

Chemical Analysis Report

SW-DIST-2023-05-18-01

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

Event Description: **Run 7**
Request ID: **RQ-2023-05-15-66**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 05-JUN-2023 11:40

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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: Livingston Creek at Old Avon Park Rd

Collection Date/Time: 05/17/2023 10:50

Field ID: G4SW0104

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2410858	DEP SOP: NU-094-1	Color (true)	220		PCU	P430070	
	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P430079	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P430368	
		Sulfate	4.0		mg SO4/L	P430372	
	SM 2320 B-2011	Total Alkalinity	15		mg CaCO3/L	P430537	
	SM 2540 C-2015	TDS	130		mg/L	P430683	
	SM 2540 D-2015	TSS	16	I	mg/L	P430520	
	SM 4500-F- C-2011	Fluoride	0.091	I	mg F/L	P430544	RPD
2410859	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P430411	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P430239	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P430629	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P430212	
	SM 5310 B-2011	Organic Carbon	26		mg C/L	P430227	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2540 D-2015: The PQL was elevated because of sample matrix interference.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Payne Creek in State Park

Collection Date/Time: 05/17/2023 11:50

Field ID: G3SW0084

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2410864	DEP SOP: NU-094-1	Color (true)	34		PCU	P430070	
	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P430080	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P430368	
		Sulfate	49		mg SO4/L	P430372	
	SM 2320 B-2011	Total Alkalinity	121		mg CaCO3/L	P430537	
	SM 2540 C-2015	TDS	240	A	mg/L	P430684	
	SM 2540 D-2015	TSS	2	U	mg/L	P430520	
2410865	SM 4500-F- C-2011	Fluoride	0.92		mg F/L	P430544	RPD
	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P430562	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P430240	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.78		mg N/L	P430629	
	EPA 365.1 Rev. 2.0	Total-P	0.89		mg P/L	P430172	
2410877	SM 5310 B-2011	Organic Carbon	11		mg C/L	P430227	
	EPA 200.7 Rev. 4.4	Calcium	36.7		mg/L	P430123	
		Iron	88	I	ug/L	P430123	
		Magnesium	19.9		mg/L	P430123	
		Potassium	3.9		mg/L	P430123	
		Sodium	16.8		mg/L	P430123	
		Strontium	120		ug/L	P430123	
		Tin	3.0	U	ug/L	P430123	
		Titanium	0.75	U	ug/L	P430123	
		Vanadium	4.3	I	ug/L	P430123	
		Aluminum	53		ug/L	P430123	
		Antimony	1.33		ug/L	P430123	
		Arsenic	1.82		ug/L	P430123	
		Barium	2.77		ug/L	P430123	
		Beryllium	0.010	U	ug/L	P430123	
		Boron	66.6		ug/L	P430123	
		Cadmium	0.039	I	ug/L	P430123	
		Chromium	0.40	U	ug/L	P430123	
		Cobalt	0.170		ug/L	P430123	
		Copper	1.06		ug/L	P430123	
		Lead	0.20	U	ug/L	P430123	
		Manganese	13.6		ug/L	P430123	
		Molybdenum	5.03		ug/L	P430123	
		Nickel	0.73	I	ug/L	P430123	
		Selenium	0.50	I	ug/L	P430123	
		Silver	0.010	U	ug/L	P430123	
		Thallium	0.10	U	ug/L	P430123	
		Zinc	7.0	U	ug/L	P430123	
	SM 2340 B-2011	Hardness	174		mg/L	P430123	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Paynes Crk at Hobbs Rd

Collection Date/Time: 05/17/2023 12:30

Field ID: G3SW0118

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2410862	DEP SOP: NU-094-1	Color (true)	36		PCU	P430070	
	EPA 180.1 Rev. 2.0	Turbidity	2.9	A	NTU	P430080	
	EPA 300.0 Rev. 2.1	Chloride	23		mg Cl/L	P430368	
		Sulfate	38		mg SO4/L	P430372	
	SM 2320 B-2011	Total Alkalinity	90		mg CaCO3/L	P430537	
	SM 2540 C-2015	TDS	228		mg/L	P430683	
	SM 2540 D-2015	TSS	3	I	mg/L	P430520	
2410863	SM 4500-F- C-2011	Fluoride	0.72		mg F/L	P430544	RPD
	EPA 350.1 Rev. 2.0	Ammonia-N	0.18		mg N/L	P430562	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P430240	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.70		mg N/L	P430629	
	EPA 365.1 Rev. 2.0	Total-P	0.69		mg P/L	P430172	
2410875	SM 5310 B-2011	Organic Carbon	8.5		mg C/L	P430227	
	EPA 8321B	2,4-D	0.0029	I	ug/L	P430178	
		Acesulfame K	0.10	U	ug/L	P430081	
		2,4,5-T	0.0040	U	ug/L	P430178	
		AMPA	0.10	U	ug/L	P430081	
		Acetaminophen	0.0080	U	ug/L	P430178	
		Acetamiprid	0.0020	U	ug/L	P430178	
		Endothall	0.25	U	ug/L	P430081	
		Glufosinate	0.10	U	ug/L	P430081	
		Glyphosate	0.10	U	ug/L	P430081	
		Afidopyropen	0.0020	U	ug/L	P430178	
		Bentazon	8.0E-04	U	ug/L	P430178	
		Sucralose	0.043		ug/L	P430081	
		Benzovindiflupyr	0.0020	U	ug/L	P430178	
		Carbamazepine	8.0E-04	U	ug/L	P430178	
		Clothianidin	0.042		ug/L	P430178	
		Dinotefuran	0.0020	U	ug/L	P430178	
		Diuron	0.0024	I	ug/L	P430178	
		Fenuron	0.032	U	ug/L	P430178	
		Fluridone	8.0E-04	U	ug/L	P430178	
		Imazapyr	0.048		ug/L	P430178	
		Hydrocodone	0.0020	U	ug/L	P430178	
		Ibuprofen	0.080	U	ug/L	P430178	
		Imidacloprid	0.079		ug/L	P430178	MS
		Linuron	0.0040	U	ug/L	P430178	
		Mandestrobin	0.0020	U	ug/L	P430178	
		MCPP	0.0020	U	ug/L	P430178	
		Naproxen	0.0080	U	ug/L	P430178	
		Primidone	0.0040	U	ug/L	P430178	
		Pyraclostrobin	0.0020	U	ug/L	P430178	
		Silvex	0.0040	U	ug/L	P430178	
		Thiamethoxam	0.10		ug/L	P430178	

