

Chemical Analysis Report

NE-DIST-2023-07-14-01

Florida DEP Laboratory
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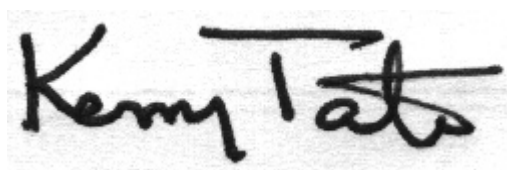
Event Description: **Ormond Boat and L.Eaton**
Request ID: **RQ-2023-07-03-37**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 31-JUL-2023 09:15

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: 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: Lake Eaton Center

Collection Date/Time: 07/13/2023 10:30

Field ID: G1NE0954

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424165	DEP SOP: NU-094-1	Color (true)	220		PCU	P432517	
	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P432520	
	EPA 300.0 Rev. 2.1	Chloride	9.2		mg Cl/L	P432731	
		Sulfate	15		mg SO4/L	P432733	
	SM 2320 B-2011	Total Alkalinity	48		mg CaCO3/L	P432598	
	SM 2540 C-2015	TDS	136		mg/L	P433063	
	SM 2540 D-2015	TSS	6	I	mg/L	P433042	
	SM 4500-F- C-2011	Fluoride	0.073	I	mg F/L	P432600	
2424166	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P432632	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P432699	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P432639	
	EPA 365.1 Rev. 2.0	Total-P	0.040		mg P/L	P432678	
	SM 5310 B-2011	Organic Carbon	23		mg C/L	P432829	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: Groover Branch at Airport Road Bridge

Collection Date/Time: 07/13/2023 12:10

Field ID: G5NE0610

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424163	DEP SOP: NU-094-1	Color (true)	280		PCU	P432517	
	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P432520	
	EPA 300.0 Rev. 2.1	Chloride	28		mg Cl/L	P432731	
		Sulfate	4.8		mg SO4/L	P432733	
	SM 2320 B-2011	Total Alkalinity	26		mg CaCO3/L	P432598	
	SM 2540 C-2015	TDS	149		mg/L	P433063	
	SM 2540 D-2015	TSS	3	I	mg/L	P433042	
2424164	SM 4500-F- C-2011	Fluoride	0.044	I	mg F/L	P432600	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P432632	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P432699	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P432639	
	EPA 365.1 Rev. 2.0	Total-P	0.036		mg P/L	P432678	
2424178	SM 5310 B-2011	Organic Carbon	29		mg C/L	P432829	
	EPA 8321B	2,4-D	0.81		ug/L	P432513	
		Acesulfame K	0.10	U	ug/L	P432522	
		2,4,5-T	0.0040	U	ug/L	P432513	
		AMPA	0.10	U	ug/L	P432522	
		Acetaminophen	0.0080	U	ug/L	P432513	
		Acetamiprid	0.0020	U	ug/L	P432513	
		Endothall	0.25	U	ug/L	P432522	
		Glufosinate	0.10	U	ug/L	P432522	
		Glyphosate	0.10	U	ug/L	P432522	
		Afidopyropen	0.0020	U	ug/L	P432513	
		Bentazon	0.025		ug/L	P432513	
		Sucralose	0.21		ug/L	P432522	
		Benzovindiflupyr	0.0020	U	ug/L	P432513	
		Carbamazepine	8.0E-04	U	ug/L	P432513	
		Clothianidin	0.0020	U	ug/L	P432513	
		Dinotefuran	0.0020	U	ug/L	P432513	
		Diuron	0.0020	U	ug/L	P432513	
		Fenuron	0.032	U	ug/L	P432513	
		Fluridone	0.011		ug/L	P432513	
		Imazapyr	0.39		ug/L	P432513	
		Hydrocodone	0.0020	U	ug/L	P432513	
		Ibuprofen	0.080	U	ug/L	P432513	
		Imidacloprid	0.0055	I	ug/L	P432513	
		Linuron	0.0040	U	ug/L	P432513	
		Mandestrobin	0.0020	U	ug/L	P432513	
		MCPP	0.0020	U	ug/L	P432513	
		Naproxen	0.0080	U	ug/L	P432513	
		Primidone	0.0040	U	ug/L	P432513	
		Pyraclostrobin	0.0020	U	ug/L	P432513	
		Silvex	0.0040	U	ug/L	P432513	
		Thiamethoxam	0.0020	U	ug/L	P432513	

