

Chemical Analysis Report

NE-DIST-2019-09-21-02

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

Event Description: **LSJR Downtown and Unnamed**

Request ID: **RQ-2019-09-16-17**

Customer: **NE-DIST**

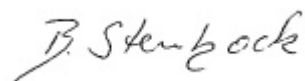
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 11-OCT-2019 16:40



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: UNNAMED CREEK AT VAN GUNDY

Collection Date/Time: 09/19/2019 09:40

Field ID: G2NE1192

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121662	EPA 180.1 Rev. 2.0	Turbidity	2.2	Q	NTU	P371237	
	EPA 300.0 Rev. 2.1	Chloride	230		mg Cl/L	P371224	
		Sulfate	37		mg SO4/L	P371227	
	SM 2120 B	Color (true)	39	Q	PCU	P371249	
	SM 2320 B-97	Total Alkalinity	105		mg CaCO3/L	P371528	
	SM 2540 C-97	TDS	564		mg/L	P371616	
	SM 2540 D-97	TSS	5	I	mg/L	P371583	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P371532	
2121663	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P371691	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.87		mg N/L	P371213	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.067		mg N/L	P371467	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P371479	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P371371	
2121664	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.043	Q	mg P/L	P371242	
2121675	EPA 8321B	2,4-D	0.037		ug/L	P371132	
		Acesulfame K**	0.25	I	ug/L	P371101	
		AMPA**	0.38	I	ug/L	P371101	
		Sucralose**	0.37		ug/L	P371101	
		Acetaminophen**	0.0080	U	ug/L	P371132	
		Acetamiprid**	0.0020	U	ug/L	P371132	
		Endothall**	0.25	U	ug/L	P371101	
		Glufosinate**	0.10	U	ug/L	P371101	
		Glyphosate**	1.1		ug/L	P371101	
		Afidopyropen**	0.0020	UJ	ug/L	P371132	
		Bentazon	0.0049		ug/L	P371132	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P371132	
		Carbamazepine**	0.0017	I	ug/L	P371132	
		Clothianidin**	0.0042	I	ug/L	P371132	
		Dinotefuran**	0.0020	U	ug/L	P371132	
		Diuron	0.0052	I	ug/L	P371132	
		Fenuron	0.040	I	ug/L	P371132	
		Fluridone**	0.080		ug/L	P371132	
		Imazapyr**	0.64		ug/L	P371132	
		Hydrocodone**	0.0020	U	ug/L	P371132	
		Ibuprofen**	0.020	U	ug/L	P371132	
		Imidacloprid	0.017		ug/L	P371132	MS
		Linuron	0.0040	U	ug/L	P371132	
		Mandestrobin**	0.0020	UJ	ug/L	P371132	
		MCP	0.014		ug/L	P371132	MS
		Naproxen**	0.0080	U	ug/L	P371132	
		Primidone**	0.0040	U	ug/L	P371132	
		Pyraclostrobin**	0.0020	U	ug/L	P371132	
		Thiamethoxam**	0.0020	U	ug/L	P371132	

Field ID: G2NE1192

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121675	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P371132	
		Triclopyr**	0.0040	U	ug/L	P371132	
2121678	EPA 200.7 Rev. 4.4	Barium	36.1		ug/L	P371324	
		Calcium	41.2		mg/L	P371324	
		Iron	140		ug/L	P371324	
		Magnesium	19.5		mg/L	P371324	
		Potassium	6.4		mg/L	P371324	
		Sodium	128		mg/L	P371324	
		Zinc	5.0	U	ug/L	P371324	
	EPA 200.8 Rev. 5.4	Aluminum	24		ug/L	P371324	
		Antimony	0.18	I	ug/L	P371324	
		Arsenic	1.50		ug/L	P371324	
		Boron**	91.7		ug/L	P371324	
		Cadmium	0.020	U	ug/L	P371324	
		Chromium	0.40	U	ug/L	P371324	
		Copper	0.60	I	ug/L	P371324	
		Lead	0.36	I	ug/L	P371324	
		Nickel	0.50	U	ug/L	P371324	
		Selenium	0.20	U	ug/L	P371324	
		Silver	0.010	U	ug/L	P371324	
		Thallium	0.10	U	ug/L	P371324	
2121679	EPA 8270E	Acetochlor	0.27	U	ng/L	P371188	
		Alachlor	0.27	U	ng/L	P371188	
		Ametryn	0.64	U	ng/L	P371188	
		Atrazine	73		ng/L	P371188	
		Atrazine Desethyl	9.5	J	ng/L	P371188	RPD
		Azinphos Methyl	5.3	U	ng/L	P371188	
		Bromacil	0.53	U	ng/L	P371188	
		Butylate	0.43	U	ng/L	P371188	
		Chlorpyrifos Ethyl	0.27	U	ng/L	P371188	
		Chlorpyrifos Methyl	0.11	U	ng/L	P371188	
		Cyanazine	3.5	UJ	ng/L	P371188	RPD
		Demeton	7.5	U	ng/L	P371188	
		Diazinon	0.13	U	ng/L	P371188	
		Dimethenamid**	0.11	U	ng/L	P371188	
		Disulfoton	0.53	U	ng/L	P371188	
		Dithiopyr**	0.11	U	ng/L	P371188	
		EPTC	1.3	U	ng/L	P371188	
		Ethion	0.16	U	ng/L	P371188	
		Ethoprop	0.11	U	ng/L	P371188	
		Fenamiphos	0.53	U	ng/L	P371188	
		Fipronil	0.85	I	ng/L	P371188	
		Fipronil Desulfinyl**	2.0		ng/L	P371188	
		Fipronil Sulfide	1.1		ng/L	P371188	
		Fipronil Sulfone	1.8		ng/L	P371188	

Field ID: G2NE1192

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121679	EPA 8270E	Fonofos	0.21	U	ng/L	P371188	
		Hexazinone	0.53	U	ng/L	P371188	
		Malathion	0.37	U	ng/L	P371188	
		Metalaxyl	0.32	U	ng/L	P371188	
		Metolachlor	0.53	U	ng/L	P371188	
		Metribuzin	0.80	UJ	ng/L	P371188	RPD
		Mevinphos	0.53	U	ng/L	P371188	
		Molinate	0.32	U	ng/L	P371188	
		Norflurazon	0.84	I	ng/L	P371188	
		Oxadiazon**	0.11	U	ng/L	P371188	
		Parathion Ethyl	0.27	U	ng/L	P371188	
		Parathion Methyl	0.59	U	ng/L	P371188	
		Pendimethalin	1.1	U	ng/L	P371188	
		Phorate	0.27	U	ng/L	P371188	
		Prodiamine**	0.19	U	ng/L	P371188	
		Prometon	5.5		ng/L	P371188	
		Prometryn	0.21	U	ng/L	P371188	
		Simazine	0.53	U	ng/L	P371188	
		Tebuconazole**	0.53	UJ	ng/L	P371188	RPD
		Terbufos	0.11	U	ng/L	P371188	
		Terbuthylazine	0.45	U	ng/L	P371188	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The sample expired prior to receipt.

SM 2120 B: The sample expired prior to receipt.

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired prior to receipt.

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

EPA 8270E: Refer to the narrative for an explanation of QC Codes.

