

Biological Analysis Report

SW-DIST-2019-06-14-01

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

Overflow Analyses Performed By:
Benchmark Environmental, Inc.
1711 12th Street East
Palmetto, FL 34221
DOH Accreditation E84167

Event Description: **PP Ditch 1&5, 34th St., McKay Tidal**

Request ID: **RQ-2019-06-03-04**

Customer: **SW-DIST**

Project ID: **SMP**

Send Reports to:

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Date Certified: 16-JUL-2019 09:57



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: Chlorophyll/Grain Size/BOD, Molecular and Overflow.

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: McKay Creek Tidal off Hickory

Collection Date/Time: 06/13/2019 11:10

Field ID: G5SW0130

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095799	SM 10200 H (mod.)	Chlorophyll-a, Corrected	9.4		ug/L	P366626	RPD
		Phaeophytin-a	0.98	U	ug/L	P366626	
		Chlorophyll-a, Uncorrected	10		ug/L	P366626	RPD
2095804	SOP-PCR-1.0	HF183-qPCR**	94	U	GEU/100 mL	P366460	
	SOP-PCR-1.2	GULL2-qPCR**	5.6E+03	U	TSC/100 mL	P366460	
	SOP-PCR-1.3	GFD-purified-qPCR**	2.33E+03	J	TSC/100 mL	P365420	MS
	SOP-PCR-1.4	BacR-qPCR**	1.0E+03	U	TSC/100 mL	P366460	
	SOP-PCR-4.0	HF183 - Human Source Marker**	Above Threshold			P364795	
2095809	Enterolert/QT	Enterococci-Quanti-Tray	15531		MPN/100 mL		

Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

SOP-PCR-1.2: Precision data unavailable due to inhibition in QC sample.

SOP-PCR-1.3: Quality control failure(s) observed. See QA report for details.

Sample Location: PP Ditch #1 @ 71st St.

Collection Date/Time: 06/13/2019 11:45

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095800	SM 10200 H (mod.)	Chlorophyll-a, Corrected	53		ug/L	P366626	RPD
		Phaeophytin-a	1.9	I	ug/L	P366626	
		Chlorophyll-a, Uncorrected	56		ug/L	P366626	RPD
2095805	SOP-PCR-1.0	HF183-qPCR**	140	U	GEU/100 mL	P366460	
	SOP-PCR-1.2	GULL2-qPCR**	8.4E+03	U	TSC/100 mL	P366460	
	SOP-PCR-1.3	GFD-purified-qPCR**	170	U	TSC/100 mL	P365420	MS
	SOP-PCR-1.4	BacR-qPCR**	1.5E+03	U	TSC/100 mL	P366460	
	SOP-PCR-4.0	HF183 - Human Source Marker**	Above Threshold			P364795	
2095810	Enterolert/QT	Enterococci-Quanti-Tray	2105		MPN/100 mL		

Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

SOP-PCR-1.2: Precision data unavailable due to inhibition in QC sample.

Sample Location: 34th Street Basin @ 11 Ave S.

Collection Date/Time: 06/13/2019 12:30

Field ID: G5SW0146

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095796	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.3	I	ug/L	P366626	RPD
		Phaeophytin-a	2.1	U	ug/L	P366626	
		Chlorophyll-a, Uncorrected	5.1		ug/L	P366626	RPD
2095801	SOP-PCR-1.0	HF183-qPCR**	94	U	GEU/100 mL	P366320	LCS
	SOP-PCR-1.2	GULL2-qPCR**	5.6E+03	U	TSC/100 mL	P366320	
	SOP-PCR-1.3	GFD-purified-qPCR**	110	U	TSC/100 mL	P365420	MS
	SOP-PCR-1.4	BacR-qPCR**	1.0E+03	U	TSC/100 mL	P366320	
	SOP-PCR-4.0	HF183 - Human Source Marker**	Above Threshold			P364795	
2095806	SM 9223 B Quanti-Tray	Escherichia Coli-Quanti-Tray	880		MPN/100 mL		

Field ID: G5SW0146

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

SOP-PCR-1.2: Precision data unavailable for Analysis batch A92600

SOP-PCR-1.4: Precision data unavailable for Analysis Batch A92577

Sample Location: 34th Street Basin @ 11 Ave S.

