Spike	P	0 - 35
2484805	Hexabromobenzene	13.8	Spike	P	0 - 41
2484805	Hexazinone	0.270	Spike	P	0 - 31
2484805	Imazalil	3.72	Spike	P	0 - 52
2484805	Iprodione	2.23	Spike	P	0 - 49
2484805	Loratadine	47.8	Spike	P	0 - 59
2484805	Malathion	7.15	Spike	P	0 - 77
2484805	Metalaxyl	6.19	Spike	P	0 - 76
2484805	Metolachlor	9.38	Spike	P	0 - 29
2484805	Metribuzin	10.5	Spike	P	0 - 51
2484805	Mevinphos	1.15	Spike	P	0 - 31
2484805	Molinate	5.92	Spike	P	0 - 39
2484805	Myclobutanil	3.67	Spike	P	0 - 34
2484805	Naled	22.2	Spike	P	0 - 37

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P444816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484805	Napropamide	22.7	Spike	P	0 - 100
2484805	Norflurazon	9.97	Spike	P	0 - 54
2484805	Octinoxate	0.0444	Spike	P	0 - 35
2484805	Oxadiazon	11.7	Spike	P	0 - 34
2484805	Oxybenzone	31.5	Spike	P	0 - 35
2484805	Oxyfluorfen	6.08	Spike	P	0 - 28
2484805	Parathion Ethyl	0.0534	Spike	P	0 - 31
2484805	Parathion Methyl	0.924	Spike	P	0 - 29
2484805	PBB-153	16.9	Spike	P	0 - 49
2484805	PBDE-47	2.58	Spike	P	0 - 36
2484805	PBDE-99	3.93	Spike	P	0 - 46
2484805	Pendimethalin	1.13	Spike	P	0 - 31
2484805	Pentabromotoluene	3.50	Spike	P	0 - 16
2484805	Phenytoin	7.66	Spike	P	0 - 100
2484805	Phorate	8.11	Spike	P	0 - 36
2484805	Prodiamine	5.70	Spike	P	0 - 68
2484805	Prometon	4.68	Spike	P	0 - 35
2484805	Prometryn	12.1	Spike	P	0 - 33
2484805	Pronamide	4.37	Spike	P	0 - 24
2484805	Propanil	2.15	Spike	P	0 - 28
2484805	Propargite	7.34	Spike	P	0 - 53
2484805	Propiconazole	9.59	Spike	P	0 - 44
2484805	Pyraflufen Ethyl	5.63	Spike	P	0 - 61
2484805	Pyridaben	23.8	Spike	P	0 - 43
2484805	Pyriproxyfen	9.81	Spike	P	0 - 82
2484805	Simazine	3.03	Spike	P	0 - 29
2484805	Stirophos	8.68	Spike	P	0 - 100
2484805	Sulfentrazone	2.38	Spike	P	0 - 64
2484805	Tebuconazole	7.68	Spike	P	0 - 76
2484805	Terbufos	2.19	Spike	P	0 - 29
2484805	Terbuthylazine	6.25	Spike	P	0 - 28
2484805	Tetradecachloro-m-terphenyl	17.1	Spike	P	0 - 42
2484805	Thiobencarb	6.72	Spike	P	0 - 26
2484805	Tri-o-cresyl Phosphate	1.69	Spike	P	0 - 24
2484805	Triadimefon	11.0	Spike	P	0 - 40
2484805	Tris(1-chloro-2-propyl) phosphate (TCPP)	1.85	Spike	P	0 - 30
2484805	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	1.97	Spike	P	0 - 22
2484805	Tris(2-chloroethyl) phosphate (TCEP)	1.60	Spike	P	0 - 15

Reference Method: EPA 8270E
Batch ID: P444846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484861	Aldrin	1.20	Spike	P	0 - 41
2484861	Alpha-BHC	0.566	Spike	P	0 - 25
2484861	Alpha-Chlordane	15.3	Spike	P	0 - 32
2484861	Beta-BHC	1.12	Spike	P	0 - 33
2484861	Beta-Cyfluthrin	12.1	Spike	P	0 - 43
2484861	Bifenthrin	9.66	Spike	P	0 - 52
2484861	Chlorothalonil	29.2	Spike	P	0 - 82

