

Chemical Analysis Report

SW-DIST-2019-10-03-01

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

Event Description: **SCIs**
Request ID: **RQ-2019-09-16-18**
Customer: **SW-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 25-OCT-2019 12:20

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

Case Narrative

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

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

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: ALAFIA R. NORTH PRONG@RIVER RESERVE Collection Date/Time: 10/02/2019 12:20

Field ID: G2SW0090

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124524	EPA 180.1 Rev. 2.0	Turbidity	5.2		NTU	P371847	
	EPA 300.0 Rev. 2.1	Chloride	130		mg Cl/L	P372381	
		Sulfate	76		mg SO4/L	P372385	
	SM 2120 B	Color (true)	47		PCU	P371852	
	SM 2320 B-97	Total Alkalinity	119		mg CaCO3/L	P371996	
	SM 2540 C-97	TDS	486	A	mg/L	P372428	
	SM 2540 D-97	TSS	7	IA	mg/L	P372225	
	SM 4500 F-C-97	Fluoride	1.7		mg F/L	P371998	
2124525	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P372139	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76		mg N/L	P371927	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.24		mg N/L	P372035	
	EPA 365.1 Rev. 2.0	Total-P	2.9		mg P/L	P371918	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P371948	
2124526	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	2.4		mg P/L	P371904	
2124530	EPA 8321B	2,4-D	0.0042	I	ug/L	P371789	
		Acesulfame K**	0.10	U	ug/L	P371943	
		AMPA**	0.45		ug/L	P371943	
		Sucralose**	18		ug/L	P371943	
		Acetaminophen**	0.0080	U	ug/L	P371789	
		Acetamiprid**	0.016		ug/L	P371789	
		Endothall**	0.25	U	ug/L	P371943	
		Glufosinate**	0.10	U	ug/L	P371943	
		Glyphosate**	0.10	U	ug/L	P371943	
		Afidopyropen**	0.0020	UJ	ug/L	P371789	
		Bentazon	0.012		ug/L	P371789	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P371789	
		Carbamazepine**	0.036		ug/L	P371789	
		Clothianidin**	0.0020	U	ug/L	P371789	
		Dinotefuran**	0.0087		ug/L	P371789	
		Diuron	0.0020	I	ug/L	P371789	
		Fenuron	0.016	U	ug/L	P371789	
		Fluridone**	0.0027	I	ug/L	P371789	
		Imazapyr**	0.22		ug/L	P371789	
		Hydrocodone**	0.0020	U	ug/L	P371789	
		Ibuprofen**	0.020	U	ug/L	P371789	
		Imidacloprid	0.011		ug/L	P371789	
		Linuron	0.0040	U	ug/L	P371789	
		Mandestrobin**	0.0020	UJ	ug/L	P371789	
		MCPD	0.0020	U	ug/L	P371789	
		Naproxen**	0.0080	U	ug/L	P371789	
		Primidone**	0.082		ug/L	P371789	
		Pyraclostrobin**	0.0020	U	ug/L	P371789	
		Thiamethoxam**	0.0020	U	ug/L	P371789	

Field ID: G2SW0090

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124530	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P371789	
		Triclopyr**	0.0040	U	ug/L	P371789	
2124531	EPA 200.7 Rev. 4.4	Barium	4.0	I	ug/L	P371975	
		Calcium	67.1		mg/L	P371975	
		Iron	430		ug/L	P371975	
		Magnesium	16.0		mg/L	P371975	
		Potassium	11.1		mg/L	P371975	
		Sodium	69.7		mg/L	P371975	
		Zinc	5.0	U	ug/L	P371975	
	EPA 200.8 Rev. 5.4	Aluminum	275		ug/L	P371975	
		Antimony	0.18	I	ug/L	P371975	
		Arsenic	2.34		ug/L	P371975	
		Boron**	887		ug/L	P371975	
		Cadmium	0.051	I	ug/L	P371975	
		Chromium	0.86	I	ug/L	P371975	
		Copper	0.40	U	ug/L	P371975	
		Lead	0.24	I	ug/L	P371975	
		Nickel	6.1		ug/L	P371975	
		Selenium	0.27	I	ug/L	P371975	
		Silver	0.010	U	ug/L	P371975	
		Thallium	0.10	U	ug/L	P371975	
2124532	EPA 8270E	Acetochlor	0.27	U	ng/L	P371775	
		Alachlor	0.27	U	ng/L	P371775	
		Ametryn	0.64	UJ	ng/L	P371775	MS
		Atrazine	2.5		ng/L	P371775	
		Atrazine Desethyl	1.6	UJ	ng/L	P371775	RPD
		Azinphos Methyl	5.3	U	ng/L	P371775	
		Bromacil	2.3		ng/L	P371775	
		Butylate	0.43	U	ng/L	P371775	
		Chlorpyrifos Ethyl	0.27	U	ng/L	P371775	
		Chlorpyrifos Methyl	0.11	U	ng/L	P371775	
		Cyanazine	3.5	UJ	ng/L	P371775	CCV, RPD
		Demeton	7.5	U	ng/L	P371775	
		Diazinon	0.13	U	ng/L	P371775	
		Dimethenamid**	0.11	U	ng/L	P371775	
		Disulfoton	0.53	U	ng/L	P371775	
		Dithiopyr**	0.11	U	ng/L	P371775	
		EPTC	1.3	U	ng/L	P371775	
		Ethion	0.16	U	ng/L	P371775	
		Ethoprop	0.11	U	ng/L	P371775	
		Fenamiphos	0.53	U	ng/L	P371775	
		Fipronil	0.27	U	ng/L	P371775	
		Fipronil Desulfinyl**	0.15	I	ng/L	P371775	
		Fipronil Sulfide	0.25	I	ng/L	P371775	
		Fipronil Sulfone	0.36	I	ng/L	P371775	

