

Chemical Analysis Report

CEN-DIST-2016-04-28-02

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

Event Description: **Banana River**
Request ID: **RQ-2016-03-07-56**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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3319 Maguire Blvd., Suite 232
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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 and 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 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: BANANA RIVER EQUIDISTANT FROM SR528 & Collection Date/Time: 04/27/2016 10:58 SR520

Field ID: G5CE0057

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1793857	EPA 180.1 Rev. 2.0	Turbidity	8.2		NTU	P303206	
	SM 2320 B-97	Total Alkalinity	170		mg CaCO3/L	P303817	
	SM 2540 D-97	TSS	9	I	mg/L	P303794	
	SM 4500 F-C-97	Fluoride	1.1		mg F/L	P303822	
1793858	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P303782	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P304309	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P303630	
	EPA 365.1 Rev. 2.0	Total-P	0.078		mg P/L	P304054	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P304745	
1793859	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P303179	
1793861	EPA 200.7 Rev. 4.4	Iron	90	U	ug/L	P303550	
		Zinc	15	U	ug/L	P303550	
	EPA 200.8 Rev. 5.4	Arsenic	3.98		ug/L	P303550	
		Cadmium	0.060	U	ug/L	P303550	
		Chromium	0.22	I	ug/L	P303550	
		Copper	0.58	I	ug/L	P303550	
		Lead	0.46	I	ug/L	P303550	
		Nickel	0.49	I	ug/L	P303550	
		Silver	0.015	U	ug/L	P303550	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P303206

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P303550

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P303550

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.050	U	ug/L
Copper	0.10	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.050	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303550

Component	Result	Code	Units
Silver	0.0050	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P303782

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304309

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P303630

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304054

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303179

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

Reference Method: SM 2320 B-97
Batch ID: P303817

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

Reference Method: SM 2540 D-97
Batch ID: P303794

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P303822

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P304745

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P303550

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	105		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303550

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	95.7		P	85 - 115
Cadmium	94.5		P	85 - 115
Chromium	93.1		P	85 - 115
Copper	96.1		P	85 - 115
Lead	95.9		P	85 - 115
Nickel	96.9		P	85 - 115
Silver	92.3		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P303782

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304309

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P303630

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304054

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303179

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

Reference Method: SM 2320 B-97
Batch ID: P303817

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P303822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P304745

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P303550

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1793847	Iron	100	106	P/P	80 - 120
1793847	Zinc	97.2	99.1	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303550

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1793847	Arsenic	99.4	97.8	P/P	80 - 120
1793847	Cadmium	91.3	90.6	P/P	80 - 120
1793847	Chromium	84.2	83.7	P/P	80 - 120
1793847	Copper	92.8	91.0	P/P	80 - 120
1793847	Lead	103	102	P/P	80 - 120
1793847	Nickel	95.6	94.5	P/P	80 - 120
1793847	Silver	86.7	86.3	P/P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P303782

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1793683	Ammonia-N	104	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304309

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1793678	Kjeldahl Nitrogen	93.6	93.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P303630

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1793675	NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304054

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1793837	Total-P	101	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1793841	O-Phosphate-P	98.4	99.6	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P303822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1793834	Fluoride	97.5	98.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P304745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1793683	Organic Carbon	91.4	92.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P303206

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793833	Turbidity	2.04	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P303550

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793847	Iron	5.17	Spike	P	0 - 20
1793847	Zinc	1.92	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P303550

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793847	Arsenic	1.65	Spike	P	0 - 20
1793847	Cadmium	0.799	Spike	P	0 - 20
1793847	Chromium	0.595	Spike	P	0 - 20
1793847	Copper	1.93	Spike	P	0 - 20
1793847	Lead	1.35	Spike	P	0 - 20
1793847	Nickel	1.06	Spike	P	0 - 20
1793847	Silver	0.469	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P303782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793683	Ammonia-N	1.61	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P304309

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793678	Kjeldahl Nitrogen	0.230	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P303630

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793675	NO2NO3-N	1.98	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P304054