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P444846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484861	Cis-Nonachlor	3.93	Spike	P	0 - 33
2484861	Cypermethrin	16.5	Spike	P	0 - 51
2484861	Dacthal	6.20	Spike	P	0 - 27
2484861	DDD-p,p'	5.85	Spike	P	0 - 39
2484861	DDE-p,p'	1.14	Spike	P	0 - 31
2484861	DDT-p,p'	7.08	Spike	P	0 - 29
2484861	Delta-BHC	19.4	Spike	P	0 - 35
2484861	Deltamethrin	21.1	Spike	P	0 - 100
2484861	Dichlobenil	14.3	Spike	P	0 - 40
2484861	Dicofol	8.91	Spike	P	0 - 37
2484861	Dieldrin	2.01	Spike	P	0 - 27
2484861	Endosulfan I	15.4	Spike	P	0 - 23
2484861	Endosulfan II	13.9	Spike	P	0 - 34
2484861	Endosulfan Sulfate	6.37	Spike	P	0 - 36
2484861	Endrin	2.88	Spike	P	0 - 45
2484861	Endrin Aldehyde	18.5	Spike	P	0 - 76
2484861	Endrin Ketone	7.00	Spike	P	0 - 43
2484861	Esfenvalerate	18.3	Spike	P	0 - 51
2484861	Ethalfluralin	11.7	Spike	P	0 - 22
2484861	Fenpropathrin	7.22	Spike	P	0 - 49
2484861	Gamma-BHC	5.66	Spike	P	0 - 28
2484861	Gamma-Chlordane	10.2	Spike	P	0 - 40
2484861	Heptachlor	1.39	Spike	P	0 - 29
2484861	Heptachlor Epoxide	6.13	Spike	P	0 - 33
2484861	Hexachlorobenzene	15.8	Spike	P	0 - 36
2484861	Kepone	0.421	Spike	P	0 - 85
2484861	Lambda-Cyhalothrin	9.17	Spike	P	0 - 55
2484861	Methoprene	10.7	Spike	P	0 - 53
2484861	Methoxychlor	17.4	Spike	P	0 - 50
2484861	MGK-264	9.13	Spike	P	0 - 43
2484861	Mirex	13.1	Spike	P	0 - 40
2484861	Oxychlordane	12.4	Spike	P	0 - 31
2484861	Permethrin	8.50	Spike	P	0 - 50
2484861	Phenothrin	3.22	Spike	P	0 - 58
2484861	Piperonyl Butoxide	1.30	Spike	P	0 - 100
2484861	Prallethrin	0.587	Spike	P	0 - 39
2484861	Tau-Fluvalinate	13.4	Spike	P	0 - 54
2484861	Tetramethrin	4.91	Spike	P	0 - 51
2484861	Trans-Nonachlor	15.2	Spike	P	0 - 39
2484861	Triclosan Methyl	6.12	Spike	P	0 - 31
2484861	Trifluralin	5.25	Spike	P	0 - 22
2485219	PCB-1016	4.65	Spike	P	0 - 25
2485219	PCB-1260	7.66	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P444846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2485219	Chlordane	9.94	Spike	P	0 - 28
2485219	Toxaphene	5.00	Spike	P	0 - 27

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P444754

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484362	2,4-D	0.640	Spike	P	0 - 30
2484362	2,4,5-T	9.60	Spike	P	0 - 30
2484362	Acetaminophen	5.87	Spike	P	0 - 30
2484362	Acetamiprid	6.91	Spike	P	0 - 30
2484362	Afidopyropen	12.6	Spike	P	0 - 30
2484362	Bentazon	8.40	Spike	P	0 - 30
2484362	Benzovindiflupyr	2.32	Spike	P	0 - 30
2484362	Carbamazepine	3.50	Spike	P	0 - 30
2484362	Clothianidin	6.61	Spike	P	0 - 30
2484362	Dinotefuran	4.01	Spike	P	0 - 30
2484362	Diuron	4.92	Spike	P	0 - 30
2484362	Fenuron	6.62	Spike	P	0 - 30
2484362	Fluridone	3.09	Spike	P	0 - 30
2484362	Hydrocodone	6.32	Spike	P	0 - 30
2484362	Ibuprofen	3.43	Spike	P	0 - 30
2484362	Imazapyr	9.73	Spike	P	0 - 30
2484362	Imidacloprid	8.54	Spike	P	0 - 30
2484362	Linuron	4.60	Spike	P	0 - 30
2484362	Mandestrobin	5.83	Spike	P	0 - 30
2484362	MCPP	0.802	Spike	P	0 - 30
2484362	Naproxen	28.7	Spike	P	0 - 30
2484362	Primidone	7.48	Spike	P	0 - 30
2484362	Pyraclostrobin	5.11	Spike	P	0 - 30
2484362	Silvex	0.323	Spike	P	0 - 30
2484362	Thiamethoxam	8.78	Spike	P	0 - 30
2484362	Tolfenpyrad	11.6	Spike	P	0 - 30
2484362	Triclopyr	0.117	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P444819

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484859	3-Hydroxycarbofuran	3.92	Spike	P	0 - 30
2484859	Aldicarb	14.1	Spike	P	0 - 30
2484859	Aldicarb Sulfone	2.07	Spike	P	0 - 30
2484859	Aldicarb Sulfoxide	11.1	Spike	P	0 - 30
2484859	Carbaryl	0.473	Spike	P	0 - 30
2484859	Carbofuran	3.03	Spike	P	0 - 30
2484859	Methiocarb	7.00	Spike	P	0 - 30
2484859	Methomyl	3.01	Spike	P	0 - 30
2484859	Oxamyl	0.868	Spike	P	0 - 30
2484859	Propoxur	2.67	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P444847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484803	Acesulfame K	2.67	Spike	P	0 - 30
2484803	AMPA	0.606	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P444847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484803	Endothall	1.66	Spike	P	0 - 30
2484803	Glufosinate	4.14	Spike	P	0 - 30
2484803	Glyphosate	4.08	Spike	P	0 - 30
2484803	Sucralose	0.900	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P444981

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484811	Total Alkalinity	1.43	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P445463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484811	TDS	7.35	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P445603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2485831	Fluoride	1.06	Spike	P	0 - 1.7

Reference Method: SM 5310 B-2014
Batch ID: P444941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484846	Organic Carbon	1.62	Spike	P	0 - 15

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report
Surrogates

Lab Sample ID: 2484859
Field Sample ID: G3SD0204

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	53.0	P	30 - 160

Lab Sample ID: 2484860
Field Sample ID: G3SD0204

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	104	P	30 - 160
EPA 8321B	Acetaminophen-d4	116	P	30 - 160
EPA 8321B	Carbamazepine-d10	58.9	P	30 - 160
EPA 8321B	Diuron-d6	53.2	P	30 - 160
EPA 8321B	Endothall-d6	77.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	54.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.9	P	30 - 160
EPA 8321B	Primidone-d5	96.7	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	30 - 160

