

Chemical Analysis Report

NE-DIST-2021-04-22-02

Florida Department of Environmental Protection
Central Laboratory
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DOH Accreditation E31780

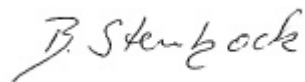
Event Description: **LSJR East 2021**
Request ID: **RQ-2021-04-12-37**
Customer: **NE-DIST**
Project ID: **SMP**

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

Date Certified: 12-MAY-2021 11:49



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: Greenfield CR at Hodges Rd.

Collection Date/Time: 04/21/2021 09:30

Field ID: G2NE1145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241512	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P397006	
	EPA 300.0 Rev. 2.1	Chloride	38		mg Cl/L	P397125	
		Sulfate	43		mg SO4/L	P397128	
		Color (true)	54		PCU	P397002	
	SM 2320 B-2011	Total Alkalinity	85		mg CaCO3/L	P397193	
	SM 2540 C-2011	TDS	261		mg/L	P397416	
	SM 2540 D-2011	TSS	2	I	mg/L	P397164	
	SM 4500 F-C-2011	Fluoride	0.070	I	mg F/L	P397194	
2241513	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P397764	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P397236	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P397400	
	EPA 365.1 Rev. 2.0	Total-P	0.064		mg P/L	P397101	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P397241	
2241514	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P396999	
2241559	EPA 200.7 Rev. 4.4	Barium	31.6		ug/L	P397699	
		Calcium	50.0		mg/L	P397699	
		Iron	160		ug/L	P397699	
		Magnesium	7.08		mg/L	P397699	
		Manganese	16.2		ug/L	P397699	
		Potassium	2.6		mg/L	P397699	
		Sodium	23.3		mg/L	P397699	
	EPA 200.8 Rev. 5.4	Zinc	6.4	I	ug/L	P397699	
		Aluminum	128		ug/L	P397699	
		Antimony	0.12	I	ug/L	P397699	
		Arsenic	0.79		ug/L	P397699	
		Beryllium	0.019	I	ug/L	P397699	
		Boron**	29.3		ug/L	P397699	
		Cadmium	0.020	U	ug/L	P397699	
		Chromium	0.41	I	ug/L	P397699	
		Copper	5.16		ug/L	P397699	
		Lead	0.20	U	ug/L	P397699	
		Nickel	0.50	U	ug/L	P397699	
		Selenium	0.20	U	ug/L	P397699	
		Silver	0.010	U	ug/L	P397699	
		Thallium	0.10	U	ug/L	P397699	
	SM 2340B	Hardness	154		mg/L	P397699	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Greenfield Creek @ Queens Harbour Blvd.

Collection Date/Time: 04/21/2021 09:50

Field ID: 20030809

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241509	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P397006	
	SM 2320 B-2011	Total Alkalinity	82		mg CaCO3/L	P397193	
	SM 2540 D-2011	TSS	11		mg/L	P397165	
	SM 4500 F-C-2011	Fluoride	0.14		mg F/L	P397194	
2241510	EPA 350.1 Rev. 2.0	Ammonia-N	0.083		mg N/L	P397764	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P397111	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P397400	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P397095	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P397241	
2241511	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.035		mg P/L	P396999	
2241558	EPA 200.7 Rev. 4.4	Calcium	64.3		mg/L	P397699	
		Iron	440		ug/L	P397699	
		Magnesium	76.7		mg/L	P397699	
		Manganese	25.6		ug/L	P397699	
		Zinc	5.8	I	ug/L	P397699	
	EPA 200.8 Rev. 5.4	Aluminum	211		ug/L	P397699	
		Antimony	0.15	I	ug/L	P397699	
		Arsenic	1.17		ug/L	P397699	
		Beryllium	0.026	I	ug/L	P397699	
		Cadmium	0.020	U	ug/L	P397699	
		Chromium	0.46	I	ug/L	P397699	
		Copper	4.25		ug/L	P397699	
		Lead	0.32	I	ug/L	P397699	
		Nickel	0.50	U	ug/L	P397699	
		Selenium	0.20	U	ug/L	P397699	
		Silver	0.010	U	ug/L	P397699	
		Thallium	0.10	U	ug/L	P397699	

Sample Location: Red Bay Branch at Lone Star Road

Collection Date/Time: 04/21/2021 10:25

Field ID: 20030674

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241521	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P397006	
	EPA 300.0 Rev. 2.1	Chloride	41		mg Cl/L	P397125	
		Sulfate	47		mg SO4/L	P397128	
	SM 2120 B-2011	Color (true)	12		PCU	P397002	
	SM 2320 B-2011	Total Alkalinity	55		mg CaCO3/L	P397193	
	SM 2540 C-2011	TDS	227		mg/L	P397416	
	SM 2540 D-2011	TSS	2	I	mg/L	P397164	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P397194	
2241522	EPA 350.1 Rev. 2.0	Ammonia-N	0.054		mg N/L	P397764	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P397314	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.6		mg N/L	P397400	
	EPA 365.1 Rev. 2.0	Total-P	0.041		mg P/L	P397101	
	SM 5310 B-2011	Organic Carbon	3.1		mg C/L	P397241	
2241523	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P396999	
2241557	EPA 8321B	2,4-D	0.0070	I	ug/L	P396984	
		Acesulfame K	0.71		ug/L	P396966	
		2,4,5-T	0.0040	U	ug/L	P396984	
		AMPA	0.16	I	ug/L	P396966	
		Sucralose	3.2		ug/L	P396966	
		Acetaminophen	0.0080	U	ug/L	P396984	
		Acetamiprid	0.0020	U	ug/L	P396984	
		Endothall	0.25	U	ug/L	P396966	
		Glufosinate	0.10	U	ug/L	P396966	
		Glyphosate	0.48		ug/L	P396966	MS
		Afidopyropen	0.0020	U	ug/L	P396984	
		Bentazon	0.15		ug/L	P396984	
		Benzovindiflupyr	0.0020	U	ug/L	P396984	
		Carbamazepine	0.017		ug/L	P396984	
		Clothianidin	0.0020	U	ug/L	P396984	
		Dinotefuran	0.0062	I	ug/L	P396984	
		Diuron	0.0049	I	ug/L	P396984	
		Fenuron	0.016	U	ug/L	P396984	
		Fluridone	8.0E-04	U	ug/L	P396984	
		Imazapyr	0.11		ug/L	P396984	
		Hydrocodone	0.0020	U	ug/L	P396984	
		Ibuprofen	0.020	U	ug/L	P396984	
		Imidacloprid	0.019		ug/L	P396984	MS
		Linuron	0.0040	U	ug/L	P396984	
		Mandestrobin	0.0020	U	ug/L	P396984	
		MCPP	0.0051	I	ug/L	P396984	MS
		Naproxen	0.0080	U	ug/L	P396984	
		Primidone	0.012	I	ug/L	P396984	
		Pyraclostrobin	0.0020	U	ug/L	P396984	

