

Chemical Analysis Report

SE-DIST-2023-10-17-01

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

Event Description: **SMP - LVI - Lake Sirena**
Request ID: **RQ-2023-10-09-60**
Customer: **SE-DIST**
Project ID: **SMP**

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

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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 07-NOV-2023 10:14



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: LAKE SIRENA NEAR CENTER

Collection Date/Time: 10/16/2023 11:30

Field ID: G4SE0178

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445408	DEP SOP: NU-094-1	Color (true)	5.9	I	PCU	P436621	
	EPA 180.1 Rev. 2.0	Turbidity	0.80	I	NTU	P436622	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P437371	
		Sulfate	22		mg SO4/L	P437375	
	SM 2320 B-2011	Total Alkalinity	7.6		mg CaCO3/L	P436799	
	SM 2540 C-2015	TDS	76		mg/L	P437082	
	SM 2540 D-2015	TSS	3	I	mg/L	P437021	
	SM 4500-F- C-2011	Fluoride	0.062	I	mg F/L	P436803	
2445409	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P436811	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.43		mg N/L	P436728	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.011		mg N/L	P436936	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P436654	
	SM 5310 B-2011	Organic Carbon	5.6		mg C/L	P436850	
2445410	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P436626	
2445424	EPA 8321B	2,4-D	0.094		ug/L	P436596	
		Acesulfame K	0.11	I	ug/L	P436574	
		2,4,5-T	0.0040	U	ug/L	P436596	
		AMPA	0.10	U	ug/L	P436574	MS
		Acetaminophen	0.0080	U	ug/L	P436596	
		Acetamiprid	0.0020	U	ug/L	P436596	
		Endothall	0.25	U	ug/L	P436574	
		Glufosinate	0.10	U	ug/L	P436574	
		Glyphosate	0.10	U	ug/L	P436574	
		Afidopyrophen	0.0020	U	ug/L	P436596	
		Bentazon	0.0040		ug/L	P436596	
		Sucralose	0.33		ug/L	P436574	
		Benzovindiflupyr	0.0020	U	ug/L	P436596	
		Carbamazepine	8.0E-04	U	ug/L	P436596	
		Clothianidin	0.0020	U	ug/L	P436596	
		Dinotefuran	0.0020	U	ug/L	P436596	
		Diuron	0.0028	I	ug/L	P436596	
		Fenuron	0.032	U	ug/L	P436596	
		Fluridone	8.0E-04	U	ug/L	P436596	
		Imazapyr	0.0040	U	ug/L	P436596	
		Hydrocodone	0.0020	U	ug/L	P436596	
		Ibuprofen	0.080	U	ug/L	P436596	
		Imidacloprid	0.036		ug/L	P436596	
		Linuron	0.0040	U	ug/L	P436596	
		Mandestrobin	0.0020	U	ug/L	P436596	
		MCPD	0.0020	U	ug/L	P436596	
		Naproxen	0.0080	U	ug/L	P436596	
		Primidone	0.0040	U	ug/L	P436596	
		Pyraclostrobin	0.0020	U	ug/L	P436596	

Field ID: G4SE0178

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445424	EPA 8321B	Silvex	0.0040	U	ug/L	P436596	
		Thiamethoxam	0.0020	U	ug/L	P436596	
		Tolfenpyrad	0.0020	U	ug/L	P436596	
		Triclopyr	0.0040	U	ug/L	P436596	
2445425	EPA 200.7 Rev. 4.4	Calcium	7.45		mg/L	P436705	
		Iron	30	U	ug/L	P436705	
		Magnesium	3.47		mg/L	P436705	
		Potassium	5.1		mg/L	P436705	
		Sodium	8.2		mg/L	P436705	
		Strontium	52.5		ug/L	P436705	
		Tin	3.0	U	ug/L	P436705	
		Titanium	0.75	U	ug/L	P436705	
		Vanadium	2.0	U	ug/L	P436705	
		Zinc	5.0	U	ug/L	P436705	
	EPA 200.8 Rev. 5.4	Aluminum	20	I	ug/L	P436705	
		Antimony	0.11	I	ug/L	P436705	
		Arsenic	2.46		ug/L	P436705	
		Barium	5.23		ug/L	P436705	
		Beryllium	0.010	U	ug/L	P436705	
		Boron	41.9		ug/L	P436705	
		Cadmium	0.020	U	ug/L	P436705	
		Chromium	0.40	U	ug/L	P436705	
		Cobalt	0.020	U	ug/L	P436705	
		Copper	0.90		ug/L	P436705	
		Lead	0.20	U	ug/L	P436705	
		Manganese	8.34		ug/L	P436705	
2445426	SM 2340 B-2011	Molybdenum	0.48	I	ug/L	P436705	
		Nickel	0.50	U	ug/L	P436705	
		Selenium	0.20	U	ug/L	P436705	
		Silver	0.010	U	ug/L	P436705	
	EPA 8270E	Thallium	0.10	U	ug/L	P436705	
		Hardness	32.9		mg/L	P436705	
		Oxybenzone**	10	U	ng/L	P436600	
		Acetochlor	0.21	U	ng/L	P436600	
		Octinoxate**	150	U	ng/L	P436600	
		Alachlor	0.41	U	ng/L	P436600	MS
		Avobenzone**	100	U	ng/L	P436600	
		Ametryn	2.2	I	ng/L	P436600	
		Atrazine	23		ng/L	P436600	
		PBDE-47**	4.1	U	ng/L	P436600	
		Atrazine Desethyl	9.4		ng/L	P436600	
		PBDE-99**	5.2	U	ng/L	P436600	
		Azinphos Methyl	3.1	U	ng/L	P436600	
		Tri-o-cresyl Phosphate**	6.2	U	ng/L	P436600	
		Azoxystrobin	0.41	U	ng/L	P436600	

Field ID: G4SE0178

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445426	EPA 8270E	Bromacil	0.62	U	ng/L	P436600	
		2-Ethylhexyl	12	U	ng/L	P436600	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.46	U	ng/L	P436600	
		Dechlorane Plus**	31	U	ng/L	P436600	
		Caffeine**	140		ng/L	P436600	
		Dechlorane 602**	5.2	U	ng/L	P436600	
		Carbophenothion	0.52	U	ng/L	P436600	
		Dechlorane 603**	4.1	U	ng/L	P436600	
		Carfentrazone Ethyl	0.15	U	ng/L	P436600	
		Hexabromobenzene**	6.2	U	ng/L	P436600	
		Chlorfenapyr	0.31	U	ng/L	P436600	
		PBB-153**	6.2	U	ng/L	P436600	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P436600	
		Pentabromotoluene**	3.1	U	ng/L	P436600	
		Chlorpyrifos Methyl	0.10	U	ng/L	P436600	
		Tris(2-chloroethyl) phosphate (TCEP)**	57	U	ng/L	P436600	MS
		Coumaphos	1.1	U	ng/L	P436600	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	26	U	ng/L	P436600	
		Cyanazine	5.2	U	ng/L	P436600	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	5.3	I	ng/L	P436600	
		Cyprodinil	0.21	U	ng/L	P436600	
		Tetradecachloro-m-terphenyl**	7.7	U	ng/L	P436600	
		Demeton	3.6	U	ng/L	P436600	
		Diazinon	0.13	U	ng/L	P436600	
		Difenoconazole	0.62	U	ng/L	P436600	
		Dimethenamid	0.10	U	ng/L	P436600	
		Dimethomorph	0.51	I	ng/L	P436600	MS
		Disulfoton	0.62	U	ng/L	P436600	
		Dithiopyr	1.0	U	ng/L	P436600	MS
		EPTC	0.52	U	ng/L	P436600	
		Ethion	0.31	U	ng/L	P436600	
		Ethoprop	0.13	U	ng/L	P436600	
		Etridiazole	0.10	U	ng/L	P436600	
		Fenamiphos	0.46	U	ng/L	P436600	
		Fenbuconazole	0.52	U	ng/L	P436600	
		Fipronil	0.21	U	ng/L	P436600	
		Fipronil Desulfinyl**	0.13	I	ng/L	P436600	
		Fipronil Sulfide	0.10	U	ng/L	P436600	
		Fipronil Sulfone	0.10	U	ng/L	P436600	
		Fluazifop-P-butyl	0.10	U	ng/L	P436600	
		Fludioxonil	0.10	U	ng/L	P436600	
		Flumioxazin	3.1	U	ng/L	P436600	
		Flutolanil	0.10	U	ng/L	P436600	
		Fluxapyroxad	0.26	U	ng/L	P436600	