Lab Sample ID: 2484861
Field Sample ID: G3SD0204

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	92.9	P	37 - 129
EPA 8270E	Decachlorobiphenyl	102	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	74.2	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	66.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	61.9	P	23 - 110
EPA 8276	PCNB	80.3	P	51 - 130

Lab Sample ID: 2484862
Field Sample ID: G3SD0204

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	43.5	P	20 - 200
EPA 8270E	Simazine-d10	78.4	P	58 - 137
EPA 8270E	Terbufos-d10	89.1	P	50 - 134
EPA 8270E	Terphenyl-d14	124	P	44 - 134

Lab Sample ID: 2484863
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	52.4	P	20 - 200
EPA 8270E	Simazine-d10	73.6	P	58 - 137
EPA 8270E	Terbufos-d10	91.1	P	50 - 134
EPA 8270E	Terphenyl-d14	112	P	44 - 134

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A125505
Included Lab Sample IDs: 2484860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	99.2	101	P/P	60 - 160
Sucralose	104	115	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A125509
Included Lab Sample IDs: 2484860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	95.9	85.3	P/P	60 - 160
Endothall	88.8	76.1	P/P	60 - 160
Glufosinate	87.6	72.3	P/P	60 - 160
Glyphosate	85.3	72.2	P/P	60 - 160

Reference Method: DEP SOP: NU-094-1
Run ID: A125526
Included Lab Sample IDs: 2484850, 2484852

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	94.7	97.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A125532
Included Lab Sample IDs: 2484850, 2484852

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

Reference Method: SM 5310 B-2014
Run ID: A125577
Included Lab Sample IDs: 2484851, 2484853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.7	100	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A125584
Included Lab Sample IDs: 2484851, 2484853

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

Reference Method: SM 2320 B-2011
Run ID: A125588
Included Lab Sample IDs: 2484850, 2484852

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.6	99.1	P/P	90 - 110
Total Alkalinity	99.1	97.1	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A125600
Included Lab Sample IDs: 2484867, 2484868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	104	P/P	90 - 110
Calcium	104	103	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Iron	104	103	P/P	90 - 110
Magnesium	103	103	P/P	90 - 110
Magnesium	104	103	P/P	90 - 110
Potassium	102	103	P/P	90 - 110
Potassium	102	102	P/P	90 - 110
Sodium	102	103	P/P	90 - 110
Sodium	103	102	P/P	90 - 110
Strontium	99.7	103	P/P	90 - 110
Strontium	99.8	99.7	P/P	90 - 110
Tin	97.7	99.0	P/P	90 - 110
Tin	98.6	97.7	P/P	90 - 110
Titanium	98.3	99.1	P/P	90 - 110
Titanium	99.6	98.3	P/P	90 - 110
Vanadium	94.2	94.9	P/P	90 - 110
Vanadium	94.9	95.6	P/P	90 - 110
Zinc	98.3	99.6	P/P	90 - 110
Zinc	99.2	98.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A125603
Included Lab Sample IDs: 2484867, 2484868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.5	97.5	P/P	90 - 110
Aluminum	97.5	98.7	P/P	90 - 110
Antimony	96.8	98.9	P/P	90 - 110
Antimony	98.9	99.3	P/P	90 - 110
Arsenic	95.4	97.3	P/P	90 - 110
Arsenic	97.3	96.0	P/P	90 - 110
Barium	97.6	99.6	P/P	90 - 110
Barium	99.6	100	P/P	90 - 110
Beryllium	94.0	98.2	P/P	90 - 110
Beryllium	98.2	98.0	P/P	90 - 110
Boron	97.5	100	P/P	90 - 110
Boron	98.8	97.5	P/P	90 - 110
Cadmium	96.9	98.7	P/P	90 - 110
Cadmium	98.7	98.4	P/P	90 - 110
Chromium	92.4	94.1	P/P	90 - 110
Chromium	94.1	95.4	P/P	90 - 110
Cobalt	93.4	93.9	P/P	90 - 110
Cobalt	93.9	94.6	P/P	90 - 110
Copper	92.5	93.9	P/P	90 - 110
Copper	93.9	93.8	P/P	90 - 110
Lead	96.2	97.2	P/P	90 - 110
Lead	97.2	99.4	P/P	90 - 110
Manganese	94.0	95.4	P/P	90 - 110
Manganese	95.4	96.7	P/P	90 - 110
Molybdenum	93.9	96.6	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A125603
Included Lab Sample IDs: 2484867, 2484868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molybdenum	96.6	95.3	P/P	90 - 110
Nickel	92.8	93.6	P/P	90 - 110
Nickel	93.6	93.6	P/P	90 - 110
Selenium	95.6	97.6	P/P	90 - 110
Selenium	97.6	97.9	P/P	90 - 110
Silver	95.1	96.5	P/P	90 - 110
Silver	96.5	95.7	P/P	90 - 110
Thallium	96.8	97.8	P/P	90 - 110
Thallium	97.8	99.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A125620
Included Lab Sample IDs: 2484851, 2484853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.9	99.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A125640
Included Lab Sample IDs: 2484850, 2484852

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	102	P/P	90 - 110
Sulfate	100	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A125674
Included Lab Sample IDs: 2484851, 2484853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	99.8	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A125702
Included Lab Sample IDs: 2484862, 2484863