Field ID: G2SW0090

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124532	EPA 8270E	Fonofos	0.21	U	ng/L	P371775	
		Hexazinone	1.5	I	ng/L	P371775	
		Malathion	0.37	U	ng/L	P371775	
		Metaxyl	0.32	U	ng/L	P371775	
		Metolachlor	47		ng/L	P371775	
		Metribuzin	0.80	UJ	ng/L	P371775	RPD
		Mevinphos	0.53	U	ng/L	P371775	
		Molinate	0.32	U	ng/L	P371775	
		Norflurazon	0.53	U	ng/L	P371775	
		Oxadiazon**	0.39	I	ng/L	P371775	
		Parathion Ethyl	0.27	U	ng/L	P371775	
		Parathion Methyl	0.59	U	ng/L	P371775	
		Pendimethalin	1.1	U	ng/L	P371775	
		Phorate	0.27	U	ng/L	P371775	
		Prodiamine**	0.19	UJ	ng/L	P371775	MS, RPD
		Prometon	0.96	U	ng/L	P371775	
		Prometryn	0.21	U	ng/L	P371775	
		Simazine	0.53	U	ng/L	P371775	
		Tebuconazole**	0.96	IJ	ng/L	P371775	RPD
		Terbufos	0.11	U	ng/L	P371775	
		Terbuthylazine	0.45	U	ng/L	P371775	

Ref. Method and Comment:

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

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371847

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371975

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371975

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372381

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372385

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372139

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371927

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372035

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371918

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371904

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

Reference Method: EPA 8270E
Batch ID: P371775

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P371775

Component	Result	Code	Units
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P371789

Component	Result	Code	Units
2,4-D	0.0020	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
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
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
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P371943

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P371943

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

Reference Method: SM 2120 B
Batch ID: P371852

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P371996

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

Reference Method: SM 2540 C-97
Batch ID: P372428

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P372225

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P371998

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P371948

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371975

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	95.6		P	80 - 120
Calcium	105		P	80 - 120
Iron	104		P	80 - 120
Magnesium	105		P	80 - 120
Potassium	101		P	80 - 120
Sodium	101		P	80 - 120
Zinc	94.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371975

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	96.4		P	85 - 115
Antimony	97.3		P	85 - 115
Arsenic	102		P	85 - 115
Boron	93.6		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	93.4		P	85 - 115
Copper	94.2		P	85 - 115
Lead	102		P	85 - 115
Nickel	101		P	85 - 115
Selenium	100		P	85 - 115
Silver	102		P	85 - 115
Thallium	97.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372381

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372385

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372139

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371927

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372035

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371904

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.4		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P371775

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	95.1	100	P/P	69 - 122
Alachlor	91.9	101	P/P	71 - 120
Ametryn	92.6	89.1	P/P	47 - 138
Atrazine	103	95.6	P/P	74 - 124
Atrazine Desethyl	70.4	102	P/P	38 - 138
Azinphos Methyl	107	119	P/P	69 - 154
Bromacil	77.8	82.4	P/P	39 - 121
Butylate	61.1	67.0	P/P	27 - 87.0
Chlorpyrifos Ethyl	96.2	99.4	P/P	69 - 118
Chlorpyrifos Methyl	89.1	98.2	P/P	70 - 120
Cyanazine	103	166	P/P	20 - 250
Demeton	70.9	77.8	P/P	39 - 118
Diazinon	91.6	99.7	P/P	68 - 127
Dimethenamid	96.0	99.9	P/P	66 - 125
Disulfoton	81.7	85.1	P/P	52 - 126
Dithiopyr	97.6	97.6	P/P	67 - 127
EPTC	65.1	69.6	P/P	24 - 88.0
Ethion	112	93.3	P/P	51 - 132
Ethoprop	85.0	91.9	P/P	58 - 117
Fenamiphos	86.4	99.6	P/P	38 - 139
Fipronil	101	107	P/P	61 - 124
Fipronil Desulfinyl	95.4	89.4	P/P	47 - 120
Fipronil Sulfide	101	105	P/P	56 - 119
Fipronil Sulfone	99.9	89.8	P/P	50 - 117
Fonofos	80.3	94.9	P/P	60 - 121
Hexazinone	103	94.6	P/P	55 - 137
Malathion	103	100	P/P	66 - 126
Metalaxyl	78.7	92.9	P/P	33 - 140
Metolachlor	99.3	97.2	P/P	69 - 119
Metribuzin	106	184	P/P	31 - 238
Mevinphos	77.8	91.9	P/P	42 - 113
Molinate	70.9	79.5	P/P	32 - 96.0
Norflurazon	96.1	101	P/P	54 - 123
Oxadiazon	102	94.1	P/P	63 - 128

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P371775

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	94.7	90.4	P/P	72 - 111
Parathion Methyl	93.2	95.1	P/P	74 - 126
Pendimethalin	97.9	92.2	P/P	61 - 131
Phorate	87.5	97.7	P/P	51 - 115
Prodiamine	106	49.8	P/P	38 - 144
Prometon	91.6	87.4	P/P	54 - 119
Prometryn	93.0	86.8	P/P	63 - 120
Simazine	105	101	P/P	75 - 126
Tebuconazole	88.3	64.8	P/P	20 - 119
Terbufos	84.8	95.1	P/P	64 - 116
Terbuthylazine	102	97.2	P/P	73 - 117