Field ID: G4SE0178

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445426	EPA 8270E	Fonofos	0.15	U	ng/L	P436600	
		Hexazinone	0.52	U	ng/L	P436600	
		Imazalil	0.67	U	ng/L	P436600	
		Iprodione	0.52	U	ng/L	P436600	RPD
		Loratadine**	0.31	U	ng/L	P436600	
		Malathion	0.36	U	ng/L	P436600	
		Metalaxyl	7.5		ng/L	P436600	
		Metolachlor	2.2	I	ng/L	P436600	RPD
		Metribuzin	0.41	U	ng/L	P436600	
		Mevinphos	1.0	U	ng/L	P436600	
		Molinate	0.26	UJ	ng/L	P436600	LCS
		Myclobutanil	0.36	U	ng/L	P436600	
		Naled	2.6	U	ng/L	P436600	
		Napropamide	0.72	U	ng/L	P436600	
		Norflurazon	23		ng/L	P436600	
		Oxadiazon	0.58	I	ng/L	P436600	
		Oxyfluorfen	0.21	U	ng/L	P436600	
		Parathion Ethyl	0.15	U	ng/L	P436600	
		Parathion Methyl	0.21	U	ng/L	P436600	
		Pendimethalin	1.8	U	ng/L	P436600	
		Phenytol**	5.5	U	ng/L	P436600	
		Phorate	0.26	U	ng/L	P436600	MS
		Prodiamine	0.21	U	ng/L	P436600	
		Prometon	3.1	U	ng/L	P436600	
		Prometryn	0.36	U	ng/L	P436600	
		Pronamide	0.10	U	ng/L	P436600	
		Propanil	0.10	U	ng/L	P436600	
		Propargite	0.82	U	ng/L	P436600	
		Propiconazole	2.8	I	ng/L	P436600	
		Pyraflufen Ethyl	0.31	U	ng/L	P436600	
		Pyridaben	1.4	U	ng/L	P436600	
		Pyriproxyfen	0.26	U	ng/L	P436600	
		Simazine	0.26	U	ng/L	P436600	
		Stirophos	0.41	U	ng/L	P436600	
		Sulfentrazone	1.4	U	ng/L	P436600	
		Tebuconazole	3.3	I	ng/L	P436600	
		Terbufos	0.21	U	ng/L	P436600	
		Terbuthylazine	0.21	U	ng/L	P436600	
		Thiobencarb	0.52	U	ng/L	P436600	RPD
		Triadimefon	0.15	U	ng/L	P436600	

Ref. Method and Comment:

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

SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P436621

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P436622

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P436705

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: P436705

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: P437371

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: P437375

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436811

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436728

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436936

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436654

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P436626

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

Reference Method: EPA 8270E
Batch ID: P436600

Component	Result	Code	Units
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P436600

Component	Result	Code	Units
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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P436600

Component	Result	Code	Units
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
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
Terbutylazine	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 8321B

Batch ID: P436574

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: EPA 8321B

Batch ID: P436596

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P436596

Component	Result	Code	Units
Carbamazepine	8.0E-04	U	ug/L
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	8.0E-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	0.0040	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: SM 2320 B-2011

Batch ID: P436799

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

Reference Method: SM 2540 C-2015

Batch ID: P437082

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P437021

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P436803

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P436850

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: P436621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P436622

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P436705

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	104		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	87.9		P	85 - 115
Sodium	104		P	85 - 115
Strontium	104		P	85 - 115
Tin	98.2		P	85 - 115
Titanium	98.6		P	85 - 115
Vanadium	98.6		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P436705

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.9		P	85 - 115
Antimony	96.2		P	85 - 115
Arsenic	100		P	85 - 115
Barium	101		P	85 - 115
Beryllium	97.8		P	85 - 115
Boron	99.4		P	85 - 115
Cadmium	96.3		P	85 - 115
Chromium	99.3		P	85 - 115
Cobalt	99.7		P	85 - 115
Copper	98.8		P	85 - 115
Lead	91.9		P	85 - 115
Manganese	99.9		P	85 - 115
Molybdenum	97.0		P	85 - 115
Nickel	99.7		P	85 - 115
Selenium	99.5		P	85 - 115
Silver	103		P	85 - 115
Thallium	97.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437371

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437375

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436811

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436728

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436936

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436654

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P436626

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

Reference Method: EPA 8270E
Batch ID: P436600

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	86.3		P	37 - 154
Acetochlor	96.6		P	64 - 124
Alachlor	99.8		P	61 - 118
Ametryn	106		P	47 - 158
Atrazine	89.3		P	68 - 121
Atrazine Desethyl	79.0		P	30 - 119
Avobenzone	116		P	48 - 193
Azinphos Methyl	93.7		P	30 - 194
Azoxystrobin	86.7		P	58 - 154
Bromacil	77.9		P	47 - 126
Butylate	42.7		P	31 - 83.0
Caffeine	88.2		P	10 - 180
Carbophenothion	90.0		P	59 - 133
Carfentrazone Ethyl	97.3		P	59 - 147
Chlorfenapyr	65.2		P	52 - 118
Chlorpyrifos Ethyl	86.4		P	59 - 119

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P436600

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	83.0		P	65 - 123
Coumaphos	76.4		P	11 - 223
Cyanazine	113		P	63 - 250
Cyprodinil	83.7		P	52 - 143
Dechlorane 602	76.1		P	23 - 142
Dechlorane 603	90.6		P	51 - 171
Dechlorane Plus	85.9		P	46 - 161
Demeton	54.6		P	42 - 119
Diazinon	95.9		P	67 - 132
Difenoconazole	99.2		P	12 - 204
Dimethenamid	74.7		P	53 - 113
Dimethomorph	139		P	13 - 238
Disulfoton	94.6		P	56 - 126
Dithiopyr	69.5		P	58 - 127
EPTC	38.8		P	31 - 78.0
Ethion	74.4		P	24 - 127
Ethoprop	74.0		P	60 - 118
Etridiazole	41.9		P	32 - 91.0
Fenamiphos	80.7		P	54 - 129
Fenbuconazole	58.4		P	31 - 162
Fipronil	77.3		P	56 - 131
Fipronil Desulfinyl	76.7		P	58 - 132
Fipronil Sulfide	65.6		P	51 - 123
Fipronil Sulfone	70.8		P	50 - 125
Fluazifop-P-butyl	75.3		P	52 - 132
Fludioxonil	68.5		P	52 - 129
Flumioxazin	97.7		P	34 - 250
Flutolanil	67.1		P	45 - 128
Fluxapyroxad	82.7		P	31 - 150
Fonofos	88.2		P	60 - 116
Hexabromobenzene	78.5		P	52 - 165
Hexazinone	86.4		P	59 - 120
Imazalil	86.1		P	39 - 134
Iprodione	80.4		P	39 - 243
Loratadine	112		P	10 - 240
Malathion	93.1		P	53 - 145
Metalaxyl	81.1		P	59 - 120
Metolachlor	87.2		P	64 - 122
Metribuzin	87.0		P	33 - 128
Mevinphos	89.4		P	48 - 119
Molinate	39.0		F	42 - 89.0
Myclobutanil	69.0		P	54 - 129
Naled	36.6		P	10 - 138
Napropamide	80.0		P	40 - 122
Norflurazon	98.3		P	49 - 132
Octinoxate	84.7		P	29 - 176
Oxadiazon	64.9		P	50 - 115
Oxybenzone	74.7		P	45 - 145
Oxyfluorfen	91.1		P	62 - 149
Parathion Ethyl	87.0		P	68 - 119
Parathion Methyl	95.4		P	68 - 147
PBB-153	88.0		P	42 - 179