Sample Location: BLOCKHOUSE 100M ABV IRMA RD

Collection Date/Time: 09/19/2019 10:50

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121659	EPA 180.1 Rev. 2.0	Turbidity	8.7	Q	NTU	P371236	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P371225	
		Sulfate	9.0		mg SO4/L	P371228	
	SM 2120 B	Color (true)	88	Q	PCU	P371249	
	SM 2320 B-97	Total Alkalinity	61		mg CaCO3/L	P371528	
	SM 2540 C-97	TDS	140	A	mg/L	P371616	
	SM 2540 D-97	TSS	3	IA	mg/L	P371583	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P371532	
2121660	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P371691	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P371213	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P371466	
	EPA 365.1 Rev. 2.0	Total-P	0.098		mg P/L	P371479	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P371371	
2121661	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054	Q	mg P/L	P371242	
2121674	EPA 8321B	2,4-D	0.081		ug/L	P371132	
		Acesulfame K**	0.38	I	ug/L	P371101	
		AMPA**	0.27	I	ug/L	P371101	
		Sucralose**	0.40		ug/L	P371101	
		Acetaminophen**	0.0080	U	ug/L	P371132	
		Acetamiprid**	0.0020	U	ug/L	P371132	
		Endothall**	0.25	U	ug/L	P371101	
		Glufosinate**	0.10	U	ug/L	P371101	
		Glyphosate**	0.16	I	ug/L	P371101	
		Afidopyropen**	0.0020	UJ	ug/L	P371132	
		Bentazon	0.0096		ug/L	P371132	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P371132	
		Carbamazepine**	0.0097		ug/L	P371132	
		Clothianidin**	0.011		ug/L	P371132	
		Dinotefuran**	0.0020	U	ug/L	P371132	
		Diuron	0.0027	I	ug/L	P371132	
		Fenuron	0.016	U	ug/L	P371132	
		Fluridone**	0.0012	I	ug/L	P371132	
		Imazapyr**	0.99		ug/L	P371132	
		Hydrocodone**	0.0020	U	ug/L	P371132	
		Ibuprofen**	0.020	U	ug/L	P371132	
		Imidacloprid	0.032		ug/L	P371132	MS
		Linuron	0.0040	U	ug/L	P371132	
		Mandestrobin**	0.0020	UJ	ug/L	P371132	
		MCP	0.041		ug/L	P371132	MS
		Naproxen**	0.0080	U	ug/L	P371132	
		Primidone**	0.0040	U	ug/L	P371132	
		Pyraclostrobin**	0.0020	U	ug/L	P371132	
		Thiamethoxam**	0.0020	U	ug/L	P371132	

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121674	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P371132	
		Triclopyr**	0.0040	U	ug/L	P371132	
2121677	EPA 200.7 Rev. 4.4	Barium	36.3		ug/L	P371324	
		Calcium	22.7		mg/L	P371324	
		Iron	1.84E+03		ug/L	P371324	
		Magnesium	4.51		mg/L	P371324	
		Potassium	2.0		mg/L	P371324	
		Sodium	16.4		mg/L	P371324	
		Zinc	5.0	U	ug/L	P371324	
	EPA 200.8 Rev. 5.4	Aluminum	108		ug/L	P371324	
		Antimony	0.073	I	ug/L	P371324	
		Arsenic	0.85		ug/L	P371324	
		Boron**	31.4		ug/L	P371324	
		Cadmium	0.020	U	ug/L	P371324	
		Chromium	0.43	I	ug/L	P371324	
		Copper	0.40	U	ug/L	P371324	
		Lead	0.20	U	ug/L	P371324	
		Nickel	0.50	U	ug/L	P371324	
		Selenium	0.20	U	ug/L	P371324	
		Silver	0.010	U	ug/L	P371324	
		Thallium	0.10	U	ug/L	P371324	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The sample expired upon receipt.

SM 2120 B: The sample expired upon receipt.

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired upon receipt.

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

Sample Location: DEER CR @ TALLEYRAND AVE.

Collection Date/Time: 09/19/2019 11:25

Field ID: 20030792

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121656	EPA 180.1 Rev. 2.0	Turbidity	10	Q	NTU	P371236	
	EPA 300.0	Bromide	10		mg Br/L	P371215	
	SM 2320 B-97	Total Alkalinity	134		mg CaCO3/L	P371515	
	SM 2540 D-97	TSS	6	I	mg/L	P371700	
	SM 4500 F-C-97	Fluoride	0.41		mg F/L	P371880	
2121657	EPA 350.1 Rev. 2.0	Ammonia-N	0.49		mg N/L	P371690	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P371444	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P371221	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P371312	
	SM 5310 B-00	Organic Carbon	9.9		mg C/L	P371200	
2121658	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.040	Q	mg P/L	P371241	
2121673	EPA 8321B	2,4-D	0.41		ug/L	P371132	
		Acesulfame K**	0.23	I J	ug/L	P371101	SUR
		AMPA**	2.1	I	ug/L	P371101	
		Sucralose**	0.68		ug/L	P371101	
		Acetaminophen**	0.032		ug/L	P371132	
		Acetamiprid**	0.0020	U	ug/L	P371132	
		Endothall**	0.25	UJ	ug/L	P371101	SUR
		Glufosinate**	1.0	U	ug/L	P371101	
		Glyphosate**	1.0	U	ug/L	P371101	
		Afidopyropen**	0.0020	UJ	ug/L	P371132	
		Bentazon	0.0024	I	ug/L	P371132	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P371132	
		Carbamazepine**	8.0E-04	U	ug/L	P371132	
		Clothianidin**	0.0020	U	ug/L	P371132	
		Dinotefuran**	0.0055	I	ug/L	P371132	
		Diuron	0.054		ug/L	P371132	
		Fenuron	0.016	U	ug/L	P371132	
		Fluridone**	0.0013	I	ug/L	P371132	
		Imazapyr**	0.14		ug/L	P371132	
		Hydrocodone**	0.0020	U	ug/L	P371132	
		Ibuprofen**	0.020	U	ug/L	P371132	
		Imidacloprid	0.49		ug/L	P371132	MS
		Linuron	0.0040	U	ug/L	P371132	
		Mandestrobin**	0.0020	UJ	ug/L	P371132	
		MCP	0.0038	I	ug/L	P371132	MS
		Naproxen**	0.015	I	ug/L	P371132	
		Primidone**	0.0040	U	ug/L	P371132	
		Pyraclostrobin**	0.0020	U	ug/L	P371132	
		Thiamethoxam**	0.0020	U	ug/L	P371132	
		Tolfenpyrad**	0.0020	U	ug/L	P371132	
		Triclopyr**	0.0040	U	ug/L	P371132	
2121676	EPA 200.7 Rev. 4.4	Iron	1.24E+03		ug/L	P371246	

Field ID: 20030792

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2121676	EPA 200.7 Rev. 4.4	Manganese	119		ug/L	P371246	
		Zinc	17	I	ug/L	P371246	
	EPA 200.8 Rev. 5.4	Aluminum	69	I	ug/L	P371246	
		Antimony	0.50	U	ug/L	P371246	
		Arsenic	4.4		ug/L	P371246	
		Cadmium	0.20	U	ug/L	P371246	
		Chromium	4.0	U	ug/L	P371246	
		Copper	3.6		ug/L	P371246	
		Lead	2.0	U	ug/L	P371246	
		Nickel	2.4	I	ug/L	P371246	
		Selenium	0.80	U	ug/L	P371246	
		Silver	0.10	U	ug/L	P371246	
		Thallium	1.0	U	ug/L	P371246	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The sample expired upon receipt.

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired upon receipt.

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

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371236

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371237

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371246

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371324

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: P371246

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.44	I	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 200.8 Rev. 5.4
Batch ID: P371324

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371324

Component	Result	Code	Units
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
Batch ID: P371215

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371224

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371225

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371227

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371228

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371690

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371691

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: P371213

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371444

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371221

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371466

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371467

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371312

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371479

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371241

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371242

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P371188

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
Metaxyl	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
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P371101

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: P371101

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: EPA 8321B
Batch ID: P371132

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: SM 2120 B
Batch ID: P371249

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P371515

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

Reference Method: SM 2320 B-97
Batch ID: P371528

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P371616

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P371583

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P371700

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P371532

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P371880

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P371200

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

Reference Method: SM 5310 B-00
Batch ID: P371371

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: P371246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	100		P	85 - 115
Manganese	96.0		P	85 - 115
Zinc	96.1		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371324

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	103		P	85 - 115
Calcium	107		P	85 - 115
Iron	104		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	102		P	85 - 115
Sodium	107		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.7		P	85 - 115
Antimony	98.4		P	85 - 115
Arsenic	100		P	85 - 115
Cadmium	98.6		P	85 - 115
Chromium	97.3		P	85 - 115
Copper	96.3		P	85 - 115
Lead	98.6		P	85 - 115
Nickel	98.3		P	85 - 115
Selenium	98.7		P	85 - 115
Silver	104		P	85 - 115
Thallium	98.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371324

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.1		P	85 - 115
Antimony	93.2		P	85 - 115
Arsenic	101		P	85 - 115
Boron	99.0		P	85 - 115
Cadmium	97.9		P	85 - 115
Chromium	97.3		P	85 - 115
Copper	99.4		P	85 - 115
Lead	93.8		P	85 - 115
Nickel	99.8		P	85 - 115
Selenium	97.0		P	85 - 115
Silver	98.2		P	85 - 115
Thallium	98.6		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0
Batch ID: P371215