Field ID: 20030674

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241557	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P396984	MS
		Tolfenpyrad	0.0020	U	ug/L	P396984	
		Triclopyr	0.0040	U	ug/L	P396984	MS

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Drainage Ditch Parental Home Rd.

Collection Date/Time: 04/21/2021 11:00

Field ID: 20030071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241518	EPA 180.1 Rev. 2.0	Turbidity	8.7		NTU	P397006	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P397125	
		Sulfate	25		mg SO4/L	P397128	
	SM 2120 B-2011	Color (true)	40		PCU	P397002	
	SM 2320 B-2011	Total Alkalinity	135		mg CaCO3/L	P397193	
	SM 2540 C-2011	TDS	275		mg/L	P397416	
	SM 2540 D-2011	TSS	11		mg/L	P397164	
	SM 4500 F-C-2011	Fluoride	0.16		mg F/L	P397194	
2241519	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P397764	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P397236	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.24		mg N/L	P397400	
	EPA 365.1 Rev. 2.0	Total-P	0.082		mg P/L	P397101	
	SM 5310 B-2011	Organic Carbon	8.1		mg C/L	P397241	
2241520	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P396999	
2241556	EPA 8321B	2,4-D	0.062		ug/L	P396984	
		Acesulfame K	0.18	I	ug/L	P396966	
		2,4,5-T	0.0040	U	ug/L	P396984	
		AMPA	0.35	I	ug/L	P396966	
		Sucralose	0.23		ug/L	P396966	
		Acetaminophen	0.018	I	ug/L	P396984	
		Acetamiprid	0.0020	U	ug/L	P396984	
		Endothall	0.25	U	ug/L	P396966	
		Glufosinate	0.10	U	ug/L	P396966	
		Glyphosate	4.3		ug/L	P396966	MS
		Afidopyropen	0.0020	U	ug/L	P396984	
		Bentazon	0.029		ug/L	P396984	
		Benzovindiflupyr	0.0020	U	ug/L	P396984	
		Carbamazepine	8.0E-04	U	ug/L	P396984	
		Clothianidin	0.0020	U	ug/L	P396984	
		Dinotefuran	0.0075	I	ug/L	P396984	
		Diuron	0.015		ug/L	P396984	
		Fenuron	0.016	U	ug/L	P396984	
		Fluridone	0.0018	I	ug/L	P396984	
		Imazapyr	0.78		ug/L	P396984	
		Hydrocodone	0.0020	U	ug/L	P396984	
		Ibuprofen	0.020	U	ug/L	P396984	
		Imidacloprid	0.026		ug/L	P396984	MS
		Linuron	0.0040	U	ug/L	P396984	
		Mandestrobin	0.0020	U	ug/L	P396984	
		MCP	0.025		ug/L	P396984	MS
		Naproxen	0.0080	U	ug/L	P396984	
		Primidone	0.0040	U	ug/L	P396984	
		Pyraclostrobin	0.0020	U	ug/L	P396984	

Field ID: 20030071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241556	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P396984	MS
		Tolfenpyrad	0.0020	U	ug/L	P396984	
		Triclopyr	0.0040	U	ug/L	P396984	MS

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Big Pottsburg CR Bowden Rd.

Collection Date/Time: 04/21/2021 11:20

Field ID: 20030068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241554	EPA 8276	Chlordane	5.2	U	ng/L	P397022	
		Toxaphene	31	U	ng/L	P397022	

Sample Location: little Pottsburg Creek at Emerson

Collection Date/Time: 04/21/2021 11:45

Field ID: 20030070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241515	EPA 180.1 Rev. 2.0	Turbidity	5.4		NTU	P397006	
	EPA 300.0 Rev. 2.1	Chloride	30		mg Cl/L	P397125	
		Sulfate	44		mg SO4/L	P397128	
	SM 2120 B-2011	Color (true)	33	A	PCU	P397002	
	SM 2320 B-2011	Total Alkalinity	156		mg CaCO3/L	P397193	
	SM 2540 C-2011	TDS	320		mg/L	P397416	
	SM 2540 D-2011	TSS	3	I	mg/L	P397164	
	SM 4500 F-C-2011	Fluoride	0.20		mg F/L	P397194	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P397764	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P397236	MS
2241516	EPA 353.2 Rev. 2.0	NO2NO3-N	0.37		mg N/L	P397400	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P397101	
	SM 5310 B-2011	Organic Carbon	8.0		mg C/L	P397241	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.043		mg P/L	P396999	
	dissolved						
2241555	EPA 8321B	2,4-D	0.025		ug/L	P396984	
		Acesulfame K	0.42		ug/L	P396966	
		2,4,5-T	0.0040	U	ug/L	P396984	
		AMPA	0.55		ug/L	P396966	
		Sucralose	1.2		ug/L	P396966	
		Acetaminophen	0.010	I	ug/L	P396984	
		Acetamiprid	0.0020	U	ug/L	P396984	
		Endothall	0.25	U	ug/L	P396966	
		Glufosinate	0.10	U	ug/L	P396966	
		Glyphosate	2.4		ug/L	P396966	MS
		Afidopyropen	0.0020	U	ug/L	P396984	
		Bentazon	0.091		ug/L	P396984	
		Benzovindiflupyr	0.0020	U	ug/L	P396984	
		Carbamazepine	0.0018	I	ug/L	P396984	
		Clothianidin	0.0027	I	ug/L	P396984	
		Dinotefuran	0.0048	I	ug/L	P396984	
		Diuron	0.0075	I	ug/L	P396984	
		Fenuron	0.016	U	ug/L	P396984	
		Fluridone	0.056		ug/L	P396984	
		Imazapyr	0.38		ug/L	P396984	
		Hydrocodone	0.0020	U	ug/L	P396984	
		Ibuprofen	0.020	U	ug/L	P396984	
		Imidacloprid	0.039		ug/L	P396984	MS
		Linuron	0.0040	U	ug/L	P396984	
		Mandestrobin	0.0020	U	ug/L	P396984	
		MCP	0.0046	I	ug/L	P396984	MS
		Naproxen	0.0080	U	ug/L	P396984	
		Primidone	0.0093	I	ug/L	P396984	
		Pyraclostrobin	0.0020	U	ug/L	P396984	