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P436600

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBDE-47	76.9		P	44 - 141
PBDE-99	81.4		P	36 - 141
Pendimethalin	87.7		P	59 - 158
Pentabromotoluene	74.3		P	58 - 148
Phenytoin	115		P	10 - 151
Phorate	110		P	44 - 124
Prodiamine	44.1		P	10 - 136
Prometon	108		P	45 - 131
Prometryn	83.6		P	52 - 140
Pronamide	99.3		P	70 - 129
Propanil	89.8		P	54 - 144
Propargite	68.0		P	10 - 191
Propiconazole	69.7		P	49 - 128
Pyraflufen Ethyl	93.3		P	46 - 141
Pyridaben	95.8		P	29 - 198
Pyriproxyfen	67.6		P	33 - 221
Simazine	87.3		P	62 - 119
Stirophos	61.9		P	13 - 144
Sulfentrazone	59.2		P	12 - 152
Tebuconazole	76.4		P	10 - 135
Terbufos	87.7		P	67 - 136
Terbutylazine	67.5		P	66 - 113
Tetradecachloro-m-terphenyl	100		P	30 - 235
Thiobencarb	72.8		P	51 - 125
Tri-o-cresyl Phosphate	81.6		P	50 - 150
Triadimefon	65.3		P	57 - 118
Tris(1-chloro-2-propyl) phosphate (TCPP)	73.3		P	60 - 160
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	68.8		P	66 - 141
Tris(2-chloroethyl) phosphate (TCEP)	62.1		P	59 - 166

Reference Method: EPA 8321B
Batch ID: P436574

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	107		P	40 - 150
AMPA	123		P	40 - 150
Endothall	87.3		P	40 - 150
Glufosinate	95.4		P	40 - 150
Glyphosate	88.2		P	40 - 150
Sucralose	102		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P436596

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	65.2		P	40 - 150
2,4,5-T	80.5		P	40 - 150
Acetaminophen	88.6		P	30 - 150
Acetamiprid	73.6		P	40 - 150
Afidopyropen	73.8		P	30 - 150
Bentazon	105		P	30 - 150
Benzovindiflupyr	73.8		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P436596

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	75.9		P	40 - 150
Clothianidin	83.4		P	40 - 150
Dinotefuran	93.6		P	40 - 150
Diuron	68.1		P	40 - 150
Fenuron	88.5		P	40 - 150
Fluridone	74.0		P	40 - 150
Hydrocodone	90.2		P	40 - 150
Ibuprofen	74.8		P	40 - 150
Imazapyr	72.6		P	40 - 150
Imidacloprid	78.4		P	40 - 150
Linuron	61.4		P	40 - 150
Mandestrobin	79.1		P	40 - 150
MCPP	77.8		P	40 - 150
Naproxen	44.8		P	40 - 150
Primidone	78.2		P	40 - 150
Pyraclostrobin	69.6		P	40 - 150
Silvex	59.8		P	40 - 150
Thiamethoxam	84.0		P	40 - 150
Tolfenpyrad	49.3		P	30 - 150
Triclopyr	64.8		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P436799

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.1		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P437082

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	93.2		P	85 - 115

Reference Method: SM 2540 D-2015

Batch ID: P437021

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	95.2		P	85 - 115

Reference Method: SM 4500-F- C-2011

Batch ID: P436803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.7		P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P436850

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P436705

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445142	Calcium	99.8	99.7	P/P	80 - 120
2445142	Iron	100	99.7	P/P	80 - 120
2445142	Magnesium	103	102	P/P	80 - 120
2445142	Potassium	85.5	85.8	P/P	80 - 120
2445142	Sodium	100	101	P/P	80 - 120
2445142	Strontium	99.1	99.4	P/P	80 - 120
2445142	Tin	103	97.3	P/P	80 - 120
2445142	Titanium	98.4	99.7	P/P	80 - 120
2445142	Vanadium	99.5	99.9	P/P	80 - 120
2445142	Zinc	100	101	P/P	80 - 120
2445395	Calcium	96.6		P	80 - 120
2445395	Iron	97.5		P	80 - 120
2445395	Magnesium	99.3		P	80 - 120
2445395	Potassium	85.0		P	80 - 120
2445395	Sodium	97.4		P	80 - 120
2445395	Strontium	96.6		P	80 - 120
2445395	Tin	98.3		P	80 - 120
2445395	Titanium	96.9		P	80 - 120
2445395	Vanadium	98.4		P	80 - 120
2445395	Zinc	98.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P436705

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445142	Aluminum	98.9	98.8	P/P	80 - 120
2445142	Antimony	96.7	97.2	P/P	80 - 120
2445142	Arsenic	99.7	98.9	P/P	80 - 120
2445142	Barium	100	101	P/P	80 - 120
2445142	Beryllium	97.9	96.0	P/P	80 - 120
2445142	Boron	98.9	101	P/P	80 - 120
2445142	Cadmium	97.4	97.7	P/P	80 - 120
2445142	Chromium	100	101	P/P	80 - 120
2445142	Cobalt	97.8	97.7	P/P	80 - 120
2445142	Copper	98.4	98.4	P/P	80 - 120
2445142	Lead	92.4	92.2	P/P	80 - 120
2445142	Manganese	99.6	99.7	P/P	80 - 120
2445142	Molybdenum	97.6	97.6	P/P	80 - 120
2445142	Nickel	98.8	98.5	P/P	80 - 120
2445142	Selenium	98.5	99.1	P/P	80 - 120
2445142	Silver	103	104	P/P	80 - 120
2445142	Thallium	98.5	99.7	P/P	80 - 120
2445395	Aluminum	98.1		P	80 - 120
2445395	Antimony	96.7		P	80 - 120
2445395	Arsenic	98.4		P	80 - 120
2445395	Barium	101		P	80 - 120
2445395	Beryllium	94.3		P	80 - 120
2445395	Boron	102		P	80 - 120
2445395	Cadmium	100		P	80 - 120
2445395	Chromium	103		P	80 - 120
2445395	Cobalt	97.6		P	80 - 120
2445395	Copper	97.4		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P436705

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445395	Lead	93.1		P	80 - 120
2445395	Manganese	98.9		P	80 - 120
2445395	Molybdenum	99.3		P	80 - 120
2445395	Nickel	100		P	80 - 120
2445395	Selenium	99.5		P	80 - 120
2445395	Silver	103		P	80 - 120
2445395	Thallium	99.4		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445505	Chloride	100		P	90 - 110
2445607	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437375

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445505	Sulfate	100		P	90 - 110
2445607	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436811

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445409	Ammonia-N	98.6	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436728

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445374	Kjeldahl Nitrogen	111	110	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436936

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445373	NO2NO3-N	95.0	94.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436654

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445416	Total-P	105	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P436626

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445420	O-Phosphate-P	97.2	97.3	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P436600

