Chemical Analysis Report

SW-DIST-2019-03-13-01

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

Event Description: **SCIs, Carlton & Hurrah**
Request ID: **RQ-2019-03-11-21**
Customer: **SW-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 04-APR-2019 11:35

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: Hurrah Creek @ Alafia River SP **Collection Date/Time: 03/12/2019 13:00**

Field ID: G2SW0098 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2069257	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P360386	
	EPA 300.0 Rev. 2.1	Chloride	11	A	mg Cl/L	P360813	
		Sulfate	58	A	mg SO4/L	P360815	
	SM 2120 B	Color (true)	53	A	PCU	P360405	
	SM 2320 B-97	Total Alkalinity	152		mg CaCO3/L	P360896	
	SM 2540 C-97	TDS	276	A	mg/L	P360930	
	SM 2540 D-97	TSS	2	UA	mg/L	P360832	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P360903	
2069259	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P360578	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P360709	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P360693	
	EPA 365.1 Rev. 2.0	Total-P	0.38		mg P/L	P360601	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P360753	
2069261	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.33		mg P/L	P360379	
2069271	EPA 8321B	2,4-D	0.0020	U	ug/L	P360341	
		Acesulfame K**	0.10	U	ug/L	P360352	MS
		AMPA**	0.22	I	ug/L	P360352	
		Acetaminophen**	0.0080	U	ug/L	P360341	
		Endothall**	0.25	U	ug/L	P360352	
		Glufosinate**	0.10	U	ug/L	P360352	
		Bentazon	8.0E-04	U	ug/L	P360341	
		Glyphosate**	0.16	I	ug/L	P360352	
		Carbamazepine**	8.0E-04	U	ug/L	P360341	
		Sucralose**	0.010	U	ug/L	P360352	
		Diuron	0.0020	U	ug/L	P360341	
		Fenuron	0.016	U	ug/L	P360341	
		Fluridone**	8.0E-04	U	ug/L	P360341	
		Imazapyr**	0.056		ug/L	P360341	
		Hydrocodone**	0.0020	U	ug/L	P360341	
		Ibuprofen**	0.020	U	ug/L	P360341	
		Imidacloprid	0.014		ug/L	P360341	MS
		Linuron	0.0040	U	ug/L	P360341	
		MCPP	0.0020	U	ug/L	P360341	MS
		Naproxen**	0.0080	U	ug/L	P360341	
		Primidone**	0.0040	U	ug/L	P360341	
		Pyraclostrobin**	0.0020	U	ug/L	P360341	
		Triclopyr**	0.0040	U	ug/L	P360341	
2069273	EPA 200.7 Rev. 4.4	Barium	5.0		ug/L	P360652	
		Calcium	37.6		mg/L	P360652	
		Iron	96	I	ug/L	P360652	
		Magnesium	18.9		mg/L	P360652	
		Potassium	1.8		mg/L	P360652	
		Sodium	31.9		mg/L	P360652	

Field ID: G2SW0098 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2069273	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P360652	
	EPA 200.8 Rev. 5.4	Aluminum	43		ug/L	P360652	
		Antimony	0.51		ug/L	P360652	
		Arsenic	4.27		ug/L	P360652	
		Boron**	22.8		ug/L	P360652	
		Cadmium	0.034	I	ug/L	P360652	
		Chromium	0.75	I	ug/L	P360652	
		Copper	0.40	U	ug/L	P360652	
		Lead	0.20	U	ug/L	P360652	
		Nickel	0.50	U	ug/L	P360652	
		Selenium	0.80	I	ug/L	P360652	
		Silver	0.010	U	ug/L	P360652	
		Thallium	0.10	U	ug/L	P360652	
2069275	EPA 8270D	Acetochlor	0.26	U	ng/L	P360553	
		Alachlor	0.26	U	ng/L	P360553	
		Ametryn	0.62	U	ng/L	P360553	
		Atrazine	2.7		ng/L	P360553	
		Atrazine Desethyl	1.5	U	ng/L	P360553	
		Azinphos Methyl	5.2	U	ng/L	P360553	
		Bromacil	29		ng/L	P360553	
		Butylate	0.41	U	ng/L	P360553	RPD
		Chlorpyrifos Ethyl	0.26	U	ng/L	P360553	
		Chlorpyrifos Methyl	0.10	U	ng/L	P360553	
		Cyanazine	3.4	U	ng/L	P360553	
		Demeton	7.2	U	ng/L	P360553	
		Diazinon	0.13	U	ng/L	P360553	
		Dimethenamid**	0.10	U	ng/L	P360553	
		Disulfoton	0.52	U	ng/L	P360553	
		Dithiopyr**	0.10	U	ng/L	P360553	
		EPTC	1.3	U	ng/L	P360553	RPD
		Ethion	0.15	U	ng/L	P360553	
		Ethoprop	0.10	U	ng/L	P360553	
		Fenamiphos	0.52	U	ng/L	P360553	
		Fipronil	0.26	U	ng/L	P360553	
		Fipronil Desulfinyl**	0.13	U	ng/L	P360553	
		Fipronil Sulfide	0.15	U	ng/L	P360553	
		Fipronil Sulfone	0.15	U	ng/L	P360553	
		Fonofos	0.21	U	ng/L	P360553	
		Hexazinone	0.52	U	ng/L	P360553	
		Malathion	0.36	U	ng/L	P360553	
		Metalaxyl	0.89	I	ng/L	P360553	
		Metolachlor	0.92	I	ng/L	P360553	
		Metribuzin	0.77	U	ng/L	P360553	
		Mevinphos	0.52	U	ng/L	P360553	
		Molinate	0.31	U	ng/L	P360553	