Field ID: G3SW0118

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2410875	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P430178	
		Triclopyr	0.0040	U	ug/L	P430178	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy and/or precision for several analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Horse Creek

Collection Date/Time: 05/17/2023 13:30

Field ID: G3SW0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2410860	DEP SOP: NU-094-1	Color (true)	74		PCU	P430070	
	EPA 180.1 Rev. 2.0	Turbidity	0.40	I	NTU	P430079	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P430368	
		Sulfate	260		mg SO4/L	P430454	
	SM 2320 B-2011	Total Alkalinity	140		mg CaCO3/L	P430537	
	SM 2540 C-2015	TDS	565		mg/L	P430683	
	SM 2540 D-2015	TSS	2	U	mg/L	P430520	
	SM 4500-F- C-2011	Fluoride	0.75		mg F/L	P430544	RPD
2410861	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P430411	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P430240	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P430629	
	EPA 365.1 Rev. 2.0	Total-P	0.48		mg P/L	P430172	
	SM 5310 B-2011	Organic Carbon	29		mg C/L	P430227	
2410874	EPA 8321B	2,4-D	0.0023	I	ug/L	P430178	
		Acesulfame K	0.10	U	ug/L	P430081	
		2,4,5-T	0.0040	U	ug/L	P430178	
		AMPA	4.7		ug/L	P430081	
		Acetaminophen	0.0080	U	ug/L	P430178	
		Acetamiprid	0.0020	U	ug/L	P430178	
		Endothall	0.25	U	ug/L	P430081	
		Glufosinate	0.10	U	ug/L	P430081	
		Glyphosate	1.7		ug/L	P430081	
		Afidopyropen	0.0020	U	ug/L	P430178	
		Bentazon	0.0013	I	ug/L	P430178	
		Sucralose	0.010	U	ug/L	P430081	
		Benzovindiflupyr	0.0020	U	ug/L	P430178	
		Carbamazepine	8.0E-04	U	ug/L	P430178	
		Clothianidin	0.0020	U	ug/L	P430178	
		Dinotefuran	0.0020	U	ug/L	P430178	
		Diuron	0.0020	U	ug/L	P430178	
		Fenuron	0.032	U	ug/L	P430178	
		Fluridone	8.0E-04	U	ug/L	P430178	
		Imazapyr	0.060		ug/L	P430178	
		Hydrocodone	0.0020	U	ug/L	P430178	
		Ibuprofen	0.080	U	ug/L	P430178	
		Imidacloprid	0.0020	U	ug/L	P430178	MS
		Linuron	0.0040	U	ug/L	P430178	
		Mandestrobin	0.0020	U	ug/L	P430178	
		MCPP	0.0020	U	ug/L	P430178	
		Naproxen	0.0080	U	ug/L	P430178	
		Primidone	0.0040	U	ug/L	P430178	
		Pyraclostrobin	0.0020	U	ug/L	P430178	
		Silvex	0.0040	U	ug/L	P430178	
		Thiamethoxam	0.0020	U	ug/L	P430178	

Field ID: G3SW0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2410874	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P430178	
		Triclopyr	0.0040	U	ug/L	P430178	
2410876	EPA 200.7 Rev. 4.4	Calcium	84.0		mg/L	P430123	
		Iron	30	U	ug/L	P430123	
		Magnesium	42.1		mg/L	P430123	
		Potassium	3.2		mg/L	P430123	
		Sodium	31.4		mg/L	P430123	
		Strontium	326		ug/L	P430123	
		Tin	3.0	U	ug/L	P430123	
		Titanium	0.75	U	ug/L	P430123	
		Vanadium	2.0	U	ug/L	P430123	
		Aluminum	40		ug/L	P430123	
	EPA 200.8 Rev. 5.4	Antimony	0.18	I	ug/L	P430123	
		Arsenic	1.99		ug/L	P430123	
		Barium	21.1		ug/L	P430123	
		Beryllium	0.010	U	ug/L	P430123	
		Boron	36.1		ug/L	P430123	
		Cadmium	0.036	I	ug/L	P430123	
		Chromium	0.44	I	ug/L	P430123	
		Cobalt	0.063	I	ug/L	P430123	
		Copper	0.40	U	ug/L	P430123	
		Lead	0.20	U	ug/L	P430123	
		Manganese	7.79		ug/L	P430123	
		Molybdenum	10.4		ug/L	P430123	
		Nickel	0.50	U	ug/L	P430123	
		Selenium	0.33	I	ug/L	P430123	
		Silver	0.010	U	ug/L	P430123	
		Thallium	0.10	U	ug/L	P430123	
		Zinc	7.0	U	ug/L	P430123	
	SM 2340 B-2011	Hardness	383		mg/L	P430123	