Field ID: G5NE0610

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424178	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P432513	
		Triclopyr	0.0040	U	ug/L	P432513	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Unnamed Branch 05 Mi above Tomoka River

Collection Date/Time: 07/13/2023 12:40

Field ID: G5NE0609

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424161	DEP SOP: NU-094-1	Color (true)	130		PCU	P432517	
	EPA 180.1 Rev. 2.0	Turbidity	6.5		NTU	P432520	
	EPA 300.0 Rev. 2.1	Chloride	2.5E+03		mg Cl/L	P433120	
		Sulfate	320		mg SO4/L	P432733	
	SM 2320 B-2011	Total Alkalinity	139		mg CaCO3/L	P432598	
	SM 2540 C-2015	TDS	4.28E+03		mg/L	P433063	
	SM 2540 D-2015	TSS	9	I	mg/L	P433042	
	SM 4500-F- C-2011	Fluoride	0.30		mg F/L	P432600	
2424162	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P432774	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.96		mg N/L	P432906	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.022		mg N/L	P432762	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P432735	
	SM 5310 B-2011	Organic Carbon	18		mg C/L	P432829	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P432517

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P432520

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432731

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432733

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433120

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432632

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432774

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432699

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432906

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432639

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432762

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432678

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432735

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

Reference Method: EPA 8321B
Batch ID: P432513

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P432522

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

Reference Method: SM 2320 B-2011
Batch ID: P432598

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

Reference Method: SM 2540 C-2015
Batch ID: P433063

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P433042

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P432600

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P432829

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: P432517

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.8		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P432520

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432731

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432733

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433120

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432632

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	93.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432774

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	93.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432699

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432906

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432639

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432762

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432678

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432735

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

Reference Method: EPA 8321B
Batch ID: P432513

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	87.3		P	40 - 150
2,4,5-T	84.5		P	40 - 150
Acetaminophen	55.9		P	30 - 150
Acetamiprid	58.4		P	40 - 150
Afidopyropen	46.8		P	30 - 150
Bentazon	108		P	30 - 150
Benzovindiflupyr	72.7		P	40 - 150
Carbamazepine	68.4		P	40 - 150
Clothianidin	82.1		P	40 - 150
Dinotefuran	94.7		P	40 - 150
Diuron	47.3		P	40 - 150
Fenuron	83.7		P	40 - 150
Fluridone	75.4		P	40 - 150
Hydrocodone	85.9		P	40 - 150
Ibuprofen	63.7		P	40 - 150
Imazapyr	76.3		P	40 - 150
Imidacloprid	76.5		P	40 - 150
Linuron	69.0		P	40 - 150
Mandestrobin	70.9		P	40 - 150
MCPP	88.8		P	40 - 150
Naproxen	65.6		P	40 - 150
Primidone	72.7		P	40 - 150
Pyraclostrobin	76.5		P	40 - 150
Silvex	85.5		P	40 - 150
Thiamethoxam	69.7		P	40 - 150
Tolfenpyrad	53.5		P	30 - 150
Triclopyr	83.1		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P432522

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	90.2		P	40 - 150
AMPA	84.6		P	40 - 150
Endothall	87.2		P	40 - 150
Glufosinate	91.6		P	40 - 150
Glyphosate	98.1		P	40 - 150
Sucralose	89.1		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P432598

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.3		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P433063

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	93.1		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P433042

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	87.0		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P432600

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

Reference Method: SM 5310 B-2011
Batch ID: P432829

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423991	Chloride	99.3		P	90 - 110
2424316	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432733

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423991	Sulfate	91.8		P	90 - 110
2424316	Sulfate	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433120

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2425103	Chloride	98.0		P	90 - 110
2425308	Chloride	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432632

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424103	Ammonia-N	101	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432774

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424446	Ammonia-N	106	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432906

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424448	Kjeldahl Nitrogen	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424130	NO2NO3-N	92.8	91.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432762

