

Chemical Analysis Report

NW-DIST-2022-06-29-01

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

Event Description: **Escambia Bay Whaler Run**
Request ID: **RQ-2022-06-27-22**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

For additional information please contact
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 20-JUL-2022 10:54



NON-CONFORMANCE REPORT INCLUDED

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: Yellow River above Metts Creek

Collection Date/Time: 06/27/2022 11:35

Field ID: G4NW0370

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337898	EPA 200.7 Rev. 4.4	Calcium	5.60		mg/L	P416003	
		Iron	580		ug/L	P416003	
		Magnesium	1.20		mg/L	P416003	
		Potassium	0.55	I	mg/L	P416003	
		Sodium	1.6	I	mg/L	P416003	
		Strontium	14.5		ug/L	P416003	
		Tin	3.0	U	ug/L	P416003	
		Titanium	10		ug/L	P416003	
		Vanadium	2.0	U	ug/L	P416003	
		Zinc	5.0	U	ug/L	P416003	
	EPA 200.8 Rev. 5.4	Aluminum	311		ug/L	P416003	
		Antimony	0.050	U	ug/L	P416003	
		Arsenic	0.37		ug/L	P416003	
		Barium	14.9		ug/L	P416003	
		Beryllium	0.031	I	ug/L	P416003	
		Boron	9.8		ug/L	P416003	
		Cadmium	0.020	U	ug/L	P416003	
		Chromium	0.44	I	ug/L	P416003	
		Cobalt	0.286		ug/L	P416003	
		Copper	0.40	U	ug/L	P416003	
		Lead	0.36	I	ug/L	P416003	
		Manganese	48.2		ug/L	P416003	
		Molybdenum	0.15	U	ug/L	P416003	
		Nickel	0.50	U	ug/L	P416003	
		Selenium	0.20	U	ug/L	P416003	
		Silver	0.010	U	ug/L	P416003	
		Thallium	0.10	U	ug/L	P416003	
	SM 2340 B-2011	Hardness	18.9		mg/L	P416003	

Sample Location: Joes Bayou

Collection Date/Time: 06/27/2022 09:55

Field ID: G3NW0182

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337890	EPA 180.1 Rev. 2.0	Turbidity	1.2	Q	NTU	P415989	
	SM 2320 B-2011	Total Alkalinity	85		mg CaCO3/L	P416333	
	SM 2540 D-2011	TSS	3	UA	mg/L	P416104	
	SM 4500-F- C-2011	Fluoride	0.83		mg F/L	P416334	
2337891	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P416264	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33	I	mg N/L	P416176	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P416293	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P416141	
	SM 5310 B-2011	Organic Carbon	4.2		mg C/L	P416126	
2337897	EPA 8321B	2,4-D	0.0020	U	ug/L	P415930	
		Acesulfame K	0.10	U	ug/L	P415969	
		2,4,5-T	0.0040	U	ug/L	P415930	
		AMPA	10	U	ug/L	P415969	MS
		Acetaminophen	0.0080	U	ug/L	P415930	
		Acetamiprid	0.0020	U	ug/L	P415930	
		Endothall	0.25	U	ug/L	P415969	
		Glufosinate	10	U	ug/L	P415969	MS
		Glyphosate	10	U	ug/L	P415969	MS
		Afidopyropen	0.0020	U	ug/L	P415930	
		Bentazon	8.0E-04	U	ug/L	P415930	
		Sucralose	0.27		ug/L	P415969	
		Benzovindiflupyr	0.0020	U	ug/L	P415930	
		Carbamazepine	8.0E-04	U	ug/L	P415930	
		Clothianidin	0.0020	U	ug/L	P415930	
		Dinotefuran	0.0020	U	ug/L	P415930	
		Diuron	0.0020	U	ug/L	P415930	
		Fenuron	0.032	U	ug/L	P415930	
		Fluridone	8.0E-04	U	ug/L	P415930	
		Imazapyr	0.0040	U	ug/L	P415930	
		Hydrocodone	0.0020	U	ug/L	P415930	
		Ibuprofen	0.080	U	ug/L	P415930	
		Imidacloprid	0.0064	I	ug/L	P415930	
		Linuron	0.0040	U	ug/L	P415930	
		Mandestrobin	0.0020	U	ug/L	P415930	
		MCPP	0.0040	U	ug/L	P415930	
		Naproxen	0.0080	UJ	ug/L	P415930	MS, RPD
		Primidone	0.0040	U	ug/L	P415930	
		Pyraclostrobin	0.0020	U	ug/L	P415930	
		Silvex	0.0040	U	ug/L	P415930	
		Thiamethoxam	0.0020	U	ug/L	P415930	
		Tolfenpyrad	0.0020	U	ug/L	P415930	
		Triclopyr	0.0040	U	ug/L	P415930	