Field ID: G2SW0098 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2069275	EPA 8270D	Norflurazon	39		ng/L	P360553	
		Oxadiazon**	0.10	U	ng/L	P360553	
		Parathion Ethyl	0.26	U	ng/L	P360553	
		Parathion Methyl	0.57	U	ng/L	P360553	
		Pendimethalin	1.0	U	ng/L	P360553	
		Phorate	0.26	U	ng/L	P360553	
		Prodiamine**	0.18	UJ	ng/L	P360553	LCS
		Prometon	0.93	U	ng/L	P360553	
		Prometryn	0.21	U	ng/L	P360553	
		Simazine	0.52	U	ng/L	P360553	
		Tebuconazole**	0.52	UJ	ng/L	P360553	RPD
		Terbufos	0.10	U	ng/L	P360553	
		Terbuthylazine	0.44	U	ng/L	P360553	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270D: Ms accuracies for atrazine, metalaxyl, oxidiazon, fipronil sulfide, fipronil sulfone and fipronil not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: Rice Creek@Oak Forest Dr **Collection Date/Time: 03/12/2019 15:15**

Field ID: G2SW0096 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2069258	EPA 180.1 Rev. 2.0	Turbidity	5.4		NTU	P360386	
	EPA 300.0 Rev. 2.1	Chloride	28		mg Cl/L	P360813	
		Sulfate	25		mg SO4/L	P360815	
	SM 2120 B	Color (true)	120		PCU	P360405	
	SM 2320 B-97	Total Alkalinity	30		mg CaCO3/L	P360896	
	SM 2540 C-97	TDS	158	A	mg/L	P360931	
	SM 2540 D-97	TSS	8	IA	mg/L	P360833	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P360903	
2069260	EPA 350.1 Rev. 2.0	Ammonia-N	0.040		mg N/L	P360578	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P360541	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.34		mg N/L	P360693	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P360601	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P360753	
2069262	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.067		mg P/L	P360379	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P360386

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P360652

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: P360652

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: P360813

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360815

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360578

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: P360541

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360709

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360693

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360601

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360379

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

Reference Method: EPA 8270D
Batch ID: P360553

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P360553

Component	Result	Code	Units
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P360341

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P360352

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P360352

Component	Result	Code	Units
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: P360405

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P360896

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

Reference Method: SM 2540 C-97
Batch ID: P360930

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P360931

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P360832

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P360833

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P360903

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P360753

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: P360652

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	101		P	85 - 115
Calcium	103		P	85 - 115
Iron	108		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	105		P	85 - 115
Sodium	100		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P360652

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	96.8		P	85 - 115
Antimony	98.6		P	85 - 115
Arsenic	102		P	85 - 115
Boron	94.4		P	85 - 115
Cadmium	99.8		P	85 - 115
Chromium	91.9		P	85 - 115
Copper	98.1		P	85 - 115
Lead	98.3		P	85 - 115
Nickel	98.1		P	85 - 115
Selenium	99.0		P	85 - 115
Silver	110		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360813

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360815

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360578

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360541

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360709

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360693

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360601

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360379

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

Reference Method: EPA 8270D
Batch ID: P360553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	75.7	93.2	P/P	71 - 121
Alachlor	74.5	92.1	P/P	72 - 119
Ametryn	73.9	90.3	P/P	47 - 144
Atrazine	83.0	108	P/P	75 - 123
Atrazine Desethyl	84.0	101	P/P	45 - 133
Azinphos Methyl	104	125	P/P	66 - 165
Bromacil	72.8	95.9	P/P	43 - 123
Butylate	62.2	72.2	P/P	27 - 83.0
Chlorpyrifos Ethyl	86.3	98.7	P/P	70 - 117
Chlorpyrifos Methyl	85.5	100	P/P	71 - 120
Cyanazine	210	237	P/P	34 - 264
Demeton	69.6	73.1	P/P	41 - 122
Diazinon	79.1	99.9	P/P	70 - 127
Dimethenamid	72.6	88.1	P/P	60 - 130
Disulfoton	85.5	102	P/P	56 - 127
Dithiopyr	75.9	96.4	P/P	60 - 130
EPTC	63.7	73.5	P/P	24 - 84.0
Ethion	65.1	79.3	P/P	53 - 132
Ethoprop	87.0	95.9	P/P	57 - 117
Fenamiphos	81.5	97.6	P/P	55 - 136
Fipronil	70.5	91.3	P/P	64 - 126
Fipronil Desulfinyl	68.4	87.9	P/P	60 - 130
Fipronil Sulfide	73.9	86.1	P/P	57 - 120
Fipronil Sulfone	68.0	84.1	P/P	52 - 115
Fonofos	86.4	104	P/P	61 - 121
Hexazinone	83.5	104	P/P	62 - 131
Malathion	79.8	96.4	P/P	67 - 126
Metalaxyl	76.9	95.0	P/P	54 - 128

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P360553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metolachlor	75.2	92.0	P/P	71 - 118
Metribuzin	192	205	P/P	42 - 221
Mevinphos	75.0	96.7	P/P	45 - 114
Molinate	70.1	80.2	P/P	33 - 91.0
Norflurazon	78.1	97.0	P/P	60 - 123
Oxadiazon	77.0	95.8	P/P	60 - 130
Parathion Ethyl	81.1	94.8	P/P	73 - 111
Parathion Methyl	85.5	101	P/P	74 - 126
Pendimethalin	88.9	97.7	P/P	63 - 131
Phorate	80.3	93.8	P/P	54 - 115
Prodiamine	41.8	44.3	F/F	60 - 130
Prometon	66.2	81.2	P/P	61 - 120
Prometryn	68.4	84.7	P/P	62 - 126
Simazine	85.8	110	P/P	75 - 126
Tebuconazole	32.5	44.6	P/P	30 - 100
Terbufos	82.3	97.8	P/P	65 - 116
Terbuthylazine	81.9	98.8	P/P	73 - 117