Reference Method: EPA 8321B
Batch ID: P371789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	134		P	40 - 160
Acetaminophen	90.3		P	30 - 160
Acetamiprid	102		P	40 - 160
Afidopyropen	92.5		P	40 - 160
Bentazon	106		P	30 - 160
Benzovindiflupyr	99.0		P	40 - 160
Carbamazepine	110		P	40 - 160
Clothianidin	101		P	40 - 160
Dinotefuran	97.1		P	40 - 160
Diuron	108		P	40 - 160
Fenuron	107		P	40 - 160
Fluridone	97.7		P	40 - 160
Hydrocodone	99.7		P	40 - 160
Ibuprofen	95.1		P	30 - 160
Imazapyr	112		P	40 - 160
Imidacloprid	109		P	40 - 160
Linuron	86.4		P	40 - 160
Mandestrobin	96.4		P	40 - 160
MCPP	141		P	40 - 160
Naproxen	80.9		P	40 - 160
Primidone	98.4		P	40 - 160
Pyraclostrobin	88.1		P	30 - 160
Thiamethoxam	108		P	40 - 160
Tolfenpyrad	63.3		P	40 - 160
Triclopyr	121		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P371943

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	111		P	40 - 150
AMPA	114		P	40 - 150
Endothall	96.2		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	92.1		P	40 - 140
Sucralose	86.9		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P371852

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

Reference Method: SM 2320 B-97
Batch ID: P371996

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P371998

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P371948

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: P371975

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124406	Barium	94.8		P	80 - 120
2124406	Calcium	98.7		P	80 - 120
2124406	Iron	103		P	80 - 120
2124406	Magnesium	98.2		P	80 - 120
2124406	Potassium	106		P	80 - 120
2124406	Sodium	102		P	80 - 120
2124406	Zinc	93.2		P	80 - 120
2124775	Barium	98.6	98.5	P/P	80 - 120
2124775	Calcium	106	109	P/P	80 - 120
2124775	Iron	103	107	P/P	80 - 120
2124775	Magnesium	106	109	P/P	80 - 120
2124775	Potassium	106	109	P/P	80 - 120
2124775	Sodium	102	103	P/P	80 - 120
2124775	Zinc	96.9	97.1	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371975

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124406	Aluminum	95.7		P	80 - 120
2124406	Antimony	100		P	80 - 120
2124406	Arsenic	105		P	80 - 120
2124406	Boron	92.5		P	80 - 120
2124406	Cadmium	102		P	80 - 120
2124406	Chromium	90.5		P	80 - 120
2124406	Copper	91.4		P	80 - 120
2124406	Lead	98.3		P	80 - 120
2124406	Nickel	99.5		P	80 - 120
2124406	Selenium	103		P	80 - 120
2124406	Silver	101		P	80 - 120
2124406	Thallium	100		P	80 - 120
2124775	Aluminum	93.9	96.5	P/P	80 - 120
2124775	Antimony	96.6	99.1	P/P	80 - 120
2124775	Arsenic	102	104	P/P	80 - 120
2124775	Boron	91.6	95.3	P/P	80 - 120
2124775	Cadmium	97.2	102	P/P	80 - 120
2124775	Chromium	90.5	93.3	P/P	80 - 120
2124775	Copper	93.1	95.4	P/P	80 - 120
2124775	Lead	98.9	104	P/P	80 - 120
2124775	Nickel	98.0	101	P/P	80 - 120
2124775	Selenium	97.8	101	P/P	80 - 120
2124775	Silver	101	103	P/P	80 - 120
2124775	Thallium	95.2	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372381

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124556	Chloride	99.1		P	90 - 110
2124564	Chloride	97.8		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P372385

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124556	Sulfate	99.7		P	90 - 110
2124564	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P372139

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124538	Ammonia-N	99.2	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P371927

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124495	Kjeldahl Nitrogen	97.3	95.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P372035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124476	NO2NO3-N	99.0	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P371918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124471	Total-P	96.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P371904

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124460	O-Phosphate-P	95.3	97.1	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P371775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124532	Acetochlor	114	104	P/P	63 - 129
2124532	Alachlor	112	101	P/P	65 - 127
2124532	Ametryn	216	217	F/F	40 - 164
2124532	Atrazine	104	100	P/P	66 - 135
2124532	Atrazine Desethyl	103	109	P/P	14 - 157
2124532	Azinphos Methyl	125	108	P/P	49 - 180
2124532	Bromacil	79.2	80.8	P/P	48 - 130
2124532	Butylate	57.7	50.9	P/P	10 - 94.0
2124532	Chlorpyrifos Ethyl	106	92.7	P/P	58 - 123
2124532	Chlorpyrifos Methyl	106	94.9	P/P	58 - 125
2124532	Cyanazine	137	139	P/P	24 - 253
2124532	Demeton	95.0	86.3	P/P	25 - 149
2124532	Diazinon	120	106	P/P	59 - 144
2124532	Dimethenamid	110	101	P/P	46 - 139
2124532	Disulfoton	113	98.8	P/P	54 - 132

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P371775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124532	Dithiopyr	106	94.8	P/P	64 - 130
2124532	EPTC	65.4	58.8	P/P	10 - 92.0
2124532	Ethion	94.1	90.4	P/P	30 - 148
2124532	Ethoprop	109	98.3	P/P	50 - 130
2124532	Fenamiphos	95.3	78.1	P/P	49 - 142
2124532	Fipronil	93.9	94.8	P/P	46 - 140
2124532	Fipronil Desulfinyl	72.7	76.5	P/P	30 - 121
2124532	Fipronil Sulfide	68.4	72.5	P/P	31 - 136
2124532	Fipronil Sulfone	52.7	59.7	P/P	16 - 136
2124532	Fonofos	110	97.9	P/P	55 - 129
2124532	Hexazinone	114	107	P/P	56 - 141
2124532	Malathion	96.8	90.5	P/P	56 - 135
2124532	Metalaxyl	93.9	86.1	P/P	54 - 135
2124532	Metribuzin	191	175	P/P	45 - 254
2124532	Mevinphos	101	93.2	P/P	33 - 131
2124532	Molinate	87.8	79.9	P/P	14 - 98.0
2124532	Norflurazon	70.6	84.7	P/P	34 - 136
2124532	Oxadiazon	99.2	87.2	P/P	67 - 116
2124532	Parathion Ethyl	101	92.7	P/P	66 - 118
2124532	Parathion Methyl	112	105	P/P	64 - 136
2124532	Pendimethalin	110	97.5	P/P	59 - 144
2124532	Phorate	112	102	P/P	42 - 130
2124532	Prodiamine	44.1	39.0	P/F	42 - 148
2124532	Prometon	102	94.9	P/P	59 - 134
2124532	Prometryn	107	93.3	P/P	54 - 135
2124532	Simazine	112	103	P/P	53 - 156
2124532	Tebuconazole	53.4	63.7	P/P	10 - 131
2124532	Terbufos	122	105	P/P	57 - 131
2124532	Terbutylazine	105	98.5	P/P	68 - 125