Field ID: G3NW0182

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
EPA 180.1 Rev. 2.0: The sample expired upon receipt.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8321B: Some MDLs are elevated due to required dilution of sample matrix.

Non-Conformance Report

NCR ID: 9440

Event(s)

NW-DIST-2022-06-29-01

Job(s)

Sample(s)

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Samples arrived late

Observation: Samples arrived late, but were received within the acceptable temperature range.

Resolution: Samples will be qualified as appropriate.
Biology and Chemistry supervisors were notified by email.

Authorized by/Date: Kerry Tate, Ph.D. 7/6/2022

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P415989

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P416003

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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P416003

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P416264

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P416176

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: P416293

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416141

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

Reference Method: EPA 8321B
Batch ID: P415930

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	0.0040	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: EPA 8321B
Batch ID: P415969

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P416333

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 D-2011
Batch ID: P416104

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P416334

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P416126

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P415989

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

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P416003

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	100		P	85 - 115
Magnesium	101		P	85 - 115
Potassium	103		P	85 - 115
Sodium	104		P	85 - 115
Strontium	106		P	85 - 115
Tin	106		P	85 - 115
Titanium	106		P	85 - 115
Vanadium	98.5		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P416003

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	97.4		P	85 - 115
Arsenic	96.4		P	85 - 115
Barium	102		P	85 - 115
Beryllium	92.7		P	85 - 115
Boron	109		P	85 - 115
Cadmium	96.4		P	85 - 115
Chromium	96.2		P	85 - 115
Cobalt	99.1		P	85 - 115
Copper	96.9		P	85 - 115
Lead	97.6		P	85 - 115
Manganese	97.2		P	85 - 115
Molybdenum	97.2		P	85 - 115
Nickel	98.3		P	85 - 115
Selenium	96.1		P	85 - 115
Silver	97.5		P	85 - 115
Thallium	98.1		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P416264

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P416176

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P416293

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: P416141

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

Reference Method: EPA 8321B

Batch ID: P415930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	86.8		P	40 - 150
2,4,5-T	56.0		P	40 - 150
Acetaminophen	99.4		P	30 - 150
Acetamiprid	95.3		P	40 - 150
Afidopyropen	70.9		P	30 - 150
Bentazon	79.0		P	30 - 150
Benzovindiflupyr	91.0		P	40 - 150
Carbamazepine	97.9		P	40 - 150
Clothianidin	105		P	40 - 150
Dinotefuran	108		P	40 - 150
Diuron	85.7		P	40 - 150
Fenuron	107		P	40 - 150
Fluridone	92.9		P	40 - 150
Hydrocodone	99.7		P	40 - 150
Ibuprofen	80.4		P	40 - 150
Imazapyr	96.1		P	40 - 150
Imidacloprid	104		P	40 - 150
Linuron	101		P	40 - 150
Mandestrobin	97.4		P	40 - 150
MCPP	104		P	40 - 150
Naproxen	72.4		P	40 - 150
Primidone	98.9		P	40 - 150
Pyraclostrobin	80.7		P	40 - 150
Silvex	62.7		P	40 - 150
Thiamethoxam	95.3		P	40 - 150
Tolfenpyrad	49.4		P	30 - 150
Triclopyr	63.6		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P415969

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	90.0		P	40 - 150
AMPA	91.3		P	40 - 150
Endothall	96.3		P	40 - 150
Glufosinate	82.5		P	40 - 150
Glyphosate	91.0		P	40 - 150
Sucralose	90.3		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P416333

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.4		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P416334