Field ID: 20030070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2241555	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P396984	MS
		Tolfenpyrad	0.0020	U	ug/L	P396984	
		Triclopyr	0.0040	U	ug/L	P396984	MS
2241560	EPA 200.7 Rev. 4.4	Barium	40.1		ug/L	P397699	
		Calcium	72.0		mg/L	P397699	
		Iron	1.32E+03		ug/L	P397699	
		Magnesium	10.6		mg/L	P397699	
		Manganese	60.8		ug/L	P397699	
		Potassium	2.3		mg/L	P397699	
		Sodium	21.8		mg/L	P397699	
	EPA 200.8 Rev. 5.4	Zinc	13	I	ug/L	P397699	
		Aluminum	30		ug/L	P397699	
		Antimony	0.19	I	ug/L	P397699	
		Arsenic	0.90		ug/L	P397699	
		Beryllium	0.010	U	ug/L	P397699	
		Boron**	41.9		ug/L	P397699	
		Cadmium	0.020	U	ug/L	P397699	
		Chromium	0.40	U	ug/L	P397699	
		Copper	1.38		ug/L	P397699	
		Lead	0.28	I	ug/L	P397699	
		Nickel	0.68	I	ug/L	P397699	
		Selenium	0.20	U	ug/L	P397699	
		Silver	0.010	U	ug/L	P397699	
		Thallium	0.10	U	ug/L	P397699	
	SM 2340B	Hardness	223		mg/L	P397699	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P397006

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P397699

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
Manganese	1.0	U	ug/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: P397699

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
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: P397125

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397128

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397764

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: P397111

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397236

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397314

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397400

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397095

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397101

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396999

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

Reference Method: EPA 8276
Batch ID: P397022

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P396966

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P396966

Component	Result	Code	Units
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B

Batch ID: P396984

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
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-2011

Batch ID: P397002

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P397193

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

Reference Method: SM 2540 C-2011

Batch ID: P397416

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P397164

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P397165

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P397194

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P397241

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: P397699

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	101		P	85 - 115
Calcium	109		P	85 - 115
Iron	105		P	85 - 115
Magnesium	105		P	85 - 115
Manganese	104		P	85 - 115
Potassium	104		P	85 - 115
Sodium	110		P	85 - 115
Zinc	105		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P397699

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	90.1		P	85 - 115
Antimony	99.2		P	85 - 115
Arsenic	91.4		P	85 - 115
Beryllium	91.9		P	85 - 115
Boron	94.9		P	85 - 115
Cadmium	92.5		P	85 - 115
Chromium	90.9		P	85 - 115
Copper	91.2		P	85 - 115
Lead	98.1		P	85 - 115
Nickel	89.3		P	85 - 115
Selenium	91.8		P	85 - 115
Silver	95.7		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397125

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397128

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397764

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397111

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397236

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397314

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397400

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397095

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397101

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396999

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.6		P	90 - 110

Reference Method: EPA 8276
Batch ID: P397022

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	100	92.4	P/P	56 - 117
Toxaphene	81.0	80.6	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P396966

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	139		P	40 - 150
AMPA	84.7		P	40 - 150
Endothall	93.4		P	40 - 150
Glufosinate	80.7		P	40 - 150
Glyphosate	60.4		P	40 - 140
Sucralose	105		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P396984

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	151		P	30 - 160
2,4,5-T	138		P	30 - 160
Acetaminophen	112		P	30 - 150
Acetamiprid	111		P	30 - 160
Afidopyropen	92.0		P	30 - 160
Bentazon	44.0		P	30 - 150
Benzovindiflupyr	83.1		P	30 - 160
Carbamazepine	94.7		P	30 - 160
Clothianidin	110		P	30 - 160
Dinotefuran	85.9		P	30 - 160
Diuron	78.4		P	30 - 160
Fenuron	103		P	30 - 160
Fluridone	103		P	30 - 160
Hydrocodone	111		P	30 - 160
Ibuprofen	77.4		P	30 - 160
Imazapyr	111		P	30 - 160
Imidacloprid	114		P	30 - 160
Linuron	77.8		P	30 - 160
Mandestrobin	98.6		P	30 - 160
MCPP	158		P	30 - 160
Naproxen	111		P	30 - 160
Primidone	103		P	30 - 160
Pyraclostrobin	76.6		P	30 - 160
Thiamethoxam	121		P	30 - 160
Tolfenpyrad	49.9		P	30 - 160
Triclopyr	150		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P397002

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.7		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P397193

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P397194

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.8		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P397241