Reference Method: EPA 8321B
Batch ID: P371789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124032	2,4-D	136	114	P/P	40 - 160
2124032	Acetaminophen	73.6	74.1	P/P	30 - 160
2124032	Acetamiprid	106	103	P/P	40 - 160
2124032	Afidopyropen	88.9	87.6	P/P	40 - 160
2124032	Bentazon	76.5	75.9	P/P	30 - 160
2124032	Benzovindiflupyr	99.7	91.0	P/P	40 - 160
2124032	Carbamazepine	104	98.2	P/P	40 - 160
2124032	Dinotefuran	109	101	P/P	40 - 160
2124032	Diuron	97.1	88.9	P/P	40 - 160
2124032	Fenuron	94.0	84.2	P/P	40 - 160
2124032	Fluridone	91.8	87.5	P/P	40 - 160
2124032	Hydrocodone	106	101	P/P	40 - 160
2124032	Ibuprofen	86.3	78.9	P/P	30 - 160
2124032	Imazapyr	99.3	103	P/P	40 - 160
2124032	Linuron	79.9	73.9	P/P	40 - 160
2124032	Mandestrobin	94.2	85.6	P/P	40 - 160
2124032	MCP	152	133	P/P	40 - 160
2124032	Naproxen	98.9	78.8	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P371789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124032	Primidone	106	96.0	P/P	40 - 160
2124032	Pyraclostrobin	98.3	87.8	P/P	30 - 160
2124032	Tolfenpyrad	63.0	56.5	P/P	40 - 160
2124032	Triclopyr	128	96.6	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P371943

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124583	Acesulfame K	76.1	74.5	P/P	40 - 150
2124583	AMPA	50.1	50.4	P/P	40 - 150
2124583	Endothall	74.0	79.5	P/P	40 - 150
2124583	Glufosinate	71.3	66.8	P/P	40 - 150
2124583	Glyphosate	48.1	49.7	P/P	40 - 140
2124583	Sucralose	88.1	82.9	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P371998

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124542	Fluoride	94.7	94.7	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P371948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124459	Organic Carbon	97.4	98.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124565	Turbidity	4.83	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371975

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124775	Barium	0.117	Spike	P	0 - 20
2124775	Calcium	2.77	Spike	P	0 - 20
2124775	Iron	2.94	Spike	P	0 - 20
2124775	Magnesium	2.42	Spike	P	0 - 20
2124775	Potassium	2.73	Spike	P	0 - 20
2124775	Sodium	0.301	Spike	P	0 - 20
2124775	Zinc	0.130	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371975

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124775	Aluminum	2.60	Spike	P	0 - 20
2124775	Antimony	2.55	Spike	P	0 - 20
2124775	Arsenic	1.94	Spike	P	0 - 20
2124775	Boron	3.69	Spike	P	0 - 20
2124775	Cadmium	4.39	Spike	P	0 - 20
2124775	Chromium	3.08	Spike	P	0 - 20
2124775	Copper	2.50	Spike	P	0 - 20
2124775	Lead	4.54	Spike	P	0 - 20
2124775	Nickel	2.87	Spike	P	0 - 20
2124775	Selenium	3.07	Spike	P	0 - 20
2124775	Silver	1.75	Spike	P	0 - 20
2124775	Thallium	6.07	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124556	Chloride	0.0144	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372385