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P416126

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P416003

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337973	Calcium	103	105	P/P	80 - 120
2337973	Iron	101	104	P/P	80 - 120
2337973	Magnesium	103	105	P/P	80 - 120
2337973	Potassium	106	109	P/P	80 - 120
2337973	Sodium	106	99.6	P/P	80 - 120
2337973	Strontium	105	106	P/P	80 - 120
2337973	Tin	106	107	P/P	80 - 120
2337973	Titanium	106	107	P/P	80 - 120
2337973	Vanadium	99.1	99.3	P/P	80 - 120
2337973	Zinc	104	104	P/P	80 - 120
2338026	Calcium	99.2		P	80 - 120
2338026	Iron	101		P	80 - 120
2338026	Magnesium	101		P	80 - 120
2338026	Potassium	101		P	80 - 120
2338026	Sodium	106		P	80 - 120
2338026	Strontium	106		P	80 - 120
2338026	Tin	105		P	80 - 120
2338026	Titanium	106		P	80 - 120
2338026	Vanadium	98.8		P	80 - 120
2338026	Zinc	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P416003

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337973	Aluminum	102	98.5	P/P	80 - 120
2337973	Antimony	98.0	96.1	P/P	80 - 120
2337973	Arsenic	97.2	94.8	P/P	80 - 120
2337973	Barium	101	98.8	P/P	80 - 120
2337973	Beryllium	97.4	94.4	P/P	80 - 120
2337973	Boron	108	103	P/P	80 - 120
2337973	Cadmium	97.0	93.9	P/P	80 - 120
2337973	Chromium	96.2	92.8	P/P	80 - 120
2337973	Cobalt	97.8	95.2	P/P	80 - 120
2337973	Copper	97.2	94.6	P/P	80 - 120
2337973	Lead	96.8	94.3	P/P	80 - 120
2337973	Manganese	96.8	93.5	P/P	80 - 120
2337973	Molybdenum	96.9	95.0	P/P	80 - 120
2337973	Nickel	98.5	96.1	P/P	80 - 120
2337973	Selenium	95.8	93.9	P/P	80 - 120
2337973	Silver	95.9	95.4	P/P	80 - 120
2337973	Thallium	97.3	96.1	P/P	80 - 120
2338026	Aluminum	98.0		P	80 - 120
2338026	Antimony	97.2		P	80 - 120
2338026	Arsenic	97.3		P	80 - 120
2338026	Barium	100		P	80 - 120
2338026	Beryllium	95.0		P	80 - 120
2338026	Boron	104		P	80 - 120
2338026	Cadmium	96.2		P	80 - 120
2338026	Chromium	95.8		P	80 - 120
2338026	Cobalt	98.1		P	80 - 120
2338026	Copper	99.2		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P416003

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338026	Lead	96.3		P	80 - 120
2338026	Manganese	96.7		P	80 - 120
2338026	Molybdenum	96.8		P	80 - 120
2338026	Nickel	98.4		P	80 - 120
2338026	Selenium	94.7		P	80 - 120
2338026	Silver	95.0		P	80 - 120
2338026	Thallium	97.4		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P416264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337891	Ammonia-N	99.2	97.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P416176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337891	Kjeldahl Nitrogen	105	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P416293

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337614	NO2NO3-N	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416141

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338208	Total-P	98.3	97.4	P/P	90 - 110