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445279	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	72.5	59.8	P/P	29 - 155
2445279	Acetochlor	78.9	83.3	P/P	60 - 124
2445279	Alachlor	145	139	F/F	54 - 122
2445279	Ametryn	52.2	53.5	P/P	51 - 208
2445279	Avobenzone	121	117	P/P	35 - 187
2445279	Azinphos Methyl	51.4	58.9	P/P	43 - 276
2445279	Butylate	37.2	40.1	P/P	23 - 82.0
2445279	Caffeine	122	119	P/P	10 - 277
2445279	Carbophenothion	48.0	53.8	P/P	47 - 135
2445279	Carfentrazone Ethyl	46.8	57.3	P/P	46 - 147
2445279	Chlorfenapyr	70.6	77.7	P/P	43 - 114
2445279	Chlorpyrifos Ethyl	78.6	85.2	P/P	47 - 124
2445279	Chlorpyrifos Methyl	65.5	68.5	P/P	60 - 135
2445279	Coumaphos	57.8	64.0	P/P	10 - 222
2445279	Cyanazine	65.6	46.8	P/P	10 - 257
2445279	Cyprodinil	75.9	84.3	P/P	42 - 148
2445279	Dechlorane 602	65.8	58.7	P/P	14 - 133
2445279	Dechlorane 603	90.2	85.1	P/P	18 - 191
2445279	Dechlorane Plus	86.5	70.7	P/P	23 - 154
2445279	Demeton	135	137	P/P	41 - 137
2445279	Diazinon	81.6	76.6	P/P	64 - 139
2445279	Difenoconazole	142	144	P/P	46 - 254
2445279	Dimethenamid	61.5	58.8	P/P	47 - 117
2445279	Dimethomorph	243	303	P/F	14 - 255
2445279	Disulfoton	79.3	76.8	P/P	52 - 130
2445279	Dithiopyr	22.1	25.3	F/F	40 - 121
2445279	EPTC	35.4	38.3	P/P	19 - 78.0
2445279	Ethion	41.4	35.5	P/P	12 - 124
2445279	Ethoprop	102	113	P/P	68 - 144
2445279	Etridiazole	29.7	29.5	P/P	26 - 96.0
2445279	Fenamiphos	107	101	P/P	41 - 129
2445279	Fenbuconazole	65.4	79.6	P/P	26 - 169
2445279	Fipronil Desulfinyl	48.1	53.2	P/P	47 - 136
2445279	Fipronil Sulfide	47.4	46.1	P/P	41 - 127
2445279	Fluazifop-P-butyl	54.6	77.6	P/P	46 - 131
2445279	Flumioxazin	112	167	P/P	10 - 289
2445279	Flutolanil	62.5	71.4	P/P	34 - 130
2445279	Fluxapyroxad	54.0	44.6	P/P	10 - 197
2445279	Fonofos	95.8	113	P/P	42 - 131
2445279	Hexabromobenzene	62.7	61.3	P/P	47 - 178
2445279	Hexazinone	116	90.8	P/P	64 - 125
2445279	Imazalil	45.7	47.6	P/P	37 - 252
2445279	Loratadine	154	152	P/P	20 - 231
2445279	Malathion	70.8	77.7	P/P	34 - 164
2445279	Metalaxyl	53.8	52.2	P/P	49 - 125
2445279	Mevinphos	119	117	P/P	46 - 130
2445279	Molinate	43.5	44.0	P/P	39 - 93.0
2445279	Myclobutanil	61.9	61.0	P/P	50 - 130
2445279	Naled	67.6	60.9	P/P	10 - 150
2445279	Napropamide	45.0	39.1	P/P	10 - 109
2445279	Norflurazon	51.6	41.4	P/P	36 - 134
2445279	Octinoxate	69.7	69.9	P/P	18 - 170

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P436600

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445279	Oxybenzone	60.1	60.8	P/P	33 - 154
2445279	Parathion Ethyl	69.2	92.6	P/P	65 - 120
2445279	Parathion Methyl	107	88.4	P/P	77 - 185
2445279	PBB-153	73.0	66.1	P/P	23 - 193
2445279	PBDE-47	64.4	60.6	P/P	31 - 139
2445279	PBDE-99	66.6	59.3	P/P	24 - 138
2445279	Pendimethalin	75.8	84.8	P/P	50 - 146
2445279	Pentabromotoluene	60.7	60.0	P/P	54 - 152
2445279	Phenytoin	122	130	P/P	10 - 157
2445279	Phorate	215	201	F/F	54 - 161
2445279	Prometryn	75.0	73.2	P/P	32 - 151
2445279	Pronamide	83.7	76.0	P/P	61 - 140
2445279	Propanil	103	84.6	P/P	50 - 147
2445279	Propargite	73.7	59.3	P/P	10 - 190
2445279	Pyraflufen Ethyl	50.4	52.1	P/P	30 - 147
2445279	Pyridaben	52.2	56.0	P/P	15 - 195
2445279	Pyriproxyfen	44.7	45.0	P/P	31 - 218
2445279	Simazine	91.6	99.2	P/P	45 - 139
2445279	Stiropfos	37.7	45.7	P/P	10 - 134
2445279	Terbufos	136	139	P/P	65 - 151
2445279	Terbutylazine	66.0	65.8	P/P	62 - 117
2445279	Tetradecachloro-m-terphenyl	117	91.3	P/P	10 - 260
2445279	Thiobencarb	80.7	113	P/P	48 - 122
2445279	Tri-o-cresyl Phosphate	69.9	69.7	P/P	32 - 151
2445279	Triadimefon	74.8	73.4	P/P	46 - 124
2445279	Tris(1-chloro-2-propyl) phosphate (TCPP)	59.9	102	P/P	51 - 154
2445279	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	72.3	76.8	P/P	59 - 147
2445279	Tris(2-chloroethyl) phosphate (TCEP)	18.4	22.2	F/F	65 - 156

Reference Method: EPA 8321B

Batch ID: P436574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445134	Acesulfame K	112	111	P/P	40 - 150
2445134	AMPA	186	190	F/F	40 - 150
2445134	Endothall	83.0	78.3	P/P	40 - 150
2445134	Glufosinate	89.4	84.6	P/P	40 - 150
2445134	Glyphosate	75.9	74.8	P/P	40 - 150
2445134	Sucralose	105	98.2	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P436596

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445134	2,4-D	77.7	74.4	P/P	40 - 150
2445134	2,4,5-T	86.1	90.4	P/P	40 - 150
2445134	Acetaminophen	94.8	94.4	P/P	30 - 150
2445134	Acetamiprid	55.9	56.6	P/P	40 - 150
2445134	Afidopyropen	64.5	66.7	P/P	30 - 150
2445134	Bentazon	135	133	P/P	30 - 150
2445134	Benzovindiflupyr	62.1	66.4	P/P	40 - 150
2445134	Carbamazepine	60.2	62.5	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P436596

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445134	Clothianidin	79.6	81.7	P/P	40 - 150
2445134	Dinotefuran	78.3	80.2	P/P	40 - 150
2445134	Diuron	48.2	49.5	P/P	40 - 150
2445134	Fenuron	51.4	53.3	P/P	40 - 150
2445134	Fluridone	59.0	59.4	P/P	40 - 150
2445134	Hydrocodone	68.0	69.8	P/P	40 - 150
2445134	Ibuprofen	77.3	66.6	P/P	40 - 150
2445134	Imazapyr	88.4	88.1	P/P	40 - 150
2445134	Imidacloprid	97.3	103	P/P	40 - 150
2445134	Linuron	51.7	57.2	P/P	40 - 150
2445134	Mandestrobin	75.7	73.1	P/P	40 - 150
2445134	MCPP	91.2	88.5	P/P	40 - 150
2445134	Naproxen	45.4	50.8	P/P	40 - 150
2445134	Primidone	70.4	75.9	P/P	40 - 150
2445134	Pyraclostrobin	69.7	71.9	P/P	40 - 150
2445134	Silvex	75.7	74.6	P/P	40 - 150
2445134	Thiamethoxam	84.6	88.7	P/P	40 - 150
2445134	Tolfenpyrad	58.1	58.8	P/P	30 - 150
2445134	Triclopyr	72.0	78.7	P/P	40 - 150

Reference Method: SM 5310 B-2011
Batch ID: P436850

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445180	Organic Carbon	96.0	96.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P436621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445372	Color (true)	2.55	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P436622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445428	Turbidity	0.557	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P436705

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445142	Calcium	0.0808	Spike	P	0 - 20
2445142	Iron	0.314	Spike	P	0 - 20
2445142	Magnesium	0.804	Spike	P	0 - 20
2445142	Potassium	0.430	Spike	P	0 - 20
2445142	Sodium	0.513	Spike	P	0 - 20
2445142	Strontium	0.353	Spike	P	0 - 20
2445142	Tin	5.62	Spike	P	0 - 20
2445142	Titanium	1.32	Spike	P	0 - 20
2445142	Vanadium	0.379	Spike	P	0 - 20
2445142	Zinc	0.385	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P436705