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124556	Sulfate	0.0936	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124538	Ammonia-N	0.494	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124495	Kjeldahl Nitrogen	0.920	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124476	NO2NO3-N	0.484	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124471	Total-P	2.53	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124460	O-Phosphate-P	1.78	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P371775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124532	Acetochlor	9.59	Spike	P	0 - 30
2124532	Alachlor	9.91	Spike	P	0 - 30
2124532	Ametryn	0.751	Spike	P	0 - 30
2124532	Atrazine	2.33	Spike	P	0 - 30
2124532	Atrazine Desethyl	5.08	Spike	P	0 - 30
2124532	Azinphos Methyl	14.4	Spike	P	0 - 30
2124532	Bromacil	1.51	Spike	P	0 - 30
2124532	Butylate	12.4	Spike	P	0 - 30
2124532	Chlorpyrifos Ethyl	13.3	Spike	P	0 - 30
2124532	Chlorpyrifos Methyl	10.9	Spike	P	0 - 30
2124532	Cyanazine	1.19	Spike	P	0 - 30
2124532	Demeton	9.60	Spike	P	0 - 30
2124532	Diazinon	12.6	Spike	P	0 - 30
2124532	Dimethenamid	8.51	Spike	P	0 - 30
2124532	Disulfoton	13.5	Spike	P	0 - 30
2124532	Dithiopyr	10.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P371775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124532	EPTC	10.6	Spike	P	0 - 30
2124532	Ethion	3.99	Spike	P	0 - 30
2124532	Ethoprop	10.4	Spike	P	0 - 30
2124532	Fenamiphos	19.8	Spike	P	0 - 30
2124532	Fipronil	0.894	Spike	P	0 - 30
2124532	Fipronil Desulfinyl	4.83	Spike	P	0 - 30
2124532	Fipronil Sulfide	4.97	Spike	P	0 - 30
2124532	Fipronil Sulfone	9.60	Spike	P	0 - 30
2124532	Fonofos	11.4	Spike	P	0 - 30
2124532	Hexazinone	5.92	Spike	P	0 - 30
2124532	Malathion	6.66	Spike	P	0 - 30
2124532	Metaxyl	8.66	Spike	P	0 - 30
2124532	Metolachlor	1.41	Spike	P	0 - 30
2124532	Metribuzin	8.52	Spike	P	0 - 30
2124532	Mevinphos	7.96	Spike	P	0 - 30
2124532	Molinate	9.41	Spike	P	0 - 30
2124532	Norflurazon	18.2	Spike	P	0 - 30
2124532	Oxadiazon	11.7	Spike	P	0 - 30
2124532	Parathion Ethyl	8.14	Spike	P	0 - 30
2124532	Parathion Methyl	6.57	Spike	P	0 - 30
2124532	Pendimethalin	12.2	Spike	P	0 - 30
2124532	Phorate	9.09	Spike	P	0 - 30
2124532	Prodiamine	12.4	Spike	P	0 - 30
2124532	Prometon	6.95	Spike	P	0 - 30
2124532	Prometryn	13.4	Spike	P	0 - 30
2124532	Simazine	8.03	Spike	P	0 - 30
2124532	Tebuconazole	15.6	Spike	P	0 - 30
2124532	Terbufos	14.6	Spike	P	0 - 30
2124532	Terbutylazine	6.18	Spike	P	0 - 30
LFB	Acetochlor	5.02	LCS	P	0 - 30
LFB	Alachlor	9.20	LCS	P	0 - 30
LFB	Ametryn	3.88	LCS	P	0 - 30
LFB	Atrazine	6.98	LCS	P	0 - 30
LFB	Atrazine Desethyl	36.2	LCS	F	0 - 30
LFB	Azinphos Methyl	10.1	LCS	P	0 - 30
LFB	Bromacil	5.73	LCS	P	0 - 30
LFB	Butylate	9.29	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.30	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	9.73	LCS	P	0 - 30
LFB	Cyanazine	46.7	LCS	F	0 - 30
LFB	Demeton	9.41	LCS	P	0 - 30
LFB	Diazinon	8.46	LCS	P	0 - 30
LFB	Dimethenamid	4.06	LCS	P	0 - 30
LFB	Disulfoton	3.99	LCS	P	0 - 30
LFB	Dithiopyr	0.00384	LCS	P	0 - 30
LFB	EPTC	6.57	LCS	P	0 - 30
LFB	Ethion	18.2	LCS	P	0 - 30
LFB	Ethoprop	7.81	LCS	P	0 - 30
LFB	Fenamiphos	14.3	LCS	P	0 - 30
LFB	Fipronil	5.66	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	6.47	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
 Batch ID: P371775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	3.73	LCS	P	0 - 30
LFB	Fipronil Sulfone	10.7	LCS	P	0 - 30
LFB	Fonofos	16.6	LCS	P	0 - 30
LFB	Hexazinone	8.31	LCS	P	0 - 30
LFB	Malathion	2.91	LCS	P	0 - 30
LFB	Metalaxyl	16.5	LCS	P	0 - 30
LFB	Metolachlor	2.19	LCS	P	0 - 30
LFB	Metribuzin	53.7	LCS	F	0 - 30
LFB	Mevinphos	16.6	LCS	P	0 - 30
LFB	Molinate	11.4	LCS	P	0 - 30
LFB	Norflurazon	4.89	LCS	P	0 - 30
LFB	Oxadiazon	8.18	LCS	P	0 - 30
LFB	Parathion Ethyl	4.59	LCS	P	0 - 30
LFB	Parathion Methyl	2.01	LCS	P	0 - 30
LFB	Pendimethalin	6.05	LCS	P	0 - 30
LFB	Phorate	11.0	LCS	P	0 - 30
LFB	Prodiamine	71.8	LCS	F	0 - 30
LFB	Prometon	4.65	LCS	P	0 - 30
LFB	Prometryn	6.86	LCS	P	0 - 30
LFB	Simazine	3.49	LCS	P	0 - 30
LFB	Tebuconazole	30.7	LCS	F	0 - 30
LFB	Terbufos	11.5	LCS	P	0 - 30
LFB	Terbuthylazine	4.77	LCS	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P371789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124032	2,4-D	16.3	Spike	P	0 - 30
2124032	Acetaminophen	0.701	Spike	P	0 - 30
2124032	Acetamiprid	2.94	Spike	P	0 - 30
2124032	Afidopyropen	1.54	Spike	P	0 - 30
2124032	Bentazon	0.779	Spike	P	0 - 30
2124032	Benzovindiflupyr	9.15	Spike	P	0 - 30
2124032	Carbamazepine	6.11	Spike	P	0 - 30
2124032	Clothianidin	16.6	Spike	P	0 - 30
2124032	Dinotefuran	7.02	Spike	P	0 - 30
2124032	Diuron	8.53	Spike	P	0 - 30
2124032	Fenuron	11.0	Spike	P	0 - 30
2124032	Fluridone	4.74	Spike	P	0 - 30
2124032	Hydrocodone	4.79	Spike	P	0 - 30
2124032	Ibuprofen	9.00	Spike	P	0 - 30
2124032	Imazapyr	2.73	Spike	P	0 - 30
2124032	Imidacloprid	14.8	Spike	P	0 - 30
2124032	Linuron	7.87	Spike	P	0 - 30
2124032	Mandestrobin	9.51	Spike	P	0 - 30
2124032	MCP	13.1	Spike	P	0 - 30
2124032	Naproxen	22.6	Spike	P	0 - 30
2124032	Primidone	9.67	Spike	P	0 - 30
2124032	Pyraclostrobin	11.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P371789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124032	Thiamethoxam	15.0	Spike	P	0 - 30
2124032	Tolfenpyrad	10.8	Spike	P	0 - 30
2124032	Triclopyr	27.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P371943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124583	Acesulfame K	2.15	Spike	P	0 - 30
2124583	AMPA	0.256	Spike	P	0 - 30
2124583	Endothall	7.10	Spike	P	0 - 30
2124583	Glufosinate	6.59	Spike	P	0 - 30
2124583	Glyphosate	1.68	Spike	P	0 - 30
2124583	Sucralose	5.37	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P371852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124493	Color (true)	0.930	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P371996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124542	Total Alkalinity	0.583	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P372428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124524	TDS	0.617	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P371998