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371224

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371225

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371227

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371228

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371690

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371691

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371213

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371444

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.5		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P371221

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P371466

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P371467

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P371312

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P371479

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P371241

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P371242

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

Reference Method: EPA 8270E
 Batch ID: P371188

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	99.5	90.1	P/P	69 - 122
Alachlor	98.0	87.1	P/P	71 - 120
Ametryn	109	94.7	P/P	47 - 138
Atrazine	105	99.0	P/P	74 - 124
Atrazine Desethyl	105	69.7	P/P	38 - 138
Azinphos Methyl	124	111	P/P	69 - 154
Bromacil	80.3	73.0	P/P	39 - 121
Butylate	63.9	83.0	P/P	27 - 87.0
Chlorpyrifos Ethyl	98.5	91.5	P/P	69 - 118
Chlorpyrifos Methyl	105	86.2	P/P	70 - 120

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P371188

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cyanazine	133	86.0	P/P	20 - 250
Demeton	81.9	72.4	P/P	39 - 118
Diazinon	108	91.1	P/P	68 - 127
Dimethenamid	99.9	87.5	P/P	66 - 125
Disulfoton	97.7	78.2	P/P	52 - 126
Dithiopyr	99.4	92.0	P/P	67 - 127
EPTC	64.1	58.9	P/P	24 - 88.0
Ethion	77.1	99.6	P/P	51 - 132
Ethoprop	96.3	75.4	P/P	58 - 117
Fenamiphos	104	90.1	P/P	38 - 139
Fipronil	104	78.5	P/P	61 - 124
Fipronil Desulfinyl	85.3	81.1	P/P	47 - 120
Fipronil Sulfide	89.0	82.1	P/P	56 - 119
Fipronil Sulfone	80.1	62.7	P/P	50 - 117
Fonofos	98.2	74.2	P/P	60 - 121
Hexazinone	100	99.8	P/P	55 - 137
Malathion	97.3	95.4	P/P	66 - 126
Metalaxyl	93.0	91.0	P/P	33 - 140
Metolachlor	96.2	91.1	P/P	69 - 119
Metribuzin	203	106	P/P	31 - 238
Mevinphos	89.4	71.9	P/P	42 - 113
Molinate	78.8	68.0	P/P	32 - 96.0
Norflurazon	104	94.4	P/P	54 - 123
Oxadiazon	99.8	98.3	P/P	63 - 128
Parathion Ethyl	97.8	91.9	P/P	72 - 111
Parathion Methyl	106	92.5	P/P	74 - 126
Pendimethalin	90.7	87.9	P/P	61 - 131
Phorate	97.6	82.8	P/P	51 - 115
Prodiamine	79.6	87.2	P/P	38 - 144
Prometon	95.0	87.4	P/P	54 - 119
Prometryn	108	92.6	P/P	63 - 120
Simazine	106	96.4	P/P	75 - 126
Tebuconazole	62.4	92.3	P/P	20 - 119
Terbufos	101	79.2	P/P	64 - 116
Terbuthylazine	96.9	101	P/P	73 - 117

Reference Method: EPA 8321B
Batch ID: P371101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	126		P	40 - 150
AMPA	89.5		P	40 - 150
Endothall	83.5		P	40 - 150
Glufosinate	88.1		P	40 - 150
Glyphosate	77.0		P	40 - 140
Sucralose	109		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P371132

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	131		P	40 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P371132

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	87.5		P	30 - 160
Acetamiprid	95.9		P	40 - 160
Afidopyropen	103		P	40 - 160
Bentazon	99.0		P	30 - 160
Benzovindiflupyr	89.4		P	40 - 160
Carbamazepine	119		P	40 - 160
Clothianidin	90.4		P	40 - 160
Dinotefuran	93.3		P	40 - 160
Diuron	91.3		P	40 - 160
Fenuron	101		P	40 - 160
Fluridone	107		P	40 - 160
Hydrocodone	96.4		P	40 - 160
Ibuprofen	84.8		P	30 - 160
Imazapyr	94.3		P	40 - 160
Imidacloprid	116		P	40 - 160
Linuron	76.1		P	40 - 160
Mandestrobin	93.0		P	40 - 160
MCPP	148		P	40 - 160
Naproxen	83.5		P	40 - 160
Primidone	87.3		P	40 - 160
Pyraclostrobin	84.8		P	30 - 160
Thiamethoxam	103		P	40 - 160
Tolfenpyrad	61.7		P	40 - 160
Triclopyr	116		P	30 - 160

Reference Method: SM 2120 B
Batch ID: P371249

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

Reference Method: SM 2320 B-97
Batch ID: P371515

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 106

Reference Method: SM 2320 B-97
Batch ID: P371528

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

Reference Method: SM 4500 F-C-97
Batch ID: P371532

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P371880

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P371200

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.9		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P371371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	103		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121676	Iron	98.0	97.8	P/P	70 - 130
2121676	Manganese	92.8	91.6	P/P	70 - 130
2121676	Zinc	101	100	P/P	70 - 130

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121650	Barium	97.9		P	80 - 120
2121650	Calcium	103		P	80 - 120
2121650	Iron	101		P	80 - 120
2121650	Magnesium	105		P	80 - 120
2121650	Potassium	97.2		P	80 - 120
2121650	Sodium	100		P	80 - 120
2121650	Zinc	99.1		P	80 - 120
2121733	Barium	101	101	P/P	80 - 120
2121733	Calcium	106	107	P/P	80 - 120
2121733	Iron	103	104	P/P	80 - 120
2121733	Magnesium	110	111	P/P	80 - 120
2121733	Potassium	109	108	P/P	80 - 120
2121733	Sodium	107	108	P/P	80 - 120
2121733	Zinc	99.1	99.6	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121676	Aluminum	100	100	P/P	70 - 130
2121676	Antimony	98.9	97.7	P/P	70 - 130
2121676	Arsenic	101	101	P/P	70 - 130
2121676	Cadmium	99.5	99.8	P/P	70 - 130
2121676	Chromium	93.6	92.5	P/P	70 - 130
2121676	Copper	94.6	92.9	P/P	70 - 130
2121676	Lead	103	102	P/P	70 - 130
2121676	Nickel	95.1	93.1	P/P	70 - 130
2121676	Selenium	109	105	P/P	70 - 130
2121676	Silver	103	101	P/P	70 - 130
2121676	Thallium	96.7	97.3	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121650	Aluminum	98.2		P	80 - 120
2121650	Antimony	94.5		P	80 - 120
2121650	Arsenic	101		P	80 - 120
2121650	Boron	99.6		P	80 - 120
2121650	Cadmium	97.8		P	80 - 120
2121650	Chromium	96.9		P	80 - 120
2121650	Copper	101		P	80 - 120
2121650	Lead	95.5		P	80 - 120
2121650	Nickel	100		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121650	Selenium	98.6		P	80 - 120
2121650	Silver	98.4		P	80 - 120
2121650	Thallium	100		P	80 - 120
2121733	Aluminum	99.0	97.9	P/P	80 - 120
2121733	Antimony	94.0	94.9	P/P	80 - 120
2121733	Arsenic	101	99.8	P/P	80 - 120
2121733	Boron	98.6	97.3	P/P	80 - 120
2121733	Cadmium	97.1	96.6	P/P	80 - 120
2121733	Chromium	97.5	95.7	P/P	80 - 120
2121733	Copper	101	100	P/P	80 - 120
2121733	Lead	95.3	94.4	P/P	80 - 120
2121733	Nickel	99.6	99.2	P/P	80 - 120
2121733	Selenium	98.0	97.3	P/P	80 - 120
2121733	Silver	97.8	97.3	P/P	80 - 120
2121733	Thallium	100	99.5	P/P	80 - 120

Reference Method: EPA 300.0
Batch ID: P371215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121387	Bromide	96.0	95.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371224

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121188	Chloride	101		P	90 - 110
2121278	Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371225

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121454	Chloride	101	102	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371227

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121188	Sulfate	101		P	90 - 110
2121278	Sulfate	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371228

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121454	Sulfate	101	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121955	Ammonia-N	101	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121637	Ammonia-N	96.9	97.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121602	Kjeldahl Nitrogen	95.0	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371444