Ref. Method and Comment:

EPA 8321B: MS accuracy and/or precision for several analytes could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P430070

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P430079

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P430080

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P430123

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430123

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L
Zinc	7.0	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430368

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430372

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430454

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430411

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430562

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430239

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430240

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430629

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430172

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430212

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

Reference Method: EPA 8321B
Batch ID: P430081

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

Reference Method: EPA 8321B
Batch ID: P430178

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	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P430537

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P430683

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2015
Batch ID: P430684

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P430520

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P430544

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P430227

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P430070

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.6		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P430079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	98.7		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P430080

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P430123

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	104		P	85 - 115
Magnesium	101		P	85 - 115
Potassium	101		P	85 - 115
Sodium	96.0		P	85 - 115
Strontium	102		P	85 - 115
Tin	99.9		P	85 - 115
Titanium	100		P	85 - 115
Vanadium	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430123

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.2		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	99.2		P	85 - 115
Barium	102		P	85 - 115
Beryllium	97.3		P	85 - 115
Boron	97.5		P	85 - 115
Cadmium	98.6		P	85 - 115
Chromium	93.9		P	85 - 115
Cobalt	98.2		P	85 - 115
Copper	100		P	85 - 115
Lead	99.6		P	85 - 115
Manganese	99.7		P	85 - 115
Molybdenum	98.3		P	85 - 115
Nickel	95.3		P	85 - 115
Selenium	100		P	85 - 115
Silver	101		P	85 - 115
Thallium	97.8		P	85 - 115
Zinc	96.3		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430368

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430372

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430454

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430411

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430562

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430239

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430240

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.3		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430629

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430172

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P430212

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.1		P	90 - 110

Reference Method: EPA 8321B

Batch ID: P430081

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	98.8		P	40 - 150
AMPA	121		P	40 - 150
Endothall	88.2		P	40 - 150
Glufosinate	93.7		P	40 - 150
Glyphosate	106		P	40 - 150
Sucralose	122		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P430178

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	95.5		P	40 - 150
2,4,5-T	80.0		P	40 - 150
Acetaminophen	86.0		P	30 - 150
Acetamiprid	73.5		P	40 - 150
Afidopyropen	77.3		P	30 - 150
Bentazon	98.3		P	30 - 150
Benzovindiflupyr	77.9		P	40 - 150
Carbamazepine	75.7		P	40 - 150
Clothianidin	90.2		P	40 - 150
Dinotefuran	88.8		P	40 - 150
Diuron	76.7		P	40 - 150
Fenuron	87.0		P	40 - 150
Fluridone	88.4		P	40 - 150
Hydrocodone	83.5		P	40 - 150
Ibuprofen	81.1		P	40 - 150
Imazapyr	89.0		P	40 - 150
Imidacloprid	84.5		P	40 - 150
Linuron	79.8		P	40 - 150
Mandestrobin	76.3		P	40 - 150
MCPP	93.6		P	40 - 150
Naproxen	60.5		P	40 - 150
Primidone	81.1		P	40 - 150
Pyraclostrobin	78.0		P	40 - 150
Silvex	88.6		P	40 - 150
Thiamethoxam	89.7		P	40 - 150
Tolfenpyrad	63.7		P	30 - 150
Triclopyr	84.5		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P430537

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.8		P	92 - 105

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P430683

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

Reference Method: SM 2540 C-2015
Batch ID: P430684

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

Reference Method: SM 2540 D-2015
Batch ID: P430520

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	103		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P430544