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	100		P	80 - 120
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	97.6		P	80 - 120
Avobenzone	97.6		P	80 - 120
Dechlorane 602	97.6		P	80 - 120
Dechlorane 603	100		P	80 - 120
Dechlorane Plus	103		P	80 - 120
Hexabromobenzene	76.9*		F	80 - 120
Octinoxate	94.3		P	80 - 120
Oxybenzone	99.2		P	80 - 120
PBB-153	97.2		P	80 - 120
PBDE-47	94.4		P	80 - 120
PBDE-99	102		P	80 - 120
Pentabromotoluene	93.8		P	80 - 120
Tetradecachloro-m-terphenyl	96.1		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A125702
Included Lab Sample IDs: 2484862, 2484863

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tri-o-cresyl Phosphate	98.4		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	94.7		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	96.9		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	95.6		P	80 - 120

Reference Method: EPA 8270E
Run ID: A125753
Included Lab Sample IDs: 2484861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	94.7		P	80 - 120
PCB-1260	108		P	80 - 120

Reference Method: EPA 8270E
Run ID: A125756
Included Lab Sample IDs: 2484861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	102		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	103		P	80 - 120
Beta-Cyfluthrin	106		P	80 - 120
Bifenthrin	99.6		P	80 - 120
Chlorothalonil	93.6		P	80 - 120
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	107		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	95.4		P	80 - 120
Delta-BHC	103		P	80 - 120
Deltamethrin	109		P	80 - 120
Dichlobenil	95.7		P	80 - 120
Dicofol	94.4		P	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	100		P	80 - 120
Endosulfan II	109		P	80 - 120
Endosulfan Sulfate	109		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	101		P	80 - 120
Esfenvalerate	103		P	80 - 120
Ethalfluralin	103		P	80 - 120
Fenpropathrin	100		P	80 - 120
Gamma-BHC	100		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	102		P	80 - 120
Kepone	87.3		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A125756
Included Lab Sample IDs: 2484861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lambda-Cyhalothrin	106		P	80 - 120
Methoprene	104		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	102		P	80 - 120
Mirex	104		P	80 - 120
Oxychlordane	101		P	80 - 120
Permethrin	106		P	80 - 120
Phenothrin	102		P	80 - 120
Piperonyl Butoxide	100		P	80 - 120
Prallethrin	103		P	80 - 120
Tau-Fluvalinate	105		P	80 - 120
Tetramethrin	104		P	80 - 120
Trans-Nonachlor	100		P	80 - 120
Triclosan Methyl	100		P	80 - 120
Trifluralin	100		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A125759
Included Lab Sample IDs: 2484851, 2484853

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

Reference Method: EPA 8321B
Run ID: A125818
Included Lab Sample IDs: 2484860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	115	97.5	P/P	50 - 150
2,4,5-T	99.1	117	P/P	50 - 150
3-Hydroxycarbofuran	113	114	P/P	60 - 150
Acetaminophen	114	111	P/P	60 - 160
Acetamiprid	116	115	P/P	50 - 150
Afidopyropen	107	105	P/P	50 - 150
Aldicarb	121	122	P/P	60 - 150
Aldicarb Sulfone	106	109	P/P	50 - 150
Aldicarb Sulfoxide	102	108	P/P	50 - 150
Bentazon	135	133	P/P	50 - 160
Benzovindiflupyr	110	114	P/P	50 - 150
Carbamazepine	125	120	P/P	60 - 150
Carbaryl	121	114	P/P	60 - 150
Carbofuran	121	116	P/P	50 - 150
Clothianidin	108	107	P/P	60 - 150
Dinotefuran	117	110	P/P	50 - 150
Diuron	121	125	P/P	60 - 160
Fenuron	114	111	P/P	60 - 150
Fluridone	124	134	P/P	60 - 160
Hydrocodone	114	116	P/P	60 - 150
Ibuprofen	99.2	92.9	P/P	50 - 160
Imazapyr	94.3	94.0	P/P	50 - 150
Imidacloprid	103	102	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A125818
Included Lab Sample IDs: 2484860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	120	117	P/P	60 - 150
Mandestrobin	111	107	P/P	50 - 150
MCPP	105	99.6	P/P	50 - 150
Methiocarb	118	125	P/P	50 - 150
Methomyl	106	109	P/P	50 - 150
Naproxen	83.1	85.9	P/P	50 - 160
Oxamyl	107	110	P/P	50 - 150
Primidone	98.3	104	P/P	60 - 150
Propoxur	117	116	P/P	50 - 150
Pyraclostrobin	108	104	P/P	60 - 150
Silvex	107	101	P/P	50 - 150
Thiamethoxam	114	113	P/P	50 - 150
Tolfenpyrad	102	103	P/P	60 - 150
Triclopyr	86.4	92.0	P/P	50 - 150

Reference Method: SM 4500-F- C-2011
Run ID: A125829
Included Lab Sample IDs: 2484850, 2484852

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	97.4	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A125835
Included Lab Sample IDs: 2484861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.6		P	80 - 120
Toxaphene	102		P	80 - 120

Reference Method: EPA 8270E
Run ID: A125840
Included Lab Sample IDs: 2484862, 2484863

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.6		P	80 - 120
Alachlor	87.1		P	80 - 120
Ametryn	96.0		P	80 - 120
Atrazine	99.0		P	80 - 120
Atrazine Desethyl	99.5		P	80 - 120
Azinphos Methyl	100		P	80 - 120
Azoxystrobin	96.8		P	80 - 120
Bromacil	116		P	80 - 120
Butylate	96.0		P	80 - 120
Caffeine	86.1		P	80 - 120
Carbophenothion	97.4		P	80 - 120
Carfentrazone Ethyl	104		P	80 - 120
Chlorfenapyr	88.6		P	80 - 120
Chlorpyrifos Ethyl	90.2		P	80 - 120
Chlorpyrifos Methyl	108		P	80 - 120
Coumaphos	102		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A125840
Included Lab Sample IDs: 2484862, 2484863