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121246	Kjeldahl Nitrogen	101	99.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371221

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121392	NO2NO3-N	104	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121599	NO2NO3-N	96.2	97.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121663	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121392	Total-P	95.4	91.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371479

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121660	Total-P	99.6	96.3	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P371241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121966	O-Phosphate-P	96.1	96.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P371242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121725	O-Phosphate-P	96.0	97.0	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P371188

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120901	Acetochlor	89.4	100	P/P	63 - 129
2120901	Alachlor	88.7	97.8	P/P	65 - 127
2120901	Ametryn	96.8	97.9	P/P	40 - 164
2120901	Atrazine	96.9	98.5	P/P	66 - 135
2120901	Atrazine Desethyl	73.5	85.5	P/P	14 - 157
2120901	Azinphos Methyl	104	108	P/P	49 - 180
2120901	Bromacil	76.8	80.2	P/P	48 - 130
2120901	Butylate	57.9	56.3	P/P	10 - 94.0
2120901	Chlorpyrifos Ethyl	90.0	91.0	P/P	58 - 123
2120901	Chlorpyrifos Methyl	85.5	91.8	P/P	58 - 125
2120901	Cyanazine	84.7	120	P/P	24 - 253
2120901	Demeton	65.1	77.0	P/P	25 - 149
2120901	Diazinon	86.5	101	P/P	59 - 144
2120901	Dimethenamid	87.7	97.3	P/P	46 - 139
2120901	Disulfoton	74.5	89.5	P/P	54 - 132
2120901	Dithiopyr	92.2	96.2	P/P	64 - 130
2120901	EPTC	58.2	58.2	P/P	10 - 92.0
2120901	Ethion	95.9	92.2	P/P	30 - 148
2120901	Ethoprop	76.6	86.5	P/P	50 - 130
2120901	Fenamiphos	92.6	82.1	P/P	49 - 142
2120901	Fipronil	95.1	97.2	P/P	46 - 140
2120901	Fipronil Desulfinyl	88.4	82.1	P/P	30 - 121
2120901	Fipronil Sulfide	91.7	79.6	P/P	31 - 136
2120901	Fipronil Sulfone	89.7	78.7	P/P	16 - 136
2120901	Fonofos	69.6	82.3	P/P	55 - 129
2120901	Hexazinone	101	94.3	P/P	56 - 141
2120901	Malathion	98.2	97.5	P/P	56 - 135
2120901	Metalaxyl	94.9	96.1	P/P	54 - 135
2120901	Metolachlor	91.4	98.1	P/P	51 - 140
2120901	Metribuzin	96.9	149	P/P	45 - 254
2120901	Mevinphos	78.4	76.9	P/P	33 - 131
2120901	Molinate	67.2	69.6	P/P	14 - 98.0
2120901	Norflurazon	94.9	93.5	P/P	34 - 136
2120901	Oxadiazon	97.0	96.3	P/P	67 - 116
2120901	Parathion Ethyl	89.2	91.2	P/P	66 - 118
2120901	Parathion Methyl	94.2	95.1	P/P	64 - 136
2120901	Pendimethalin	81.5	88.5	P/P	59 - 144
2120901	Phorate	77.8	88.3	P/P	42 - 130
2120901	Prodiamine	92.6	98.2	P/P	42 - 148
2120901	Prometon	92.1	91.2	P/P	59 - 134

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P371188

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120901	Prometryn	88.2	100	P/P	54 - 135
2120901	Simazine	97.6	96.8	P/P	53 - 156
2120901	Tebuconazole	95.0	73.6	P/P	10 - 131
2120901	Terbufos	75.4	89.2	P/P	57 - 131
2120901	Terbuthylazine	94.1	91.8	P/P	68 - 125

Reference Method: EPA 8321B
Batch ID: P371101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121020	Acesulfame K	134	134	P/P	40 - 150
2121020	AMPA	46.3	49.7	P/P	40 - 150
2121020	Endothall	81.1	82.8	P/P	40 - 150
2121020	Glufosinate	81.2	80.4	P/P	40 - 150
2121020	Glyphosate	62.9	68.9	P/P	40 - 140
2121020	Sucralose	111	112	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P371132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121419	2,4-D	132	124	P/P	40 - 160
2121419	Acetaminophen	71.9	75.5	P/P	30 - 160
2121419	Acetamiprid	110	112	P/P	40 - 160
2121419	Afidopyropen	85.6	112	P/P	40 - 160
2121419	Benzovindiflupyr	99.9	98.9	P/P	40 - 160
2121419	Carbamazepine	104	105	P/P	40 - 160
2121419	Clothianidin	98.5	86.7	P/P	40 - 160
2121419	Dinotefuran	111	111	P/P	40 - 160
2121419	Diuron	83.5	82.0	P/P	40 - 160
2121419	Fenuron	83.4	84.5	P/P	40 - 160
2121419	Hydrocodone	93.2	97.4	P/P	40 - 160
2121419	Ibuprofen	89.8	90.7	P/P	30 - 160
2121419	Imidacloprid	182	192	F/F	40 - 160
2121419	Linuron	75.7	76.7	P/P	40 - 160
2121419	Mandestrobin	96.4	98.6	P/P	40 - 160
2121419	MCPD	162	168	F/F	40 - 160
2121419	Naproxen	90.4	102	P/P	40 - 160
2121419	Primidone	97.0	99.9	P/P	40 - 160
2121419	Pyraclostrobin	92.1	91.6	P/P	30 - 160
2121419	Thiamethoxam	142	143	P/P	40 - 160
2121419	Tolfenpyrad	71.0	76.6	P/P	40 - 160
2121419	Triclopyr	105	131	P/P	30 - 160

Reference Method: SM 4500 F-C-97
Batch ID: P371532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121762	Fluoride	97.2	95.5	P/P	89 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P371880

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122535	Fluoride	96.9	96.9	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P371200

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121392	Organic Carbon	97.0	99.3	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P371371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2121755	Organic Carbon	102	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371236

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121598	Turbidity	8.99	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371237

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122041	Turbidity	0.816	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121676	Iron	0.125	Spike	P	0 - 20
2121676	Manganese	0.747	Spike	P	0 - 20
2121676	Zinc	0.694	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121733	Barium	0.0474	Spike	P	0 - 20
2121733	Calcium	0.844	Spike	P	0 - 20
2121733	Iron	0.769	Spike	P	0 - 20
2121733	Magnesium	0.671	Spike	P	0 - 20
2121733	Potassium	0.544	Spike	P	0 - 20
2121733	Sodium	0.685	Spike	P	0 - 20
2121733	Zinc	0.498	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121676	Aluminum	0.281	Spike	P	0 - 20
2121676	Antimony	1.26	Spike	P	0 - 20
2121676	Arsenic	0.125	Spike	P	0 - 20
2121676	Cadmium	0.295	Spike	P	0 - 20
2121676	Chromium	1.21	Spike	P	0 - 20
2121676	Copper	1.66	Spike	P	0 - 20
2121676	Lead	1.00	Spike	P	0 - 20
2121676	Nickel	2.07	Spike	P	0 - 20
2121676	Selenium	3.28	Spike	P	0 - 20
2121676	Silver	1.30	Spike	P	0 - 20
2121676	Thallium	0.616	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121733	Aluminum	1.09	Spike	P	0 - 20
2121733	Antimony	0.928	Spike	P	0 - 20
2121733	Arsenic	1.57	Spike	P	0 - 20
2121733	Boron	1.23	Spike	P	0 - 20
2121733	Cadmium	0.489	Spike	P	0 - 20
2121733	Chromium	1.91	Spike	P	0 - 20
2121733	Copper	0.921	Spike	P	0 - 20
2121733	Lead	0.975	Spike	P	0 - 20
2121733	Nickel	0.469	Spike	P	0 - 20
2121733	Selenium	0.739	Spike	P	0 - 20
2121733	Silver	0.446	Spike	P	0 - 20
2121733	Thallium	0.521	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P371215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121387	Bromide	0.0178	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371224

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121188	Chloride	0.356	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121454	Chloride	0.783	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121188	Sulfate	0.278	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371228

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121454	Sulfate	0.892	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121955	Ammonia-N	0.848	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121637	Ammonia-N	0.474	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121602	Kjeldahl Nitrogen	6.05	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371444

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121246	Kjeldahl Nitrogen	0.654	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371221