Reference Method: EPA 8321B
Batch ID: P360341

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	86.2		P	40 - 150
Acetaminophen	93.1		P	30 - 150
Bentazon	90.1		P	30 - 150
Carbamazepine	92.8		P	40 - 150
Diuron	70.0		P	40 - 150
Fenuron	118		P	40 - 150
Fluridone	113		P	40 - 150
Hydrocodone	98.4		P	40 - 150
Ibuprofen	64.5		P	40 - 150
Imazapyr	98.5		P	40 - 150
Imidacloprid	97.3		P	40 - 150
Linuron	72.6		P	40 - 150
MCPP	103		P	40 - 150
Naproxen	43.1		P	40 - 150
Primidone	90.8		P	40 - 150
Pyraclostrobin	55.9		P	40 - 150
Triclopyr	62.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P360352

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	96.2		P	40 - 150
AMPA	88.8		P	40 - 150
Endothall	91.1		P	40 - 150
Glufosinate	89.5		P	40 - 150
Glyphosate	93.9		P	40 - 140
Sucralose	56.9		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P360405

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P360896

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P360903

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P360753

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P360652

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069273	Barium	98.5		P	80 - 120
2069273	Calcium	104		P	80 - 120
2069273	Iron	107		P	80 - 120
2069273	Magnesium	106		P	80 - 120
2069273	Potassium	103		P	80 - 120
2069273	Sodium	101		P	80 - 120
2069273	Zinc	101		P	80 - 120
2069327	Barium	99.9	99.7	P/P	80 - 120
2069327	Calcium	104		P	80 - 120
2069327	Iron	109	108	P/P	80 - 120
2069327	Magnesium	104		P	80 - 120
2069327	Potassium	105	105	P/P	80 - 120
2069327	Sodium	106		P	80 - 120
2069327	Zinc	100	99.5	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P360652

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069273	Aluminum	100		P	80 - 120
2069273	Antimony	99.3		P	80 - 120
2069273	Arsenic	101		P	80 - 120
2069273	Boron	103		P	80 - 120
2069273	Cadmium	97.8		P	80 - 120
2069273	Chromium	87.2		P	80 - 120
2069273	Copper	95.2		P	80 - 120
2069273	Lead	98.6		P	80 - 120
2069273	Nickel	96.5		P	80 - 120
2069273	Selenium	99.5		P	80 - 120
2069273	Silver	107		P	80 - 120
2069273	Thallium	101		P	80 - 120
2069327	Aluminum	98.7	98.6	P/P	80 - 120
2069327	Antimony	99.2	98.1	P/P	80 - 120
2069327	Arsenic	99.5	99.5	P/P	80 - 120
2069327	Boron	103	104	P/P	80 - 120
2069327	Cadmium	99.0	100	P/P	80 - 120
2069327	Chromium	91.4	92.0	P/P	80 - 120
2069327	Copper	94.4	94.7	P/P	80 - 120
2069327	Lead	98.5	97.8	P/P	80 - 120
2069327	Nickel	96.0	95.0	P/P	80 - 120
2069327	Selenium	95.2	97.9	P/P	80 - 120
2069327	Silver	111	111	P/P	80 - 120
2069327	Thallium	101	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069257	Chloride	95.4		P	90 - 110
2069258	Chloride	103		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360815

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069258	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360578

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069259	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069333	Kjeldahl Nitrogen	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360709

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069351	Kjeldahl Nitrogen	104	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360693

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069152	NO2NO3-N	98.0	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360601

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069333	Total-P	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360379

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069137	O-Phosphate-P	97.8	98.7	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P360553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068903	Acetochlor	75.7	89.8	P/P	63 - 129
2068903	Alachlor	75.1	88.3	P/P	65 - 127
2068903	Ametryn	90.6	110	P/P	40 - 164
2068903	Atrazine Desethyl	65.0	72.4	P/P	14 - 157
2068903	Azinphos Methyl	83.8	95.7	P/P	49 - 180
2068903	Bromacil	73.4	79.6	P/P	48 - 130
2068903	Butylate	39.4	27.8	P/P	10 - 94.0
2068903	Chlorpyrifos Ethyl	79.7	95.5	P/P	58 - 123
2068903	Chlorpyrifos Methyl	74.5	87.3	P/P	58 - 125
2068903	Cyanazine	111	129	P/P	24 - 253