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cyanazine	97.5		P	80 - 120
Cyprodinil	87.4		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	109		P	80 - 120
Difenoconazole	104		P	80 - 120
Dimethenamid	106		P	80 - 120
Dimethomorph	95.8		P	80 - 120
Disulfoton	99.1		P	80 - 120
Dithiopyr	82.4		P	80 - 120
EPTC	96.4		P	80 - 120
Ethion	87.1		P	80 - 120
Ethoprop	92.9		P	80 - 120
Etridiazole	105		P	80 - 120
Fenamiphos	89.3		P	80 - 120
Fenbuconazole	96.1		P	80 - 120
Fipronil	94.8		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	107		P	80 - 120
Fipronil Sulfone	104		P	80 - 120
Fluazifop-P-butyl	98.9		P	80 - 120
Fludioxonil	92.6		P	80 - 120
Flumioxazin	99.5		P	80 - 120
Flutolanil	108		P	80 - 120
Fluxapyroxad	91.8		P	80 - 120
Fonofos	98.8		P	80 - 120
Hexazinone	99.2		P	80 - 120
Imazalil	95.9		P	80 - 120
Iprodione	92.3		P	80 - 120
Loratadine	99.2		P	80 - 120
Malathion	86.5		P	80 - 120
Metalaxyl	98.0		P	80 - 120
Metolachlor	100		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	91.9		P	80 - 120
Myclobutanil	87.7		P	80 - 120
Naled	103		P	80 - 120
Napropamide	97.1		P	80 - 120
Norflurazon	99.9		P	80 - 120
Oxadiazon	96.3		P	80 - 120
Oxyfluorfen	95.9		P	80 - 120
Parathion Ethyl	97.2		P	80 - 120
Parathion Methyl	104		P	80 - 120
Pendimethalin	104		P	80 - 120
Phenytoin	98.2		P	80 - 120
Phorate	99.0		P	80 - 120
Prodiamine	115		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	105		P	80 - 120
Pronamide	96.3		P	80 - 120
Propanil	103		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A125840
Included Lab Sample IDs: 2484862, 2484863

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Propargite	98.7		P	80 - 120
Propiconazole	91.3		P	80 - 120
Pyraflufen Ethyl	99.7		P	80 - 120
Pyridaben	98.6		P	80 - 120
Pyriproxyfen	91.7		P	80 - 120
Simazine	93.7		P	80 - 120
Stirophos	92.5		P	80 - 120
Sulfentrazone	93.7		P	80 - 120
Tebuconazole	97.7		P	80 - 120
Terbufos	98.7		P	80 - 120
Terbuthylazine	88.3		P	80 - 120
Thiobencarb	95.8		P	80 - 120
Triadimefon	108		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
DEP SOP: NU-094-1	Color (true)	96.8					1.30	
EPA 180.1 Rev. 2.0	Turbidity	102					2.44	
EPA 200.7 Rev. 4.4	Calcium	103	104	104				0.0242
	Iron	107	105	105	107			0.0161
	Magnesium	103	104	104				0.355
	Potassium	98.9	101	103				0.803
	Sodium	102	102	103				0.585
	Strontium	101	99.9	99.8	99.4			0.0395
	Tin	99.1	97.7	98.6	98.0			0.924
	Titanium	101	102	103	102			0.619
	Vanadium	96.3	100	101	97.8			0.537
	Zinc	99.4	99.5	99.2	98.9			0.250
EPA 200.8 Rev. 5.4	Aluminum	96.6	95.9	94.3	93.5			1.53
	Antimony	98.1	100	99.4	99.1			0.617
	Arsenic	93.7	97.1	96.6	94.7			0.513
	Barium	99.5	101	101	96.6			0.387
	Beryllium	94.6	99.4	99.2	92.5			0.214
	Boron	101	101	98.9	101			1.79
	Cadmium	97.0	98.1	98.8	97.6			0.697
	Chromium	94.0	94.2	92.9	93.6			1.44
	Cobalt	92.9	92.6	91.4	91.4			1.33
	Copper	90.0	90.0	88.8	88.6			1.33
	Lead	95.9	98.1	96.6	95.5			1.46
	Manganese	96.3	95.0					1.56
	Molybdenum	93.4	96.8	96.8	95.2			0.0011
	Nickel	91.2	91.5	90.0	89.4			1.61
	Selenium	97.3	97.7	96.5	95.1			1.23
	Silver	110	110	110	108			0.0790
	Thallium	93.6	97.8	96.7	94.8			1.09
EPA 300.0 Rev. 2.1	Chloride	101	99.4				1.63	
	Sulfate	104	101				1.27	
EPA 350.1 Rev. 2.0	Ammonia-N	95.6	97.0	98.6				1.14
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.0	95.2	94.9				0.209
EPA 353.2 Rev. 2.0	NO2NO3-N	100	98.0	96.5				1.54
EPA 365.1 Rev. 2.0	Total-P	99.8	102	98.0				3.40
EPA 8270E	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	29.5	25.0	28.0				11.3
	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	39.9	48.6	60.3				21.4
	Acetochlor	97.0	91.2	87.8				3.75
	Alachlor	72.3	77.7	78.7				1.19
	Aldrin	61.2	68.1	67.3				1.20
	Alpha-BHC	93.8	92.2	92.7				0.566
	Alpha-Chlordane	81.1	73.9	86.1				15.3
	Ametryn	91.0	86.8	76.0				13.2
	Atrazine	84.8	73.9	80.2				3.57
	Atrazine Desethyl	69.7	53.8	58.8				8.93
	Avobenzone	128	106	110				3.34
	Azinphos Methyl	142	109	111				1.15
	Azoxystrobin	94.5	105	111				5.77
	Beta-BHC	112	106	105				1.12
	Beta-Cyfluthrin	139	136	153				12.1
	Bifenthrin	99.2	93.1	102				9.66