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121392	NO2NO3-N	0.682	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121599	NO2NO3-N	0.997	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121663	NO2NO3-N	0.370	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371312

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121392	Total-P	2.91	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371479

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121660	Total-P	2.73	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121966	O-Phosphate-P	0.795	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121725	O-Phosphate-P	0.849	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P371188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120901	Acetochlor	11.3	Spike	P	0 - 30
2120901	Alachlor	9.84	Spike	P	0 - 30
2120901	Ametryn	1.20	Spike	P	0 - 30
2120901	Atrazine	1.60	Spike	P	0 - 30
2120901	Atrazine Desethyl	15.1	Spike	P	0 - 30
2120901	Azinphos Methyl	3.67	Spike	P	0 - 30
2120901	Bromacil	4.30	Spike	P	0 - 30
2120901	Butylate	2.69	Spike	P	0 - 30
2120901	Chlorpyrifos Ethyl	1.05	Spike	P	0 - 30
2120901	Chlorpyrifos Methyl	7.08	Spike	P	0 - 30
2120901	Cyanazine	34.2	Spike	F	0 - 30
2120901	Demeton	16.7	Spike	P	0 - 30
2120901	Diazinon	15.2	Spike	P	0 - 30
2120901	Dimethenamid	10.3	Spike	P	0 - 30
2120901	Disulfoton	18.2	Spike	P	0 - 30
2120901	Dithiopyr	4.21	Spike	P	0 - 30
2120901	EPTC	0.0661	Spike	P	0 - 30
2120901	Ethion	3.93	Spike	P	0 - 30
2120901	Ethoprop	12.1	Spike	P	0 - 30
2120901	Fenamiphos	12.0	Spike	P	0 - 30
2120901	Fipronil	2.12	Spike	P	0 - 30
2120901	Fipronil Desulfinyl	7.34	Spike	P	0 - 30
2120901	Fipronil Sulfide	14.2	Spike	P	0 - 30
2120901	Fipronil Sulfone	13.0	Spike	P	0 - 30
2120901	Fonofos	16.7	Spike	P	0 - 30
2120901	Hexazinone	7.33	Spike	P	0 - 30
2120901	Malathion	0.670	Spike	P	0 - 30
2120901	Metalaxyl	1.28	Spike	P	0 - 30
2120901	Metolachlor	7.13	Spike	P	0 - 30
2120901	Metribuzin	42.4	Spike	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P371188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120901	Mevinphos	1.96	Spike	P	0 - 30
2120901	Molinate	3.53	Spike	P	0 - 30
2120901	Norflurazon	1.53	Spike	P	0 - 30
2120901	Oxadiazon	0.678	Spike	P	0 - 30
2120901	Parathion Ethyl	2.30	Spike	P	0 - 30
2120901	Parathion Methyl	0.996	Spike	P	0 - 30
2120901	Pendimethalin	8.19	Spike	P	0 - 30
2120901	Phorate	12.6	Spike	P	0 - 30
2120901	Prodiamine	5.95	Spike	P	0 - 30
2120901	Prometon	1.05	Spike	P	0 - 30
2120901	Prometryn	12.6	Spike	P	0 - 30
2120901	Simazine	0.805	Spike	P	0 - 30
2120901	Tebuconazole	25.4	Spike	P	0 - 30
2120901	Terbufos	16.7	Spike	P	0 - 30
2120901	Terbutylazine	2.49	Spike	P	0 - 30
LFB	Acetochlor	9.82	LCS	P	0 - 30
LFB	Alachlor	11.8	LCS	P	0 - 30
LFB	Ametryn	13.6	LCS	P	0 - 30
LFB	Atrazine	6.07	LCS	P	0 - 30
LFB	Atrazine Desethyl	40.6	LCS	F	0 - 30
LFB	Azinphos Methyl	10.9	LCS	P	0 - 30
LFB	Bromacil	9.51	LCS	P	0 - 30
LFB	Butylate	25.9	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	7.36	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	19.2	LCS	P	0 - 30
LFB	Cyanazine	42.9	LCS	F	0 - 30
LFB	Demeton	12.3	LCS	P	0 - 30
LFB	Diazinon	16.5	LCS	P	0 - 30
LFB	Dimethenamid	13.3	LCS	P	0 - 30
LFB	Disulfoton	22.1	LCS	P	0 - 30
LFB	Dithiopyr	7.75	LCS	P	0 - 30
LFB	EPTC	8.48	LCS	P	0 - 30
LFB	Ethion	25.5	LCS	P	0 - 30
LFB	Ethoprop	24.4	LCS	P	0 - 30
LFB	Fenamiphos	14.8	LCS	P	0 - 30
LFB	Fipronil	27.9	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	5.08	LCS	P	0 - 30
LFB	Fipronil Sulfide	8.04	LCS	P	0 - 30
LFB	Fipronil Sulfone	24.3	LCS	P	0 - 30
LFB	Fonofos	27.8	LCS	P	0 - 30
LFB	Hexazinone	0.656	LCS	P	0 - 30
LFB	Malathion	2.03	LCS	P	0 - 30
LFB	Metalaxyl	2.14	LCS	P	0 - 30
LFB	Metolachlor	5.44	LCS	P	0 - 30
LFB	Metribuzin	62.6	LCS	F	0 - 30
LFB	Mevinphos	21.6	LCS	P	0 - 30
LFB	Molinate	14.8	LCS	P	0 - 30
LFB	Norflurazon	10.0	LCS	P	0 - 30
LFB	Oxadiazon	1.49	LCS	P	0 - 30
LFB	Parathion Ethyl	6.22	LCS	P	0 - 30
LFB	Parathion Methyl	13.6	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P371188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Pendimethalin	3.16	LCS	P	0 - 30
LFB	Phorate	16.4	LCS	P	0 - 30
LFB	Prodiamine	9.08	LCS	P	0 - 30
LFB	Prometon	8.25	LCS	P	0 - 30
LFB	Prometryn	15.6	LCS	P	0 - 30
LFB	Simazine	8.98	LCS	P	0 - 30
LFB	Tebuconazole	38.7	LCS	F	0 - 30
LFB	Terbufos	24.2	LCS	P	0 - 30
LFB	Terbuthylazine	4.00	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P371101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121020	Acesulfame K	0.412	Spike	P	0 - 30
2121020	AMPA	4.62	Spike	P	0 - 30
2121020	Endothall	2.08	Spike	P	0 - 30
2121020	Glufosinate	1.02	Spike	P	0 - 30
2121020	Glyphosate	7.20	Spike	P	0 - 30
2121020	Sucralose	0.217	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P371132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121419	2,4-D	4.44	Spike	P	0 - 30
2121419	Acetaminophen	4.87	Spike	P	0 - 30
2121419	Acetamiprid	1.41	Spike	P	0 - 30
2121419	Afidopyropen	26.8	Spike	P	0 - 30
2121419	Benzovindiflupyr	1.02	Spike	P	0 - 30
2121419	Carbamazepine	0.853	Spike	P	0 - 30
2121419	Clothianidin	12.3	Spike	P	0 - 30
2121419	Dinotefuran	0.235	Spike	P	0 - 30
2121419	Diuron	1.55	Spike	P	0 - 30
2121419	Fenuron	0.877	Spike	P	0 - 30
2121419	Fluridone	1.16	Spike	P	0 - 30
2121419	Hydrocodone	4.45	Spike	P	0 - 30
2121419	Ibuprofen	0.934	Spike	P	0 - 30
2121419	Imazapyr	7.44	Spike	P	0 - 30
2121419	Imidacloprid	4.37	Spike	P	0 - 30
2121419	Linuron	1.27	Spike	P	0 - 30
2121419	Mandestrobin	2.24	Spike	P	0 - 30
2121419	MCPP	3.72	Spike	P	0 - 30
2121419	Naproxen	12.5	Spike	P	0 - 30
2121419	Primidone	2.63	Spike	P	0 - 30
2121419	Pyraclostrobin	0.502	Spike	P	0 - 30
2121419	Thiamethoxam	0.693	Spike	P	0 - 30
2121419	Tolfenpyrad	7.61	Spike	P	0 - 30
2121419	Triclopyr	22.6	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P371249

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121729	Color (true)	1.03	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P371515

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121389	Total Alkalinity	0.179	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P371528