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P397699

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241376	Barium	100	101	P/P	80 - 120
2241376	Calcium	107	107	P/P	80 - 120
2241376	Iron	106	106	P/P	80 - 120
2241376	Magnesium	105	105	P/P	80 - 120
2241376	Manganese	102	103	P/P	80 - 120
2241376	Potassium	105	107	P/P	80 - 120
2241376	Sodium	107	106	P/P	80 - 120
2241376	Zinc	104	104	P/P	80 - 120
2241409	Barium	102		P	80 - 120
2241409	Calcium	105		P	80 - 120
2241409	Iron	105		P	80 - 120
2241409	Magnesium	104		P	80 - 120
2241409	Manganese	105		P	80 - 120
2241409	Potassium	105		P	80 - 120
2241409	Sodium	106		P	80 - 120
2241409	Zinc	107		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P397699

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241376	Aluminum	100	97.6	P/P	80 - 120
2241376	Antimony	103	104	P/P	80 - 120
2241376	Arsenic	97.4	98.0	P/P	80 - 120
2241376	Beryllium	94.5	92.3	P/P	80 - 120
2241376	Boron	103	100	P/P	80 - 120
2241376	Cadmium	102	101	P/P	80 - 120
2241376	Chromium	100	100	P/P	80 - 120
2241376	Copper	99.3	100	P/P	80 - 120
2241376	Lead	109	103	P/P	80 - 120
2241376	Nickel	96.8	97.9	P/P	80 - 120
2241376	Selenium	99.8	97.4	P/P	80 - 120
2241376	Silver	99.1	99.2	P/P	80 - 120
2241376	Thallium	105	105	P/P	80 - 120
2241409	Aluminum	86.8		P	80 - 120
2241409	Antimony	103		P	80 - 120
2241409	Arsenic	98.1		P	80 - 120
2241409	Beryllium	90.4		P	80 - 120
2241409	Boron	102		P	80 - 120
2241409	Cadmium	105		P	80 - 120
2241409	Chromium	101		P	80 - 120
2241409	Copper	97.4		P	80 - 120
2241409	Lead	108		P	80 - 120
2241409	Nickel	98.6		P	80 - 120
2241409	Selenium	97.5		P	80 - 120
2241409	Silver	100		P	80 - 120
2241409	Thallium	105		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P397125

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397125

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241460	Chloride	105	105	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397128

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241460	Sulfate	100	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397764

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242204	Ammonia-N	99.0	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397111

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241365	Kjeldahl Nitrogen	103	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397236

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241155	Kjeldahl Nitrogen	115	105	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241522	Kjeldahl Nitrogen	96.9	92.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397400

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241492	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397095

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241492	Total-P	108	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241513	Total-P	107	107	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P396999

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241462	O-Phosphate-P	99.1	98.9	P/P	90 - 110

Reference Method: EPA 8276
 Batch ID: P397022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241684	Chlordane	109	115	P/P	47 - 128
2241684	Toxaphene	75.7	79.0	P/P	11 - 163

Reference Method: EPA 8321B
 Batch ID: P396966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241502	Acesulfame K	132	117	P/P	40 - 150
2241502	AMPA	48.7	55.8	P/P	40 - 150
2241502	Endothall	124	111	P/P	40 - 150
2241502	Glufosinate	92.2	94.2	P/P	40 - 150
2241502	Glyphosate	51.3	32.3	P/F	40 - 140
2241502	Sucralose	107	106	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P396984

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241346	2,4-D	154	158	P/P	30 - 160
2241346	2,4,5-T	146	150	P/P	30 - 160
2241346	Acetaminophen	111	91.8	P/P	30 - 150
2241346	Acetamiprid	115	120	P/P	30 - 160
2241346	Afidopyropen	104	102	P/P	30 - 160
2241346	Benzovindiflupyr	100	98.5	P/P	30 - 160
2241346	Carbamazepine	96.4	90.0	P/P	30 - 160
2241346	Clothianidin	125	127	P/P	30 - 160
2241346	Dinotefuran	155	156	P/P	30 - 160
2241346	Diuron	73.3	56.6	P/P	30 - 160
2241346	Fenuron	118	111	P/P	30 - 160
2241346	Fluridone	120	121	P/P	30 - 160
2241346	Hydrocodone	131	132	P/P	30 - 160
2241346	Ibuprofen	102	76.7	P/P	30 - 160
2241346	Imidacloprid	244	236	F/F	30 - 160
2241346	Linuron	78.6	81.6	P/P	30 - 160
2241346	Mandestrobin	107	110	P/P	30 - 160
2241346	MCP	181	184	F/F	30 - 160
2241346	Naproxen	89.7	99.3	P/P	30 - 160
2241346	Primidone	131	119	P/P	30 - 160
2241346	Pyraclostrobin	98.5	99.1	P/P	30 - 160
2241346	Thiamethoxam	195	196	F/F	30 - 160
2241346	Tolfenpyrad	66.3	70.6	P/P	30 - 160
2241346	Triclopyr	163	152	F/P	30 - 160

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P397194

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241721	Fluoride	100	98.1	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P397241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241322	Organic Carbon	97.2	97.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P397006

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241426	Turbidity	8.31	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P397699

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241376	Barium	0.483	Spike	P	0 - 20
2241376	Calcium	0.230	Spike	P	0 - 20
2241376	Iron	0.376	Spike	P	0 - 20
2241376	Magnesium	0.116	Spike	P	0 - 20
2241376	Manganese	0.406	Spike	P	0 - 20
2241376	Potassium	2.38	Spike	P	0 - 20
2241376	Sodium	0.739	Spike	P	0 - 20
2241376	Zinc	0.196	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P397699

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241376	Aluminum	2.29	Spike	P	0 - 20
2241376	Antimony	0.374	Spike	P	0 - 20
2241376	Arsenic	0.597	Spike	P	0 - 20
2241376	Beryllium	2.30	Spike	P	0 - 20
2241376	Boron	2.10	Spike	P	0 - 20
2241376	Cadmium	0.856	Spike	P	0 - 20
2241376	Chromium	0.113	Spike	P	0 - 20
2241376	Copper	0.979	Spike	P	0 - 20
2241376	Lead	5.85	Spike	P	0 - 20
2241376	Nickel	1.16	Spike	P	0 - 20
2241376	Selenium	2.39	Spike	P	0 - 20
2241376	Silver	0.0470	Spike	P	0 - 20
2241376	Thallium	0.684	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P397125