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P430227

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P430123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410249	Calcium	100		P	80 - 120
2410249	Iron	104	104	P/P	80 - 120
2410249	Magnesium	99.9		P	80 - 120
2410249	Potassium	100		P	80 - 120
2410249	Sodium	95.8		P	80 - 120
2410249	Strontium	99.2	99.8	P/P	80 - 120
2410249	Tin	98.5	100	P/P	80 - 120
2410249	Titanium	101	101	P/P	80 - 120
2410249	Vanadium	102	102	P/P	80 - 120
2410766	Calcium	100		P	80 - 120
2410766	Iron	102		P	80 - 120
2410766	Magnesium	100		P	80 - 120
2410766	Potassium	98.7		P	80 - 120
2410766	Sodium	96.6		P	80 - 120
2410766	Strontium	99.9		P	80 - 120
2410766	Tin	97.8		P	80 - 120
2410766	Titanium	100		P	80 - 120
2410766	Vanadium	99.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P430123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410249	Aluminum	95.8	97.1	P/P	80 - 120
2410249	Antimony	103	103	P/P	80 - 120
2410249	Arsenic	99.6	101	P/P	80 - 120
2410249	Barium	102	103	P/P	80 - 120
2410249	Beryllium	98.6	95.5	P/P	80 - 120
2410249	Boron	95.0	95.4	P/P	80 - 120
2410249	Cadmium	98.4	97.4	P/P	80 - 120
2410249	Chromium	92.0	93.2	P/P	80 - 120
2410249	Cobalt	95.8	96.6	P/P	80 - 120
2410249	Copper	115	95.2	P/P	80 - 120
2410249	Lead	99.9	100	P/P	80 - 120
2410249	Manganese	99.6	99.8	P/P	80 - 120
2410249	Molybdenum	98.0	98.6	P/P	80 - 120
2410249	Nickel	93.3	94.9	P/P	80 - 120
2410249	Selenium	98.4	99.0	P/P	80 - 120
2410249	Silver	99.2	99.7	P/P	80 - 120
2410249	Thallium	97.9	101	P/P	80 - 120
2410249	Zinc	96.7	98.5	P/P	80 - 120
2410766	Aluminum	96.9		P	80 - 120
2410766	Antimony	101		P	80 - 120
2410766	Arsenic	96.6		P	80 - 120
2410766	Barium	101		P	80 - 120
2410766	Beryllium	92.6		P	80 - 120
2410766	Boron	99.5		P	80 - 120
2410766	Cadmium	98.9		P	80 - 120
2410766	Chromium	93.8		P	80 - 120
2410766	Cobalt	95.9		P	80 - 120
2410766	Copper	97.5		P	80 - 120
2410766	Lead	99.9		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410766	Manganese	95.8		P	80 - 120
2410766	Molybdenum	96.2		P	80 - 120
2410766	Nickel	95.3		P	80 - 120
2410766	Selenium	96.9		P	80 - 120
2410766	Silver	100		P	80 - 120
2410766	Thallium	97.7		P	80 - 120
2410766	Zinc	97.3		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430368

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410733	Chloride	102		P	90 - 110
2410862	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430372

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410733	Sulfate	102		P	90 - 110
2410862	Sulfate	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430454

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2411586	Sulfate	97.4		P	90 - 110
2411717	Sulfate	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410748	Ammonia-N	97.6	98.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430562

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410865	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430240

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410863	Kjeldahl Nitrogen	108	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430629

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410751	NO2NO3-N	105	104	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430172

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410752	Total-P	103	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430212

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2411217	Total-P	94.0	101	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P430081

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410800	Acesulfame K	68.4	67.5	P/P	40 - 150
2410800	AMPA	88.1	87.9	P/P	40 - 150
2410800	Endothall	102	93.9	P/P	40 - 150
2410800	Glufosinate	78.4	84.9	P/P	40 - 150
2410800	Glyphosate	110	110	P/P	40 - 150
2410800	Sucralose	121	110	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P430178

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2410774	2,4-D	85.5	83.4	P/P	40 - 150
2410774	2,4,5-T	98.1	96.2	P/P	40 - 150
2410774	Acetaminophen	93.3	92.7	P/P	30 - 150
2410774	Acetamiprid	68.3	71.1	P/P	40 - 150
2410774	Afidopyropen	69.2	72.0	P/P	30 - 150
2410774	Benzovindiflupyr	83.4	86.7	P/P	40 - 150
2410774	Carbamazepine	71.8	70.0	P/P	40 - 150
2410774	Clothianidin	96.8	109	P/P	40 - 150
2410774	Dinotefuran	87.4	85.9	P/P	40 - 150
2410774	Diuron	72.9	66.0	P/P	40 - 150
2410774	Fenuron	65.0	66.6	P/P	40 - 150
2410774	Hydrocodone	70.5	69.2	P/P	40 - 150
2410774	Ibuprofen	51.8	50.0	P/P	40 - 150
2410774	Imidacloprid	148	155	P/F	40 - 150
2410774	Linuron	68.9	76.2	P/P	40 - 150
2410774	Mandestrobin	81.2	80.3	P/P	40 - 150
2410774	MCPP	101	101	P/P	40 - 150
2410774	Naproxen	65.3	60.7	P/P	40 - 150
2410774	Primidone	83.1	84.6	P/P	40 - 150
2410774	Pyraclostrobin	85.4	83.8	P/P	40 - 150
2410774	Silvex	80.8	93.5	P/P	40 - 150
2410774	Thiamethoxam	110	113	P/P	40 - 150
2410774	Tolfenpyrad	63.0	59.2	P/P	30 - 150
2410774	Triclopyr	88.1	93.4	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P430544

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

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P430544

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2411011	Fluoride	101	98.4	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P430227

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2411021	Organic Carbon	96.4	98.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P430070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410747	Color (true)	0.617	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P430079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410578	Turbidity	10.3	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P430080

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410862	Turbidity	2.39	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P430123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410249	Calcium	1.70	Spike	P	0 - 20
2410249	Iron	0.0113	Spike	P	0 - 20
2410249	Magnesium	0.211	Spike	P	0 - 20
2410249	Potassium	0.924	Spike	P	0 - 20
2410249	Sodium	0.980	Spike	P	0 - 20
2410249	Strontium	0.564	Spike	P	0 - 20
2410249	Tin	1.47	Spike	P	0 - 20
2410249	Titanium	0.831	Spike	P	0 - 20
2410249	Vanadium	0.600	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410249	Aluminum	1.22	Spike	P	0 - 20
2410249	Antimony	0.408	Spike	P	0 - 20
2410249	Arsenic	0.971	Spike	P	0 - 20
2410249	Barium	0.501	Spike	P	0 - 20
2410249	Beryllium	3.17	Spike	P	0 - 20
2410249	Boron	0.380	Spike	P	0 - 20
2410249	Cadmium	1.04	Spike	P	0 - 20
2410249	Chromium	1.28	Spike	P	0 - 20
2410249	Cobalt	0.895	Spike	P	0 - 20
2410249	Copper	18.6	Spike	P	0 - 20
2410249	Lead	0.538	Spike	P	0 - 20
2410249	Manganese	0.222	Spike	P	0 - 20
2410249	Molybdenum	0.661	Spike	P	0 - 20
2410249	Nickel	1.73	Spike	P	0 - 20
2410249	Selenium	0.638	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410249	Silver	0.416	Spike	P	0 - 20
2410249	Thallium	2.77	Spike	P	0 - 20
2410249	Zinc	1.80	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410733	Chloride	2.83	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430454