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121762	Total Alkalinity	0.0776	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P371616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121659	TDS	5.02	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P371532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121762	Fluoride	1.45	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
Batch ID: P371880

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122535	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P371200

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121392	Organic Carbon	2.02	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P371371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121755	Organic Carbon	0.307	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: 2121673
Field Sample ID: 20030792

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	147	P	30 - 160
EPA 8321B	Acetaminophen-d4	74.9	P	30 - 160
EPA 8321B	Bentazon-d7	66.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.0	P	30 - 160
EPA 8321B	Diuron-d6	76.3	P	30 - 160
EPA 8321B	Endothall-d6	297	F	30 - 160
EPA 8321B	Endothall-d6	297	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	131	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	131	P	30 - 160
EPA 8321B	Ibuprofen-d3	90.4	P	30 - 160
EPA 8321B	Primidone-d5	102	P	30 - 160
EPA 8321B	Sucralose-d6	137	P	30 - 160
EPA 8321B	Sucralose-d6	137	P	30 - 160

Lab Sample ID: 2121674
Field Sample ID: G2NE1159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	128	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.6	P	30 - 160
EPA 8321B	Bentazon-d7	62.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.1	P	30 - 160
EPA 8321B	Diuron-d6	84.4	P	30 - 160
EPA 8321B	Endothall-d6	120	P	30 - 160
EPA 8321B	Endothall-d6	120	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	88.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	88.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.4	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	90.7	P	30 - 160
EPA 8321B	Sucralose-d6	90.7	P	30 - 160

Lab Sample ID: 2121675
Field Sample ID: G2NE1192

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	140	P	30 - 160
EPA 8321B	Acetaminophen-d4	71.9	P	30 - 160
EPA 8321B	Bentazon-d7	62.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.5	P	30 - 160
EPA 8321B	Diuron-d6	81.3	P	30 - 160
EPA 8321B	Endothall-d6	136	P	30 - 160
EPA 8321B	Endothall-d6	136	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	132	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	132	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.9	P	30 - 160
EPA 8321B	Primidone-d5	105	P	30 - 160
EPA 8321B	Sucralose-d6	150	P	30 - 160
EPA 8321B	Sucralose-d6	150	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2121679
Field Sample ID: G2NE1192

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	119	P	68 - 130
EPA 8270E	Terbufos-d10	104	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A94437
Included Lab Sample IDs: 2121657

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	99.6	P/P	90 - 110

Reference Method: EPA 300.0
Run ID: A94448
Included Lab Sample IDs: 2121656

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A94451
Included Lab Sample IDs: 2121657

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A94452
Included Lab Sample IDs: 2121659, 2121662

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Chloride	102	103	P/P	90 - 110
Sulfate	103	103	P/P	90 - 110
Sulfate	104	105	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A94462
Included Lab Sample IDs: 2121656, 2121659, 2121662

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A94463
Included Lab Sample IDs: 2121658, 2121661, 2121664

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	101	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A94467
Included Lab Sample IDs: 2121673, 2121674, 2121675

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	121	64.2	P/P	60 - 160
Endothall	93.6	112	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A94469

Included Lab Sample IDs: 2121659, 2121662

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.6	102	P/P	90 - 115

Reference Method: SM 5310 B-00

Run ID: A94516

Included Lab Sample IDs: 2121660, 2121663

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94517

Included Lab Sample IDs: 2121657

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.9	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94522

Included Lab Sample IDs: 2121673, 2121674, 2121675

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	103	P/P	60 - 160
AMPA	99.4	101	P/P	60 - 160
Glufosinate	111	93.2	P/P	60 - 160
Glufosinate	86.5	111	P/P	60 - 160
Glyphosate	102	104	P/P	60 - 160
Glyphosate	104	121	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94525

Included Lab Sample IDs: 2121660, 2121663

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110
NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94534

Included Lab Sample IDs: 2121673, 2121674, 2121675

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	78.8	106	P/P	50 - 150
Acetaminophen	117	111	P/P	60 - 160
Acetamiprid	113	116	P/P	50 - 150
Afidopyropen	98.8	122	P/P	50 - 150
Bentazon	103	103	P/P	50 - 160
Benzovindiflupyr	103	111	P/P	50 - 150
Carbamazepine	122	125	P/P	60 - 150
Clothianidin	120	120	P/P	60 - 150
Dinotefuran	104	98.4	P/P	50 - 150
Diuron	106	104	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A94534

Included Lab Sample IDs: 2121673, 2121674, 2121675

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenuron	112	115	P/P	60 - 150
Fluridone	109	113	P/P	60 - 160
Hydrocodone	113	114	P/P	60 - 150
Ibuprofen	91.5	105	P/P	50 - 160
Imazapyr	90.1	99.1	P/P	50 - 150
Imazapyr	99.1	107	P/P	50 - 150
Imidacloprid	106	110	P/P	60 - 150
Linuron	102	106	P/P	60 - 150
Mandestrobin	115	117	P/P	50 - 150
MCPP	98.5	106	P/P	50 - 150
Naproxen	92.9	132	P/P	50 - 160
Primidone	111	111	P/P	60 - 150
Pyraclostrobin	107	118	P/P	60 - 150
Thiamethoxam	109	113	P/P	50 - 150
Tolfenpyrad	106	114	P/P	60 - 150
Triclopyr	106	97.3	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94536

Included Lab Sample IDs: 2121660, 2121663

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94550

Included Lab Sample IDs: 2121677, 2121678

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	103	P/P	90 - 110
Arsenic	104	104	P/P	90 - 110
Boron	100	101	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	100	100	P/P	90 - 110
Copper	103	103	P/P	90 - 110
Lead	98.7	99.1	P/P	90 - 110
Nickel	103	104	P/P	90 - 110
Selenium	102	103	P/P	90 - 110
Silver	98.5	98.9	P/P	90 - 110
Thallium	94.4	94.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A94562

Included Lab Sample IDs: 2121676, 2121677, 2121678

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	99.6	101	P/P	90 - 110
Calcium	103	99.3	P/P	90 - 110
Iron	102	101	P/P	90 - 110
Iron	98.1	98.1	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A94562

Included Lab Sample IDs: 2121676, 2121677, 2121678

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Manganese	99.7	99.7	P/P	90 - 110
Potassium	100	101	P/P	90 - 110
Sodium	101	100	P/P	90 - 110
Zinc	96.0	96.0	P/P	90 - 110
Zinc	98.1	99.5	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A94575

Included Lab Sample IDs: 2121656

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94578

Included Lab Sample IDs: 2121660, 2121663

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	100	P/P	90 - 110
Total-P	103	102	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A94582

Included Lab Sample IDs: 2121659, 2121662

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A94582

Included Lab Sample IDs: 2121659, 2121662

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	103	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94586

Included Lab Sample IDs: 2121673, 2121674, 2121675

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	103	103	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94590

Included Lab Sample IDs: 2121677, 2121678

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	94.3	94.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94597

Included Lab Sample IDs: 2121657

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	107	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94647

Included Lab Sample IDs: 2121657, 2121660, 2121663

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	100	P/P	90 - 110
Ammonia-N	96.1	97.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A94719

Included Lab Sample IDs: 2121656

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94771

Included Lab Sample IDs: 2121676

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	100	P/P	90 - 110
Antimony	99.1	99.1	P/P	90 - 110
Arsenic	104	103	P/P	90 - 110
Cadmium	102	102	P/P	90 - 110
Chromium	100	99.2	P/P	90 - 110
Lead	103	103	P/P	90 - 110
Silver	104	103	P/P	90 - 110
Thallium	95.3	94.3	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A94788

Included Lab Sample IDs: 2121679

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	104		P	80 - 120
Atrazine Desethyl	96.7		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	97.4		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	105		P	80 - 120
Cyanazine	93.2		P	80 - 120
Demeton	94.1		P	80 - 120
Diazinon	102		P	80 - 120
Dimethenamid	104		P	80 - 120
Disulfoton	99.5		P	80 - 120
Dithiopyr	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A94788
Included Lab Sample IDs: 2121679