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P360553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068903	Demeton	60.3	56.4	P/P	25 - 149
2068903	Diazinon	75.9	90.0	P/P	59 - 144
2068903	Dimethenamid	74.9	87.9	P/P	60 - 130
2068903	Disulfoton	71.4	84.1	P/P	54 - 132
2068903	Dithiopyr	75.0	88.6	P/P	60 - 130
2068903	EPTC	46.2	30.7	P/P	10 - 92.0
2068903	Ethion	80.6	101	P/P	30 - 148
2068903	Ethoprop	76.3	90.1	P/P	50 - 130
2068903	Fenamiphos	98.0	112	P/P	49 - 142
2068903	Fipronil Desulfinyl	79.3	81.3	P/P	60 - 130
2068903	Fonofos	74.9	90.5	P/P	55 - 129
2068903	Hexazinone	91.9	107	P/P	56 - 141
2068903	Malathion	79.7	93.0	P/P	56 - 135
2068903	Metolachlor	76.1	87.8	P/P	51 - 140
2068903	Metribuzin	175	207	P/P	45 - 254
2068903	Mevinphos	72.1	79.7	P/P	33 - 131
2068903	Molinate	56.0	55.9	P/P	14 - 98.0
2068903	Norflurazon	74.7	79.9	P/P	34 - 136
2068903	Parathion Ethyl	77.4	89.2	P/P	66 - 118
2068903	Parathion Methyl	78.8	93.3	P/P	64 - 136
2068903	Pendimethalin	93.5	112	P/P	59 - 144
2068903	Phorate	71.9	78.6	P/P	42 - 130
2068903	Prodiamine	94.8	98.9	P/P	60 - 130
2068903	Prometon	78.1	91.9	P/P	59 - 134
2068903	Prometryn	68.6	79.1	P/P	54 - 135
2068903	Simazine	86.0	95.9	P/P	53 - 156
2068903	Tebuconazole	52.6	59.1	P/P	30 - 100
2068903	Terbufos	73.3	87.4	P/P	57 - 131
2068903	Terbuthylazine	78.1	91.7	P/P	68 - 125

Reference Method: EPA 8321B
Batch ID: P360341

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069366	2,4-D	103	88.8	P/P	40 - 150
2069366	Acetaminophen	90.8	98.1	P/P	30 - 150
2069366	Bentazon	54.8	56.8	P/P	30 - 150
2069366	Carbamazepine	73.5	70.2	P/P	40 - 150
2069366	Diuron	66.0	58.3	P/P	40 - 150
2069366	Fenuron	89.9	88.2	P/P	40 - 150
2069366	Fluridone	114	110	P/P	40 - 150
2069366	Hydrocodone	81.4	82.3	P/P	40 - 150
2069366	Ibuprofen	68.5	75.8	P/P	40 - 150
2069366	Imazapyr	106	110	P/P	40 - 150
2069366	Imidacloprid	182	174	F/F	40 - 150
2069366	Linuron	68.3	66.9	P/P	40 - 150
2069366	MCPP	153	143	F/P	40 - 150
2069366	Naproxen	67.2	65.4	P/P	40 - 150
2069366	Primidone	70.3	85.2	P/P	40 - 150
2069366	Pyraclostrobin	58.4	63.0	P/P	40 - 150
2069366	Triclopyr	90.3	75.6	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P360352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069254	Acesulfame K	139	155	P/F	40 - 150
2069254	AMPA	87.8	97.9	P/P	40 - 150
2069254	Endothall	90.9	101	P/P	40 - 150
2069254	Glufosinate	87.0	86.8	P/P	40 - 150
2069254	Glyphosate	114	119	P/P	40 - 140
2069254	Sucralose	49.1	54.5	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P360903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069122	Fluoride	99.0	98.3	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P360753

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069123	Organic Carbon	92.7	94.9	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P360386

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069337	Turbidity	5.43	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P360652

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069327	Barium	0.178	Spike	P	0 - 20
2069327	Calcium	0.707	Spike	P	0 - 20
2069327	Iron	1.27	Spike	P	0 - 20
2069327	Magnesium	1.04	Spike	P	0 - 20
2069327	Potassium	0.0172	Spike	P	0 - 20
2069327	Sodium	1.82	Spike	P	0 - 20
2069327	Zinc	0.566	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P360652

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069327	Aluminum	0.0910	Spike	P	0 - 20
2069327	Antimony	1.16	Spike	P	0 - 20
2069327	Arsenic	0.0323	Spike	P	0 - 20
2069327	Boron	1.06	Spike	P	0 - 20
2069327	Cadmium	1.09	Spike	P	0 - 20
2069327	Chromium	0.659	Spike	P	0 - 20
2069327	Copper	0.345	Spike	P	0 - 20
2069327	Lead	0.720	Spike	P	0 - 20
2069327	Nickel	1.01	Spike	P	0 - 20
2069327	Selenium	2.76	Spike	P	0 - 20
2069327	Silver	0.743	Spike	P	0 - 20
2069327	Thallium	0.171	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069257	Chloride	1.36	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360815

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069257	Sulfate	1.31	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069259	Ammonia-N	0.589	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069333	Kjeldahl Nitrogen	0.0624	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069351	Kjeldahl Nitrogen	0.656	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360693

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069152	NO2NO3-N	1.52	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360601