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241460	Chloride	0.0233	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P397128

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241460	Sulfate	0.200	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397764

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242204	Ammonia-N	0.351	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397111

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241365	Kjeldahl Nitrogen	3.04	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397236

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241155	Kjeldahl Nitrogen	6.58	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241522	Kjeldahl Nitrogen	3.63	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397400

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241492	NO2NO3-N	1.46	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241492	Total-P	2.53	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241513	Total-P	0.428	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396999

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241462	O-Phosphate-P	0.202	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P397022

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241684	Chlordane	5.91	Spike	P	0 - 30
2241684	Toxaphene	4.30	Spike	P	0 - 30
LFB	Chlordane	8.04	LCS	P	0 - 30
LFB	Toxaphene	0.462	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P396966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241502	Acesulfame K	11.3	Spike	P	0 - 30
2241502	AMPA	10.8	Spike	P	0 - 30
2241502	Endothall	11.2	Spike	P	0 - 30
2241502	Glufosinate	2.15	Spike	P	0 - 30
2241502	Glyphosate	6.62	Spike	P	0 - 30
2241502	Sucralose	0.275	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P396984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241346	2,4-D	2.49	Spike	P	0 - 30
2241346	2,4,5-T	2.47	Spike	P	0 - 30
2241346	Acetaminophen	15.7	Spike	P	0 - 30
2241346	Acetamiprid	4.09	Spike	P	0 - 30
2241346	Afidopyropen	1.46	Spike	P	0 - 30
2241346	Bentazon	16.5	Spike	P	0 - 30
2241346	Benzovindiflupyr	1.66	Spike	P	0 - 30
2241346	Carbamazepine	6.87	Spike	P	0 - 30
2241346	Clothianidin	1.52	Spike	P	0 - 30
2241346	Dinotefuran	0.803	Spike	P	0 - 30
2241346	Diuron	25.7	Spike	P	0 - 30
2241346	Fenuron	5.96	Spike	P	0 - 30
2241346	Fluridone	0.683	Spike	P	0 - 30
2241346	Hydrocodone	0.830	Spike	P	0 - 30
2241346	Ibuprofen	28.5	Spike	P	0 - 30
2241346	Imazapyr	4.89	Spike	P	0 - 30
2241346	Imidacloprid	2.76	Spike	P	0 - 30
2241346	Linuron	3.71	Spike	P	0 - 30
2241346	Mandestrobin	3.57	Spike	P	0 - 30
2241346	MCPP	1.32	Spike	P	0 - 30
2241346	Naproxen	10.1	Spike	P	0 - 30
2241346	Primidone	9.53	Spike	P	0 - 30
2241346	Pyraclostrobin	0.678	Spike	P	0 - 30
2241346	Thiamethoxam	0.613	Spike	P	0 - 30
2241346	Tolfenpyrad	6.33	Spike	P	0 - 30
2241346	Triclopyr	6.93	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
Batch ID: P397002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241515	Color (true)	2.35	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P397193

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241721	Total Alkalinity	0.560	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P397416

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241389	TDS	4.52	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P397165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241567	TSS	8.96	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P397194

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241721	Fluoride	1.41	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P397241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241322	Organic Carbon	0.226	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2241554
Field Sample ID: 20030068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	62.6	P	29 - 92.0
EPA 8276	PCNB	67.0	P	43 - 134

Lab Sample ID: 2241555
Field Sample ID: 20030070

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	149	P	30 - 160
EPA 8321B	Acetaminophen-d4	119	P	30 - 160
EPA 8321B	Carbamazepine-d10	103	P	30 - 160
EPA 8321B	Diuron-d6	78.2	P	30 - 160
EPA 8321B	Endothall-d6	86.4	P	40 - 160
EPA 8321B	Endothall-d6	86.4	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	83.9	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	83.9	P	40 - 160
EPA 8321B	Ibuprofen-d3	88.9	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160

Lab Sample ID: 2241556
Field Sample ID: 20030071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	142	P	30 - 160
EPA 8321B	Acetaminophen-d4	117	P	30 - 160
EPA 8321B	Carbamazepine-d10	104	P	30 - 160
EPA 8321B	Diuron-d6	71.5	P	30 - 160
EPA 8321B	Endothall-d6	90.6	P	40 - 160
EPA 8321B	Endothall-d6	90.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	87.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	87.6	P	40 - 160
EPA 8321B	Ibuprofen-d3	91.1	P	30 - 160
EPA 8321B	Primidone-d5	96.4	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160

Lab Sample ID: 2241557
Field Sample ID: 20030674

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	152	P	30 - 160
EPA 8321B	Acetaminophen-d4	116	P	30 - 160
EPA 8321B	Carbamazepine-d10	107	P	30 - 160
EPA 8321B	Diuron-d6	87.2	P	30 - 160
EPA 8321B	Endothall-d6	94.9	P	40 - 160
EPA 8321B	Endothall-d6	94.9	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	78.0	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	78.0	P	40 - 160
EPA 8321B	Ibuprofen-d3	92.6	P	30 - 160
EPA 8321B	Primidone-d5	92.0	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2241557
Field Sample ID: 20030674

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	111	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A104869

Included Lab Sample IDs: 2241512, 2241515, 2241518, 2241521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.8	100	P/P	90 - 110
Sulfate	98.5	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A104915

Included Lab Sample IDs: 2241511, 2241514, 2241517, 2241520, 2241523

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

Reference Method: SM 2120 B-2011

Run ID: A104916

Included Lab Sample IDs: 2241512, 2241515, 2241518, 2241521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A104918

Included Lab Sample IDs: 2241509, 2241512, 2241515, 2241518, 2241521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	98.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A104981