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
EPTC	98.7		P	80 - 120
Ethion	103		P	80 - 120
Ethoprop	98.9		P	80 - 120
Fenamiphos	97.9		P	80 - 120
Fipronil	100		P	80 - 120
Fipronil Desulfinyl	100		P	80 - 120
Fipronil Sulfide	97.4		P	80 - 120
Fipronil Sulfone	99.0		P	80 - 120
Fonofos	99.4		P	80 - 120
Hexazinone	99.1		P	80 - 120
Malathion	102		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	109		P	80 - 120
Metribuzin	90.4		P	80 - 120
Mevinphos	104		P	80 - 120
Molinate	95.6		P	80 - 120
Norflurazon	100		P	80 - 120
Oxadiazon	106		P	80 - 120
Parathion Ethyl	97.6		P	80 - 120
Parathion Methyl	98.9		P	80 - 120
Pendimethalin	98.9		P	80 - 120
Phorate	98.0		P	80 - 120
Prodiamine	103		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	103		P	80 - 120
Simazine	99.4		P	80 - 120
Tebuconazole	102		P	80 - 120
Terbufos	98.6		P	80 - 120
Terbutylazine	102		P	80 - 120

Reference Method: EPA 8270E
Run ID: A94789
Included Lab Sample IDs: 2121679

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A94842
Included Lab Sample IDs: 2121676

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	101	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A94847
Included Lab Sample IDs: 2121676

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	98.7	99.4	P/P	90 - 110
Nickel	99.1	100	P/P	90 - 110

Quality Assurance Report

Calibration Verification

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery			MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity								8.99	
	Turbidity								0.816	
EPA 200.7 Rev. 4.4	Barium	103			97.9	101	101			0.0474
	Calcium	107			103	106	107			0.844
	Iron	100			98.0	97.8				0.125
	Iron	104			101	103	104			0.769
	Magnesium	111			105	110	111			0.671
	Manganese	96.0			92.8	91.6				0.747
	Potassium	102			97.2	109	108			0.544
	Sodium	107			100	107	108			0.685
	Zinc	96.1			101	100				0.694
	Zinc	102			99.1	99.1	99.6			0.498
EPA 200.8 Rev. 5.4	Aluminum	97.7			100	100				0.281
	Aluminum	97.1			98.2	99.0	97.9			1.09
	Antimony	98.4			98.9	97.7				1.26
	Antimony	93.2			94.5	94.0	94.9			0.928
	Arsenic	100			101	101				0.125
	Arsenic	101			101	101	99.8			1.57
	Boron	99.0			99.6	98.6	97.3			1.23
	Cadmium	98.6			99.5	99.8				0.295
	Cadmium	97.9			97.8	97.1	96.6			0.489
	Chromium	97.3			93.6	92.5				1.21
	Chromium	97.3			96.9	97.5	95.7			1.91
	Copper	96.3			94.6	92.9				1.66
	Copper	99.4			101	101	100			0.921
	Lead	98.6			103	102				1.00
	Lead	93.8			95.5	95.3	94.4			0.975
	Nickel	98.3			95.1	93.1				2.07
	Nickel	99.8			100	99.6	99.2			0.469
	Selenium	98.7			109	105				3.28
	Selenium	97.0			98.6	98.0	97.3			0.739
	Silver	104			103	101				1.30
	Silver	98.2			97.3	98.4	97.8			0.446
	Thallium	98.3			96.7	97.3				0.616
	Thallium	98.6			100	100	99.5			0.521
EPA 300.0	Bromide	97.1			96.0	95.9				0.0178
EPA 300.0 Rev. 2.1	Chloride	99.3			101	99.4			0.356	
	Chloride	100			101	102				0.783
	Sulfate	100			101	97.3			0.278	
	Sulfate	100			101	102				0.892
EPA 350.1 Rev. 2.0	Ammonia-N	100			101	100				0.848
	Ammonia-N	102			96.9	97.4				0.474
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103			95.0	104				6.05
	Kjeldahl Nitrogen	96.5			101	99.7				0.654
EPA 353.2 Rev. 2.0	NO2NO3-N	100			104	102				0.682
	NO2NO3-N	103			96.2	97.8				0.997
	NO2NO3-N	103			101	102				0.370
EPA 365.1 Rev. 2.0	Total-P	95.8			95.4	91.8				2.91
	Total-P	94.6			99.6	96.3				2.73
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5			96.1	96.9				0.795
	O-Phosphate-P	102			96.0	97.0				0.849
EPA 8270E	Acetochlor	99.5	90.1		89.4	100		9.82		11.3
	Alachlor	98.0	87.1		88.7	97.8		11.8		9.84
	Ametryn	109	94.7		96.8	97.9		13.6		1.20

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Atrazine	105	99.0	96.9	98.5	6.07	1.60
	Atrazine Desethyl	105	69.7	73.5	85.5	40.6	15.1
	Azinphos Methyl	124	111	104	108	10.9	3.67
	Bromacil	80.3	73.0	76.8	80.2	9.51	4.30
	Butylate	63.9	83.0	57.9	56.3	25.9	2.69
	Chlorpyrifos Ethyl	98.5	91.5	90.0	91.0	7.36	1.05
	Chlorpyrifos Methyl	105	86.2	85.5	91.8	19.2	7.08
	Cyanazine	133	86.0	84.7	120	42.9	34.2
	Demeton	81.9	72.4	65.1	77.0	12.3	16.7
	Diazinon	108	91.1	86.5	101	16.5	15.2
	Dimethenamid	99.9	87.5	87.7	97.3	13.3	10.3
	Disulfoton	97.7	78.2	74.5	89.5	22.1	18.2
	Dithiopyr	99.4	92.0	92.2	96.2	7.75	4.21
	EPTC	64.1	58.9	58.2	58.2	8.48	0.0661
	Ethion	77.1	99.6	95.9	92.2	25.5	3.93
	Ethoprop	96.3	75.4	76.6	86.5	24.4	12.1
	Fenamiphos	104	90.1	92.6	82.1	14.8	12.0
	Fipronil	104	78.5	95.1	97.2	27.9	2.12
	Fipronil Desulfinyl	85.3	81.1	88.4	82.1	5.08	7.34
	Fipronil Sulfide	89.0	82.1	91.7	79.6	8.04	14.2
	Fipronil Sulfone	80.1	62.7	89.7	78.7	24.3	13.0
	Fonofos	98.2	74.2	69.6	82.3	27.8	16.7
	Hexazinone	100	99.8	101	94.3	0.656	7.33
	Malathion	97.3	95.4	98.2	97.5	2.03	0.670
	Metalaxyl	93.0	91.0	94.9	96.1	2.14	1.28
	Metolachlor	96.2	91.1	91.4	98.1	5.44	7.13
	Metribuzin	203	106	96.9	149	62.6	42.4
	Mevinphos	89.4	71.9	78.4	76.9	21.6	1.96
	Molinate	78.8	68.0	67.2	69.6	14.8	3.53
	Norflurazon	104	94.4	94.9	93.5	10.0	1.53
	Oxadiazon	99.8	98.3	97.0	96.3	1.49	0.678
	Parathion Ethyl	97.8	91.9	89.2	91.2	6.22	2.30
	Parathion Methyl	106	92.5	94.2	95.1	13.6	0.996
	Pendimethalin	90.7	87.9	81.5	88.5	3.16	8.19
	Phorate	97.6	82.8	77.8	88.3	16.4	12.6
	Prodiamine	79.6	87.2	92.6	98.2	9.08	5.95
	Prometon	95.0	87.4	92.1	91.2	8.25	1.05
	Prometryn	108	92.6	88.2	100	15.6	12.6
	Simazine	106	96.4	97.6	96.8	8.98	0.805
	Tebuconazole	62.4	92.3	95.0	73.6	38.7	25.4
	Terbufos	101	79.2	75.4	89.2	24.2	16.7
	Terbutylazine	96.9	101	94.1	91.8	4.00	2.49
EPA 8321B	2,4-D	131		132	124		4.44
	Acesulfame K	126		134	134		0.412
	Acetaminophen	87.5		71.9	75.5		4.87
	Acetamiprid	95.9		110	112		1.41
	Afidopyropen	103		85.6	112		26.8
	AMPA	89.5		46.3	49.7		4.62
	Bentazon	99.0					
	Benzovindiflupyr	89.4		99.9	98.9		1.02
	Carbamazepine	119		104	105		0.853
	Clothianidin	90.4		98.5	86.7		12.3
	Dinotefuran	93.3		111	111		0.235
	Diuron	91.3		83.5	82.0		1.55

