

Chemical Analysis Report

NW-DIST-2017-02-14-01

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-2017-01-16-03**
Customer: **NW-DIST**
Project ID: **BMAP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
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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 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: 02/13/2017 10:20

Field ID: A

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1872454	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P319839	
1872461	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P320013	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.34	I	mg N/L	P319974	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.084		mg N/L	P320028	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P319903	

Sample Location: Bayou Chico at Mandalay Park

Collection Date/Time: 02/13/2017 10:50

Field ID: B

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1872455	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P319839	
1872462	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P320013	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33	I	mg N/L	P319974	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.36		mg N/L	P320028	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P319903	

Sample Location: Jones Creek at Old Corry Road

Collection Date/Time: 02/13/2017 11:20

Field ID: C

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1872456	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P319839	
1872463	EPA 350.1 Rev. 2.0	Ammonia-N	0.046		mg N/L	P320016	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.42		mg N/L	P319975	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P320170	
	EPA 365.1 Rev. 2.0	Total-P	0.031		mg P/L	P319898	

Sample Location: Jackson Creek at Old Corry Road

Collection Date/Time: 02/13/2017 11:40

Field ID: D

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1872457	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P319839	
1872464	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P320016	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.21		mg N/L	P319975	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.7		mg N/L	P320170	
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P319898	

Sample Location: Jackson Creek at New Warrington Road

Collection Date/Time: 02/13/2017 12:10

Field ID: E

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1872458	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P319839	
1872465	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P320016	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20		mg N/L	P319975	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.6		mg N/L	P320172	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P319900	

Sample Location: Bayou Chico at Navy Blvd Bridge

Collection Date/Time: 02/13/2017 12:55

Field ID: F

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1872459	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P319839	
1872466	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P320242	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.28	I	mg N/L	P319974	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.77		mg N/L	P320028	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P319903	

Sample Location: Bayou Chico at W Street

Collection Date/Time: 02/13/2017 13:30

Field ID: G

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1872460	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P319839	
1872467	EPA 350.1 Rev. 2.0	Ammonia-N	0.080		mg N/L	P320017	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44		mg N/L	P319975	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.2		mg N/L	P320172	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P319900	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P319839

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320013

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320016

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320017

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320242

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P319974

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P319975

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320028

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320170

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320172

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P319898

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P319900

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P319903

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: P320013

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: P320013

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320017

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320242

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P319974

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P319975

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320028

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320170

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320172

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P319898

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P319900

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P319903

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.2		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872042	Ammonia-N	98.6	96.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872394	Ammonia-N	98.8	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872486	Ammonia-N	92.1	93.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872547	Ammonia-N	98.0	95.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P319974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872466	Kjeldahl Nitrogen	98.0	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P319975

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P319975

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872467	Kjeldahl Nitrogen	93.9	90.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P320028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872042	NO2NO3-N	104	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P320170

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872370	NO2NO3-N	106		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P320172

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872487	NO2NO3-N	107	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P319898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872416	Total-P	94.7	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P319900

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1872488	Total-P	98.5	96.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P319903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1871860	Total-P	97.2	96.4	P/P	90 - 110

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P319839

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872484	Turbidity	1.00	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872042	Ammonia-N	2.10	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872394	Ammonia-N	3.89	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872486	Ammonia-N	1.27	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872547	Ammonia-N	2.14	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P319974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872466	Kjeldahl Nitrogen	4.12	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P319975

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872467	Kjeldahl Nitrogen	2.94	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872042	NO2NO3-N	2.44	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320170

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872370	NO2NO3-N	0.528	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872487	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P319898

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872416	Total-P	2.28	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P319900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1872488	Total-P	2.46	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P319903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1871860	Total-P	0.836	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 180.1 Rev. 2.0
Run ID: A74468
Included Lab Sample IDs: 1872454, 1872455, 1872456, 1872457, 1872458, 1872459, 1872460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	97.5	97.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A74529
Included Lab Sample IDs: 1872467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.1	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A74531
Included Lab Sample IDs: 1872461, 1872462, 1872463, 1872464, 1872465, 1872466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	98.8	P/P	90 - 110
Total-P	98.8	99.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74531

Included Lab Sample IDs: 1872461, 1872462, 1872463, 1872464, 1872465, 1872466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A74538

Included Lab Sample IDs: 1872461, 1872462, 1872463, 1872464, 1872465, 1872467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.9	96.0	P/P	90 - 110
Ammonia-N	99.0	99.5	P/P	90 - 110
Ammonia-N	99.7	98.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A74547

Included Lab Sample IDs: 1872461, 1872462, 1872466

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74554

Included Lab Sample IDs: 1872461, 1872462, 1872463, 1872464, 1872465, 1872466, 1872467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	105	P/P	90 - 110
Kjeldahl Nitrogen	105	101	P/P	90 - 110
Kjeldahl Nitrogen	99.9	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A74601

Included Lab Sample IDs: 1872463, 1872464, 1872465, 1872467

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A74627

Included Lab Sample IDs: 1872466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	101	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		Precision	
					LCS	MS
EPA 180.1 Rev. 2.0	Turbidity				1.00	
EPA 350.1 Rev. 2.0	Ammonia-N	102	98.6	96.3		2.10
	Ammonia-N	99.7	98.8	103		3.89
	Ammonia-N	101	92.1	93.7		1.27
	Ammonia-N	99.7	98.0	95.6		2.14
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	98.0	103		4.12
	Kjeldahl Nitrogen	99.6	93.9	90.1		2.94
EPA 353.2 Rev. 2.0	NO2NO3-N	102	104	101		2.44
	NO2NO3-N	106	106			0.528
	NO2NO3-N	106	107	107		0.0
EPA 365.1 Rev. 2.0	Total-P	97.2	94.7	97.5		2.28
	Total-P	97.4	98.5	96.0		2.46
	Total-P	97.2	97.2	96.4		0.836

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1872454, 1872455, 1872456, 1872457, 1872458, 1872459, 1872460
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1872461, 1872462, 1872463, 1872464, 1872465, 1872466, 1872467
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1872461, 1872462, 1872463, 1872464, 1872465, 1872466, 1872467
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1872461, 1872462, 1872463, 1872464, 1872465, 1872466, 1872467
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1872461, 1872462, 1872463, 1872464, 1872465, 1872466, 1872467

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	02/14/2017			02/14/2017 15:27	Julie Michelle Frank	1872454, 1872455, 1872456, 1872457, 1872458, 1872459, 1872460
EPA 350.1 Rev. 2.0	02/14/2017			02/16/2017	Sofia Elnemr	1872461, 1872462, 1872463, 1872464, 1872465, 1872467
	02/14/2017			02/21/2017	Sofia Elnemr	1872466
EPA 351.2 Rev. 2.0	02/14/2017	02/16/2017	Adrian Shelby	02/17/2017	Joseph Suarez	1872461, 1872462, 1872463, 1872464, 1872465, 1872466, 1872467
EPA 353.2 Rev. 2.0	02/14/2017			02/17/2017	Beverly Y. Sanders	1872461, 1872462, 1872466
	02/14/2017			02/21/2017	Beverly Y. Sanders	1872463, 1872464, 1872465, 1872467
EPA 365.1 Rev. 2.0	02/14/2017	02/15/2017	Vijayalakshmi Reddy	02/16/2017	Lipi Saha	1872461, 1872462, 1872463, 1872464, 1872465, 1872466, 1872467