

Chemical Analysis Report

SO-DIST-2021-12-21-01

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

Event Description: **2021 SMP : Everglades**

Request ID: **RQ-2021-11-15-45**

Customer: **SO-DIST**

Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
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Date Certified: 13-JAN-2022 09:32



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 group are included in this report: Nutrients.

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: 8069 - ENRE5

Collection Date/Time: 12/20/2021 11:45

Field ID: G5SD0036

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2296262	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P407775	
	SM 2320 B-2011	Total Alkalinity	141		mg CaCO3/L	P407989	
	SM 2540 D-2011	TSS	4	I	mg/L	P407821	
	SM 4500 F-C-2011	Fluoride	1.1		mg F/L	P407996	
2296265	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P408016	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.32	I	mg N/L	P408010	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P407920	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P407841	
	SM 5310 B-2011	Organic Carbon	3.5		mg C/L	P408267	
2296268	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P407771	

Ref. Method and Comment:

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

Sample Location: G5SD0107

Collection Date/Time: 12/20/2021 12:35

Field ID: G5SD0107

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2296263	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P407775	
	SM 2320 B-2011	Total Alkalinity	129		mg CaCO3/L	P407989	
	SM 2540 D-2011	TSS	4	I	mg/L	P407821	
	SM 4500 F-C-2011	Fluoride	1.2		mg F/L	P407996	
2296266	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P408235	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.29	I	mg N/L	P408010	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P407920	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P407841	
	SM 5310 B-2011	Organic Carbon	3.0		mg C/L	P408267	
2296269	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P407771	

Ref. Method and Comment:

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

Sample Location: G5SD0039

Collection Date/Time: 12/20/2021 10:40

Field ID: G5SD0039

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2296264	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P407775	
	SM 2320 B-2011	Total Alkalinity	134		mg CaCO3/L	P407989	
	SM 2540 D-2011	TSS	5	I	mg/L	P407821	
	SM 4500 F-C-2011	Fluoride	1.1		mg F/L	P407996	
2296267	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P408235	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37	I	mg N/L	P408010	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P407920	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P408000	
	SM 5310 B-2011	Organic Carbon	3.7		mg C/L	P408267	
2296270	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P407771	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P407775

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408016

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408235

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408010

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407920

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407841

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408000

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P407771

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

Reference Method: SM 2320 B-2011
Batch ID: P407989

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P407821

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P407996

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P408267

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408016

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408235

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408010

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407920

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407841

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408000

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P407771

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

Reference Method: SM 2320 B-2011
Batch ID: P407989

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.3		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P407996

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	93 - 104

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P408267

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296265	Ammonia-N	107	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296266	Ammonia-N	107	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408010

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295947	Kjeldahl Nitrogen	99.8	97.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407920

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295948	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295947	Total-P	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408000

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296369	Total-P	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P407771

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296268	O-Phosphate-P	99.6	97.1	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P407996

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296425	Fluoride	99.3	99.3	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P408267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295337	Organic Carbon	94.3	94.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P407775

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296276	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P408016

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296265	Ammonia-N	1.38	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P408235

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296266	Ammonia-N	1.36	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P408010

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295947	Kjeldahl Nitrogen	1.51	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P407920

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295948	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P407841

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295947	Total-P	0.907	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P408000

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296369	Total-P	0.835	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P407771

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296268	O-Phosphate-P	2.41	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P407989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296425	Total Alkalinity	3.34	Sample	P	0 - 5.2

Reference Method: SM 4500 F-C-2011
Batch ID: P407996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296425	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P408267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295337	Organic Carbon	0.201	Spike	P	0 - 20

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A109514

Included Lab Sample IDs: 2296268, 2296269, 2296270

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.9	P/P	90 - 110
O-Phosphate-P	99.9	99.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A109517

Included Lab Sample IDs: 2296262, 2296263, 2296264

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A109583

Included Lab Sample IDs: 2296265, 2296266, 2296267

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A109592

Included Lab Sample IDs: 2296265, 2296266

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	99.2	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A109633

Included Lab Sample IDs: 2296262, 2296263, 2296264

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.6	99.1	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A109633

Included Lab Sample IDs: 2296262, 2296263, 2296264

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A109639

Included Lab Sample IDs: 2296265

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.5	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A109706