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445142	Aluminum	0.0582	Spike	P	0 - 20
2445142	Antimony	0.494	Spike	P	0 - 20
2445142	Arsenic	0.764	Spike	P	0 - 20
2445142	Barium	0.765	Spike	P	0 - 20
2445142	Beryllium	1.96	Spike	P	0 - 20
2445142	Boron	2.44	Spike	P	0 - 20
2445142	Cadmium	0.310	Spike	P	0 - 20
2445142	Chromium	0.491	Spike	P	0 - 20
2445142	Cobalt	0.0853	Spike	P	0 - 20
2445142	Copper	0.0292	Spike	P	0 - 20
2445142	Lead	0.265	Spike	P	0 - 20
2445142	Manganese	0.114	Spike	P	0 - 20
2445142	Molybdenum	0.0640	Spike	P	0 - 20
2445142	Nickel	0.326	Spike	P	0 - 20
2445142	Selenium	0.664	Spike	P	0 - 20
2445142	Silver	1.02	Spike	P	0 - 20
2445142	Thallium	1.16	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445505	Chloride	0.435	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437375

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445505	Sulfate	6.33	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436811

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445409	Ammonia-N	0.717	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436728

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445374	Kjeldahl Nitrogen	0.463	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436936

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445373	NO2NO3-N	0.528	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445416	Total-P	2.46	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P436626

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445420	O-Phosphate-P	0.103	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P436600

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445279	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	19.2	Spike	P	0 - 35
2445279	Acetochlor	5.40	Spike	P	0 - 28

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P436600

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445279	Alachlor	4.14	Spike	P	0 - 30
2445279	Ametryn	1.39	Spike	P	0 - 32
2445279	Atrazine	8.56	Spike	P	0 - 33
2445279	Atrazine Desethyl	0.366	Spike	P	0 - 36
2445279	Avobenzone	3.47	Spike	P	0 - 35
2445279	Azinphos Methyl	13.6	Spike	P	0 - 62
2445279	Azoxystrobin	10.3	Spike	P	0 - 39
2445279	Bromacil	12.5	Spike	P	0 - 33
2445279	Butylate	7.69	Spike	P	0 - 51
2445279	Caffeine	3.16	Spike	P	0 - 100
2445279	Carbophenothion	11.4	Spike	P	0 - 34
2445279	Carfentrazone Ethyl	20.2	Spike	P	0 - 33
2445279	Chlorfenapyr	9.53	Spike	P	0 - 28
2445279	Chlorpyrifos Ethyl	8.07	Spike	P	0 - 31
2445279	Chlorpyrifos Methyl	4.56	Spike	P	0 - 27
2445279	Coumaphos	10.1	Spike	P	0 - 62
2445279	Cyanazine	33.4	Spike	P	0 - 48
2445279	Cyprodinil	10.5	Spike	P	0 - 29
2445279	Dechlorane 602	11.3	Spike	P	0 - 60
2445279	Dechlorane 603	5.76	Spike	P	0 - 40
2445279	Dechlorane Plus	20.1	Spike	P	0 - 38
2445279	Demeton	1.70	Spike	P	0 - 33
2445279	Diazinon	6.26	Spike	P	0 - 32
2445279	Difenoconazole	1.38	Spike	P	0 - 71
2445279	Dimethenamid	4.51	Spike	P	0 - 60
2445279	Dimethomorph	22.1	Spike	P	0 - 61
2445279	Disulfoton	3.17	Spike	P	0 - 30
2445279	Dithiopyr	13.5	Spike	P	0 - 28
2445279	EPTC	7.95	Spike	P	0 - 56
2445279	Ethion	15.1	Spike	P	0 - 79
2445279	Ethoprop	9.56	Spike	P	0 - 31
2445279	Etridiazole	0.781	Spike	P	0 - 43
2445279	Fenamiphos	5.95	Spike	P	0 - 43
2445279	Fenbuconazole	12.0	Spike	P	0 - 79
2445279	Fipronil	8.14	Spike	P	0 - 46
2445279	Fipronil Desulfinyl	5.92	Spike	P	0 - 36
2445279	Fipronil Sulfide	0.610	Spike	P	0 - 34
2445279	Fipronil Sulfone	21.5	Spike	P	0 - 47
2445279	Fluazifop-P-butyl	34.8	Spike	P	0 - 38
2445279	Fludioxonil	1.23	Spike	P	0 - 29
2445279	Flumioxazin	39.5	Spike	P	0 - 63
2445279	Flutolanil	13.3	Spike	P	0 - 36
2445279	Fluxapyroxad	19.1	Spike	P	0 - 65
2445279	Fonofos	16.5	Spike	P	0 - 35
2445279	Hexabromobenzene	2.36	Spike	P	0 - 41
2445279	Hexazinone	24.1	Spike	P	0 - 31
2445279	Imazalil	3.95	Spike	P	0 - 52
2445279	Iprodione	80.2	Spike	F	0 - 49
2445279	Loratadine	0.771	Spike	P	0 - 59
2445279	Malathion	9.27	Spike	P	0 - 77
2445279	Metalaxyl	2.87	Spike	P	0 - 76

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P436600

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445279	Metolachlor	35.0	Spike	F	0 - 29
2445279	Metribuzin	26.5	Spike	P	0 - 51
2445279	Mevinphos	2.04	Spike	P	0 - 31
2445279	Molinate	1.20	Spike	P	0 - 39
2445279	Myclobutanil	1.23	Spike	P	0 - 34
2445279	Naled	10.5	Spike	P	0 - 37
2445279	Napropamide	14.1	Spike	P	0 - 100
2445279	Norflurazon	18.3	Spike	P	0 - 54
2445279	Octinoxate	0.353	Spike	P	0 - 35
2445279	Oxadiazon	19.9	Spike	P	0 - 34
2445279	Oxybenzone	1.15	Spike	P	0 - 35
2445279	Oxyfluorfen	25.9	Spike	P	0 - 28
2445279	Parathion Ethyl	29.0	Spike	P	0 - 31
2445279	Parathion Methyl	18.7	Spike	P	0 - 29
2445279	PBB-153	9.91	Spike	P	0 - 49
2445279	PBDE-47	6.14	Spike	P	0 - 36
2445279	PBDE-99	11.6	Spike	P	0 - 46
2445279	Pendimethalin	11.2	Spike	P	0 - 31
2445279	Pentabromotoluene	1.16	Spike	P	0 - 16
2445279	Phenytoin	6.93	Spike	P	0 - 100
2445279	Phorate	6.84	Spike	P	0 - 36
2445279	Prodiamine	12.1	Spike	P	0 - 68
2445279	Prometon	33.0	Spike	P	0 - 35
2445279	Prometryn	2.45	Spike	P	0 - 33
2445279	Pronamide	9.70	Spike	P	0 - 24
2445279	Propanil	19.4	Spike	P	0 - 28
2445279	Propargite	21.6	Spike	P	0 - 53
2445279	Propiconazole	13.6	Spike	P	0 - 44
2445279	Pyraflufen Ethyl	3.33	Spike	P	0 - 61
2445279	Pyridaben	6.92	Spike	P	0 - 43
2445279	Pyriproxyfen	0.578	Spike	P	0 - 82
2445279	Simazine	7.90	Spike	P	0 - 29
2445279	Stirophos	19.2	Spike	P	0 - 100
2445279	Sulfentrazone	26.4	Spike	P	0 - 64
2445279	Tebuconazole	17.3	Spike	P	0 - 76
2445279	Terbufos	1.99	Spike	P	0 - 29
2445279	Terbuthylazine	0.306	Spike	P	0 - 28
2445279	Tetradecachloro-m-terphenyl	24.7	Spike	P	0 - 42
2445279	Thiobencarb	33.1	Spike	F	0 - 26
2445279	Tri-o-cresyl Phosphate	0.213	Spike	P	0 - 24
2445279	Triadimefon	1.88	Spike	P	0 - 40
2445279	Tris(1-chloro-2-propyl) phosphate (TCPP)	13.7	Spike	P	0 - 30
2445279	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	1.82	Spike	P	0 - 22
2445279	Tris(2-chloroethyl) phosphate (TCEP)	8.35	Spike	P	0 - 15