Included Lab Sample IDs: 2241513, 2241516, 2241519

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A104985

Included Lab Sample IDs: 2241510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	104	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A105004

Included Lab Sample IDs: 2241509, 2241512, 2241515, 2241518, 2241521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	98.7	P/P	90 - 110
Total Alkalinity	98.0	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A105004

Included Lab Sample IDs: 2241509, 2241512, 2241515, 2241518, 2241521

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A105005

Included Lab Sample IDs: 2241522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	98.2	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A105019

Included Lab Sample IDs: 2241510, 2241513, 2241516, 2241519, 2241522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.0	95.4	P/P	90 - 110
Organic Carbon	95.4	95.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A105021

Included Lab Sample IDs: 2241510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.3	96.9	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A105045

Included Lab Sample IDs: 2241554

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.2		P	80 - 120
Toxaphene	96.8		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A105060

Included Lab Sample IDs: 2241513, 2241516, 2241519

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.1	99.4	P/P	90 - 110
Kjeldahl Nitrogen	99.4	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A105073

Included Lab Sample IDs: 2241555, 2241556, 2241557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	138	140	P/P	40 - 160
Acesulfame K	140	112	P/P	40 - 160
AMPA	100	88.1	P/P	40 - 160
AMPA	88.7	100	P/P	40 - 160
Endothall	103	96.9	P/P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A105073

Included Lab Sample IDs: 2241555, 2241556, 2241557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endothall	96.9	99.3	P/P	40 - 160
Glufosinate	85.0	84.2	P/P	40 - 160
Glufosinate	99.2	85.0	P/P	40 - 160
Glyphosate	74.1	87.3	P/P	40 - 160
Glyphosate	80.4	74.1	P/P	40 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A105082

Included Lab Sample IDs: 2241510, 2241513, 2241516, 2241519, 2241522

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: A105083

Included Lab Sample IDs: 2241555, 2241556, 2241557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	105	110	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A105085

Included Lab Sample IDs: 2241522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	99.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A105098

Included Lab Sample IDs: 2241555, 2241556, 2241557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	116	96.4	P/P	50 - 150
2,4,5-T	117	104	P/P	50 - 150
Acetaminophen	114	114	P/P	60 - 160
Acetamiprid	120	122	P/P	50 - 150
Afidopyropen	137	123	P/P	50 - 150
Bentazon	110	150	P/P	50 - 160
Bentazon	132	113	P/P	50 - 160
Benzovindiflupyr	114	115	P/P	50 - 160
Carbamazepine	120	117	P/P	60 - 150
Clothianidin	124	103	P/P	60 - 150
Dinotefuran	128	136	P/P	50 - 150
Diuron	111	120	P/P	60 - 160
Fenuron	114	116	P/P	60 - 150
Fluridone	136	135	P/P	60 - 160
Hydrocodone	126	134	P/P	60 - 150
Ibuprofen	86.8	80.9	P/P	50 - 160
Imazapyr	129	115	P/P	50 - 150
Imidacloprid	123	114	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A105098

Included Lab Sample IDs: 2241555, 2241556, 2241557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	109	103	P/P	60 - 150
Mandestrobin	116	114	P/P	50 - 150
MCP	99.5	102	P/P	50 - 150
Naproxen	115	118	P/P	50 - 160
Primidone	119	94.1	P/P	60 - 150
Pyraclostrobin	112	116	P/P	60 - 150
Thiamethoxam	139	136	P/P	50 - 150
Tolfenpyrad	102	108	P/P	60 - 150
Triclopyr	128	118	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A105222

Included Lab Sample IDs: 2241510, 2241513, 2241516, 2241519, 2241522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	99.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A105239

Included Lab Sample IDs: 2241558, 2241559, 2241560

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	104	104	P/P	90 - 110
Calcium	103	102	P/P	90 - 110
Iron	101	103	P/P	90 - 110
Magnesium	100	102	P/P	90 - 110
Manganese	104	104	P/P	90 - 110
Potassium	103	105	P/P	90 - 110
Sodium	105	105	P/P	90 - 110
Zinc	105	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A105242

Included Lab Sample IDs: 2241558, 2241559, 2241560

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	103	P/P	90 - 110
Antimony	105	106	P/P	90 - 110
Arsenic	98.8	99.7	P/P	90 - 110
Beryllium	98.6	98.0	P/P	90 - 110
Boron	104	104	P/P	90 - 110
Cadmium	102	104	P/P	90 - 110
Chromium	101	102	P/P	90 - 110
Copper	98.1	99.2	P/P	90 - 110
Nickel	99.4	99.8	P/P	90 - 110
Selenium	100	102	P/P	90 - 110
Silver	100	100	P/P	90 - 110
Thallium	102	101	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A105268