Reference Method: EPA 8321B

Batch ID: P415930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337897	2,4-D	83.6	79.8	P/P	40 - 150
2337897	2,4,5-T	48.0	49.7	P/P	40 - 150
2337897	Acetaminophen	104	101	P/P	30 - 150
2337897	Acetamiprid	101	101	P/P	40 - 150
2337897	Afidopyropen	70.2	71.8	P/P	30 - 150
2337897	Bentazon	52.1	59.6	P/P	30 - 150
2337897	Benzovindiflupyr	85.7	81.8	P/P	40 - 150
2337897	Carbamazepine	92.2	89.3	P/P	40 - 150
2337897	Clothianidin	98.1	102	P/P	40 - 150
2337897	Dinotefuran	126	122	P/P	40 - 150
2337897	Diuron	86.8	80.0	P/P	40 - 150
2337897	Fenuron	90.1	92.0	P/P	40 - 150
2337897	Fluridone	79.5	78.1	P/P	40 - 150
2337897	Hydrocodone	96.5	94.3	P/P	40 - 150
2337897	Ibuprofen	76.1	67.2	P/P	40 - 150
2337897	Imazapyr	85.5	82.5	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P415930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337897	Imidacloprid	122	120	P/P	40 - 150
2337897	Linuron	81.6	79.3	P/P	40 - 150
2337897	Mandestrobin	79.8	79.3	P/P	40 - 150
2337897	MCPP	83.7	81.9	P/P	40 - 150
2337897	Naproxen	68.4	38.0	P/F	40 - 150
2337897	Primidone	87.2	89.8	P/P	40 - 150
2337897	Pyraclostrobin	80.6	78.0	P/P	40 - 150
2337897	Silvex	56.1	50.8	P/P	40 - 150
2337897	Thiamethoxam	116	112	P/P	40 - 150
2337897	Tolfenpyrad	47.3	44.5	P/P	30 - 150
2337897	Triclopyr	57.2	59.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P415969

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337995	Acesulfame K	70.7	74.9	P/P	40 - 150
2337995	AMPA	37.3	43.6	F/P	40 - 150
2337995	Endothall	117	121	P/P	40 - 150
2337995	Glufosinate	25.5	20.7	F/F	40 - 150
2337995	Glyphosate	39.8	45.5	F/P	40 - 150
2337995	Sucralose	81.6	90.6	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P416334

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338588	Fluoride	97.2	98.9	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P416126

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337788	Organic Carbon	95.6	95.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P415989

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337729	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P416003

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337973	Calcium	1.54	Spike	P	0 - 20
2337973	Iron	2.27	Spike	P	0 - 20
2337973	Magnesium	1.79	Spike	P	0 - 20
2337973	Potassium	2.95	Spike	P	0 - 20
2337973	Sodium	4.36	Spike	P	0 - 20
2337973	Strontium	0.295	Spike	P	0 - 20
2337973	Tin	0.949	Spike	P	0 - 20
2337973	Titanium	0.467	Spike	P	0 - 20
2337973	Vanadium	0.214	Spike	P	0 - 20
2337973	Zinc	0.275	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P416003

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337973	Aluminum	3.33	Spike	P	0 - 20
2337973	Antimony	1.96	Spike	P	0 - 20
2337973	Arsenic	2.45	Spike	P	0 - 20
2337973	Barium	2.34	Spike	P	0 - 20
2337973	Beryllium	3.16	Spike	P	0 - 20
2337973	Boron	3.97	Spike	P	0 - 20
2337973	Cadmium	3.25	Spike	P	0 - 20
2337973	Chromium	3.59	Spike	P	0 - 20
2337973	Cobalt	2.62	Spike	P	0 - 20
2337973	Copper	2.75	Spike	P	0 - 20
2337973	Lead	2.61	Spike	P	0 - 20
2337973	Manganese	3.15	Spike	P	0 - 20
2337973	Molybdenum	1.91	Spike	P	0 - 20
2337973	Nickel	2.50	Spike	P	0 - 20
2337973	Selenium	1.91	Spike	P	0 - 20
2337973	Silver	0.577	Spike	P	0 - 20
2337973	Thallium	1.31	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P416264

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337891	Ammonia-N	2.12	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P416176

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337891	Kjeldahl Nitrogen	2.32	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P416293

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337614	NO2NO3-N	0.966	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416141

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338208	Total-P	0.768	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P415930