Reference Method: EPA 8321B

Batch ID: P436574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445134	Acesulfame K	0.251	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P436574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445134	AMPA	2.06	Spike	P	0 - 30
2445134	Endothall	5.81	Spike	P	0 - 30
2445134	Glufosinate	5.53	Spike	P	0 - 30
2445134	Glyphosate	1.42	Spike	P	0 - 30
2445134	Sucralose	6.30	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P436596

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445134	2,4-D	4.27	Spike	P	0 - 30
2445134	2,4,5-T	4.88	Spike	P	0 - 30
2445134	Acetaminophen	0.454	Spike	P	0 - 30
2445134	Acetamiprid	1.14	Spike	P	0 - 30
2445134	Afidopyropen	3.33	Spike	P	0 - 30
2445134	Bentazon	1.55	Spike	P	0 - 30
2445134	Benzovindiflupyr	6.76	Spike	P	0 - 30
2445134	Carbamazepine	3.63	Spike	P	0 - 30
2445134	Clothianidin	2.70	Spike	P	0 - 30
2445134	Dinotefuran	2.33	Spike	P	0 - 30
2445134	Diuron	2.55	Spike	P	0 - 30
2445134	Fenuron	3.67	Spike	P	0 - 30
2445134	Fluridone	0.534	Spike	P	0 - 30
2445134	Hydrocodone	2.68	Spike	P	0 - 30
2445134	Ibuprofen	14.9	Spike	P	0 - 30
2445134	Imazapyr	0.247	Spike	P	0 - 30
2445134	Imidacloprid	5.72	Spike	P	0 - 30
2445134	Linuron	10.0	Spike	P	0 - 30
2445134	Mandestrobin	3.44	Spike	P	0 - 30
2445134	MCPP	3.00	Spike	P	0 - 30
2445134	Naproxen	11.3	Spike	P	0 - 30
2445134	Primidone	7.55	Spike	P	0 - 30
2445134	Pyraclostrobin	3.01	Spike	P	0 - 30
2445134	Silvex	1.52	Spike	P	0 - 30
2445134	Thiamethoxam	4.80	Spike	P	0 - 30
2445134	Tolfenpyrad	1.21	Spike	P	0 - 30
2445134	Triclopyr	8.92	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P436799

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445672	Total Alkalinity	1.03	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P437082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
Batch ID: P437082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445187	TDS	5.22	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P436803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445672	Fluoride	0.947	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P436850

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445180	Organic Carbon	0.212	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2445424
Field Sample ID: G4SE0178

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	92.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	66.7	P	30 - 160
EPA 8321B	Diuron-d6	46.5	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	70.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.8	P	30 - 160
EPA 8321B	Primidone-d5	72.4	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2445426
Field Sample ID: G4SE0178

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	95.1	P	20 - 200
EPA 8270E	Simazine-d10	95.8	P	58 - 137
EPA 8270E	Terbufos-d10	110	P	50 - 134
EPA 8270E	Terphenyl-d14	66.9	P	44 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A122179
Included Lab Sample IDs: 2445424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	117	113	P/P	60 - 160
Sucralose	96.2	98.0	P/P	60 - 160

Reference Method: DEP SOP: NU-094-1
Run ID: A122198
Included Lab Sample IDs: 2445408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A122199
Included Lab Sample IDs: 2445408

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A122200
Included Lab Sample IDs: 2445410

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A122256
Included Lab Sample IDs: 2445425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	96.1	95.3	P/P	90 - 110
Iron	97.6	97.3	P/P	90 - 110
Magnesium	98.4	98.6	P/P	90 - 110
Potassium	90.6	92.5	P/P	90 - 110
Sodium	97.0	95.6	P/P	90 - 110
Strontium	100	101	P/P	90 - 110
Tin	101	98.9	P/P	90 - 110
Titanium	100	100	P/P	90 - 110
Vanadium	100	99.7	P/P	90 - 110
Zinc	102	99.7	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A122259
Included Lab Sample IDs: 2445408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.8	95.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A122259

Included Lab Sample IDs: 2445408

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122263

Included Lab Sample IDs: 2445409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.2	98.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A122274

Included Lab Sample IDs: 2445425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	96.8	95.7	P/P	90 - 110
Arsenic	99.6	101	P/P	90 - 110
Barium	99.3	100	P/P	90 - 110
Beryllium	97.9	98.5	P/P	90 - 110
Boron	97.7	95.6	P/P	90 - 110
Cadmium	99.3	97.4	P/P	90 - 110
Chromium	101	96.0	P/P	90 - 110
Cobalt	98.0	98.0	P/P	90 - 110
Copper	97.2	97.3	P/P	90 - 110
Lead	93.3	92.5	P/P	90 - 110
Manganese	101	96.6	P/P	90 - 110
Molybdenum	98.8	98.5	P/P	90 - 110
Nickel	97.9	98.2	P/P	90 - 110
Selenium	102	101	P/P	90 - 110
Silver	97.5	96.7	P/P	90 - 110
Thallium	98.7	97.4	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A122276

Included Lab Sample IDs: 2445409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.0	97.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A122281

Included Lab Sample IDs: 2445424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	134	105	P/P	60 - 160
Endothall	81.7	87.7	P/P	60 - 160
Glufosinate	117	100	P/P	60 - 160
Glyphosate	98.9	97.6	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122287

Included Lab Sample IDs: 2445409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122291

Included Lab Sample IDs: 2445409

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A122297

Included Lab Sample IDs: 2445425

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

Reference Method: EPA 8270E

Run ID: A122298

Included Lab Sample IDs: 2445426

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	91.4		P	80 - 120
Avobenzene	91.9		P	80 - 120
Dechlorane 602	103		P	80 - 120
Dechlorane 603	99.8		P	80 - 120
Dechlorane Plus	100		P	80 - 120
Hexabromobenzene	96.5		P	80 - 120
Octinoxate	92.3		P	80 - 120
Oxybenzone	94.7		P	80 - 120
PBB-153	91.6		P	80 - 120
PBDE-47	91.1		P	80 - 120
PBDE-99	92.0		P	80 - 120
Pentabromotoluene	108		P	80 - 120
Tetradecachloro-m-terphenyl	95.0		P	80 - 120
Tri-o-cresyl Phosphate	95.4		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	101		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	99.6		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	105		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122313

Included Lab Sample IDs: 2445409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	96.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A122342

Included Lab Sample IDs: 2445424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A122342
Included Lab Sample IDs: 2445424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	75.4	74.2	P/P	50 - 150
2,4,5-T	68.7	84.0	P/P	50 - 150
Acetaminophen	115	111	P/P	60 - 160
Acetamiprid	109	112	P/P	50 - 150
Afidopyropen	110	116	P/P	50 - 150
Bentazon	108	103	P/P	50 - 160
Benzovindiflupyr	101	104	P/P	50 - 150
Carbamazepine	108	109	P/P	60 - 150
Clothianidin	104	115	P/P	60 - 150
Dinotefuran	108	103	P/P	50 - 150
Diuron	112	113	P/P	60 - 160
Fenuron	112	112	P/P	60 - 150
Fluridone	111	108	P/P	60 - 160
Hydrocodone	113	120	P/P	60 - 150
Ibuprofen	104	105	P/P	50 - 160
Imazapyr	79.3	77.2	P/P	50 - 150
Imidacloprid	97.5	99.7	P/P	60 - 150
Linuron	93.7	101	P/P	60 - 150
Mandestrobin	108	112	P/P	50 - 150
MCPP	79.3	77.3	P/P	50 - 150
Naproxen	61.5	96.3	P/P	50 - 160
Primidone	98.3	108	P/P	60 - 150
Pyraclostrobin	114	111	P/P	60 - 150
Silvex	76.8	74.9	P/P	50 - 150
Thiamethoxam	108	110	P/P	50 - 150
Tolfenpyrad	119	118	P/P	60 - 150
Triclopyr	64.4	67.1	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A122357
Included Lab Sample IDs: 2445426