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2411586	Sulfate	1.46	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410748	Ammonia-N	0.485	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430562

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410865	Ammonia-N	0.715	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430239

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410818	Kjeldahl Nitrogen	11.3	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410863	Kjeldahl Nitrogen	4.65	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430629

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430629

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410751	NO2NO3-N	0.766	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410752	Total-P	2.21	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430212

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2411217	Total-P	6.80	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P430081

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410800	Acesulfame K	1.35	Spike	P	0 - 30
2410800	AMPA	0.227	Spike	P	0 - 30
2410800	Endothall	8.17	Spike	P	0 - 30
2410800	Glufosinate	8.02	Spike	P	0 - 30
2410800	Glyphosate	0.433	Spike	P	0 - 30
2410800	Sucralose	9.33	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P430178

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410774	2,4-D	1.47	Spike	P	0 - 30
2410774	2,4,5-T	1.99	Spike	P	0 - 30
2410774	Acetaminophen	0.607	Spike	P	0 - 30
2410774	Acetamiprid	4.09	Spike	P	0 - 30
2410774	Afidopyropen	3.91	Spike	P	0 - 30
2410774	Benzovindiflupyr	3.86	Spike	P	0 - 30
2410774	Carbamazepine	2.21	Spike	P	0 - 30
2410774	Clothianidin	7.91	Spike	P	0 - 30
2410774	Dinotefuran	1.71	Spike	P	0 - 30
2410774	Diuron	9.91	Spike	P	0 - 30
2410774	Fenuron	2.49	Spike	P	0 - 30
2410774	Fluridone	0.155	Spike	P	0 - 30
2410774	Hydrocodone	1.85	Spike	P	0 - 30
2410774	Ibuprofen	3.43	Spike	P	0 - 30
2410774	Imazapyr	1.27	Spike	P	0 - 30
2410774	Imidacloprid	3.81	Spike	P	0 - 30
2410774	Linuron	10.2	Spike	P	0 - 30
2410774	Mandestrobin	1.10	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P430178

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410774	MCCP	0.226	Spike	P	0 - 30
2410774	Naproxen	7.29	Spike	P	0 - 30
2410774	Primidone	1.53	Spike	P	0 - 30
2410774	Pyraclostrobin	1.93	Spike	P	0 - 30
2410774	Silvex	14.6	Spike	P	0 - 30
2410774	Thiamethoxam	2.74	Spike	P	0 - 30
2410774	Tolfenpyrad	6.36	Spike	P	0 - 30
2410774	Triclopyr	5.80	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P430537

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2411011	Total Alkalinity	0.702	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P430683

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410643	TDS	3.55	Sample	P	0 - 10

Reference Method: SM 2540 C-2015
Batch ID: P430684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410864	TDS	2.91	Sample	P	0 - 10

Reference Method: SM 2540 D-2015
Batch ID: P430520

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410643	TSS	7.23	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P430544

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2411011	Fluoride	1.99	Spike	F	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P430227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2411021	Organic Carbon	2.41	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: 2410874

Field Sample ID: G3SW0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	73.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	88.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.8	P	30 - 160
EPA 8321B	Diuron-d6	54.6	P	30 - 160
EPA 8321B	Endothall-d6	117	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	62.5	P	30 - 160
EPA 8321B	Primidone-d5	63.8	P	30 - 160
EPA 8321B	Sucralose-d6	94.6	P	30 - 160

Lab Sample ID: 2410875

Field Sample ID: G3SW0118

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	98.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.3	P	30 - 160
EPA 8321B	Diuron-d6	75.2	P	30 - 160
EPA 8321B	Endothall-d6	93.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	108	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.8	P	30 - 160
EPA 8321B	Primidone-d5	97.4	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A119258

Included Lab Sample IDs: 2410858, 2410860, 2410862, 2410864

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	99.9	P/P	90 - 110
Color (true)	98.4	99.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A119260

Included Lab Sample IDs: 2410858, 2410860, 2410862, 2410864

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

Reference Method: EPA 8321B

Run ID: A119295

Included Lab Sample IDs: 2410874, 2410875

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	100	98.5	P/P	60 - 160
Sucralose	119	114	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A119309

Included Lab Sample IDs: 2410874, 2410875

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	122	121	P/P	60 - 160
Endothall	86.1	83.1	P/P	60 - 160
Glufosinate	89.6	86.2	P/P	60 - 160
Glyphosate	108	109	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A119341

Included Lab Sample IDs: 2410859, 2410861, 2410863, 2410865

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	97.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A119351