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069333	Total-P	0.665	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069137	O-Phosphate-P	0.916	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P360553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068903	Acetochlor	17.1	Spike	P	0 - 30
2068903	Alachlor	16.2	Spike	P	0 - 30
2068903	Ametryn	19.5	Spike	P	0 - 30
2068903	Atrazine	12.9	Spike	P	0 - 30
2068903	Atrazine Desethyl	9.24	Spike	P	0 - 30
2068903	Azinphos Methyl	13.3	Spike	P	0 - 30
2068903	Bromacil	8.08	Spike	P	0 - 30
2068903	Butylate	34.5	Spike	F	0 - 30
2068903	Chlorpyrifos Ethyl	18.1	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P360553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068903	Chlorpyrifos Methyl	15.8	Spike	P	0 - 30
2068903	Cyanazine	15.0	Spike	P	0 - 30
2068903	Demeton	6.65	Spike	P	0 - 30
2068903	Diazinon	17.1	Spike	P	0 - 30
2068903	Dimethenamid	15.9	Spike	P	0 - 30
2068903	Disulfoton	16.4	Spike	P	0 - 30
2068903	Dithiopyr	10.4	Spike	P	0 - 30
2068903	EPTC	40.2	Spike	F	0 - 30
2068903	Ethion	22.8	Spike	P	0 - 30
2068903	Ethoprop	16.6	Spike	P	0 - 30
2068903	Fenamiphos	13.1	Spike	P	0 - 30
2068903	Fipronil	0.967	Spike	P	0 - 30
2068903	Fipronil Desulfinyl	1.81	Spike	P	0 - 30
2068903	Fipronil Sulfide	8.94	Spike	P	0 - 30
2068903	Fipronil Sulfone	12.5	Spike	P	0 - 30
2068903	Fonofos	18.9	Spike	P	0 - 30
2068903	Hexazinone	14.1	Spike	P	0 - 30
2068903	Malathion	15.4	Spike	P	0 - 30
2068903	Metalaxyl	17.0	Spike	P	0 - 30
2068903	Metolachlor	14.3	Spike	P	0 - 30
2068903	Metribuzin	2.85	Spike	P	0 - 30
2068903	Mevinphos	10.0	Spike	P	0 - 30
2068903	Molinate	0.305	Spike	P	0 - 30
2068903	Norflurazon	6.64	Spike	P	0 - 30
2068903	Oxadiazon	7.73	Spike	P	0 - 30
2068903	Parathion Ethyl	14.1	Spike	P	0 - 30
2068903	Parathion Methyl	16.9	Spike	P	0 - 30
2068903	Pendimethalin	17.9	Spike	P	0 - 30
2068903	Phorate	8.87	Spike	P	0 - 30
2068903	Prodiamine	3.94	Spike	P	0 - 30
2068903	Prometon	16.3	Spike	P	0 - 30
2068903	Prometryn	14.3	Spike	P	0 - 30
2068903	Simazine	10.8	Spike	P	0 - 30
2068903	Tebuconazole	11.6	Spike	P	0 - 30
2068903	Terbufos	17.5	Spike	P	0 - 30
2068903	Terbuthylazine	16.0	Spike	P	0 - 30
LFB	Acetochlor	20.6	LCS	P	0 - 30
LFB	Alachlor	21.2	LCS	P	0 - 30
LFB	Ametryn	20.0	LCS	P	0 - 30
LFB	Atrazine	26.1	LCS	P	0 - 30
LFB	Atrazine Desethyl	18.3	LCS	P	0 - 30
LFB	Azinphos Methyl	18.9	LCS	P	0 - 30
LFB	Bromacil	27.4	LCS	P	0 - 30
LFB	Butylate	14.9	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	13.3	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	16.0	LCS	P	0 - 30
LFB	Cyanazine	11.9	LCS	P	0 - 30
LFB	Demeton	4.90	LCS	P	0 - 30
LFB	Diazinon	23.3	LCS	P	0 - 30
LFB	Dimethenamid	19.3	LCS	P	0 - 30
LFB	Disulfoton	17.8	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P360553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	23.8	LCS	P	0 - 30
LFB	EPTC	14.3	LCS	P	0 - 30
LFB	Ethion	19.7	LCS	P	0 - 30
LFB	Ethoprop	9.74	LCS	P	0 - 30
LFB	Fenamiphos	18.0	LCS	P	0 - 30
LFB	Fipronil	25.7	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	24.8	LCS	P	0 - 30
LFB	Fipronil Sulfide	15.3	LCS	P	0 - 30
LFB	Fipronil Sulfone	21.1	LCS	P	0 - 30
LFB	Fonofos	18.8	LCS	P	0 - 30
LFB	Hexazinone	21.4	LCS	P	0 - 30
LFB	Malathion	18.9	LCS	P	0 - 30
LFB	Metalaxyl	21.1	LCS	P	0 - 30
LFB	Metolachlor	20.0	LCS	P	0 - 30
LFB	Metribuzin	6.58	LCS	P	0 - 30
LFB	Mevinphos	25.4	LCS	P	0 - 30
LFB	Molinate	13.4	LCS	P	0 - 30
LFB	Norflurazon	21.5	LCS	P	0 - 30
LFB	Oxadiazon	21.8	LCS	P	0 - 30
LFB	Parathion Ethyl	15.6	LCS	P	0 - 30
LFB	Parathion Methyl	17.1	LCS	P	0 - 30
LFB	Pendimethalin	9.35	LCS	P	0 - 30
LFB	Phorate	15.5	LCS	P	0 - 30
LFB	Prodiamine	5.77	LCS	P	0 - 30
LFB	Prometon	20.4	LCS	P	0 - 30
LFB	Prometryn	21.4	LCS	P	0 - 30
LFB	Simazine	25.1	LCS	P	0 - 30
LFB	Tebuconazole	31.6	LCS	F	0 - 30
LFB	Terbufos	17.2	LCS	P	0 - 30
LFB	Terbuthylazine	18.7	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P360341

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069366	2,4-D	14.6	Spike	P	0 - 30
2069366	Acetaminophen	7.71	Spike	P	0 - 30
2069366	Bentazon	3.23	Spike	P	0 - 30
2069366	Carbamazepine	4.58	Spike	P	0 - 30
2069366	Diuron	9.06	Spike	P	0 - 30
2069366	Fenuron	1.98	Spike	P	0 - 30
2069366	Fluridone	2.19	Spike	P	0 - 30
2069366	Hydrocodone	1.17	Spike	P	0 - 30
2069366	Ibuprofen	10.2	Spike	P	0 - 30
2069366	Imazapyr	3.05	Spike	P	0 - 30
2069366	Imidacloprid	2.01	Spike	P	0 - 30
2069366	Linuron	2.05	Spike	P	0 - 30
2069366	MCPP	6.95	Spike	P	0 - 30
2069366	Naproxen	2.79	Spike	P	0 - 30
2069366	Primidone	19.1	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P360341