Collection Date/Time: 06/13/2019 12:35

Field ID: G5SW0146_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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2095797	SM 10200 H (mod.)	Chlorophyll-a, Corrected	6.7		ug/L	P366626	RPD
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		Phaeophytin-a	1.8	U	ug/L	P366626	
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		Chlorophyll-a, Uncorrected	6.5		ug/L	P366626	RPD
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2095807	SM 9223 B Quanti-Tray	Escherichia Coli-Quanti-Tray	1012		MPN/100 mL		
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Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: Field_Blank

Collection Date/Time: 06/13/2019 12:40

Field ID: FB 06132019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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2095798	SM 10200 H (mod.)	Chlorophyll-a, Corrected	0.96	U	ug/L	P366626	RPD
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		Phaeophytin-a	1.0	U	ug/L	P366626	
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		Chlorophyll-a, Uncorrected	0.70	U	ug/L	P366626	RPD
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Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Quality Assurance Report Method Blank Results

Reference Method: SM 10200 H (mod.)

Batch ID: P366626

Component	Result	Code	Units
Chlorophyll-a, Corrected	0.96	U	ug/L
Chlorophyll-a, Uncorrected	0.70	U	ug/L
Phaeophytin-a	1.0	U	ug/L

Reference Method: SOP-PCR-1.0

Batch ID: P366320

Component	Result	Code	Units
HF183-qPCR	280	U	GEU/100 mL

Reference Method: SOP-PCR-1.0

Batch ID: P366460

Component	Result	Code	Units
HF183-qPCR	280	U	GEU/100 mL

Quality Assurance Report Method Blank Results

Reference Method: SOP-PCR-1.2
Batch ID: P366320

Component	Result	Code	Units
GULL2-qPCR	1.7E+04	U	TSC/100 mL

Reference Method: SOP-PCR-1.2
Batch ID: P366460

Component	Result	Code	Units
GULL2-qPCR	1.7E+04	U	TSC/100 mL

Reference Method: SOP-PCR-1.3
Batch ID: P365420

Component	Result	Code	Units
GFD-purified-qPCR	340	U	TSC/100 mL

Reference Method: SOP-PCR-1.4
Batch ID: P366320

Component	Result	Code	Units
BacR-qPCR	3.0E+03	U	TSC/100 mL

Reference Method: SOP-PCR-1.4
Batch ID: P366460

Component	Result	Code	Units
BacR-qPCR	3.0E+03	U	TSC/100 mL

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 10200 H (mod.)
Batch ID: P366626

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	108		P	84 - 116

Reference Method: SOP-PCR-1.0
Batch ID: P366320

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	111	205	P/F	50 - 175

Reference Method: SOP-PCR-1.0
Batch ID: P366460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	149	143	P/P	50 - 175

Reference Method: SOP-PCR-1.2
Batch ID: P366320

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

Reference Method: SOP-PCR-1.2
Batch ID: P366320

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
GULL2-qPCR	112	187	P/P	50 - 300

Reference Method: SOP-PCR-1.2
Batch ID: P366460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
GULL2-qPCR	235	188	P/P	50 - 300

Reference Method: SOP-PCR-1.3
Batch ID: P365420

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
GFD-purified-qPCR	111	67.8	P/P	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P366320

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-qPCR	86.3	86.4	P/P	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P366460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-qPCR	83.2	69.3	P/P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.0
Batch ID: P366320

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095801	HF183-qPCR	80.3		P	50 - 175
2098564	HF183-qPCR	85.8		P	50 - 175
2098709	HF183-qPCR	104	101	P/P	50 - 175
2098783	HF183-qPCR	90.4		P	50 - 175
2098815	HF183-qPCR	93.6		P	50 - 175
2098816	HF183-qPCR	93.5		P	50 - 175
2099128	HF183-qPCR	92.0		P	50 - 175
2099129	HF183-qPCR	87.8		P	50 - 175
2099217	HF183-qPCR	90.5		P	50 - 175

Reference Method: SOP-PCR-1.0
Batch ID: P366460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095804	HF183-qPCR	99.2		P	50 - 175
2095805	HF183-qPCR	100		P	50 - 175
2096551	HF183-qPCR	119		P	50 - 175
2096552	HF183-qPCR	101		P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.0