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124542	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P371948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124459	Organic Carbon	0.944	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2124530
Field Sample ID: G2SW0090

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	121	P	30 - 160
EPA 8321B	Acetaminophen-d4	59.7	P	30 - 160
EPA 8321B	Bentazon-d7	57.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	91.0	P	30 - 160
EPA 8321B	Diuron-d6	85.4	P	30 - 160
EPA 8321B	Endothall-d6	99.8	P	30 - 160
EPA 8321B	Endothall-d6	99.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.6	P	30 - 160
EPA 8321B	Primidone-d5	92.4	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Lab Sample ID: 2124532
Field Sample ID: G2SW0090

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	105	P	68 - 130
EPA 8270E	Terbufos-d10	111	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94709

Included Lab Sample IDs: 2124524

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

Reference Method: SM 2120 B

Run ID: A94710

Included Lab Sample IDs: 2124524

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94721

Included Lab Sample IDs: 2124526

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.5	98.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94727

Included Lab Sample IDs: 2124525

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

Reference Method: SM 5310 B-00

Run ID: A94743

Included Lab Sample IDs: 2124525

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94752

Included Lab Sample IDs: 2124530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	93.8	P/P	50 - 150
Acetaminophen	98.8	102	P/P	60 - 160
Acetamiprid	110	106	P/P	50 - 150
Afidopyropen	93.7	96.7	P/P	50 - 150
Bentazon	106	106	P/P	50 - 160
Benzovindiflupyr	112	110	P/P	50 - 150
Carbamazepine	108	106	P/P	60 - 150
Clothianidin	99.7	112	P/P	60 - 150
Dinotefuran	103	99.1	P/P	50 - 150
Diuron	125	114	P/P	60 - 150
Fenuron	97.6	105	P/P	60 - 150
Fluridone	121	114	P/P	60 - 160
Hydrocodone	106	98.3	P/P	60 - 150
Ibuprofen	101	102	P/P	50 - 160
Imazapyr	90.1	96.9	P/P	50 - 150
Imidacloprid	106	97.1	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
 Run ID: A94752
 Included Lab Sample IDs: 2124530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	113	103	P/P	60 - 150
Mandestrobin	107	100	P/P	50 - 150
MCPD	98.0	93.6	P/P	50 - 150
Naproxen	101	96.0	P/P	50 - 160
Primidone	97.3	104	P/P	60 - 150
Pyraclostrobin	111	118	P/P	60 - 150
Thiamethoxam	87.6	102	P/P	50 - 150
Tolfenpyrad	107	108	P/P	60 - 150
Triclopyr	105	106	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
 Run ID: A94753
 Included Lab Sample IDs: 2124525

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.4	101	P/P	90 - 110

Reference Method: SM 2320 B-97
 Run ID: A94757
 Included Lab Sample IDs: 2124524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
 Run ID: A94757
 Included Lab Sample IDs: 2124524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Run ID: A94782
 Included Lab Sample IDs: 2124525

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	103	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
 Run ID: A94806
 Included Lab Sample IDs: 2124531

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	98.0	101	P/P	90 - 110
Calcium	97.6	98.2	P/P	90 - 110
Iron	99.1	98.2	P/P	90 - 110
Magnesium	97.9	97.7	P/P	90 - 110
Potassium	98.4	97.2	P/P	90 - 110
Sodium	96.3	95.5	P/P	90 - 110
Zinc	97.5	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94808

Included Lab Sample IDs: 2124525

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

Reference Method: EPA 8321B

Run ID: A94823

Included Lab Sample IDs: 2124530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	116	113	P/P	60 - 160
Glufosinate	101	102	P/P	60 - 160
Glyphosate	105	102	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A94824

Included Lab Sample IDs: 2124530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	105	106	P/P	60 - 160
Endothall	91.7	94.5	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94842

Included Lab Sample IDs: 2124531

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	108	109	P/P	90 - 110
Antimony	97.5	99.0	P/P	90 - 110
Arsenic	105	107	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Chromium	95.5	99.0	P/P	90 - 110
Lead	100	101	P/P	90 - 110
Nickel	103	105	P/P	90 - 110
Selenium	103	105	P/P	90 - 110
Silver	99.9	101	P/P	90 - 110
Thallium	93.8	91.4	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A94920

Included Lab Sample IDs: 2124524

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94933

Included Lab Sample IDs: 2124531

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	97.0	94.9	P/P	90 - 110
Copper	98.2	98.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A94940

Included Lab Sample IDs: 2124530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	106	102	P/P	60 - 160