Included Lab Sample IDs: 2241558, 2241559, 2241560

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	93.3	105	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							8.31	
EPA 200.7 Rev. 4.4	Barium	101		100	101	102			0.483
	Calcium	109		107	107	105			0.230
	Iron	105		106	106	105			0.376
	Magnesium	105		105	105	104			0.116
	Manganese	104		102	103	105			0.406
	Potassium	104		105	107	105			2.38
	Sodium	110		107	106	106			0.739
	Zinc	105		104	104	107			0.196
EPA 200.8 Rev. 5.4	Aluminum	90.1		100	97.6	86.8			2.29
	Antimony	99.2		103	104	103			0.374
	Arsenic	91.4		97.4	98.0	98.1			0.597
	Beryllium	91.9		94.5	92.3	90.4			2.30
	Boron	94.9		103	100	102			2.10
	Cadmium	92.5		102	101	105			0.856
	Chromium	90.9		100	100	101			0.113
	Copper	91.2		99.3	100	97.4			0.979
	Lead	98.1		109	103	108			5.85
	Nickel	89.3		96.8	97.9	98.6			1.16
	Selenium	91.8		99.8	97.4	97.5			2.39
	Silver	95.7		99.1	99.2	100			0.0470
	Thallium	100		105	105	105			0.684
EPA 300.0 Rev. 2.1	Chloride	105		105	105				0.0233
	Sulfate	102		100	101				0.200
EPA 350.1 Rev. 2.0	Ammonia-N	99.2		99.0	99.6				0.351
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.3		103	100				3.04
	Kjeldahl Nitrogen	107		115	105				6.58
	Kjeldahl Nitrogen	101		96.9	92.4				3.63
EPA 353.2 Rev. 2.0	NO2NO3-N	102		102	104				1.46
EPA 365.1 Rev. 2.0	Total-P	105		108	105				2.53
	Total-P	107		107	107				0.428
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.6		99.1	98.9				0.202
EPA 8276	Chlordane	100	92.4	109	115		8.04		5.91
	Toxaphene	81.0	80.6	75.7	79.0		0.462		4.30
EPA 8321B	2,4-D	151		154	158				2.49
	2,4,5-T	138		146	150				2.47
	Acesulfame K	139		132	117				11.3
	Acetaminophen	112		111	91.8				15.7
	Acetamiprid	111		115	120				4.09
	Afidopyropen	92.0		104	102				1.46
	AMPA	84.7		48.7	55.8				10.8
	Bentazon	44.0							16.5
	Benzovindiflupyr	83.1		100	98.5				1.66
	Carbamazepine	94.7		96.4	90.0				6.87
	Clothianidin	110		125	127				1.52
	Dinotefuran	85.9		155	156				0.803
	Diuron	78.4		73.3	56.6				25.7
	Endothall	93.4		124	111				11.2
	Fenuron	103		118	111				5.96
	Fluridone	103		120	121				0.683
	Glufosinate	80.7		92.2	94.2				2.15
	Glyphosate	60.4		51.3	32.3				6.62
	Hydrocodone	111		131	132				0.830
	Ibuprofen	77.4		102	76.7				28.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Imazapyr	111				4.89
	Imidacloprid	114	244	236		2.76
	Linuron	77.8	78.6	81.6		3.71
	Mandestrobin	98.6	107	110		3.57
	MCCP	158	181	184		1.32
	Naproxen	111	89.7	99.3		10.1
	Primidone	103	131	119		9.53
	Pyraclostrobin	76.6	98.5	99.1		0.678
	Sucralose	105	107	106		0.275
	Thiamethoxam	121	195	196		0.613
	Tolfenpyrad	49.9	66.3	70.6		6.33
	Triclopyr	150	163	152		6.93
SM 2120 B-2011	Color (true)	99.7			2.35	
SM 2320 B-2011	Total Alkalinity	100			0.560	
SM 2540 C-2011	TDS				4.52	
SM 2540 D-2011	TSS				8.96	
SM 4500 F-C-2011	Fluoride	96.8	100	98.1		1.41
SM 5310 B-2011	Organic Carbon	96.1	97.2	97.6		0.226

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2241509, 2241512, 2241515, 2241518, 2241521
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2241558, 2241559, 2241560
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2241558, 2241559, 2241560
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2241512, 2241515, 2241518, 2241521
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2241512, 2241515, 2241518, 2241521
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2241510, 2241513, 2241516, 2241519, 2241522
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2241510, 2241513, 2241516, 2241519, 2241522
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2241510, 2241513, 2241516, 2241519, 2241522
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2241510, 2241513, 2241516, 2241519, 2241522
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2241511, 2241514, 2241517, 2241520, 2241523
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2241554
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2241555, 2241556, 2241557
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2241555, 2241556, 2241557
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2241512, 2241515, 2241518, 2241521
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2241509, 2241512, 2241515, 2241518, 2241521
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2241559, 2241560
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2241512, 2241515, 2241518, 2241521
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2241509, 2241512, 2241515, 2241518, 2241521
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2241509, 2241512, 2241515, 2241518, 2241521
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2241510, 2241513, 2241516, 2241519, 2241522