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Bromacil	68.2					8.25
	Butylate	59.4	54.7	60.5			9.99
	Caffeine	117	133	101			28.1
	Carbophenothion	103	95.1	87.6			8.13
	Carfentrazone Ethyl	107	89.7	76.0			16.4
	Chlorfenapyr	60.2	59.7	62.9			5.20
	Chlorothalonil	122	172	231			29.2
	Chlorpyrifos Ethyl	76.8	72.4	75.4			4.14
	Chlorpyrifos Methyl	99.8	101	96.4			4.29
	Cis-Nonachlor	82.3	76.0	73.0			3.93
	Coumaphos	125	92.3	97.9			5.91
	Cyanazine	113	93.9	93.0			0.955
	Cypermethrin	145	147	174			16.5
	Cyprodinil	75.2	80.6	70.9			12.9
	Dacthal	91.8	87.6	93.2			6.20
	DDD-p,p'	82.4	79.4	74.9			5.85
	DDE-p,p'	86.6	74.7	75.6			1.14
	DDT-p,p'	82.6	81.4	87.4			7.08
	Dechlorane 602	44.0	29.0	28.2			2.88
	Dechlorane 603	87.7	70.0	66.5			5.07
	Dechlorane Plus	81.9	65.8	57.9			12.8
	Delta-BHC	128	123	149			19.4
	Deltamethrin	248	184	227			21.1
	Demeton	61.5	60.9	60.0			1.46
	Diazinon	101	107	101			5.33
	Dichlobenil	55.5	63.5	55.1			14.3
	Dicofol	78.2	71.9	65.7			8.91
	Dieldrin	81.8	75.5	77.0			2.01
	Difenoconazole	88.0	105	118			11.4
	Dimethenamid	79.2	69.2	70.5			1.84
	Dimethomorph	281	199	151			27.3
	Disulfoton	96.3	92.2	91.3			0.977
	Dithiopyr	54.0	24.9	50.7			68.2
	Endosulfan I	92.4	87.9	103			15.4
	Endosulfan II	92.5	90.4	104			13.9
	Endosulfan Sulfate	102	89.3	95.2			6.37
	Endrin	88.6	82.3	80.0			2.88
	Endrin Aldehyde	63.8	64.2	77.3			18.5
	Endrin Ketone	86.3	81.8	87.7			7.00
	EPTC	48.3	49.3	52.4			6.19
	Esfenvalerate	196	172	206			18.3
	Ethalfluralin	82.0	80.7	71.8			11.7
	Ethion	53.5	35.1	35.9			2.36
	Ethoprop	77.7	75.7	84.5			11.1
	Etridiazole	65.2	58.6	58.9			0.620
	Fenamiphos	83.8	93.3	102			9.29
	Fenbuconazole	78.0	62.2	88.9			35.2
	Fenpropathrin	97.8	93.4	100			7.22
	Fipronil	90.1	78.1	72.3			7.62
	Fipronil Desulfinyl	76.1	70.6	61.6			13.7
	Fipronil Sulfide	71.8	80.0	77.8			2.77
	Fipronil Sulfone	75.8	72.6	79.9			9.62
	Fluazifop-P-butyl	94.2	98.2	106			7.56
	Fludioxonil	72.8	70.8	66.9			5.69

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Flumioxazin	145	94.4	108			13.1
	Flutolanil	53.1	66.4	78.4			16.6
	Fluxapyroxad	59.4	43.8	42.5			3.02
	Fonofos	86.7	91.5	87.6			4.36
	Gamma-BHC	84.2	85.4	90.4			5.66
	Gamma-Chlordane	87.0	78.4	86.8			10.2
	Heptachlor	78.0	72.7	71.7			1.39
	Heptachlor Epoxide	86.2	80.7	85.8			6.13
	Hexabromobenzene	57.2	57.1	65.5			13.8
	Hexachlorobenzene	84.4	74.7	63.8			15.8
	Hexazinone	77.7	81.8	81.6			0.270
	Imazalil	78.6	76.2	73.4			3.72
	Iprodione	86.8	66.2	64.7			2.23
	Kepone	113	95.4	95.8			0.421
	Lambda-Cyhalothrin	116	136	149			9.17
	Loratadine	319	213	131			47.8
	Malathion	73.6	68.3	73.3			7.15
	Metalaxyl	98.2					6.19
	Methoprene	84.2	87.9	97.9			10.7
	Methoxychlor	103	89.3	106			17.4
	Metolachlor	87.0	72.6	80.6			9.38
	Metribuzin	106	82.4	91.5			10.5
	Mevinphos	77.1	74.9	75.8			1.15
	MGK-264	73.8	87.3	95.7			9.13
	Mirex	85.8	74.7	85.2			13.1
	Molinate	59.9	56.6	60.0			5.92
	Myclobutanil	61.9	50.0	51.9			3.67
	Naled	41.2	34.4	43.0			22.2
	Napropamide	60.3	32.1	40.3			22.7
	Norflurazon	70.6	106	119			9.97
	Octinoxate	107	88.5	88.4			0.0444
	Oxadiazon	63.0	58.4	65.7			11.7
	Oxybenzone	67.4	125	76.0			31.5
	Oxychlordane	81.0	79.2	89.6			12.4
	Oxyfluorfen	98.2	82.6	87.8			6.08
	Parathion Ethyl	77.2	76.0	76.1			0.0534
	Parathion Methyl	135	125	124			0.924
	PBB-153	63.9	69.5	82.4			16.9
	PBDE-47	71.2	52.0	50.6			2.58
	PBDE-99	53.3	43.9	45.7			3.93
	PCB-1016	51.8	62.1	65.1			4.65
	PCB-1260	77.1	84.6	91.3			7.66
	Pendimethalin	108	101	102			1.13
	Pentabromotoluene	93.1	79.0	76.3			3.50
	Permethrin	128	130	142			8.50
	Phenothrin	83.4	113	117			3.22
	Phenytoin	37.2	32.1	34.7			7.66
	Phorate	69.7	77.3	71.2			8.11
	Piperonyl Butoxide	85.8	79.8	78.8			1.30
	Prallethrin	78.3	96.5	97.0			0.587
	Prodiamine	66.6	79.3	83.9			5.70
	Prometon	84.9	63.7	58.6			4.68
	Prometryn	113	113	100			12.1
	Pronamide	97.1	83.7	87.4			4.37