Reference Method: EPA 8270E

Run ID: A95111

Included Lab Sample IDs: 2124532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	107		P	80 - 120
Ametryn	107		P	80 - 120
Atrazine	103		P	80 - 120
Atrazine Desethyl	88.6		P	80 - 120
Azinphos Methyl	87.6		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	101		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	99.8		P	80 - 120
Cyanazine	71.0*		F	80 - 120
Demeton	98.4		P	80 - 120
Diazinon	104		P	80 - 120
Dimethenamid	105		P	80 - 120
Disulfoton	97.1		P	80 - 120
Dithiopyr	106		P	80 - 120
EPTC	102		P	80 - 120
Ethion	98.9		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	102		P	80 - 120
Fipronil	104		P	80 - 120
Fipronil Desulfinyl	105		P	80 - 120
Fipronil Sulfide	100		P	80 - 120
Fipronil Sulfone	99.7		P	80 - 120
Fonofos	98.6		P	80 - 120
Hexazinone	102		P	80 - 120
Malathion	97.2		P	80 - 120
Metaxyl	104		P	80 - 120
Metolachlor	110		P	80 - 120
Metribuzin	91.3		P	80 - 120
Mevinphos	103		P	80 - 120
Molinate	102		P	80 - 120
Norflurazon	98.7		P	80 - 120
Oxadiazon	107		P	80 - 120
Parathion Ethyl	94.7		P	80 - 120
Parathion Methyl	97.7		P	80 - 120
Pendimethalin	98.2		P	80 - 120
Phorate	96.2		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	109		P	80 - 120
Prometryn	105		P	80 - 120
Simazine	97.2		P	80 - 120
Tebuconazole	104		P	80 - 120
Terbufos	96.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A95111

Included Lab Sample IDs: 2124532

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

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery			MS % Recovery			LCS	Precision	MS
									SMP	
EPA 180.1 Rev. 2.0	Turbidity								4.83	
EPA 200.7 Rev. 4.4	Barium	95.6			94.8	98.6	98.5			0.117
	Calcium	105			98.7	106	109			2.77
	Iron	104			103	103	107			2.94
	Magnesium	105			98.2	106	109			2.42
	Potassium	101			106	106	109			2.73
	Sodium	101			102	102	103			0.301
	Zinc	94.3			93.2	96.9	97.1			0.130
EPA 200.8 Rev. 5.4	Aluminum	96.4			95.7	93.9	96.5			2.60
	Antimony	97.3			100	96.6	99.1			2.55
	Arsenic	102			105	102	104			1.94
	Boron	93.6			92.5	91.6	95.3			3.69
	Cadmium	101			102	97.2	102			4.39
	Chromium	93.4			90.5	90.5	93.3			3.08
	Copper	94.2			91.4	93.1	95.4			2.50
	Lead	102			98.3	98.9	104			4.54
	Nickel	101			99.5	98.0	101			2.87
	Selenium	100			103	97.8	101			3.07
	Silver	102			101	101	103			1.75
	Thallium	97.0			100	95.2	101			6.07
EPA 300.0 Rev. 2.1	Chloride	99.9			99.1	97.8			0.0144	
	Sulfate	100			99.7	100			0.0936	
EPA 350.1 Rev. 2.0	Ammonia-N	97.1			99.2	99.8				0.494
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.6			97.3	95.8				0.920
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5			99.0	99.5				0.484
EPA 365.1 Rev. 2.0	Total-P	97.5			96.0	98.5				2.53
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.4			95.3	97.1				1.78
EPA 8270E	Acetochlor	95.1	100		114	104		5.02		9.59
	Alachlor	101	91.9		112	101		9.20		9.91
	Ametryn	89.1	92.6		216	217		3.88		0.751
	Atrazine	95.6	103		104	100		6.98		2.33
	Atrazine Desethyl	102	70.4		103	109		36.2		5.08
	Azinphos Methyl	119	107		125	108		10.1		14.4
	Bromacil	82.4	77.8		79.2	80.8		5.73		1.51
	Butylate	67.0	61.1		57.7	50.9		9.29		12.4
	Chlorpyrifos Ethyl	99.4	96.2		106	92.7		3.30		13.3
	Chlorpyrifos Methyl	89.1	98.2		106	94.9		9.73		10.9
	Cyanazine	103	166		137	139		46.7		1.19
	Demeton	70.9	77.8		95.0	86.3		9.41		9.60
	Diazinon	91.6	99.7		120	106		8.46		12.6
	Dimethenamid	96.0	99.9		110	101		4.06		8.51
	Disulfoton	81.7	85.1		113	98.8		3.99		13.5
	Dithiopyr	97.6	97.6		106	94.8		0.0038		10.8
	EPTC	69.6	65.1		65.4	58.8		6.57		10.6
	Ethion	93.3	112		94.1	90.4		18.2		3.99
	Ethoprop	91.9	85.0		109	98.3		7.81		10.4
	Fenamiphos	99.6	86.4		95.3	78.1		14.3		19.8
	Fipronil	107	101		93.9	94.8		5.66		0.894
	Fipronil Desulfinyl	89.4	95.4		72.7	76.5		6.47		4.83
	Fipronil Sulfide	105	101		68.4	72.5		3.73		4.97
	Fipronil Sulfone	89.8	99.9		52.7	59.7		10.7		9.60
	Fonofos	94.9	80.3		110	97.9		16.6		11.4
	Hexazinone	94.6	103		114	107		8.31		5.92
	Malathion	100	103		96.8	90.5		2.91		6.66