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	04/22/2021			04/22/2021 17:06	Yen Ta	2241509, 2241512, 2241515, 2241518, 2241521
EPA 200.7 Rev. 4.4	04/22/2021	05/05/2021 17:10	Elliott D. Healy	05/06/2021 22:39	Betina Topolski	2241558
	04/22/2021	05/05/2021 17:10	Elliott D. Healy	05/06/2021 22:55	Betina Topolski	2241559
	04/22/2021	05/05/2021 17:10	Elliott D. Healy	05/06/2021 23:03	Betina Topolski	2241560
EPA 200.8 Rev. 5.4	04/22/2021	05/05/2021 17:10	Elliott D. Healy	05/06/2021 21:53	McKinley C Carter	2241558
	04/22/2021	05/05/2021 17:10	Elliott D. Healy	05/06/2021 22:01	McKinley C Carter	2241559
	04/22/2021	05/05/2021 17:10	Elliott D. Healy	05/06/2021 22:08	McKinley C Carter	2241560
	04/22/2021	05/05/2021 17:10	Elliott D. Healy	05/08/2021 08:12	Alexander Thompson	2241558
	04/22/2021	05/05/2021 17:10	Elliott D. Healy	05/08/2021 08:18	Alexander Thompson	2241559
	04/22/2021	05/05/2021 17:10	Elliott D. Healy	05/08/2021 08:23	Alexander Thompson	2241560
EPA 300.0 Rev. 2.1	04/22/2021			04/24/2021 05:28	Lipi Saha	2241512
	04/22/2021			04/24/2021 05:40	Lipi Saha	2241515
	04/22/2021			04/24/2021 05:52	Lipi Saha	2241518
	04/22/2021			04/24/2021 06:04	Lipi Saha	2241521
EPA 350.1 Rev. 2.0	04/22/2021			05/06/2021 13:33	Ping Hua	2241510
	04/22/2021			05/06/2021 13:34	Ping Hua	2241513
	04/22/2021			05/06/2021 13:35	Ping Hua	2241516
	04/22/2021			05/06/2021 13:37	Ping Hua	2241519
	04/22/2021			05/06/2021 13:38	Ping Hua	2241522
EPA 351.2 Rev. 2.0	04/22/2021	04/25/2021 14:48	Benjamin T. Nordmann	04/27/2021 14:31	Virginia P. Brown	2241510
	04/22/2021	04/27/2021 13:45	Benjamin T. Nordmann	04/28/2021 15:40	Virginia P. Brown	2241513
	04/22/2021	04/27/2021 13:45	Benjamin T. Nordmann	04/28/2021 15:45	Virginia P. Brown	2241516
	04/22/2021	04/27/2021 13:45	Benjamin T. Nordmann	04/28/2021 15:46	Virginia P. Brown	2241519
	04/22/2021	04/28/2021 13:28	Benjamin T. Nordmann	04/29/2021 14:10	Virginia P. Brown	2241522
EPA 353.2 Rev. 2.0	04/22/2021			04/29/2021 10:38	Beverly Y. Sanders	2241510
	04/22/2021			04/29/2021 10:39	Beverly Y. Sanders	2241513
	04/22/2021			04/29/2021 10:40	Beverly Y. Sanders	2241516
	04/22/2021			04/29/2021 10:42	Beverly Y. Sanders	2241519
	04/22/2021			04/29/2021 12:33	Beverly Y. Sanders	2241522
EPA 365.1 Rev. 2.0	04/22/2021	04/24/2021 18:49	Madeline Gruver	04/26/2021 12:02	Shengyu Ding	2241513
	04/22/2021	04/24/2021 18:49	Madeline Gruver	04/26/2021 12:07	Shengyu Ding	2241516
	04/22/2021	04/24/2021 18:49	Madeline Gruver	04/26/2021 12:08	Shengyu Ding	2241519
	04/22/2021	04/24/2021 18:49	Madeline Gruver	04/26/2021 14:16	Shengyu Ding	2241510
	04/22/2021	04/24/2021 18:49	Madeline Gruver	04/27/2021 10:26	Shengyu Ding	2241522
EPA 365.1 Rev. 2.0 dissolved	04/22/2021			04/22/2021 15:26	Patrick M. Roche	2241511, 2241514
	04/22/2021			04/22/2021 15:27	Patrick M. Roche	2241517
	04/22/2021			04/22/2021 15:28	Patrick M. Roche	2241520
	04/22/2021			04/22/2021 15:29	Patrick M. Roche	2241523
EPA 8276	04/22/2021	04/23/2021 08:00	Fe-Val Siddell	04/27/2021 06:15	Michael Poppell	2241554

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	04/22/2021	04/22/2021 13:00	Rebecca Ware	04/27/2021 15:09	Rebecca Ware	2241555
	04/22/2021	04/22/2021 13:00	Rebecca Ware	04/27/2021 15:23	Rebecca Ware	2241556
	04/22/2021	04/22/2021 13:00	Rebecca Ware	04/27/2021 15:50	Rebecca Ware	2241557
	04/22/2021	04/22/2021 13:00	Rebecca Ware	04/29/2021 00:38	Rebecca Ware	2241555
	04/22/2021	04/22/2021 13:00	Rebecca Ware	04/29/2021 00:50	Rebecca Ware	2241556
	04/22/2021	04/22/2021 13:00	Rebecca Ware	04/29/2021 01:02	Rebecca Ware	2241557
	04/22/2021	04/26/2021 09:00	Hoor Shaik	04/30/2021 23:38	Juyoung Kim	2241555
	04/22/2021	04/26/2021 09:00	Hoor Shaik	05/01/2021 00:13	Juyoung Kim	2241556
	04/22/2021	04/26/2021 09:00	Hoor Shaik	05/01/2021 00:48	Juyoung Kim	2241557
	04/22/2021	04/26/2021 09:00	Hoor Shaik	05/03/2021 12:57	Juyoung Kim	2241555
SM 2120 B-2011	04/22/2021	04/26/2021 09:00	Hoor Shaik	05/03/2021 13:31	Juyoung Kim	2241557
	04/22/2021			04/22/2021 15:06	Madeline Gruver	2241512
	04/22/2021			04/22/2021 15:07	Madeline Gruver	2241515
	04/22/2021			04/22/2021 15:08	Madeline Gruver	2241518
SM 2320 B-2011	04/22/2021			04/22/2021 15:09	Madeline Gruver	2241521
	04/22/2021			04/26/2021 21:26	Dale L. Simmons	2241509
	04/22/2021			04/26/2021 22:29	Dale L. Simmons	2241512
	04/22/2021			04/26/2021 23:11	Dale L. Simmons	2241515
SM 2340B	04/22/2021			04/26/2021 23:26	Dale L. Simmons	2241518
	04/22/2021			04/26/2021 23:38	Dale L. Simmons	2241521
	04/22/2021			05/06/2021 22:55	Betina Topolski	2241559
	04/22/2021			05/06/2021 23:03	Betina Topolski	2241560
SM 2540 C-2011	04/22/2021			04/23/2021 15:31	Yijie Li	2241512, 2241515, 2241518, 2241521
SM 2540 D-2011	04/22/2021			04/23/2021 15:31	Yijie Li	2241509, 2241512, 2241515, 2241518, 2241521
SM 4500 F-C-2011	04/22/2021			04/26/2021 21:26	Dale L. Simmons	2241509
	04/22/2021			04/26/2021 22:29	Dale L. Simmons	2241512
	04/22/2021			04/26/2021 23:11	Dale L. Simmons	2241515
	04/22/2021			04/26/2021 23:26	Dale L. Simmons	2241518
SM 5310 B-2011	04/22/2021			04/26/2021 23:38	Dale L. Simmons	2241521
	04/22/2021			04/26/2021 22:23	Lauren Lees	2241510
	04/22/2021			04/26/2021 22:33	Lauren Lees	2241513
	04/22/2021			04/26/2021 22:43	Lauren Lees	2241516
	04/22/2021			04/26/2021 23:13	Lauren Lees	2241519
	04/22/2021			04/26/2021 23:22	Lauren Lees	2241522