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069366	Pyraclostrobin	7.64	Spike	P	0 - 30
2069366	Triclopyr	17.6	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P360352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069254	Acesulfame K	11.2	Spike	P	0 - 30
2069254	AMPA	9.07	Spike	P	0 - 30
2069254	Endothall	10.9	Spike	P	0 - 30
2069254	Glufosinate	0.297	Spike	P	0 - 30
2069254	Glyphosate	3.08	Spike	P	0 - 30
2069254	Sucralose	9.68	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P360405

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069257	Color (true)	3.39	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P360896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069122	Total Alkalinity	0.494	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P360930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069257	TDS	3.27	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P360931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069258	TDS	5.71	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P360903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069122	Fluoride	0.470	Spike	P	0 - 3.5

Quality Assurance Report
Precision

Reference Method: SM 5310 B-00
Batch ID: P360753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069123	Organic Carbon	2.27	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2069271
Field Sample ID: G2SW0098

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	81.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	86.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.1	P	30 - 160
EPA 8321B	Diuron-d6	58.2	P	30 - 160
EPA 8321B	Endothall-d6	132	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	79.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.2	P	30 - 160
EPA 8321B	Primidone-d5	73.4	P	30 - 160
EPA 8321B	Sucralose-d6	54.8	P	30 - 160

Lab Sample ID: 2069275
Field Sample ID: G2SW0098

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	88.8	P	68 - 130
EPA 8270D	Terbufos-d10	88.0	P	61 - 136

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A89987
Included Lab Sample IDs: 2069261, 2069262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.1	95.6	P/P	90 - 110
O-Phosphate-P	97.8	97.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A89988
Included Lab Sample IDs: 2069257, 2069258

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

Reference Method: SM 2120 B
Run ID: A89998
Included Lab Sample IDs: 2069257, 2069258

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	102	P/P	90 - 115

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A90054
Included Lab Sample IDs: 2069259, 2069260

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A90071
Included Lab Sample IDs: 2069257, 2069258

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	98.5	P/P	90 - 110
Sulfate	101	99.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A90083
Included Lab Sample IDs: 2069271

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	105	117	P/P	60 - 160
Endothall	97.8	93.1	P/P	60 - 160
Sucralose	91.5	77.9	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A90091
Included Lab Sample IDs: 2069271

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	82.8	87.2	P/P	50 - 150
Acetaminophen	106	73.1	P/P	60 - 160
Bentazon	83.3	94.3	P/P	50 - 160
Carbamazepine	101	95.2	P/P	60 - 150
Diuron	102	96.3	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A90091
Included Lab Sample IDs: 2069271

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenuron	104	95.9	P/P	60 - 150
Fluridone	109	108	P/P	60 - 160
Hydrocodone	101	79.4	P/P	60 - 150
Ibuprofen	84.4	95.5	P/P	50 - 160
Imazapyr	82.5	90.1	P/P	50 - 150
Imidacloprid	96.6	87.3	P/P	60 - 150
Linuron	110	101	P/P	60 - 150
MCPP	98.3	88.8	P/P	50 - 150
Naproxen	103	86.3	P/P	50 - 160
Primidone	102	83.7	P/P	60 - 150
Pyraclostrobin	85.7	84.7	P/P	60 - 150
Triclopyr	91.4	99.2	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A90092
Included Lab Sample IDs: 2069259, 2069260

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

Reference Method: EPA 8321B
Run ID: A90093
Included Lab Sample IDs: 2069271

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.6	104	P/P	60 - 160
Glufosinate	91.7	97.3	P/P	60 - 160
Glyphosate	108	96.1	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A90094
Included Lab Sample IDs: 2069260

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.2	95.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A90099
Included Lab Sample IDs: 2069259, 2069260

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A90103
Included Lab Sample IDs: 2069273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	103	P/P	90 - 110
Antimony	102	99.8	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A90103
Included Lab Sample IDs: 2069273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	105	108	P/P	90 - 110
Cadmium	103	102	P/P	90 - 110
Chromium	101	102	P/P	90 - 110
Copper	99.8	102	P/P	90 - 110
Lead	103	103	P/P	90 - 110
Nickel	99.8	102	P/P	90 - 110
Selenium	101	99.4	P/P	90 - 110
Thallium	98.0	98.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A90113
Included Lab Sample IDs: 2069273

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

Reference Method: SM 5310 B-00
Run ID: A90118
Included Lab Sample IDs: 2069259, 2069260

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.0	93.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A90127
Included Lab Sample IDs: 2069259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.9	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A90136
Included Lab Sample IDs: 2069273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	107	108	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A90183
Included Lab Sample IDs: 2069257, 2069258

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A90183
Included Lab Sample IDs: 2069257, 2069258

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

Reference Method: EPA 8270D
Run ID: A90253
Included Lab Sample IDs: 2069275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	108		P	80 - 120
Ametryn	104		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	92.9		P	80 - 120
Azinphos Methyl	100		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	95.1		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	98.2		P	80 - 120
Cyanazine	91.6		P	80 - 120
Demeton	96.8		P	80 - 120
Diazinon	99.2		P	80 - 120
Dimethenamid	103		P	80 - 120
Disulfoton	95.5		P	80 - 120
Dithiopyr	104		P	80 - 120
EPTC	99.4		P	80 - 120
Ethion	98.8		P	80 - 120
Ethoprop	96.0		P	80 - 120
Fenamiphos	96.9		P	80 - 120
Fipronil	102		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	95.7		P	80 - 120
Fipronil Sulfone	94.8		P	80 - 120
Fonofos	95.3		P	80 - 120
Hexazinone	101		P	80 - 120
Malathion	96.5		P	80 - 120
Metalaxyl	106		P	80 - 120
Metolachlor	109		P	80 - 120
Metribuzin	87.2		P	80 - 120
Mevinphos	98.7		P	80 - 120
Molinate	97.5		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	106		P	80 - 120
Parathion Ethyl	96.5		P	80 - 120
Parathion Methyl	96.7		P	80 - 120
Pendimethalin	99.4		P	80 - 120
Phorate	92.3		P	80 - 120
Prodiamine	104		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	103		P	80 - 120
Simazine	97.9		P	80 - 120
Tebuconazole	98.0		P	80 - 120
Terbufos	95.3		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A90253
Included Lab Sample IDs: 2069275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Terbuthylazine	99.5		P	80 - 120