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337897	2,4-D	4.62	Spike	P	0 - 30
2337897	2,4,5-T	3.53	Spike	P	0 - 30
2337897	Acetaminophen	3.12	Spike	P	0 - 30
2337897	Acetamiprid	0.520	Spike	P	0 - 30
2337897	Afidopyropen	2.21	Spike	P	0 - 30
2337897	Bentazon	13.4	Spike	P	0 - 30
2337897	Benzovindiflupyr	4.67	Spike	P	0 - 30
2337897	Carbamazepine	3.20	Spike	P	0 - 30
2337897	Clothianidin	3.67	Spike	P	0 - 30
2337897	Dinotefuran	2.87	Spike	P	0 - 30
2337897	Diuron	8.21	Spike	P	0 - 30
2337897	Fenuron	2.15	Spike	P	0 - 30
2337897	Fluridone	1.84	Spike	P	0 - 30
2337897	Hydrocodone	2.33	Spike	P	0 - 30
2337897	Ibuprofen	12.4	Spike	P	0 - 30
2337897	Imazapyr	3.57	Spike	P	0 - 30
2337897	Imidacloprid	1.36	Spike	P	0 - 30
2337897	Linuron	2.87	Spike	P	0 - 30
2337897	Mandestrobin	0.610	Spike	P	0 - 30
2337897	MCP	2.22	Spike	P	0 - 30
2337897	Naproxen	57.1	Spike	F	0 - 30
2337897	Primidone	3.00	Spike	P	0 - 30
2337897	Pyraclostrobin	3.24	Spike	P	0 - 30
2337897	Silvex	9.81	Spike	P	0 - 30
2337897	Thiamethoxam	3.26	Spike	P	0 - 30
2337897	Tolfenpyrad	6.03	Spike	P	0 - 30
2337897	Triclopyr	3.58	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P415969

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337995	Acesulfame K	5.65	Spike	P	0 - 30
2337995	AMPA	6.52	Spike	P	0 - 30
2337995	Endothall	3.24	Spike	P	0 - 30
2337995	Glufosinate	20.7	Spike	P	0 - 30
2337995	Glyphosate	4.33	Spike	P	0 - 30
2337995	Sucralose	9.99	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P416333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338588	Total Alkalinity	0.862	Sample	P	0 - 3.8

Reference Method: SM 4500-F- C-2011
Batch ID: P416334

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338588	Fluoride	0.999	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P416126

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337788	Organic Carbon	0.119	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2337897

Field Sample ID: G3NW0182

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	80.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	111	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.8	P	30 - 160
EPA 8321B	Diuron-d6	84.0	P	30 - 160
EPA 8321B	Endothall-d6	64.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	75.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.5	P	30 - 160
EPA 8321B	Primidone-d5	102	P	30 - 160
EPA 8321B	Sucralose-d6	62.5	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A113170

Included Lab Sample IDs: 2337890

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.0	P/P	95 - 105

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113218

Included Lab Sample IDs: 2337898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	98.9	P/P	90 - 110
Antimony	95.7	96.3	P/P	90 - 110
Arsenic	98.1	97.9	P/P	90 - 110
Barium	97.4	97.7	P/P	90 - 110
Beryllium	95.7	96.2	P/P	90 - 110
Boron	102	99.1	P/P	90 - 110
Cadmium	95.6	96.6	P/P	90 - 110
Chromium	96.4	96.5	P/P	90 - 110
Cobalt	97.8	98.0	P/P	90 - 110
Copper	98.5	99.4	P/P	90 - 110
Lead	95.5	94.6	P/P	90 - 110
Manganese	96.9	97.0	P/P	90 - 110
Molybdenum	96.4	95.6	P/P	90 - 110
Nickel	99.1	99.2	P/P	90 - 110
Selenium	97.2	96.4	P/P	90 - 110
Silver	97.4	97.4	P/P	90 - 110
Thallium	95.5	93.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A113231

Included Lab Sample IDs: 2337897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	104	98.9	P/P	50 - 150
2,4,5-T	109	94.5	P/P	50 - 150
Acetaminophen	101	99.1	P/P	60 - 160
Acetamiprid	99.9	105	P/P	50 - 150
Afidopyropen	103	104	P/P	50 - 150
Bentazon	113	77.2	P/P	50 - 160
Benzovindiflupyr	101	111	P/P	50 - 150
Carbamazepine	95.2	106	P/P	60 - 150
Clothianidin	101	110	P/P	60 - 150
Dinotefuran	101	104	P/P	50 - 150
Diuron	113	102	P/P	60 - 160
Fenuron	97.8	101	P/P	60 - 150
Fluridone	107	105	P/P	60 - 160
Hydrocodone	101	101	P/P	60 - 150
Ibuprofen	114	127	P/P	50 - 160
Imazapyr	86.9	97.9	P/P	50 - 150
Imidacloprid	90.3	96.2	P/P	60 - 150
Linuron	99.1	108	P/P	60 - 150
Mandestrobin	106	106	P/P	50 - 150
MCPP	114	105	P/P	50 - 150
Naproxen	111	107	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A113231
Included Lab Sample IDs: 2337897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	95.8	96.6	P/P	60 - 150
Pyraclostrobin	102	103	P/P	60 - 150
Silvex	90.3	90.7	P/P	50 - 150
Thiamethoxam	95.5	97.5	P/P	50 - 150
Tolfenpyrad	101	96.1	P/P	60 - 150
Triclopyr	112	105	P/P	50 - 150