Included Lab Sample IDs: 2296267

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A109706

Included Lab Sample IDs: 2296267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.2	96.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A109713

Included Lab Sample IDs: 2296265, 2296266, 2296267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.9	99.6	P/P	90 - 110
Kjeldahl Nitrogen	99.6	94.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A109738

Included Lab Sample IDs: 2296266, 2296267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.8	99.6	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A109754

Included Lab Sample IDs: 2296265, 2296266, 2296267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.6	95.4	P/P	90 - 110
Organic Carbon	98.8	94.6	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	
EPA 180.1 Rev. 2.0	Turbidity					0.0	
EPA 350.1 Rev. 2.0	Ammonia-N	99.0	107	106			1.38
	Ammonia-N	99.0	107	105			1.36
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.0	99.8	97.9			1.51
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	107	102	102			0.907
	Total-P	108	105	106			0.835
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	99.6	97.1			2.41
SM 2320 B-2011	Total Alkalinity	99.3				3.34	
SM 4500 F-C-2011	Fluoride	101	99.3	99.3			0.0
SM 5310 B-2011	Organic Carbon	96.4	94.3	94.5			0.201

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2296262, 2296263, 2296264
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2296265, 2296266, 2296267
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2296265, 2296266, 2296267
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2296265, 2296266, 2296267
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2296265, 2296266, 2296267
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2296268, 2296269, 2296270
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2296262, 2296263, 2296264
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2296262, 2296263, 2296264
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2296262, 2296263, 2296264
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2296265, 2296266, 2296267

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	12/21/2021			12/21/2021 16:02	Khloe J Berg	2296262, 2296263, 2296264
EPA 350.1 Rev. 2.0	12/21/2021			01/03/2022 13:12	Roberta Tatti	2296265
	12/21/2021			01/07/2022 14:28	Ping Hua	2296266
	12/21/2021			01/07/2022 14:34	Ping Hua	2296267
EPA 351.2 Rev. 2.0	12/21/2021	01/04/2022 12:52	Samantha L Bates	01/06/2022 15:28	Alexandra J Mattheus	2296265
	12/21/2021	01/04/2022 12:52	Samantha L Bates	01/06/2022 15:33	Alexandra J Mattheus	2296266
	12/21/2021	01/04/2022 12:52	Samantha L Bates	01/06/2022 15:35	Alexandra J Mattheus	2296267
EPA 353.2 Rev. 2.0	12/21/2021			12/28/2021 10:12	Beverly Y. Sanders	2296265
	12/21/2021			12/28/2021 10:13	Beverly Y. Sanders	2296266
	12/21/2021			12/28/2021 10:14	Beverly Y. Sanders	2296267
EPA 365.1 Rev. 2.0	12/21/2021	01/04/2022 16:25	Simonne.V. Calhoun	01/06/2022 14:53	Shengyu Ding	2296267
	12/21/2021	12/27/2021 15:00	Simonne.V. Calhoun	12/28/2021 15:13	Shengyu Ding	2296265
	12/21/2021	12/27/2021 15:00	Simonne.V. Calhoun	12/28/2021 15:14	Shengyu Ding	2296266
EPA 365.1 Rev. 2.0 dissolved	12/21/2021			12/21/2021 15:02	James L Waggeberby	2296268
	12/21/2021			12/21/2021 15:05	James L Waggeberby	2296269
	12/21/2021			12/21/2021 15:10	James L Waggeberby	2296270
SM 2320 B-2011	12/21/2021			12/29/2021 03:40	Dale L. Simmons	2296262
	12/21/2021			12/29/2021 03:53	Dale L. Simmons	2296263
	12/21/2021			12/29/2021 04:07	Dale L. Simmons	2296264
SM 2540 D-2011	12/21/2021			12/21/2021 16:06	Yijie Li	2296262, 2296263, 2296264
SM 4500 F-C-2011	12/21/2021			12/29/2021 01:57	Dale L. Simmons	2296262
	12/21/2021			12/29/2021 02:34	Dale L. Simmons	2296263
	12/21/2021			12/29/2021 02:39	Dale L. Simmons	2296264
SM 5310 B-2011	12/21/2021			01/07/2022 16:41	Touraj Touran	2296265
	12/21/2021			01/07/2022 17:38	Touraj Touran	2296266
	12/21/2021			01/07/2022 18:59	Touraj Touran	2296267