Included Lab Sample IDs: 2410858, 2410860, 2410862, 2410864

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Chloride	99.8	100	P/P	90 - 110
Sulfate	96.6	99.3	P/P	90 - 110
Sulfate	97.5	98.7	P/P	90 - 110
Sulfate	98.7	99.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119362

Included Lab Sample IDs: 2410876, 2410877

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119362

Included Lab Sample IDs: 2410876, 2410877

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.3	97.7	P/P	90 - 110
Antimony	100	101	P/P	90 - 110
Arsenic	97.9	97.2	P/P	90 - 110
Barium	98.4	100	P/P	90 - 110
Beryllium	95.2	93.2	P/P	90 - 110
Boron	94.5	92.9	P/P	90 - 110
Cadmium	97.2	98.4	P/P	90 - 110
Cobalt	97.5	92.4	P/P	90 - 110
Copper	94.3	96.6	P/P	90 - 110
Lead	98.2	98.5	P/P	90 - 110
Manganese	98.6	93.4	P/P	90 - 110
Molybdenum	96.0	96.4	P/P	90 - 110
Nickel	95.3	91.5	P/P	90 - 110
Selenium	98.8	99.2	P/P	90 - 110
Silver	98.6	99.1	P/P	90 - 110
Thallium	99.0	97.3	P/P	90 - 110
Zinc	97.2	95.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119373

Included Lab Sample IDs: 2410859

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119387

Included Lab Sample IDs: 2410859, 2410861, 2410863, 2410865

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.4	95.6	P/P	90 - 110
Kjeldahl Nitrogen	95.6	90.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119392

Included Lab Sample IDs: 2410876, 2410877

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	94.6	93.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119408

Included Lab Sample IDs: 2410859, 2410861

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119424

Included Lab Sample IDs: 2410876

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	95.3	93.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A119438

Included Lab Sample IDs: 2410874, 2410875

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.2	107	P/P	50 - 150
2,4,5-T	97.3	93.7	P/P	50 - 150
Acetaminophen	106	104	P/P	60 - 160
Acetamiprid	118	118	P/P	50 - 150
Afidopyropen	90.5	111	P/P	50 - 150
Bentazon	129	124	P/P	50 - 160
Benzovindiflupyr	106	101	P/P	50 - 150
Carbamazepine	106	114	P/P	60 - 150
Clothianidin	117	113	P/P	60 - 150
Dinotefuran	115	113	P/P	50 - 150
Diuron	114	121	P/P	60 - 160
Fenuron	113	116	P/P	60 - 150
Fluridone	120	118	P/P	60 - 160
Hydrocodone	113	109	P/P	60 - 150
Ibuprofen	115	119	P/P	50 - 160
Imazapyr	102	102	P/P	50 - 150
Imidacloprid	107	108	P/P	60 - 150
Linuron	99.8	102	P/P	60 - 150
Mandestrobin	101	102	P/P	50 - 150
MCPP	107	107	P/P	50 - 150
Naproxen	96.2	131	P/P	50 - 160
Primidone	110	107	P/P	60 - 150
Pyraclostrobin	110	112	P/P	60 - 150
Silvex	117	102	P/P	50 - 150
Thiamethoxam	117	117	P/P	50 - 150
Tolfenpyrad	118	117	P/P	60 - 150
Triclopyr	109	92.3	P/P	50 - 150

Reference Method: SM 2320 B-2011

Run ID: A119461

Included Lab Sample IDs: 2410858, 2410860, 2410862, 2410864

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.2	93.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A119461

Included Lab Sample IDs: 2410858, 2410860, 2410862, 2410864

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119472

Included Lab Sample IDs: 2410863, 2410865

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.1	97.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A119475

Included Lab Sample IDs: 2410876, 2410877

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	101	P/P	90 - 110
Iron	102	104	P/P	90 - 110
Magnesium	100	101	P/P	90 - 110
Potassium	98.5	99.5	P/P	90 - 110
Sodium	94.7	94.9	P/P	90 - 110
Strontium	99.5	99.2	P/P	90 - 110
Tin	99.3	98.4	P/P	90 - 110
Titanium	101	101	P/P	90 - 110
Vanadium	100	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119481