Reference Method: SM 5310 B-2011
Run ID: A113260
Included Lab Sample IDs: 2337891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	98.8	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A113263
Included Lab Sample IDs: 2337897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	92.8	103	P/P	60 - 160
Sucralose	91.7	98.3	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A113269
Included Lab Sample IDs: 2337897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.6	99.9	P/P	60 - 160
Endothall	102	85.7	P/P	60 - 160
Glufosinate	63.8	68.3	P/P	60 - 160
Glyphosate	88.0	90.6	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A113317
Included Lab Sample IDs: 2337898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.6	98.3	P/P	90 - 110
Iron	98.0	97.7	P/P	90 - 110
Magnesium	97.7	97.6	P/P	90 - 110
Potassium	98.8	99.1	P/P	90 - 110
Sodium	99.3	98.7	P/P	90 - 110
Strontium	104	103	P/P	90 - 110
Tin	102	102	P/P	90 - 110
Titanium	102	101	P/P	90 - 110
Vanadium	102	101	P/P	90 - 110
Zinc	103	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A113332

Included Lab Sample IDs: 2337891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.0	97.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A113343

Included Lab Sample IDs: 2337891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A113361

Included Lab Sample IDs: 2337891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	97.5	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A113368

Included Lab Sample IDs: 2337890

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.8	100	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A113368

Included Lab Sample IDs: 2337890

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A113419

Included Lab Sample IDs: 2337891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	109	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	95.8					0.0	
EPA 200.7 Rev. 4.4	Calcium	104	103	105	99.2			1.54
	Iron	100	101	104	101			2.27
	Magnesium	101	103	105	101			1.79
	Potassium	103	106	109	101			2.95
	Sodium	104	106	99.6	106			4.36
	Strontium	106	105	106	106			0.295
	Tin	106	106	107	105			0.949
	Titanium	106	106	107	106			0.467
	Vanadium	98.5	99.1	99.3	98.8			0.214
	Zinc	104	104	104	103			0.275
EPA 200.8 Rev. 5.4	Aluminum	103	102	98.5	98.0			3.33
	Antimony	97.4	98.0	96.1	97.2			1.96
	Arsenic	96.4	97.2	94.8	97.3			2.45
	Barium	102	101	98.8	100			2.34
	Beryllium	92.7	97.4	94.4	95.0			3.16
	Boron	109	108	103	104			3.97
	Cadmium	96.4	97.0	93.9	96.2			3.25
	Chromium	96.2	96.2	92.8	95.8			3.59
	Cobalt	99.1	97.8	95.2	98.1			2.62
	Copper	96.9	97.2	94.6	99.2			2.75
	Lead	97.6	96.8	94.3	96.3			2.61
	Manganese	97.2	96.8	93.5	96.7			3.15
	Molybdenum	97.2	96.8	96.9	95.0			1.91
	Nickel	98.3	98.5	96.1	98.4			2.50
	Selenium	96.1	95.8	93.9	94.7			1.91
	Silver	97.5	95.9	95.4	95.0			0.577
	Thallium	98.1	97.3	96.1	97.4			1.31
EPA 350.1 Rev. 2.0	Ammonia-N	96.0	99.2	97.0				2.12
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	105	102				2.32
EPA 353.2 Rev. 2.0	NO2NO3-N	103	103	104				0.966
EPA 365.1 Rev. 2.0	Total-P	103	98.3	97.4				0.768
EPA 8321B	2,4-D	86.8	83.6	79.8				4.62
	2,4,5-T	56.0	48.0	49.7				3.53
	Acesulfame K	90.0	70.7	74.9				5.65
	Acetaminophen	99.4	104	101				3.12
	Acetamiprid	95.3	101	101				0.520
	Afidopyropen	70.9	70.2	71.8				2.21
	AMPA	91.3	37.3	43.6				6.52
	Bentazon	79.0	52.1	59.6				13.4
	Benzovindiflupyr	91.0	85.7	81.8				4.67
	Carbamazepine	97.9	92.2	89.3				3.20
	Clothianidin	105	98.1	102				3.67
	Dinotefuran	108	126	122				2.87
	Diuron	85.7	86.8	80.0				8.21
	Endothall	96.3	117	121				3.24
	Fenuron	107	90.1	92.0				2.15
	Fluridone	92.9	79.5	78.1				1.84
	Glufosinate	82.5	25.5	20.7				20.7
	Glyphosate	91.0	39.8	45.5				4.33
	Hydrocodone	99.7	96.5	94.3				2.33
	Ibuprofen	80.4	76.1	67.2				12.4
	Imazapyr	96.1	85.5	82.5				3.57
	Imidacloprid	104	122	120				1.36

