

Chemical Analysis Report

NW-DIST-2017-01-18-02

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

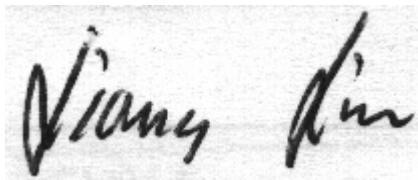
Event Description: **Bayou Chico BMAP**
Request ID: **RQ-2016-12-05-34**
Customer: **NW-DIST**
Project ID: **BMAP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 308
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 14-FEB-2017 14:39

A handwritten signature in black ink, appearing to read "Liang Lin", is written over a light gray, textured background.

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 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: Pensacola Bay at Sanders Beach

Collection Date/Time: 01/17/2017 11:45

Field ID: A

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864555	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P318379	
1864559	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P318477	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P318578	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.065		mg N/L	P318482	
	EPA 365.1 Rev. 2.0	Total-P	0.028		mg P/L	P318497	MS

Sample Location: Bayou Chico at Mandalay Park

Collection Date/Time: 01/17/2017 12:10

Field ID: B

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864556	EPA 180.1 Rev. 2.0	Turbidity	5.3		NTU	P318379	
1864560	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P318470	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P318388	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.28		mg N/L	P318422	
	EPA 365.1 Rev. 2.0	Total-P	0.030		mg P/L	P318429	

Sample Location: Jones Creek at Old Corry Road

Collection Date/Time: 01/17/2017 12:40

Field ID: C

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864557	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P318379	
1864561	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P318470	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P318388	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P318422	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P318429	

Sample Location: Jackson Creek at Old Corry Road

Collection Date/Time: 01/17/2017 13:00

Field ID: D

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864558	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P318379	
1864562	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P318470	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P318459	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.4		mg N/L	P318422	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P318429	

Sample Location: Jackson Creek at New Warrington Road

Collection Date/Time: 01/17/2017 13:25

Field ID: E

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864563	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P318379	
1864566	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P318470	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20	I	mg N/L	P318459	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.3		mg N/L	P318422	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P318429	

Sample Location: Bayou Chico at Navy Blvd Bridge

Collection Date/Time: 01/17/2017 14:55

Field ID: F

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864564	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P318379	
1864567	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P318470	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.50		mg N/L	P318459	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.69		mg N/L	P318422	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P318429	

Sample Location: Bayou Chico at W Street

Collection Date/Time: 01/17/2017 15:10

Field ID: G

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864565	EPA 180.1 Rev. 2.0	Turbidity	6.0		NTU	P318379	
1864568	EPA 350.1 Rev. 2.0	Ammonia-N	0.051		mg N/L	P318473	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P318460	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.1		mg N/L	P318422	
	EPA 365.1 Rev. 2.0	Total-P	0.068		mg P/L	P318429	

Ref. Method and Comment:

EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P318379

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P318470

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P318473

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P318477

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P318388

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318459

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318460

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318578

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318422

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318482

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318429

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318497

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318470

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318473

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

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318473

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318477

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318388

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	104		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318459

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	104		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318460

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318578

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: P318422

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318482

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: P318429

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P318497

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.4		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P318470

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864515	Ammonia-N	99.6	94.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P318477

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864874	Ammonia-N	94.0	93.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P318388

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864513	Kjeldahl Nitrogen	97.9	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P318459

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864562	Kjeldahl Nitrogen	96.1	90.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P318460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864579	Kjeldahl Nitrogen	96.7	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P318578

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1865296	Kjeldahl Nitrogen	93.4	95.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P318422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864516	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P318482

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P318482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1863372	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P318429

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864518	Total-P	101	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P318497

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864850	Total-P	90.2	88.4	P/F	90 - 110

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P318379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864512	Turbidity	4.03	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P318470

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864515	Ammonia-N	5.42	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P318473

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864568	Ammonia-N	1.57	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P318477

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864874	Ammonia-N	0.175	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P318388

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864513	Kjeldahl Nitrogen	2.39	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318459

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864562	Kjeldahl Nitrogen	5.40	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864579	Kjeldahl Nitrogen	0.415	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865296	Kjeldahl Nitrogen	1.97	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864516	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1863372	NO2NO3-N	0.482	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318429