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Metalaxyl	92.9	78.7	93.9	86.1	16.5	8.66
	Metolachlor	97.2	99.3			2.19	1.41
	Metribuzin	184	106	191	175	53.7	8.52
	Mevinphos	91.9	77.8	101	93.2	16.6	7.96
	Molinate	79.5	70.9	87.8	79.9	11.4	9.41
	Norflurazon	101	96.1	70.6	84.7	4.89	18.2
	Oxadiazon	94.1	102	99.2	87.2	8.18	11.7
	Parathion Ethyl	90.4	94.7	101	92.7	4.59	8.14
	Parathion Methyl	95.1	93.2	112	105	2.01	6.57
	Pendimethalin	92.2	97.9	110	97.5	6.05	12.2
	Phorate	97.7	87.5	112	102	11.0	9.09
	Prodiamine	49.8	106	44.1	39.0	71.8	12.4
	Prometon	87.4	91.6	102	94.9	4.65	6.95
	Prometryn	86.8	93.0	107	93.3	6.86	13.4
	Simazine	101	105	112	103	3.49	8.03
	Tebuconazole	64.8	88.3	53.4	63.7	30.7	15.6
	Terbufos	95.1	84.8	122	105	11.5	14.6
	Terbuthylazine	97.2	102	105	98.5	4.77	6.18
EPA 8321B	2,4-D	134		136	114		16.3
	Acesulfame K	111		76.1	74.5		2.15
	Acetaminophen	90.3		73.6	74.1		0.701
	Acetamiprid	102		106	103		2.94
	Afidopyropen	92.5		88.9	87.6		1.54
	AMPA	114		50.1	50.4		0.256
	Bentazon	106		76.5	75.9		0.779
	Benzovindiflupyr	99.0		99.7	91.0		9.15
	Carbamazepine	110		104	98.2		6.11
	Clothianidin	101					16.6
	Dinotefuran	97.1		109	101		7.02
	Diuron	108		97.1	88.9		8.53
	Endothall	96.2		74.0	79.5		7.10
	Fenuron	107		94.0	84.2		11.0
	Fluridone	97.7		91.8	87.5		4.74
	Glufosinate	101		71.3	66.8		6.59
	Glyphosate	92.1		48.1	49.7		1.68
	Hydrocodone	99.7		106	101		4.79
	Ibuprofen	95.1		86.3	78.9		9.00
	Imazapyr	112		99.3	103		2.73
	Imidacloprid	109					14.8
	Linuron	86.4		79.9	73.9		7.87
	Mandestrobin	96.4		94.2	85.6		9.51
	MCPP	141		152	133		13.1
	Naproxen	80.9		98.9	78.8		22.6
	Primidone	98.4		106	96.0		9.67
	Pyraclostrobin	88.1		98.3	87.8		11.3
	Sucralose	86.9		88.1	82.9		5.37
	Thiamethoxam	108					15.0
	Tolfenpyrad	63.3		63.0	56.5		10.8
	Triclopyr	121		128	96.6		27.9
SM 2120 B	Color (true)	101				0.930	
SM 2320 B-97	Total Alkalinity	103				0.583	
SM 2540 C-97	TDS					0.617	
SM 4500 F-C-97	Fluoride	96.2		94.7	94.7		0.0
SM 5310 B-00	Organic Carbon	101		97.4	98.5		0.944

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2124524
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2124531
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2124531
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2124524
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2124524
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2124525
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2124525
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2124525
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2124525
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2124526
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2124532
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2124530
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2124530
SM 2120 B / E31780	True Color measured at 450 nm	2124524
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2124524
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2124524
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2124524
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2124524
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2124525

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	10/03/2019			10/03/2019 16:10	Rosalyn Ballman	2124524
EPA 200.7 Rev. 4.4	10/03/2019	10/07/2019 12:00	Elliott D. Healy	10/08/2019 12:39	Alexander Thompson	2124531
EPA 200.8 Rev. 5.4	10/03/2019	10/07/2019 12:00	Elliott D. Healy	10/09/2019 21:27	Robert K Palmer	2124531
	10/03/2019	10/07/2019 12:00	Elliott D. Healy	10/14/2019 21:09	Robert K Palmer	2124531
	10/03/2019	10/07/2019 12:00	Elliott D. Healy	10/14/2019 22:52	Robert K Palmer	2124531
EPA 300.0 Rev. 2.1	10/03/2019			10/12/2019 02:36	Julia Storbeck	2124524
EPA 350.1 Rev. 2.0	10/03/2019			10/08/2019 13:15	Ping Hua	2124525
EPA 351.2 Rev. 2.0	10/03/2019	10/04/2019 14:15	Jhamieka S. Greenwood	10/07/2019 14:55	Virginia P. Brown	2124525
EPA 353.2 Rev. 2.0	10/03/2019			10/04/2019 11:07	Beverly Y. Sanders	2124525
EPA 365.1 Rev. 2.0	10/03/2019	10/04/2019 14:00	Vijayalakshmi Reddy	10/07/2019 12:17	Lipi Saha	2124525
EPA 365.1 Rev. 2.0 dissolved	10/03/2019			10/03/2019 16:36	Samantha Davila	2124526
EPA 8270E	10/03/2019	10/04/2019 09:00	Fe-Val Siddell	10/09/2019 19:33	Vandana T. Nagar	2124532
EPA 8321B	10/03/2019	10/04/2019 09:00	Hoor Shaik	10/05/2019 11:02	Juyoung Kim	2124530
	10/03/2019	10/07/2019 12:00	Rebecca Ware	10/07/2019 15:29	Rebecca Ware	2124530
	10/03/2019	10/07/2019 12:00	Rebecca Ware	10/08/2019 15:02	Rebecca Ware	2124530
	10/03/2019	10/07/2019 12:00	Rebecca Ware	10/14/2019 12:20	Rebecca Ware	2124530
SM 2120 B	10/03/2019			10/03/2019 16:49	Madeline Funaro	2124524
SM 2320 B-97	10/03/2019			10/05/2019 08:47	Dale L. Simmons	2124524
SM 2540 C-97	10/03/2019			10/04/2019 20:17	Rosalyn Ballman	2124524
SM 2540 D-97	10/03/2019			10/04/2019 20:17	Rosalyn Ballman	2124524
SM 4500 F-C-97	10/03/2019			10/05/2019 08:47	Dale L. Simmons	2124524
SM 5310 B-00	10/03/2019			10/05/2019 02:28	Madeline Funaro	2124525