Batch ID: P366460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096585	HF183-qPCR	109		P	50 - 175
2096763	HF183-qPCR	118		P	50 - 175
2096968	HF183-qPCR	108		P	50 - 175
2096969	HF183-qPCR	89.1		P	50 - 175
2097844	HF183-qPCR	104		P	50 - 175
2098562	HF183-qPCR	97.0		P	50 - 175
2099657	HF183-qPCR	95.5		P	50 - 175
2099658	HF183-qPCR	102		P	50 - 175
2100038	HF183-qPCR	71.7	65.2	P/P	50 - 175

Reference Method: SOP-PCR-1.2

Batch ID: P366320

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095801	GULL2-qPCR	70.7		P	50 - 300

Reference Method: SOP-PCR-1.2

Batch ID: P366460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095804	GULL2-qPCR	143		P	50 - 300
2095805	GULL2-qPCR	149		P	50 - 300
2096551	GULL2-qPCR	142		P	50 - 300
2096552	GULL2-qPCR	143		P	50 - 300
2096585	GULL2-qPCR	146		P	50 - 300
2096763	GULL2-qPCR	164		P	50 - 300
2096968	GULL2-qPCR	158		P	50 - 300
2096969	GULL2-qPCR	65.2		P	50 - 300
2098562	GULL2-qPCR	116		P	50 - 300

Reference Method: SOP-PCR-1.3

Batch ID: P365420

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091168	GFD-purified-qPCR	219		F	50 - 175
2092578	GFD-purified-qPCR	225		F	50 - 175
2092579	GFD-purified-qPCR	144		P	50 - 175
2094286	GFD-purified-qPCR	331		F	50 - 175
2095801	GFD-purified-qPCR	151		P	50 - 175
2095804	GFD-purified-qPCR	237		F	50 - 175
2095805	GFD-purified-qPCR	144		P	50 - 175
2098709	GFD-purified-qPCR	342	294	F/F	50 - 175

Reference Method: SOP-PCR-1.4

Batch ID: P366320

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095801	BacR-qPCR	59.9		P	50 - 175
2098815	BacR-qPCR	78.6		P	50 - 175
2098816	BacR-qPCR	83.1		P	50 - 175
2099128	BacR-qPCR	62.2		P	50 - 175
2099129	BacR-qPCR	81.8		P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.4
Batch ID: P366320

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2099217	BacR-qPCR	61.9		P	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P366460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095804	BacR-qPCR	67.6		P	50 - 175
2095805	BacR-qPCR	65.5		P	50 - 175
2096551	BacR-qPCR	66.6		P	50 - 175
2096552	BacR-qPCR	64.7		P	50 - 175
2096585	BacR-qPCR	66.7		P	50 - 175
2096763	BacR-qPCR	80.8		P	50 - 175
2096968	BacR-qPCR	75.0		P	50 - 175
2096969	BacR-qPCR	65.0		P	50 - 175
2098562	BacR-qPCR	66.7		P	50 - 175
2100038	BacR-qPCR	61.6	51.4	P/P	50 - 175

Quality Assurance Report Precision

Reference Method: SM 10200 H (mod.)
Batch ID: P366626

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095764	Chlorophyll-a, Corrected	30.0	Sample	F	0 - 25
2095764	Chlorophyll-a, Uncorrected	31.5	Sample	F	0 - 25

Reference Method: SOP-PCR-1.0
Batch ID: P366320

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098709	HF183-qPCR	2.67	Spike	P	0 - 25

Reference Method: SOP-PCR-1.0
Batch ID: P366460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2100038	HF183-qPCR	9.47	Spike	P	0 - 25

Reference Method: SOP-PCR-1.3
Batch ID: P365420

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098709	GFD-purified-qPCR	15.1	Spike	P	0 - 25

Quality Assurance Report Precision

Reference Method: SOP-PCR-1.4

Batch ID: P366460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2100038	BacR-qPCR	18.0	Spike	P	0 - 25

* 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 Surrogates

Lab Sample ID: 2095801

Field Sample ID: G5SW0146

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	78.2	P	50 - 300
SOP-PCR-1.2	SKETA-qPCR	94.8	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	87.4	P	50 - 300