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	88.7		P	80 - 120
Alachlor	97.4		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Azoxystrobin	95.5		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	102		P	80 - 120
Caffeine	108		P	80 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	103		P	80 - 120
Chlorfenapyr	92.6		P	80 - 120
Chlorpyrifos Ethyl	92.8		P	80 - 120
Chlorpyrifos Methyl	105		P	80 - 120
Coumaphos	93.6		P	80 - 120
Cyanazine	87.9		P	80 - 120
Cyprodinil	109		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A122357
Included Lab Sample IDs: 2445426

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Demeton	109		P	80 - 120
Diazinon	96.1		P	80 - 120
Difenoconazole	99.3		P	80 - 120
Dimethenamid	105		P	80 - 120
Dimethomorph	96.2		P	80 - 120
Disulfoton	96.5		P	80 - 120
Dithiopyr	108		P	80 - 120
EPTC	97.5		P	80 - 120
Ethion	86.6		P	80 - 120
Ethoprop	82.6		P	80 - 120
Etridiazole	101		P	80 - 120
Fenamiphos	101		P	80 - 120
Fenbuconazole	96.0		P	80 - 120
Fipronil	88.5		P	80 - 120
Fipronil Desulfinyl	112		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	103		P	80 - 120
Fluazifop-P-butyl	98.2		P	80 - 120
Fludioxonil	95.6		P	80 - 120
Flumioxazin	95.5		P	80 - 120
Flutolanil	101		P	80 - 120
Fluxapyroxad	105		P	80 - 120
Fonofos	94.2		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	98.2		P	80 - 120
Iprodione	86.3		P	80 - 120
Loratadine	94.1		P	80 - 120
Malathion	86.4		P	80 - 120
Metaxyl	94.9		P	80 - 120
Metolachlor	100		P	80 - 120
Metribuzin	102		P	80 - 120
Mevinphos	82.6		P	80 - 120
Molinate	85.2		P	80 - 120
Myclobutanil	98.8		P	80 - 120
Naled	102		P	80 - 120
Napropamide	99.1		P	80 - 120
Norflurazon	95.0		P	80 - 120
Oxadiazon	118		P	80 - 120
Oxyfluorfen	107		P	80 - 120
Parathion Ethyl	96.5		P	80 - 120
Parathion Methyl	103		P	80 - 120
Pendimethalin	106		P	80 - 120
Phenytoin	101		P	80 - 120
Phorate	88.3		P	80 - 120
Prodiamine	111		P	80 - 120
Prometon	104		P	80 - 120
Prometryn	103		P	80 - 120
Pronamide	100		P	80 - 120
Propanil	99.2		P	80 - 120
Propargite	100		P	80 - 120
Propiconazole	92.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A122357
Included Lab Sample IDs: 2445426

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraflufen Ethyl	97.4		P	80 - 120
Pyridaben	99.0		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	105		P	80 - 120
Stirophos	93.1		P	80 - 120
Sulfentrazone	112		P	80 - 120
Tebuconazole	103		P	80 - 120
Terbufos	91.7		P	80 - 120
Terbuthylazine	91.3		P	80 - 120
Thiobencarb	107		P	80 - 120
Triadimefon	109		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A122479
Included Lab Sample IDs: 2445408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.5	99.9	P/P	90 - 110
Sulfate	98.3	99.9	P/P	90 - 110

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	101					2.55	
EPA 180.1 Rev. 2.0	Turbidity	104					0.557	
EPA 200.7 Rev. 4.4	Calcium	103	96.6	99.8	99.7			0.0808
	Iron	104	97.5	100	99.7			0.314
	Magnesium	106	99.3	103	102			0.804
	Potassium	87.9	85.0	85.5	85.8			0.430
	Sodium	104	97.4	100	101			0.513
	Strontium	104	96.6	99.1	99.4			0.353
	Tin	98.2	98.3	103	97.3			5.62
	Titanium	98.6	96.9	98.4	99.7			1.32
	Vanadium	98.6	98.4	99.5	99.9			0.379
	Zinc	100	98.5	100	101			0.385
EPA 200.8 Rev. 5.4	Aluminum	98.9	98.1	98.9	98.8			0.0582
	Antimony	96.2	96.7	96.7	97.2			0.494
	Arsenic	100	98.4	99.7	98.9			0.764
	Barium	101	101	100	101			0.765
	Beryllium	97.8	94.3	97.9	96.0			1.96
	Boron	99.4	102	98.9	101			2.44
	Cadmium	96.3	100	97.4	97.7			0.310
	Chromium	99.3	103	100	101			0.491
	Cobalt	99.7	97.6	97.8	97.7			0.0853
	Copper	98.8	97.4	98.4	98.4			0.0292
	Lead	91.9	93.1	92.4	92.2			0.265
	Manganese	99.9	98.9	99.6	99.7			0.114
	Molybdenum	97.0	99.3	97.6	97.6			0.0640
	Nickel	99.7	100	98.8	98.5			0.326
	Selenium	99.5	99.5	98.5	99.1			0.664
	Silver	103	103	103	104			1.02
	Thallium	97.2	99.4	98.5	99.7			1.16
EPA 300.0 Rev. 2.1	Chloride	99.8	100	105			0.435	
	Sulfate	100	100	104			6.33	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2	98.6	97.8				0.717
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	111	110				0.463
EPA 353.2 Rev. 2.0	NO2NO3-N	98.0	95.0	94.5				0.528
EPA 365.1 Rev. 2.0	Total-P	104	105	108				2.46
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	97.2	97.3				0.103
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	86.3	72.5	59.8				19.2
	Acetochlor	96.6	78.9	83.3				5.40
	Alachlor	99.8	145	139				4.14
	Ametryn	106	52.2	53.5				1.39
	Atrazine	89.3						8.56
	Atrazine Desethyl	79.0						0.366
	Avobenzone	116	121	117				3.47
	Azinphos Methyl	93.7	51.4	58.9				13.6
	Azoxystrobin	86.7						10.3
	Bromacil	77.9						12.5
	Butylate	42.7	37.2	40.1				7.69
	Caffeine	88.2	122	119				3.16
	Carbophenothion	90.0	48.0	53.8				11.4
	Carfentrazone Ethyl	97.3	46.8	57.3				20.2
	Chlorfenapyr	65.2	70.6	77.7				9.53
	Chlorpyrifos Ethyl	86.4	78.6	85.2				8.07