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423717	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432678

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424252	Total-P	98.4	99.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P432735

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424446	Total-P	91.8	92.6	P/P	90 - 110

Reference Method: EPA 8321B

Batch ID: P432513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423624	2,4-D	100	90.6	P/P	40 - 150
2423624	2,4,5-T	98.0	87.2	P/P	40 - 150
2423624	Acetaminophen	61.8	58.4	P/P	30 - 150
2423624	Acetamiprid	86.6	88.0	P/P	40 - 150
2423624	Afidopyropen	90.4	84.2	P/P	30 - 150
2423624	Bentazon	111	112	P/P	30 - 150
2423624	Benzovindiflupyr	79.8	80.5	P/P	40 - 150
2423624	Carbamazepine	75.9	64.5	P/P	40 - 150
2423624	Clothianidin	89.3	81.7	P/P	40 - 150
2423624	Dinotefuran	89.6	81.9	P/P	40 - 150
2423624	Diuron	49.9	60.2	P/P	40 - 150
2423624	Fenuron	76.8	74.5	P/P	40 - 150
2423624	Fluridone	88.2	87.6	P/P	40 - 150
2423624	Hydrocodone	82.2	83.3	P/P	40 - 150
2423624	Ibuprofen	75.2	72.0	P/P	40 - 150
2423624	Imazapyr	99.0	87.2	P/P	40 - 150
2423624	Imidacloprid	104	96.7	P/P	40 - 150
2423624	Linuron	64.4	68.5	P/P	40 - 150
2423624	Mandestrobin	85.2	78.6	P/P	40 - 150
2423624	MCPP	108	101	P/P	40 - 150
2423624	Naproxen	65.9	68.3	P/P	40 - 150
2423624	Primidone	71.2	74.2	P/P	40 - 150
2423624	Pyraclostrobin	87.0	83.4	P/P	40 - 150
2423624	Silvex	89.3	91.1	P/P	40 - 150
2423624	Thiamethoxam	71.6	65.3	P/P	40 - 150
2423624	Tolfenpyrad	56.4	50.9	P/P	30 - 150
2423624	Triclopyr	93.3	94.3	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P432522

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423690	Acesulfame K	113	118	P/P	40 - 150
2423690	AMPA	93.3	73.2	P/P	40 - 150
2423690	Endothall	90.6	93.4	P/P	40 - 150
2423690	Glufosinate	67.4	73.6	P/P	40 - 150
2423690	Glyphosate	73.8	74.9	P/P	40 - 150
2423690	Sucralose	96.3	99.5	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P432600

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423991	Fluoride	103	102	P/P	94 - 106

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P432829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424103	Organic Carbon	95.1	97.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P432517

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424030	Color (true)	0.490	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P432520

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424129	Turbidity	14.4	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423991	Chloride	0.123	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423991	Sulfate	0.234	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433120

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2425103	Chloride	0.0914	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432632

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424103	Ammonia-N	3.27	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432774

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424446	Ammonia-N	0.509	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432699

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424130	Kjeldahl Nitrogen	2.50	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432906

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424448	Kjeldahl Nitrogen	1.44	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424130	NO2NO3-N	1.53	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432762

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423717	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424252	Total-P	0.832	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432735

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424446	Total-P	0.762	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P432513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423624	2,4-D	9.87	Spike	P	0 - 30
2423624	2,4,5-T	11.7	Spike	P	0 - 30
2423624	Acetaminophen	5.63	Spike	P	0 - 30
2423624	Acetamiprid	1.54	Spike	P	0 - 30
2423624	Afidopyropen	7.09	Spike	P	0 - 30
2423624	Bentazon	0.403	Spike	P	0 - 30
2423624	Benzovindiflupyr	0.910	Spike	P	0 - 30
2423624	Carbamazepine	16.2	Spike	P	0 - 30
2423624	Clothianidin	8.82	Spike	P	0 - 30
2423624	Dinotefuran	8.90	Spike	P	0 - 30
2423624	Diuron	18.7	Spike	P	0 - 30
2423624	Fenuron	3.12	Spike	P	0 - 30
2423624	Fluridone	0.668	Spike	P	0 - 30
2423624	Hydrocodone	1.33	Spike	P	0 - 30
2423624	Ibuprofen	4.41	Spike	P	0 - 30
2423624	Imazapyr	12.7	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P432513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423624	Imidacloprid	6.98	Spike	P	0 - 30
2423624	Linuron	6.25	Spike	P	0 - 30
2423624	Mandestrobin	8.02	Spike	P	0 - 30
2423624	MCPP	6.52	Spike	P	0 - 30
2423624	Naproxen	3.64	Spike	P	0 - 30
2423624	Primidone	4.10	Spike	P	0 - 30
2423624	Pyraclostrobin	4.19	Spike	P	0 - 30
2423624	Silvex	1.93	Spike	P	0 - 30
2423624	Thiamethoxam	9.16	Spike	P	0 - 30
2423624	Tolfenpyrad	10.3	Spike	P	0 - 30
2423624	Triclopyr	1.12	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P432522