Included Lab Sample IDs: 2410859, 2410861, 2410863, 2410865

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119487

Included Lab Sample IDs: 2410861, 2410863, 2410865

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A119529

Included Lab Sample IDs: 2410876

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tin	97.8	98.8	P/P	95 - 105

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	98.6				0.617	
EPA 180.1 Rev. 2.0	Turbidity	98.7				10.3	
	Turbidity	99.4				2.39	
EPA 200.7 Rev. 4.4	Calcium	101	100	100			1.70
	Iron	104	104	104	102		0.0113
	Magnesium	101	99.9	100			0.211
	Potassium	101	100	98.7			0.924
	Sodium	96.0	95.8	96.6			0.980
	Strontium	102	99.2	99.8	99.9		0.564
	Tin	99.9	98.5	100	97.8		1.47
	Titanium	100	101	101	100		0.831
	Vanadium	100	102	102	99.5		0.600
EPA 200.8 Rev. 5.4	Aluminum	97.2	95.8	97.1	96.9		1.22
	Antimony	102	103	103	101		0.408
	Arsenic	99.2	99.6	101	96.6		0.971
	Barium	102	102	103	101		0.501
	Beryllium	97.3	98.6	95.5	92.6		3.17
	Boron	97.5	95.0	95.4	99.5		0.380
	Cadmium	98.6	98.4	97.4	98.9		1.04
	Chromium	93.9	92.0	93.2	93.8		1.28
	Cobalt	98.2	95.8	96.6	95.9		0.895
	Copper	100	97.5	115	95.2		18.6
	Lead	99.6	99.9	100	99.9		0.538
	Manganese	99.7	99.6	99.8	95.8		0.222
	Molybdenum	98.3	98.0	98.6	96.2		0.661
	Nickel	95.3	93.3	94.9	95.3		1.73
	Selenium	100	98.4	99.0	96.9		0.638
	Silver	101	99.2	99.7	100		0.416
	Thallium	97.8	97.9	101	97.7		2.77
	Zinc	96.3	96.7	98.5	97.3		1.80
EPA 300.0 Rev. 2.1	Chloride	103	102	100		2.83	
	Sulfate	101	102	102			
	Sulfate	99.4	97.4	98.1		1.46	
EPA 350.1 Rev. 2.0	Ammonia-N	98.0	97.6	98.2			0.485
	Ammonia-N	96.6	100	101			0.715
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100					11.3
	Kjeldahl Nitrogen	98.3	108	102			4.65
EPA 353.2 Rev. 2.0	NO2NO3-N	105	105	104			0.766
EPA 365.1 Rev. 2.0	Total-P	102	103	101			2.21
	Total-P	99.1	94.0	101			6.80
EPA 8321B	2,4-D	95.5	85.5	83.4			1.47
	2,4,5-T	80.0	98.1	96.2			1.99
	Acesulfame K	98.8	68.4	67.5			1.35
	Acetaminophen	86.0	93.3	92.7			0.607
	Acetamiprid	73.5	68.3	71.1			4.09
	Afidopyropen	77.3	69.2	72.0			3.91
	AMPA	121	88.1	87.9			0.227
	Bentazon	98.3					
	Benzovindiflupyr	77.9	83.4	86.7			3.86
	Carbamazepine	75.7	71.8	70.0			2.21
	Clothianidin	90.2	96.8	109			7.91
	Dinotefuran	88.8	87.4	85.9			1.71
	Diuron	76.7	72.9	66.0			9.91
	Endothall	88.2	102	93.9			8.17

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Fenuron	87.0	65.0	66.6		2.49
	Fluridone	88.4				0.155
	Glufosinate	93.7	78.4	84.9		8.02
	Glyphosate	106	110	110		0.433
	Hydrocodone	83.5	70.5	69.2		1.85
	Ibuprofen	81.1	51.8	50.0		3.43
	Imazapyr	89.0				1.27
	Imidacloprid	84.5	148	155		3.81
	Linuron	79.8	68.9	76.2		10.2
	Mandestrobin	76.3	81.2	80.3		1.10
	MCPP	93.6	101	101		0.226
	Naproxen	60.5	65.3	60.7		7.29
	Primidone	81.1	83.1	84.6		1.53
	Pyraclostrobin	78.0	85.4	83.8		1.93
	Silvex	88.6	80.8	93.5		14.6
	Sucralose	122	121	110		9.33
	Thiamethoxam	89.7	110	113		2.74
	Tolfenpyrad	63.7	63.0	59.2		6.36
	Triclopyr	84.5	88.1	93.4		5.80
SM 2320 B-2011	Total Alkalinity	97.8			0.702	
SM 2540 C-2015	TDS	103			3.55	
	TDS	100			2.91	
SM 2540 D-2015	TSS	103			7.23	
SM 4500-F- C-2011	Fluoride	102	101	98.4		1.99
SM 5310 B-2011	Organic Carbon	94.6	96.4	98.7		2.41

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2410858, 2410860, 2410862, 2410864
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2410858, 2410860, 2410862, 2410864
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2410876, 2410877
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2410876, 2410877
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2410858, 2410860, 2410862, 2410864
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2410858, 2410860, 2410862, 2410864
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2410859, 2410861, 2410863, 2410865
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2410859, 2410861, 2410863, 2410865
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2410859, 2410861, 2410863, 2410865
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2410859, 2410861, 2410863, 2410865
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2410874, 2410875
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2410858, 2410860, 2410862, 2410864
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2410876, 2410877
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2410858, 2410860, 2410862, 2410864
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2410858, 2410860, 2410862, 2410864
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2410858, 2410860, 2410862, 2410864
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2410859, 2410861, 2410863, 2410865