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							5.43	
EPA 200.7 Rev. 4.4	Barium	101		98.5	99.9	99.7			0.178
	Calcium	103		104	104				0.707
	Iron	108		107	109	108			1.27
	Magnesium	104		106	104				1.04
	Potassium	105		103	105	105			0.0172
	Sodium	100		101	106				1.82
	Zinc	102		101	100	99.5			0.566
EPA 200.8 Rev. 5.4	Aluminum	96.8		100	98.7	98.6			0.0910
	Antimony	98.6		99.3	99.2	98.1			1.16
	Arsenic	102		101	99.5	99.5			0.0323
	Boron	94.4		103	103	104			1.06
	Cadmium	99.8		97.8	99.0	100			1.09
	Chromium	91.9		87.2	91.4	92.0			0.659
	Copper	98.1		95.2	94.4	94.7			0.345
	Lead	98.3		98.6	98.5	97.8			0.720
	Nickel	98.1		96.5	96.0	95.0			1.01
	Selenium	99.0		99.5	95.2	97.9			2.76
	Silver	110		107	111	111			0.743
	Thallium	100		101	101	101			0.171
EPA 300.0 Rev. 2.1	Chloride	99.5		95.4	103			1.36	
	Sulfate	99.3		101				1.31	
EPA 350.1 Rev. 2.0	Ammonia-N	98.6		101	101				0.589
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		102	102				0.0624
	Kjeldahl Nitrogen	103		104	103				0.656
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5		98.0	99.5				1.52
EPA 365.1 Rev. 2.0	Total-P	102		100	101				0.665
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		97.8	98.7				0.916
EPA 8270D	Acetochlor	75.7	93.2	75.7	89.8		20.6		17.1
	Alachlor	74.5	92.1	75.1	88.3		21.2		16.2
	Ametryn	73.9	90.3	90.6	110		20.0		19.5
	Atrazine	83.0	108				26.1		12.9
	Atrazine Desethyl	84.0	101	65.0	72.4		18.3		9.24
	Azinphos Methyl	104	125	83.8	95.7		18.9		13.3
	Bromacil	72.8	95.9	73.4	79.6		27.4		8.08
	Butylate	62.2	72.2	39.4	27.8		14.9		34.5
	Chlorpyrifos Ethyl	86.3	98.7	79.7	95.5		13.3		18.1
	Chlorpyrifos Methyl	85.5	100	74.5	87.3		16.0		15.8
	Cyanazine	210	237	111	129		11.9		15.0
	Demeton	69.6	73.1	60.3	56.4		4.90		6.65
	Diazinon	79.1	99.9	75.9	90.0		23.3		17.1
	Dimethenamid	72.6	88.1	74.9	87.9		19.3		15.9
	Disulfoton	85.5	102	71.4	84.1		17.8		16.4
	Dithiopyr	75.9	96.4	75.0	88.6		23.8		10.4
	EPTC	63.7	73.5	46.2	30.7		14.3		40.2
	Ethion	65.1	79.3	80.6	101		19.7		22.8
	Ethoprop	87.0	95.9	76.3	90.1		9.74		16.6
	Fenamiphos	81.5	97.6	98.0	112		18.0		13.1
	Fipronil	70.5	91.3				25.7		0.967
	Fipronil Desulfinyl	68.4	87.9	79.3	81.3		24.8		1.81
	Fipronil Sulfide	73.9	86.1				15.3		8.94
	Fipronil Sulfone	68.0	84.1				21.1		12.5
	Fonofos	86.4	104	74.9	90.5		18.8		18.9
	Hexazinone	83.5	104	91.9	107		21.4		14.1