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423690	Acesulfame K	4.04	Spike	P	0 - 30
2423690	AMPA	24.1	Spike	P	0 - 30
2423690	Endothall	3.08	Spike	P	0 - 30
2423690	Glufosinate	8.77	Spike	P	0 - 30
2423690	Glyphosate	1.43	Spike	P	0 - 30
2423690	Sucralose	2.14	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P432598

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423991	Total Alkalinity	1.60	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015

Batch ID: P433063

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424129	TDS	5.74	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P432600

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423991	Fluoride	0.492	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011

Batch ID: P432829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424103	Organic Carbon	1.80	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: 2424178
Field Sample ID: G5NE0610

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	88.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	62.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	40.9	P	30 - 160
EPA 8321B	Diuron-d6	31.3	P	30 - 160
EPA 8321B	Endothall-d6	116	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	49.7	P	30 - 160
EPA 8321B	Primidone-d5	59.9	P	30 - 160
EPA 8321B	Sucralose-d6	96.3	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A120392

Included Lab Sample IDs: 2424161, 2424163, 2424165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A120394

Included Lab Sample IDs: 2424161, 2424163, 2424165

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

Reference Method: EPA 8321B

Run ID: A120416

Included Lab Sample IDs: 2424178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	88.4	83.7	P/P	60 - 160
Endothall	84.1	94.8	P/P	60 - 160
Glufosinate	84.3	84.3	P/P	60 - 160
Glyphosate	92.6	87.4	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A120424

Included Lab Sample IDs: 2424178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	125	129	P/P	60 - 160
Sucralose	89.8	90.3	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A120442

Included Lab Sample IDs: 2424161, 2424163, 2424165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.7	94.9	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A120442

Included Lab Sample IDs: 2424161, 2424163, 2424165

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

Reference Method: EPA 8321B

Run ID: A120445

Included Lab Sample IDs: 2424178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	88.5	101	P/P	50 - 150
2,4,5-T	98.5	109	P/P	50 - 150
Acetaminophen	82.2	83.3	P/P	60 - 160
Acetamiprid	122	120	P/P	50 - 150
Afidopyropen	104	102	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A120445
Included Lab Sample IDs: 2424178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	129	142	P/P	50 - 160
Benzovindiflupyr	107	115	P/P	50 - 150
Carbamazepine	106	112	P/P	60 - 150
Clothianidin	105	98.4	P/P	60 - 150
Dinotefuran	122	118	P/P	50 - 150
Diuron	112	136	P/P	60 - 160
Fenuron	110	112	P/P	60 - 150
Fluridone	114	106	P/P	60 - 160
Hydrocodone	125	121	P/P	60 - 150
Ibuprofen	86.7	92.5	P/P	50 - 160
Imazapyr	99.4	97.8	P/P	50 - 150
Imidacloprid	98.6	108	P/P	60 - 150
Linuron	101	107	P/P	60 - 150
Mandestrobin	108	111	P/P	50 - 150
MCPP	101	113	P/P	50 - 150
Naproxen	134	115	P/P	50 - 160
Primidone	94.0	103	P/P	60 - 150
Pyraclostrobin	121	117	P/P	60 - 150
Silvex	104	92.6	P/P	50 - 150
Thiamethoxam	104	101	P/P	50 - 150
Tolfenpyrad	107	99.1	P/P	60 - 150
Triclopyr	92.5	106	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A120455
Included Lab Sample IDs: 2424164, 2424166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A120460
Included Lab Sample IDs: 2424164, 2424166