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Linuron	101	81.6	79.3			2.87
	Mandestrobin	97.4	79.8	79.3			0.610
	MCCP	104	83.7	81.9			2.22
	Naproxen	72.4	68.4	38.0			57.1
	Primidone	98.9	87.2	89.8			3.00
	Pyraclostrobin	80.7	80.6	78.0			3.24
	Silvex	62.7	56.1	50.8			9.81
	Sucralose	90.3	81.6	90.6			9.99
	Thiamethoxam	95.3	116	112			3.26
	Tolfenpyrad	49.4	47.3	44.5			6.03
	Triclopyr	63.6	57.2	59.3			3.58
	Total Alkalinity	99.4				0.862	
SM 2320 B-2011	Fluoride	101	97.2	98.9			0.999
SM 4500-F- C-2011	Organic Carbon	98.6	95.6	95.5			0.119

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2337890
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2337898
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2337898
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2337891
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2337891
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2337891
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2337891
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2337897
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2337890
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2337898
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2337890
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2337890
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2337891

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	06/29/2022			06/29/2022 14:13	Khloe J Berg	2337890
EPA 200.7 Rev. 4.4	06/29/2022	06/30/2022 08:57	Mackenzie Hunt	07/06/2022 19:54	McKinley C Carter	2337898
EPA 200.8 Rev. 5.4	06/29/2022	06/30/2022 08:57	Mackenzie Hunt	06/30/2022 19:27	Alexander Thompson	2337898
EPA 350.1 Rev. 2.0	06/29/2022			07/07/2022 11:26	Ping Hua	2337891
EPA 351.2 Rev. 2.0	06/29/2022	07/08/2022 11:42	Alexandra J Mattheus	07/11/2022 13:28	Alexandra J Mattheus	2337891
EPA 353.2 Rev. 2.0	06/29/2022			07/07/2022 13:40	Touraj Touran	2337891
EPA 365.1 Rev. 2.0	06/29/2022	07/06/2022 16:30	Adam P Silver	07/07/2022 17:42	James L Waggerby	2337891
EPA 8321B	06/29/2022	06/29/2022 13:30	June Rhew	06/30/2022 17:25	Juyoung Kim	2337897
	06/29/2022	07/01/2022 09:00	Umesh Chiluwal	07/01/2022 11:44	Umesh Chiluwal	2337897
	06/29/2022	07/01/2022 09:00	Umesh Chiluwal	07/01/2022 20:35	Umesh Chiluwal	2337897
	06/29/2022	07/01/2022 09:00	Umesh Chiluwal	07/02/2022 01:08	Umesh Chiluwal	2337897
SM 2320 B-2011	06/29/2022			07/07/2022 21:18	Dale L. Simmons	2337890
SM 2340 B-2011	06/29/2022			07/06/2022 19:54	McKinley C Carter	2337898
SM 2540 D-2011	06/29/2022			06/30/2022 16:00	Blanca Fach	2337890
SM 4500-F- C-2011	06/29/2022			07/07/2022 19:56	Dale L. Simmons	2337890
SM 5310 B-2011	06/29/2022			07/02/2022 09:18	Khloe J Berg	2337891