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793837	Total-P	1.56	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P303179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793841	O-Phosphate-P	0.954	Spike	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P303817

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793834	Total Alkalinity	0.401	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P303822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793834	Fluoride	0.483	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P304745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1793683	Organic Carbon	1.04	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A69156
Included Lab Sample IDs: 1793859

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A69165
Included Lab Sample IDs: 1793857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A69298
Included Lab Sample IDs: 1793858

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A69330
Included Lab Sample IDs: 1793861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	99.3	97.0	P/P	90 - 110
Zinc	97.2	97.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A69333
Included Lab Sample IDs: 1793858

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97
Run ID: A69345
Included Lab Sample IDs: 1793857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	98.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A69345
Included Lab Sample IDs: 1793857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	99.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A69371
Included Lab Sample IDs: 1793861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	97.6	94.9	P/P	90 - 110
Cadmium	95.0	93.5	P/P	90 - 110
Chromium	94.7	91.3	P/P	90 - 110
Copper	98.5	96.6	P/P	90 - 110
Lead	93.3	92.0	P/P	90 - 110
Nickel	98.4	96.2	P/P	90 - 110
Silver	93.1	92.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A69459
Included Lab Sample IDs: 1793858

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A69525
Included Lab Sample IDs: 1793858

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.5	95.1	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A69609
Included Lab Sample IDs: 1793858

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.4	93.0	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					2.04	
EPA 200.7 Rev. 4.4	Iron	105	100	106			5.17
	Zinc	101	97.2	99.1			1.92
EPA 200.8 Rev. 5.4	Arsenic	95.7	99.4	97.8			1.65
	Cadmium	94.5	91.3	90.6			0.799
	Chromium	93.1	84.2	83.7			0.595
	Copper	96.1	92.8	91.0			1.93
	Lead	95.9	103	102			1.35
	Nickel	96.9	95.6	94.5			1.06
	Silver	92.3	86.7	86.3			0.469
EPA 350.1 Rev. 2.0	Ammonia-N	100	104	106			1.61
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	93.6	93.9			0.230
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	101	100	102			1.98
EPA 365.1 Rev. 2.0	Total-P	99.9	101	103			1.56
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	105	98.4	99.6			0.954
SM 2320 B-97	Total Alkalinity	101				0.401	
SM 4500 F-C-97	Fluoride	96.5	97.5	98.2			0.483
SM 5310 B-00	Organic Carbon	97.6	91.4	92.4			1.04

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1793857
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1793861
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1793861
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1793858
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1793858
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1793858
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1793858
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1793859
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1793857
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1793857
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1793857
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1793858

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	04/28/2016			04/28/2016 15:12	Sima Feizi	1793857
EPA 200.7 Rev. 4.4	04/28/2016	05/04/2016	Elliott D. Healy	05/06/2016	Joshua Ayres	1793861
EPA 200.8 Rev. 5.4	04/28/2016	05/04/2016	Elliott D. Healy	05/09/2016	Charles J. Peterson	1793861
EPA 350.1 Rev. 2.0	04/28/2016			05/06/2016	Diana M. Turner	1793858
EPA 351.2 Rev. 2.0	04/28/2016	05/13/2016	Christopher Armour	05/16/2016	Christopher Armour	1793858
EPA 353.2 Rev. 2.0	04/28/2016			05/05/2016	Peter D. Kaus	1793858
EPA 365.1 Rev. 2.0	04/28/2016	05/11/2016	Vijayalakshmi Reddy	05/12/2016	Rochelle Y Jackson	1793858
EPA 365.1 Rev. 2.0 dissolved	04/28/2016			04/28/2016 16:22	Julia Storbeck	1793859
SM 2320 B-97	04/28/2016			05/07/2016	Dale L. Simmons	1793857
SM 2540 D-97	04/28/2016			05/03/2016	Yijie Li	1793857
SM 4500 F-C-97	04/28/2016			05/07/2016	Dale L. Simmons	1793857
SM 5310 B-00	04/28/2016			05/21/2016	Ping Hua	1793858