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A120479
Included Lab Sample IDs: 2424163, 2424165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.8	101	P/P	90 - 110
Sulfate	98.9	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A120513
Included Lab Sample IDs: 2424162

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A120518

Included Lab Sample IDs: 2424162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.1	97.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120523

Included Lab Sample IDs: 2424164, 2424166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	98.2	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A120544

Included Lab Sample IDs: 2424162, 2424164, 2424166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.6	97.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A120548

Included Lab Sample IDs: 2424164, 2424166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.6	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120552

Included Lab Sample IDs: 2424162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A120625

Included Lab Sample IDs: 2424162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	105	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A120686

Included Lab Sample IDs: 2424161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.9	100	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	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	99.8				0.490	
EPA 180.1 Rev. 2.0	Turbidity	99.9				14.4	
EPA 300.0 Rev. 2.1	Chloride	98.8	99.3	101		0.123	
	Chloride	99.3	98.0	99.3		0.0914	
	Sulfate	96.5	91.8	97.3		0.234	
EPA 350.1 Rev. 2.0	Ammonia-N	93.0	101	97.4			3.27
	Ammonia-N	93.6	106	106			0.509
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101					2.50
	Kjeldahl Nitrogen	99.1	102	101			1.44
EPA 353.2 Rev. 2.0	NO2NO3-N	98.0	92.8	91.2			1.53
	NO2NO3-N	103	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	102	98.4	99.2			0.832
	Total-P	101	91.8	92.6			0.762
EPA 8321B	2,4-D	87.3	100	90.6			9.87
	2,4,5-T	84.5	98.0	87.2			11.7
	Acesulfame K	90.2	113	118			4.04
	Acetaminophen	55.9	61.8	58.4			5.63
	Acetamiprid	58.4	86.6	88.0			1.54
	Afidopyropen	46.8	90.4	84.2			7.09
	AMPA	84.6	93.3	73.2			24.1
	Bentazon	108	111	112			0.403
	Benzovindiflupyr	72.7	79.8	80.5			0.910
	Carbamazepine	68.4	75.9	64.5			16.2
	Clothianidin	82.1	89.3	81.7			8.82
	Dinotefuran	94.7	89.6	81.9			8.90
	Diuron	47.3	49.9	60.2			18.7
	Endothall	87.2	90.6	93.4			3.08
	Fenuron	83.7	76.8	74.5			3.12
	Fluridone	75.4	88.2	87.6			0.668
	Glufosinate	91.6	67.4	73.6			8.77
	Glyphosate	98.1	73.8	74.9			1.43
	Hydrocodone	85.9	82.2	83.3			1.33
	Ibuprofen	63.7	75.2	72.0			4.41
	Imazapyr	76.3	99.0	87.2			12.7
	Imidacloprid	76.5	104	96.7			6.98
	Linuron	69.0	64.4	68.5			6.25
	Mandestrobin	70.9	85.2	78.6			8.02
	MCPPP	88.8	108	101			6.52
	Naproxen	65.6	65.9	68.3			3.64
	Primidone	72.7	71.2	74.2			4.10
	Pyraclostrobin	76.5	87.0	83.4			4.19
	Silvex	85.5	89.3	91.1			1.93
	Sucralose	89.1	96.3	99.5			2.14
	Thiamethoxam	69.7	71.6	65.3			9.16
	Tolfenpyrad	53.5	56.4	50.9			10.3
	Triclopyr	83.1	93.3	94.3			1.12
SM 2320 B-2011	Total Alkalinity	98.3				1.60	
SM 2540 C-2015	TDS	93.1				5.74	
SM 2540 D-2015	TSS	87.0					
SM 4500-F- C-2011	Fluoride	102	103	102			0.492
SM 5310 B-2011	Organic Carbon	94.3	95.1	97.4			1.80