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Endothall	83.5	81.1	82.8			2.08
	Fenuron	101	83.4	84.5			0.877
	Fluridone	107					1.16
	Glufosinate	88.1	81.2	80.4			1.02
	Glyphosate	77.0	62.9	68.9			7.20
	Hydrocodone	96.4	93.2	97.4			4.45
	Ibuprofen	84.8	89.8	90.7			0.934
	Imazapyr	94.3					7.44
	Imidacloprid	116	182	192			4.37
	Linuron	76.1	75.7	76.7			1.27
	Mandestrobin	93.0	96.4	98.6			2.24
	MCPP	148	162	168			3.72
	Naproxen	83.5	90.4	102			12.5
	Primidone	87.3	97.0	99.9			2.63
	Pyraclostrobin	84.8	92.1	91.6			0.502
	Sucralose	109	111	112			0.217
	Thiamethoxam	103	142	143			0.693
	Tolfenpyrad	61.7	71.0	76.6			7.61
	Triclopyr	116	105	131			22.6
SM 2120 B	Color (true)	102				1.03	
SM 2320 B-97	Total Alkalinity	101				0.179	
	Total Alkalinity	103				0.0776	
SM 2540 C-97	TDS					5.02	
SM 4500 F-C-97	Fluoride	98.8	97.2	95.5			1.45
	Fluoride	95.5	96.9	96.9			0.0
SM 5310 B-00	Organic Carbon	97.9	97.0	99.3			2.02
	Organic Carbon	103	102	102			0.307

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2121656, 2121659, 2121662
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2121676, 2121677, 2121678
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2121676, 2121677, 2121678
EPA 300.0 / E31780	Bromide in aqueous matrices	2121656
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2121659, 2121662
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2121659, 2121662
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2121657, 2121660, 2121663
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2121657, 2121660, 2121663
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2121657, 2121660, 2121663
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2121657, 2121660, 2121663
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2121658, 2121661, 2121664
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2121679
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2121673, 2121674, 2121675
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2121673, 2121674, 2121675

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
SM 2120 B / E31780	True Color measured at 450 nm	2121659, 2121662
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2121656, 2121659, 2121662
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2121659, 2121662
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2121656, 2121659, 2121662
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2121656, 2121659, 2121662
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2121657, 2121660, 2121663

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	09/21/2019			09/24/2019 16:58	Rosalyn Ballman	2121656, 2121659, 2121662
EPA 200.7 Rev. 4.4	09/21/2019	09/25/2019 09:04	Alexander Thompson	09/27/2019 16:54	Betina Topolski	2121676
	09/21/2019	09/25/2019 16:55	Elliott D. Healy	09/27/2019 13:40	Betina Topolski	2121677
	09/21/2019	09/25/2019 16:55	Elliott D. Healy	09/27/2019 13:46	Betina Topolski	2121678
EPA 200.8 Rev. 5.4	09/21/2019	09/25/2019 09:04	Alexander Thompson	10/05/2019 00:27	Robert K Palmer	2121676
	09/21/2019	09/25/2019 09:04	Alexander Thompson	10/08/2019 20:32	Robert K Palmer	2121676
	09/21/2019	09/25/2019 09:04	Alexander Thompson	10/09/2019 17:29	Robert K Palmer	2121676
	09/21/2019	09/25/2019 16:55	Elliott D. Healy	09/27/2019 03:21	Robert K Palmer	2121677
	09/21/2019	09/25/2019 16:55	Elliott D. Healy	09/27/2019 03:31	Robert K Palmer	2121678
	09/21/2019	09/25/2019 16:55	Elliott D. Healy	09/27/2019 13:52	Robert K Palmer	2121677
	09/21/2019	09/25/2019 16:55	Elliott D. Healy	09/27/2019 13:58	Robert K Palmer	2121678
EPA 300.0	09/21/2019			09/23/2019 23:13	Jhamieka S. Greenwood	2121656
EPA 300.0 Rev. 2.1	09/21/2019			09/24/2019 06:51	Jhamieka S. Greenwood	2121662
	09/21/2019			09/24/2019 10:30	Jhamieka S. Greenwood	2121659
EPA 350.1 Rev. 2.0	09/21/2019			10/01/2019 12:20	Ping Hua	2121660
	09/21/2019			10/01/2019 12:22	Ping Hua	2121663
	09/21/2019			10/01/2019 14:35	Ping Hua	2121657
EPA 351.2 Rev. 2.0	09/21/2019	09/24/2019 12:39	Sima Feizi	09/25/2019 18:08	Julia Storbeck	2121660
	09/21/2019	09/24/2019 12:39	Sima Feizi	09/25/2019 18:09	Julia Storbeck	2121663
	09/21/2019	09/27/2019 12:10	Jhamieka S. Greenwood	09/30/2019 14:42	Virginia P. Brown	2121657
EPA 353.2 Rev. 2.0	09/21/2019			09/24/2019 11:13	Beverly Y. Sanders	2121657
	09/21/2019			09/26/2019 10:15	Beverly Y. Sanders	2121663
	09/21/2019			09/26/2019 12:32	Beverly Y. Sanders	2121660
EPA 365.1 Rev. 2.0	09/21/2019	09/25/2019 14:00	Lipi Saha	09/26/2019 11:12	Lipi Saha	2121657
	09/21/2019	09/27/2019 15:05	Lipi Saha	09/30/2019 08:19	Lipi Saha	2121660
	09/21/2019	09/27/2019 15:05	Lipi Saha	09/30/2019 08:25	Lipi Saha	2121663
EPA 365.1 Rev. 2.0 dissolved	09/21/2019			09/24/2019 16:51	Jhamieka S. Greenwood	2121661, 2121664
	09/21/2019			09/24/2019 16:53	Jhamieka S. Greenwood	2121658
EPA 8270E	09/21/2019	09/24/2019 09:00	Fe-Val Siddell	09/25/2019 22:11	Vandana T. Nagar	2121679
	09/21/2019	09/24/2019 09:00	Fe-Val Siddell	09/26/2019 18:01	Vandana T. Nagar	2121679
EPA 8321B	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/23/2019 13:54	Rebecca Ware	2121674
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/23/2019 14:05	Rebecca Ware	2121675
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/23/2019 15:31	Rebecca Ware	2121673
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/24/2019 21:15	Rebecca Ware	2121673
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/24/2019 21:28	Rebecca Ware	2121674
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/24/2019 21:42	Rebecca Ware	2121675
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/27/2019 20:47	Rebecca Ware	2121673
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/27/2019 20:59	Rebecca Ware	2121674
	09/21/2019	09/23/2019 10:00	Rebecca Ware	09/27/2019 21:11	Rebecca Ware	2121675
	09/21/2019	09/24/2019 13:10	Hoor Shaik	09/25/2019 12:05	Juyoung Kim	2121673

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	09/21/2019	09/24/2019 13:10	Hoor Shaik	09/25/2019 12:40	Juyoung Kim	2121674
	09/21/2019	09/24/2019 13:10	Hoor Shaik	09/25/2019 13:15	Juyoung Kim	2121675
	09/21/2019	09/24/2019 13:10	Hoor Shaik	09/25/2019 17:17	Juyoung Kim	2121674
SM 2120 B	09/21/2019			09/24/2019 17:16	Madeline Funaro	2121659
	09/21/2019			09/24/2019 17:17	Madeline Funaro	2121662
SM 2320 B-97	09/21/2019			09/27/2019 03:11	Dale L. Simmons	2121656
	09/21/2019			09/28/2019 13:30	Dale L. Simmons	2121659
	09/21/2019			09/28/2019 16:24	Dale L. Simmons	2121662
SM 2540 C-97	09/21/2019			09/25/2019 14:25	Yijie Li	2121659, 2121662
SM 2540 D-97	09/21/2019			09/25/2019 14:25	Yijie Li	2121656, 2121659, 2121662
SM 4500 F-C-97	09/21/2019			09/28/2019 13:30	Dale L. Simmons	2121659
	09/21/2019			09/28/2019 16:24	Dale L. Simmons	2121662
	09/21/2019			10/01/2019 18:38	Dale L. Simmons	2121656
SM 5310 B-00	09/21/2019			09/24/2019 10:52	Madeline Funaro	2121657
	09/21/2019			09/25/2019 19:58	Madeline Funaro	2121660
	09/21/2019			09/25/2019 20:12	Madeline Funaro	2121663