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864518	Total-P	2.31	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318497

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864850	Total-P	1.94	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

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A73984

Included Lab Sample IDs: 1864555, 1864556, 1864557, 1864558, 1864563, 1864564, 1864565

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A73999

Included Lab Sample IDs: 1864560, 1864561, 1864562, 1864566, 1864567, 1864568

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.0	97.0	P/P	90 - 110
NO2NO3-N	98.0	97.0	P/P	90 - 110
NO2NO3-N	98.5	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74011

Included Lab Sample IDs: 1864560, 1864561

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.4	97.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A74012

Included Lab Sample IDs: 1864559, 1864560, 1864561, 1864562, 1864566, 1864567, 1864568

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.0	P/P	90 - 110
Ammonia-N	97.8	100	P/P	90 - 110
Ammonia-N	99.0	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A74017

Included Lab Sample IDs: 1864559

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74019

Included Lab Sample IDs: 1864568

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74045

Included Lab Sample IDs: 1864562, 1864566, 1864567, 1864568

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	102	P/P	90 - 110
Kjeldahl Nitrogen	106	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74077

Included Lab Sample IDs: 1864560, 1864561, 1864562, 1864566, 1864567

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	97.8	P/P	90 - 110
Total-P	98.5	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74087

Included Lab Sample IDs: 1864559

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	95.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74092

Included Lab Sample IDs: 1864559

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.7	96.4	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				4.03	
EPA 350.1 Rev. 2.0	Ammonia-N	96.4	99.6 94.0			5.42
	Ammonia-N	96.9				1.57
	Ammonia-N	101	94.0 93.8			0.175
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	97.9 100			2.39
	Kjeldahl Nitrogen	104	96.1 90.0			5.40
	Kjeldahl Nitrogen	103	96.7 96.0			0.415
	Kjeldahl Nitrogen	102	93.4 95.5			1.97
EPA 353.2 Rev. 2.0	NO2NO3-N	103	101 101			0.0
	NO2NO3-N	102	104 104			0.482
EPA 365.1 Rev. 2.0	Total-P	97.5	101 99.0			2.31
	Total-P	96.4	90.2 88.4			1.94

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1864555, 1864556, 1864557, 1864558, 1864563, 1864564, 1864565
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1864559, 1864560, 1864561, 1864562, 1864566, 1864567, 1864568
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1864559, 1864560, 1864561, 1864562, 1864566, 1864567, 1864568
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1864559, 1864560, 1864561, 1864562, 1864566, 1864567, 1864568

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1864559, 1864560, 1864561, 1864562, 1864566, 1864567, 1864568

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	01/18/2017			01/18/2017 16:25	Sima Feizi	1864555, 1864556, 1864557, 1864558, 1864563, 1864564, 1864565
EPA 350.1 Rev. 2.0	01/18/2017			01/19/2017	Sofia Elnemr	1864559, 1864560, 1864561, 1864562, 1864566, 1864567, 1864568
EPA 351.2 Rev. 2.0	01/18/2017	01/19/2017	Adrian Shelby	01/19/2017	Joseph Suarez	1864560, 1864561
	01/18/2017	01/20/2017	Adrian Shelby	01/23/2017	Joseph Suarez	1864562, 1864566, 1864567, 1864568
	01/18/2017	01/24/2017	Adrian Shelby	01/25/2017	Joseph Suarez	1864559
EPA 353.2 Rev. 2.0	01/18/2017			01/19/2017	Beverly Y. Sanders	1864560, 1864561, 1864562, 1864566, 1864567, 1864568
	01/18/2017			01/20/2017	Beverly Y. Sanders	1864559
EPA 365.1 Rev. 2.0	01/18/2017	01/19/2017	Vijayalakshmi Reddy	01/20/2017	Lipi Saha	1864568
	01/18/2017	01/19/2017	Vijayalakshmi Reddy	01/24/2017	Lipi Saha	1864560, 1864561, 1864562, 1864566, 1864567
	01/18/2017	01/20/2017	Vijayalakshmi Reddy	01/24/2017	Lipi Saha	1864559