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Propanil	73.2	72.3	70.8			2.15
	Propargite	62.2	47.8	51.4			7.34
	Propiconazole	67.1	66.3	73.0			9.59
	Pyraflufen Ethyl	51.7	58.3	61.7			5.63
	Pyridaben	109	104	133			23.8
	Pyriproxyfen	66.7	51.3	56.6			9.81
	Simazine	85.7	74.6	79.4			3.03
	Stirophos	29.7	38.3	35.1			8.68
	Sulfentrazone	42.0	27.5	28.2			2.38
	Tau-Fluvalinate	183	196	224			13.4
	Tebuconazole	42.3	29.6	32.0			7.68
	Terbufos	84.6	89.1	87.2			2.19
	Terbuthylazine	76.1	68.7	73.1			6.25
	Tetradecachloro-m-terphenyl	133	137	116			17.1
	Tetramethrin	87.4	104	109			4.91
	Thiobencarb	80.7	75.3	80.5			6.72
	Trans-Nonachlor	89.9	77.5	90.2			15.2
	Tri-o-cresyl Phosphate	113	93.2	91.6			1.69
	Triadimefon	73.7	73.6	65.9			11.0
	Triclosan Methyl	91.2	83.2	88.5			6.12
	Trifluralin	80.9	73.5	69.7			5.25
	Tris(1-chloro-2-propyl) phosphate (TCPP)	119	106	104			1.85
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	112	94.0	92.2			1.97
	Tris(2-chloroethyl) phosphate (TCEP)	123	110	112			1.60
EPA 8276	Chlordane	75.7	79.6	87.9			9.94
	Toxaphene	74.3	89.7	94.3			5.00
EPA 8321B	2,4-D	129	148	147			0.640
	2,4,5-T	121	140	127			9.60
	3-Hydroxycarbofuran	85.2	78.3	81.5			3.92
	Acesulfame K	94.7	101	104			2.67
	Acetaminophen	79.5	96.5	102			5.87
	Acetamiprid	75.1	74.8	80.1			6.91
	Afidopyropen	55.5	56.6	64.3			12.6
	Aldicarb	72.7	38.5	44.4			14.1
	Aldicarb Sulfone	94.8	82.3	80.6			2.07
	Aldicarb Sulfoxide	86.4	33.7	30.2			11.1
	AMPA	89.8	80.8	81.3			0.606
	Bentazon	105	86.6	96.7			8.40
	Benzovindiflupyr	72.9	79.9	81.7			2.32
	Carbamazepine	79.7	78.0	80.8			3.50
	Carbaryl	77.2	53.0	53.2			0.473
	Carbofuran	76.7	47.7	46.3			3.03
	Clothianidin	87.3	100	107			6.61
	Dinotefuran	93.2	114	119			4.01
	Diuron	72.4	66.3	69.8			4.92
	Endothall	85.4	99.7	101			1.66
	Fenuron	85.0	92.5	98.8			6.62
	Fluridone	79.2	84.9	88.6			3.09
	Glufosinate	82.7	75.3	72.3			4.14
	Glyphosate	81.0	72.2	75.2			4.08
	Hydrocodone	86.6	101	107			6.32

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Ibuprofen	71.1	73.3	75.8			3.43
	Imazapyr	84.0	99.8	112			9.73
	Imidacloprid	84.4	105	117			8.54
	Linuron	72.9	70.0	73.3			4.60
	Mandestrobin	70.0	72.0	76.4			5.83
	MCPP	121	133	132			0.802
	Methiocarb	73.9	68.4	63.8			7.00
	Methomyl	91.5	69.1	67.1			3.01
	Naproxen	76.4	59.7	79.7			28.7
	Oxamyl	93.0	77.6	78.3			0.868
	Primidone	83.4	92.7	99.9			7.48
	Propoxur	75.8	42.6	43.7			2.67
	Pyraclostrobin	71.5	75.6	79.6			5.11
	Silvex	101	98.5	98.2			0.323
	Sucralose	113	104	105			0.900
	Thiamethoxam	90.7	108	118			8.78
	Tolfenpyrad	47.2	52.8	59.3			11.6
	Triclopyr	114	124	124			0.117
SM 2320 B-2011	Total Alkalinity	100				1.43	
SM 2540 C-2015	TDS	93.6				7.35	
SM 2540 D-2015	TSS	102					
SM 4500-F- C-2011	Fluoride	96.0	99.7	101			1.06
SM 5310 B-2014	Organic Carbon	101	96.5	98.1			1.62