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2424161, 2424163, 2424165
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2424161, 2424163, 2424165
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2424161, 2424163, 2424165
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2424161, 2424163, 2424165
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2424162, 2424164, 2424166
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2424162, 2424164, 2424166
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2424162, 2424164, 2424166
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2424162, 2424164, 2424166
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2424178
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2424161, 2424163, 2424165
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2424161, 2424163, 2424165
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2424161, 2424163, 2424165
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2424161, 2424163, 2424165
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2424162, 2424164, 2424166

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	07/14/2023			07/14/2023 15:24	Samantha L Bates	2424161
	07/14/2023			07/14/2023 15:25	Samantha L Bates	2424163
	07/14/2023			07/14/2023 15:26	Samantha L Bates	2424165
EPA 180.1 Rev. 2.0	07/14/2023			07/14/2023 14:57	Khloe J Berg	2424161
	07/14/2023			07/14/2023 14:58	Khloe J Berg	2424163
	07/14/2023			07/14/2023 14:59	Khloe J Berg	2424165
EPA 300.0 Rev. 2.1	07/14/2023			07/19/2023 16:17	James L Waggeberby	2424161
	07/14/2023			07/19/2023 16:32	James L Waggeberby	2424163
	07/14/2023			07/19/2023 16:47	James L Waggeberby	2424165
EPA 350.1 Rev. 2.0	07/14/2023			07/25/2023 18:01	James L Waggeberby	2424161
	07/14/2023			07/18/2023 13:36	Ping Hua	2424164
	07/14/2023			07/18/2023 13:37	Ping Hua	2424166
EPA 351.2 Rev. 2.0	07/14/2023			07/20/2023 12:43	Ping Hua	2424162
	07/14/2023	07/19/2023 12:02	Dana G. Hughes	07/20/2023 16:11	Samantha L Bates	2424164
	07/14/2023	07/19/2023 12:02	Dana G. Hughes	07/20/2023 16:13	Samantha L Bates	2424166
EPA 353.2 Rev. 2.0	07/14/2023	07/24/2023 16:09	Dana G. Hughes	07/25/2023 15:10	Samantha L Bates	2424162
	07/14/2023			07/18/2023 14:17	Judith K. Clark	2424164
	07/14/2023			07/18/2023 14:18	Judith K. Clark	2424166
EPA 365.1 Rev. 2.0	07/14/2023			07/20/2023 10:23	Beverly Y. Sanders	2424162
	07/14/2023	07/19/2023 15:38	Adam P Silver	07/20/2023 14:10	Simonne.V. Calhoun	2424164
	07/14/2023	07/19/2023 15:38	Adam P Silver	07/20/2023 14:11	Simonne.V. Calhoun	2424166
EPA 8321B	07/14/2023	07/20/2023 14:21	Adam P Silver	07/21/2023 10:19	Chandler E Cox	2424162
	07/14/2023	07/15/2023 10:00	Hana Lee	07/16/2023 00:48	Tae K Lee	2424178
	07/14/2023	07/15/2023 10:00	Hana Lee	07/17/2023 02:24	Tae K Lee	2424178
SM 2320 B-2011	07/14/2023	07/17/2023 09:00	Hoor Shaik	07/18/2023 12:58	Juyoung Kim	2424178
	07/14/2023			07/18/2023 03:50	Adam P Silver	2424163
	07/14/2023			07/18/2023 04:03	Adam P Silver	2424165
SM 2540 C-2015	07/14/2023			07/18/2023 04:32	Adam P Silver	2424161
SM 2540 D-2015	07/14/2023			07/18/2023 16:04	Yijie Li	2424161, 2424163, 2424165
SM 4500-F- C-2011	07/14/2023			07/18/2023 16:04	Yijie Li	2424161, 2424163, 2424165
	07/14/2023			07/18/2023 03:50	Adam P Silver	2424163
	07/14/2023			07/18/2023 04:03	Adam P Silver	2424165
SM 5310 B-2011	07/14/2023			07/18/2023 04:32	Adam P Silver	2424161
	07/14/2023			07/21/2023 01:26	Elise M. Gillis	2424162
	07/14/2023			07/21/2023 01:43	Elise M. Gillis	2424164
	07/14/2023			07/21/2023 01:57	Elise M. Gillis	2424166