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	05/18/2023			05/18/2023 15:16	Alexis Price	2410860
	05/18/2023			05/18/2023 15:17	Alexis Price	2410862, 2410864
	05/18/2023			05/18/2023 15:40	Alexis Price	2410858
	05/18/2023			05/18/2023 13:26	Khloe J Berg	2410858
EPA 180.1 Rev. 2.0	05/18/2023			05/18/2023 13:29	Khloe J Berg	2410860
	05/18/2023			05/18/2023 13:35	Khloe J Berg	2410862
	05/18/2023			05/18/2023 13:36	Khloe J Berg	2410864
	05/18/2023			05/18/2023 13:36	Khloe J Berg	2410864
EPA 200.7 Rev. 4.4	05/18/2023	05/19/2023 12:20	George D Taylor	05/30/2023 20:54	McKinley C Carter	2410876
	05/18/2023	05/19/2023 12:20	George D Taylor	05/30/2023 21:02	McKinley C Carter	2410877
	05/18/2023	05/19/2023 12:20	George D Taylor	06/01/2023 14:51	McKinley C Carter	2410876
EPA 200.8 Rev. 5.4	05/18/2023	05/19/2023 12:20	George D Taylor	05/23/2023 18:24	Conrad Hartmann	2410876
	05/18/2023	05/19/2023 12:20	George D Taylor	05/23/2023 18:33	Conrad Hartmann	2410877
	05/18/2023	05/19/2023 12:20	George D Taylor	05/24/2023 16:52	Conrad Hartmann	2410876
	05/18/2023	05/19/2023 12:20	George D Taylor	05/24/2023 16:58	Conrad Hartmann	2410877
EPA 300.0 Rev. 2.1	05/18/2023	05/19/2023 12:20	George D Taylor	05/25/2023 18:43	Conrad Hartmann	2410876
	05/18/2023			05/25/2023 03:27	James L Waggeberby	2410862
	05/18/2023			05/25/2023 05:28	James L Waggeberby	2410858
	05/18/2023			05/25/2023 05:43	James L Waggeberby	2410860
EPA 350.1 Rev. 2.0	05/18/2023			05/25/2023 06:28	James L Waggeberby	2410864
	05/18/2023			05/26/2023 00:30	James L Waggeberby	2410860
	05/18/2023			05/25/2023 12:22	Khloe J Berg	2410859
	05/18/2023			05/25/2023 12:23	Khloe J Berg	2410861
EPA 351.2 Rev. 2.0	05/18/2023			05/30/2023 13:14	Khloe J Berg	2410863
	05/18/2023			05/30/2023 13:19	Khloe J Berg	2410865
	05/18/2023	05/23/2023 11:55	Dana G. Hughes	05/24/2023 14:52	Samantha L Bates	2410859
	05/18/2023	05/23/2023 11:55	Dana G. Hughes	05/24/2023 14:57	Samantha L Bates	2410861
EPA 353.2 Rev. 2.0	05/18/2023	05/23/2023 11:55	Dana G. Hughes	05/24/2023 15:02	Samantha L Bates	2410863
	05/18/2023	05/23/2023 11:55	Dana G. Hughes	05/24/2023 15:07	Samantha L Bates	2410865
	05/18/2023			05/31/2023 09:49	Beverly Y. Sanders	2410859
	05/18/2023			05/31/2023 09:50	Beverly Y. Sanders	2410861
EPA 365.1 Rev. 2.0	05/18/2023			05/31/2023 09:51	Beverly Y. Sanders	2410863
	05/18/2023			05/31/2023 09:52	Beverly Y. Sanders	2410865
	05/18/2023	05/23/2023 14:40	Simonne.V. Calhoun	05/24/2023 10:21	Simonne.V. Calhoun	2410859
	05/18/2023	05/26/2023 09:45	Adam P Silver	05/31/2023 12:28	Chandler E Cox	2410861
EPA 8321B	05/18/2023	05/26/2023 09:45	Adam P Silver	05/31/2023 12:29	Chandler E Cox	2410863
	05/18/2023	05/26/2023 09:45	Adam P Silver	05/31/2023 12:30	Chandler E Cox	2410865
	05/18/2023	05/19/2023 14:00	Touraj Touran	05/20/2023 02:42	Manjita Shrestha	2410874
	05/18/2023	05/19/2023 14:00	Touraj Touran	05/20/2023 02:55	Manjita Shrestha	2410875
	05/18/2023	05/19/2023 14:00	Touraj Touran	05/21/2023 04:31	Manjita Shrestha	2410874
	05/18/2023	05/19/2023 14:00	Touraj Touran	05/21/2023 04:45	Manjita Shrestha	2410875

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	05/18/2023	05/23/2023 09:00	Hoor Shaik	05/26/2023 03:43	Juyoung Kim	2410874
	05/18/2023	05/23/2023 09:00	Hoor Shaik	05/26/2023 04:02	Juyoung Kim	2410875
SM 2320 B-2011	05/18/2023			05/26/2023 03:42	Dale L. Simmons	2410858
	05/18/2023			05/26/2023 03:56	Dale L. Simmons	2410860
	05/18/2023			05/26/2023 04:10	Dale L. Simmons	2410862
	05/18/2023			05/26/2023 04:24	Dale L. Simmons	2410864
SM 2340 B-2011	05/18/2023			05/30/2023 20:54	McKinley C Carter	2410876
	05/18/2023			05/30/2023 21:02	McKinley C Carter	2410877
SM 2540 C-2015	05/18/2023			05/19/2023 16:01	Yijie Li	2410858, 2410860, 2410862, 2410864
SM 2540 D-2015	05/18/2023			05/19/2023 16:01	Yijie Li	2410858, 2410860, 2410862, 2410864
SM 4500-F- C-2011	05/18/2023			05/26/2023 03:42	Dale L. Simmons	2410858
	05/18/2023			05/26/2023 03:56	Dale L. Simmons	2410860
	05/18/2023			05/26/2023 04:10	Dale L. Simmons	2410862
	05/18/2023			05/26/2023 04:24	Dale L. Simmons	2410864
SM 5310 B-2011	05/18/2023			05/23/2023 02:30	Elise M. Gillis	2410859
	05/18/2023			05/23/2023 02:45	Elise M. Gillis	2410861
	05/18/2023			05/23/2023 03:00	Elise M. Gillis	2410863
	05/18/2023			05/23/2023 03:16	Elise M. Gillis	2410865