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Methyl	83.0	65.5	68.5		4.56
	Coumaphos	76.4	57.8	64.0		10.1
	Cyanazine	113	65.6	46.8		33.4
	Cyprodinil	83.7	75.9	84.3		10.5
	Dechlorane 602	76.1	65.8	58.7		11.3
	Dechlorane 603	90.6	90.2	85.1		5.76
	Dechlorane Plus	85.9	86.5	70.7		20.1
	Demeton	54.6	135	137		1.70
	Diazinon	95.9	81.6	76.6		6.26
	Difenoconazole	99.2	142	144		1.38
	Dimethenamid	74.7	61.5	58.8		4.51
	Dimethomorph	139	243	303		22.1
	Disulfoton	94.6	79.3	76.8		3.17
	Dithiopyr	69.5	22.1	25.3		13.5
	EPTC	38.8	35.4	38.3		7.95
	Ethion	74.4	41.4	35.5		15.1
	Ethoprop	74.0	102	113		9.56
	Etridiazole	41.9	29.7	29.5		0.781
	Fenamiphos	80.7	107	101		5.95
	Fenbuconazole	58.4	65.4	79.6		12.0
	Fipronil	77.3				8.14
	Fipronil Desulfinyl	76.7	48.1	53.2		5.92
	Fipronil Sulfide	65.6	47.4	46.1		0.610
	Fipronil Sulfone	70.8				21.5
	Fluazifop-P-butyl	75.3	54.6	77.6		34.8
	Fludioxonil	68.5				1.23
	Flumioxazin	97.7	112	167		39.5
	Flutolanil	67.1	62.5	71.4		13.3
	Fluxapyroxad	82.7	54.0	44.6		19.1
	Fonofos	88.2	95.8	113		16.5
	Hexabromobenzene	78.5	62.7	61.3		2.36
	Hexazinone	86.4	116	90.8		24.1
	Imazalil	86.1	45.7	47.6		3.95
	Iprodione	80.4				80.2
	Loratadine	112	154	152		0.771
	Malathion	93.1	70.8	77.7		9.27
	Metalaxyl	81.1	53.8	52.2		2.87
	Metolachlor	87.2				35.0
	Metribuzin	87.0				26.5
	Mevinphos	89.4	119	117		2.04
	Molinate	39.0	43.5	44.0		1.20
	Myclobutanil	69.0	61.9	61.0		1.23
	Naled	36.6	67.6	60.9		10.5
	Napropamide	80.0	45.0	39.1		14.1
	Norflurazon	98.3	51.6	41.4		18.3
	Octinoxate	84.7	69.7	69.9		0.353
	Oxadiazon	64.9				19.9
	Oxybenzone	74.7	60.1	60.8		1.15
	Oxyfluorfen	91.1				25.9
	Parathion Ethyl	87.0	69.2	92.6		29.0
	Parathion Methyl	95.4	107	88.4		18.7
	PBB-153	88.0	73.0	66.1		9.91
	PBDE-47	76.9	64.4	60.6		6.14
	PBDE-99	81.4	66.6	59.3		11.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Pendimethalin	87.7	75.8	84.8		11.2
	Pentabromotoluene	74.3	60.7	60.0		1.16
	Phenytoin	115	122	130		6.93
	Phorate	110	215	201		6.84
	Prodiamine	44.1				12.1
	Prometon	108				33.0
	Prometryn	83.6	75.0	73.2		2.45
	Pronamide	99.3	83.7	76.0		9.70
	Propanil	89.8	103	84.6		19.4
	Propargite	68.0	73.7	59.3		21.6
	Propiconazole	69.7				13.6
	Pyraflufen Ethyl	93.3	50.4	52.1		3.33
	Pyridaben	95.8	52.2	56.0		6.92
	Pyriproxyfen	67.6	44.7	45.0		0.578
	Simazine	87.3	91.6	99.2		7.90
	Stiophos	61.9	37.7	45.7		19.2
	Sulfentrazone	59.2				26.4
	Tebuconazole	76.4				17.3
	Terbufos	87.7	136	139		1.99
	Terbutylazine	67.5	66.0	65.8		0.306
	Tetradecachloro-m-terphenyl	100	117	91.3		24.7
	Thiobencarb	72.8	80.7	113		33.1
	Tri-o-cresyl Phosphate	81.6	69.9	69.7		0.213
	Triadimefon	65.3	74.8	73.4		1.88
	Tris(1-chloro-2-propyl) phosphate (TCPP)	73.3	59.9	102		13.7
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	68.8	72.3	76.8		1.82
	Tris(2-chloroethyl) phosphate (TCEP)	62.1	18.4	22.2		8.35
EPA 8321B	2,4-D	65.2	74.4	77.7		4.27
	2,4,5-T	80.5	90.4	86.1		4.88
	Acesulfame K	107	112	111		0.251
	Acetaminophen	88.6	94.8	94.4		0.454
	Acetamiprid	73.6	55.9	56.6		1.14
	Afidopyropen	73.8	64.5	66.7		3.33
	AMPA	123	186	190		2.06
	Bentazon	105	133	135		1.55
	Benzovindiflupyr	73.8	62.1	66.4		6.76
	Carbamazepine	75.9	60.2	62.5		3.63
	Clothianidin	83.4	79.6	81.7		2.70
	Dinotefuran	93.6	78.3	80.2		2.33
	Diuron	68.1	48.2	49.5		2.55
	Endothall	87.3	83.0	78.3		5.81
	Fenuron	88.5	51.4	53.3		3.67
	Fluridone	74.0	59.0	59.4		0.534
	Glufosinate	95.4	89.4	84.6		5.53
	Glyphosate	88.2	75.9	74.8		1.42
	Hydrocodone	90.2	68.0	69.8		2.68
	Ibuprofen	74.8	66.6	77.3		14.9
	Imazapyr	72.6	88.1	88.4		0.247
	Imidacloprid	78.4	97.3	103		5.72
	Linuron	61.4	51.7	57.2		10.0
	Mandestrobin	79.1	75.7	73.1		3.44

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8321B	MCP	77.8	88.5	91.2		
	Naproxen	44.8	50.8	45.4		
	Primidone	78.2	70.4	75.9		
	Pyraclostrobin	69.6	69.7	71.9		
	Silvex	59.8	74.6	75.7		
	Sucralose	102	105	98.2		
	Thiamethoxam	84.0	84.6	88.7		
	Tolfenpyrad	49.3	58.1	58.8		
	Triclopyr	64.8	78.7	72.0		
SM 2320 B-2011	Total Alkalinity	97.1				1.03
SM 2540 C-2015	TDS	93.2				5.22
SM 2540 D-2015	TSS	95.2				
SM 4500-F- C-2011	Fluoride	99.7				0.947
SM 5310 B-2011	Organic Carbon	94.2	96.0	96.3		0.212

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2445408
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2445408
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2445425
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2445425
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2445408
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2445408
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2445409
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2445409
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2445409
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2445409
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2445410
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2445426
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2445426
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2445424
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2445408
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2445425
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2445408
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2445408
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2445408
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2445409

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	10/17/2023			10/17/2023 15:56	Anna M. Plaviak	2445408
EPA 180.1 Rev. 2.0	10/17/2023			10/17/2023 15:10	Khloe J Berg	2445408
EPA 200.7 Rev. 4.4	10/17/2023	10/18/2023 12:45	George D Taylor	10/19/2023 22:31	McKinley C Carter	2445425
EPA 200.8 Rev. 5.4	10/17/2023	10/18/2023 12:45	George D Taylor	10/20/2023 17:02	Conrad Hartmann	2445425
	10/17/2023	10/18/2023 12:45	George D Taylor	10/23/2023 20:53	Conrad Hartmann	2445425
EPA 300.0 Rev. 2.1	10/17/2023			11/01/2023 17:11	James L Waggeberby	2445408
EPA 350.1 Rev. 2.0	10/17/2023			10/20/2023 11:52	Ping Hua	2445409
EPA 351.2 Rev. 2.0	10/17/2023	10/19/2023 15:24	Samantha L Bates	10/23/2023 10:52	Samantha L Bates	2445409
EPA 353.2 Rev. 2.0	10/17/2023			10/23/2023 15:25	Fadila Guebre	2445409
EPA 365.1 Rev. 2.0	10/17/2023	10/18/2023 13:42	Adam P Silver	10/23/2023 12:09	Chandler E Cox	2445409
EPA 365.1 Rev. 2.0 dissolved	10/17/2023			10/17/2023 15:49	Elise M. Gillis	2445410
EPA 8270E	10/17/2023	10/17/2023 11:00	Rasheda Ghaffari	10/20/2023 20:05	Vandana T. Nagar	2445426
	10/17/2023	10/17/2023 11:00	Rasheda Ghaffari	10/22/2023 23:41	Arthur Maknenko	2445426
EPA 8321B	10/17/2023	10/18/2023 09:00	Hoor Shaik	10/21/2023 02:43	Juyoung Kim	2445424
	10/17/2023	10/18/2023 14:00	Tae K Lee	10/19/2023 02:41	Hana Lee	2445424
	10/17/2023	10/18/2023 14:00	Tae K Lee	10/21/2023 15:43	Tae K Lee	2445424
SM 2320 B-2011	10/17/2023			10/20/2023 00:53	Dale L. Simmons	2445408
SM 2340 B-2011	10/17/2023			10/19/2023 22:31	McKinley C Carter	2445425
SM 2540 C-2015	10/17/2023			10/20/2023 16:03	Yijie Li	2445408
SM 2540 D-2015	10/17/2023			10/20/2023 16:03	Yijie Li	2445408
SM 4500-F- C-2011	10/17/2023			10/20/2023 00:53	Dale L. Simmons	2445408
SM 5310 B-2011	10/17/2023			10/20/2023 02:01	Elise M. Gillis	2445409