Lab Sample ID: 2095804

Field Sample ID: G5SW0130

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	96.8	P	50 - 300
SOP-PCR-1.2	SKETA-qPCR	95.0	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	100	P	50 - 300

Lab Sample ID: 2095805

Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	91.9	P	50 - 300
SOP-PCR-1.2	SKETA-qPCR	88.2	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	95.4	P	50 - 300

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
SM 10200 H (mod.)	Chlorophyll-a, Corrected	108						30.0	
	Chlorophyll-a, Uncorrected							31.5	
SOP-PCR-1.0	HF183-qPCR	205	111	85.8	104	101			2.67
				90.4					
	HF183-qPCR	143	149	108	89.1	104			9.47
				95.5					
SOP-PCR-1.2	GULL2-qPCR	187	112	70.7					
	GULL2-qPCR	188	235	143	149	142			
				143					
SOP-PCR-1.3	GFD-purified-qPCR	67.8	111	342	294	225			15.1
				144					
SOP-PCR-1.4	BacR-qPCR	86.4	86.3	78.6	83.1	62.2			
				81.8					

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision SMP	MS
SOP-PCR-1.4	BacR-qPCR	69.3	83.2	66.7	67.6	65.5		18.0
				66.6				

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
Enterolert/QT / E84167	Enterococci by Enterolert/QT by BEA in Palmetto	2095809, 2095810
SM 10200 H (mod.) / E31780	Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry	2095796, 2095797, 2095798, 2095799, 2095800
SM 9223 B Quanti-Tray / E84167	E. coli by Colilert/QT by BEA in Palmetto	2095806, 2095807
SOP-PCR-1.0 / E31780	Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction	2095801, 2095804, 2095805
SOP-PCR-1.2 / E31780	Detection and quantification of coastal bird specific Catellicoccus marimammalium Gull2 genetic marker with quantitative polymerase chain reaction	2095801, 2095804, 2095805
SOP-PCR-1.3 / E31780	Detection and quantification of bird specific Helicobacter GFD genetic marker with quantitative polymerase chain reaction	2095801, 2095804, 2095805
SOP-PCR-1.4 / E31780	Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction	2095801, 2095804, 2095805
SOP-PCR-4.0 / E31780	Preparation of Samples by Filtration and held for qPCR Analysis	2095801, 2095804, 2095805

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
Enterolert/QT	06/13/2019	06/13/2019 14:30		06/14/2019 14:39	Benchmark EnviroAnalytical - Palmetto	2095809, 2095810
SM 10200 H (mod.)	06/14/2019	06/14/2019 14:56	Yuliya Danyuk	07/01/2019 14:41	Peterson Janvier	2095796, 2095797, 2095798, 2095799, 2095800
SM 9223 B Quanti-Tray	06/13/2019	06/13/2019 14:38		06/14/2019 15:04	Benchmark EnviroAnalytical - Palmetto	2095806, 2095807
SOP-PCR-1.0	06/14/2019	06/14/2019 15:00	Angela Smith	07/02/2019 11:37	Mailin Lopez	2095801
	06/14/2019	06/14/2019 15:00	Sarah Menz	07/05/2019 11:45	Mailin Lopez	2095804, 2095805
SOP-PCR-1.2	06/14/2019	06/14/2019 15:00	Angela Smith	07/08/2019 08:53	Mailin Lopez	2095801
	06/14/2019	06/14/2019 15:00	Sarah Menz	07/08/2019 13:47	Mailin Lopez	2095804, 2095805
SOP-PCR-1.3	06/14/2019	06/14/2019 15:00	Angela Smith	07/12/2019 11:35	Mailin Lopez	2095801, 2095804, 2095805
SOP-PCR-1.4	06/14/2019	06/14/2019 15:00	Angela Smith	07/05/2019 14:43	Mailin Lopez	2095801
	06/14/2019	06/14/2019 15:00	Sarah Menz	07/05/2019 17:00	Mailin Lopez	2095804, 2095805
SOP-PCR-4.0	06/14/2019	06/14/2019 15:00	Angela Smith	06/28/2019 11:34	Sarah Menz	2095801, 2095804, 2095805