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2484850, 2484852
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2484850, 2484852
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2484867, 2484868
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2484867, 2484868
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2484850, 2484852
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2484850, 2484852
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2484851, 2484853
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2484851, 2484853
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2484851, 2484853
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2484851, 2484853
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2484862, 2484863
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2484861
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2484862, 2484863
EPA 8270E	PCBs in water matrices by GC/MS/MS	2484861
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2484861
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2484859
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2484860
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2484850, 2484852
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2484867
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2484850, 2484852
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2484850, 2484852
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2484850, 2484852
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2484851, 2484853

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	04/25/2024			04/25/2024 12:42	Jessica K Wilks	2484850, 2484852
EPA 180.1 Rev. 2.0	04/25/2024			04/25/2024 13:43	Khloe J Berg	2484850
	04/25/2024			04/25/2024 13:44	Khloe J Berg	2484852
EPA 200.7 Rev. 4.4	04/25/2024	04/29/2024 12:50	George D Taylor	04/30/2024 18:06	Chase Roberts	2484868
	04/25/2024	04/29/2024 12:50	George D Taylor	04/30/2024 20:03	Chase Roberts	2484867
EPA 200.8 Rev. 5.4	04/25/2024	04/29/2024 12:50	George D Taylor	04/30/2024 17:34	McKinley C Carter	2484868
	04/25/2024	04/29/2024 12:50	George D Taylor	04/30/2024 19:29	McKinley C Carter	2484867
EPA 300.0 Rev. 2.1	04/25/2024			05/01/2024 22:08	Samantha L Bates	2484850
	04/25/2024			05/01/2024 22:23	Samantha L Bates	2484852
EPA 350.1 Rev. 2.0	04/25/2024			05/01/2024 14:51	Khloe J Berg	2484851
	04/25/2024			05/01/2024 14:52	Khloe J Berg	2484853
EPA 351.2 Rev. 2.0	04/25/2024	04/30/2024 10:41	Robyn Blevins	05/03/2024 13:27	Robyn Blevins	2484851
	04/25/2024	04/30/2024 10:41	Robyn Blevins	05/03/2024 13:29	Robyn Blevins	2484853
EPA 353.2 Rev. 2.0	04/25/2024			05/08/2024 12:57	Fadila Guebre	2484851
	04/25/2024			05/08/2024 12:58	Fadila Guebre	2484853
EPA 365.1 Rev. 2.0	04/25/2024	04/29/2024 14:43	Josephine W Gitau	04/30/2024 10:24	Elise M. Gillis	2484851
	04/25/2024	04/29/2024 14:43	Josephine W Gitau	04/30/2024 10:27	Elise M. Gillis	2484853
EPA 8270E	04/25/2024	04/26/2024 08:00	Fe-Val Siddell	05/02/2024 21:11	Arthur Maknenko	2484862
	04/25/2024	04/26/2024 08:00	Fe-Val Siddell	05/02/2024 21:38	Arthur Maknenko	2484863
	04/25/2024	04/26/2024 08:00	Fe-Val Siddell	05/09/2024 20:21	Julie Wi	2484862
	04/25/2024	04/26/2024 08:00	Fe-Val Siddell	05/09/2024 20:48	Julie Wi	2484863
	04/25/2024	04/29/2024 08:00	Rasheda Ghaffari	05/03/2024 01:35	Lipi Saha	2484861
	04/25/2024	04/29/2024 08:00	Rasheda Ghaffari	05/03/2024 19:49	Kenedi Mills	2484861
EPA 8276	04/25/2024	04/29/2024 08:00	Rasheda Ghaffari	05/09/2024 14:45	Arthur Maknenko	2484861
EPA 8321B	04/25/2024	04/26/2024 13:00	Hana Lee	04/26/2024 14:42	Hana Lee	2484860
	04/25/2024	04/26/2024 13:00	Hana Lee	04/29/2024 12:19	Hana Lee	2484860
	04/25/2024	04/26/2024 13:00	Hoor Shaik	05/09/2024 18:17	Juyoung Kim	2484860
	04/25/2024	04/30/2024 13:00	Hoor Shaik	05/10/2024 00:48	Juyoung Kim	2484859
SM 2320 B-2011	04/25/2024			04/30/2024 05:43	Adam P Silver	2484850
	04/25/2024			04/30/2024 07:26	Adam P Silver	2484852
SM 2340 B-2011	04/25/2024			04/30/2024 20:03	Chase Roberts	2484867
SM 2540 C-2015	04/25/2024			04/30/2024 15:24	Yijie Li	2484850, 2484852
SM 2540 D-2015	04/25/2024			04/30/2024 15:24	Yijie Li	2484850, 2484852
SM 4500-F- C-2011	04/25/2024			05/21/2024 16:40	Dale L. Simmons	2484850
	04/25/2024			05/21/2024 17:01	Dale L. Simmons	2484852
SM 5310 B-2014	04/25/2024			04/29/2024 18:39	Khloe J Berg	2484851
	04/25/2024			04/29/2024 18:52	Khloe J Berg	2484853