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Malathion	79.8	96.4	79.7	93.0	18.9		15.4
	Metalaxyl	76.9	95.0			21.1		17.0
	Metolachlor	75.2	92.0	76.1	87.8	20.0		14.3
	Metribuzin	192	205	175	207	6.58		2.85
	Mevinphos	75.0	96.7	72.1	79.7	25.4		10.0
	Molinate	70.1	80.2	56.0	55.9	13.4		0.305
	Norflurazon	78.1	97.0	74.7	79.9	21.5		6.64
	Oxadiazon	77.0	95.8			21.8		7.73
	Parathion Ethyl	81.1	94.8	77.4	89.2	15.6		14.1
	Parathion Methyl	85.5	101	78.8	93.3	17.1		16.9
	Pendimethalin	88.9	97.7	93.5	112	9.35		17.9
	Phorate	80.3	93.8	71.9	78.6	15.5		8.87
	Prodiamine	41.8	44.3	94.8	98.9	5.77		3.94
	Prometon	66.2	81.2	78.1	91.9	20.4		16.3
	Prometryn	68.4	84.7	68.6	79.1	21.4		14.3
	Simazine	85.8	110	86.0	95.9	25.1		10.8
	Tebuconazole	32.5	44.6	52.6	59.1	31.6		11.6
	Terbufos	82.3	97.8	73.3	87.4	17.2		17.5
	Terbuthylazine	81.9	98.8	78.1	91.7	18.7		16.0
EPA 8321B	2,4-D	86.2		103	88.8			14.6
	Acesulfame K	96.2		139	155			11.2
	Acetaminophen	93.1		90.8	98.1			7.71
	AMPA	88.8		87.8	97.9			9.07
	Bentazon	90.1		54.8	56.8			3.23
	Carbamazepine	92.8		73.5	70.2			4.58
	Diuron	70.0		66.0	58.3			9.06
	Endothall	91.1		90.9	101			10.9
	Fenuron	118		89.9	88.2			1.98
	Fluridone	113		114	110			2.19
	Glufosinate	89.5		87.0	86.8			0.297
	Glyphosate	93.9		114	119			3.08
	Hydrocodone	98.4		81.4	82.3			1.17
	Ibuprofen	64.5		68.5	75.8			10.2
	Imazapyr	98.5		106	110			3.05
	Imidacloprid	97.3		182	174			2.01
	Linuron	72.6		68.3	66.9			2.05
	MCPP	103		153	143			6.95
	Naproxen	43.1		67.2	65.4			2.79
	Primidone	90.8		70.3	85.2			19.1
	Pyraclostrobin	55.9		58.4	63.0			7.64
	Sucralose	56.9		49.1	54.5			9.68
	Triclopyr	62.8		90.3	75.6			17.6
SM 2120 B	Color (true)	102					3.39	
SM 2320 B-97	Total Alkalinity	101					0.494	
SM 2540 C-97	TDS						3.27	
	TDS						5.71	
SM 4500 F-C-97	Fluoride	98.1		99.0	98.3			0.470
SM 5310 B-00	Organic Carbon	95.2		92.7	94.9			2.27

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2069257, 2069258
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2069273
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2069273
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2069257, 2069258
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2069257, 2069258
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2069259, 2069260
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2069259, 2069260
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2069259, 2069260
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2069259, 2069260
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2069261, 2069262
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2069275
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2069271
SM 2120 B / E31780	True Color measured at 450 nm	2069257, 2069258
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2069257, 2069258
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2069257, 2069258
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2069257, 2069258
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2069257, 2069258
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2069259, 2069260

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	03/13/2019			03/13/2019 16:52	Adrian Shelby	2069257, 2069258
EPA 200.7 Rev. 4.4	03/13/2019	03/18/2019 13:30	Elliott D. Healy	03/19/2019 13:56	Vijayalakshmi Reddy	2069273
EPA 200.8 Rev. 5.4	03/13/2019	03/18/2019 13:30	Elliott D. Healy	03/19/2019 16:36	Robert K Palmer	2069273
	03/13/2019	03/18/2019 13:30	Elliott D. Healy	03/20/2019 13:06	Robert K Palmer	2069273
EPA 300.0 Rev. 2.1	03/13/2019			03/20/2019 19:56	Lipi Saha	2069257
	03/13/2019			03/20/2019 20:20	Lipi Saha	2069258
EPA 350.1 Rev. 2.0	03/13/2019			03/14/2019 12:47	Ping Hua	2069259
	03/13/2019			03/14/2019 12:51	Ping Hua	2069260
EPA 351.2 Rev. 2.0	03/13/2019	03/15/2019 16:30	Adrian Shelby	03/19/2019 13:33	Joseph Suarez	2069260
	03/13/2019	03/19/2019 12:25	Adrian Shelby	03/20/2019 08:55	Joseph Suarez	2069259
EPA 353.2 Rev. 2.0	03/13/2019			03/19/2019 12:40	Lauren Lees	2069259
	03/13/2019			03/19/2019 12:42	Lauren Lees	2069260
EPA 365.1 Rev. 2.0	03/13/2019	03/18/2019 14:30	Sima Feizi	03/19/2019 09:23	Beverly Y. Sanders	2069259
	03/13/2019	03/18/2019 14:30	Sima Feizi	03/19/2019 09:24	Beverly Y. Sanders	2069260
EPA 365.1 Rev. 2.0 dissolved	03/13/2019			03/13/2019 16:18	Julia Storbeck	2069262
	03/13/2019			03/13/2019 16:29	Julia Storbeck	2069261
EPA 8270D	03/13/2019	03/18/2019 09:08	Dinesh Mishra	03/20/2019 17:23	Vandana T. Nagar	2069275
EPA 8321B	03/13/2019	03/15/2019 13:00	Hoor Shaik	03/17/2019 00:45	Juyoung Kim	2069271
	03/13/2019	03/18/2019 08:00	Juyoung Kim	03/18/2019 13:34	Juyoung Kim	2069271
	03/13/2019	03/18/2019 08:00	Juyoung Kim	03/18/2019 17:13	Juyoung Kim	2069271
SM 2120 B	03/13/2019			03/13/2019 16:49	Mariam Hanna	2069257
	03/13/2019			03/13/2019 16:50	Mariam Hanna	2069258
SM 2320 B-97	03/13/2019			03/21/2019 12:48	Dale L. Simmons	2069257
	03/13/2019			03/21/2019 13:00	Dale L. Simmons	2069258
SM 2540 C-97	03/13/2019			03/18/2019 14:58	Yijie Li	2069257, 2069258
SM 2540 D-97	03/13/2019			03/18/2019 14:58	Yijie Li	2069257, 2069258
SM 4500 F-C-97	03/13/2019			03/21/2019 12:48	Dale L. Simmons	2069257
	03/13/2019			03/21/2019 13:00	Dale L. Simmons	2069258
SM 5310 B-00	03/13/2019			03/20/2019 12:37	Julia Storbeck	2069259
	03/13/2019			03/20/2019 12:53	Julia Storbeck	2069260