

Biological Analysis Report

SW-DIST-2018-03-27-01

Florida Department of Environmental Protection
Central Laboratory
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DOH Accreditation E31780

Overflow Analyses Performed By:
Advanced Environmental Laboratories - Tampa
9610 Princess Palm Avenue
Tampa, Florida 33619
DOH Accreditation E84589

Event Description: **Alafia, Delany, Thirtymile**
Request ID: **RQ-2018-03-26-05**
Customer: **SW-DIST**
Project ID: **SMP**

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Date Certified: 17-MAY-2018 23:21



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 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: Thirtymile Creek @ Train Tracks Mosaic

Collection Date/Time: 03/26/2018 10:30

Field ID: G2SW0047

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978110	SOP-PCR-1.0	HF183-qPCR**	140	U	GEU/100 mL	P344786	
	SOP-PCR-1.2	GULL2-qPCR**	8.4E+03	U	TSC/100 mL	P344786	
	SOP-PCR-1.3	GFD-purified-qPCR**	54	TJ	TSC/100 mL	P344748	LCS, MS
	SOP-PCR-1.4	BacR-qPCR**	1.5E+03	U	TSC/100 mL	P344786	
	SOP-PCR-4.0	HF183 - Human Source Marker**	Above Threshold				
1978116	EPA 1603	Escherichia coli-Membrane Filter**	730		cfu/100 mL		

Ref. Method and Comment:

SOP-PCR-1.0: No amplification of HF183 marker.

SOP-PCR-1.2: No amplification of GULL2 marker. Precision data unavailable for Analysis Batch A83764.

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

SOP-PCR-1.4: No amplification of BACR marker. Precision data unavailable for Analysis Batch A83742.

Sample Location: Thirtymile Creek @ Nichols Rd

Collection Date/Time: 03/26/2018 09:40

Field ID: G2SW0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978111	SOP-PCR-1.0	HF183-qPCR**	140	U	GEU/100 mL	P344786	
	SOP-PCR-1.4	BacR-qPCR**	1.59E+04		TSC/100 mL	P344786	
	SOP-PCR-4.0	HF183 - Human Source Marker**	Above Threshold				
1978117	EPA 1603	Escherichia coli-Membrane Filter**	640		cfu/100 mL		

Ref. Method and Comment:

SOP-PCR-1.0: No amplification of HF183 marker.

SOP-PCR-1.4: Precision data unavailable for Analysis Batch A83742.

Sample Location: Delany Creek @ 36th Ave

Collection Date/Time: 03/26/2018 12:00

Field ID: G1SW0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978106	SM 10200 H (mod.)	Chlorophyll-a, Corrected	76		ug/L	P342393	
		Phaeophytin-a	4.3		ug/L	P342393	
		Chlorophyll-a, Uncorrected	82		ug/L	P342393	
1978108	SOP-PCR-1.0	HF183-qPCR**	140	U	GEU/100 mL	P344842	
	SOP-PCR-1.2	GULL2-qPCR**	8.4E+03	U	TSC/100 mL	P344842	
	SOP-PCR-1.3	GFD-purified-qPCR**	55	T	TSC/100 mL	P344748	LCS, MS
	SOP-PCR-1.4	BacR-qPCR**	760	T	TSC/100 mL	P344842	
	SOP-PCR-4.0	HF183 - Human Source Marker**	Above Threshold				
1978114	EPA 1603	Escherichia coli-Membrane Filter**	410		cfu/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-1.0: No amplification of HF183 marker.

SOP-PCR-1.2: No amplification of GULL2 marker. Precision data unavailable for Analysis Batch A83963.

Sample Location: Delany Creek @ 3Maydell Dr

Collection Date/Time: 03/26/2018 12:20

Field ID: G1SW0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978107	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.8		ug/L	P342393	
		Phaeophytin-a	0.92	I	ug/L	P342393	

Field ID: G1SW0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978107	SM 10200 H (mod.)	Chlorophyll-a, Uncorrected	2.5		ug/L	P342393	
1978109	SOP-PCR-1.4	BacR-qPCR**	570	T	TSC/100 mL	P342207	
	SOP-PCR-4.0	HF183 - Human Source Marker**	Below Threshold				
1978115	EPA 1603	Escherichia coli-Membrane Filter**	172		cfu/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.

Sample Location: Alafia River @ Center Ave

Collection Date/Time: 03/26/2018 11:20

Field ID: G2SW0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1978105	SM 10200 H (mod.)	Chlorophyll-a, Corrected	0.76	I	ug/L	P342393	
		Phaeophytin-a	0.40	U	ug/L	P342393	
		Chlorophyll-a, Uncorrected	0.88	I	ug/L	P342393	
1978113	EPA 1603	Escherichia coli-Membrane Filter**	92		cfu/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.

Quality Assurance Report Method Blank Results

Reference Method: SM 10200 H (mod.)

Batch ID: P342393

Component	Result	Code	Units
Chlorophyll-a, Corrected	0.55	U	ug/L
Chlorophyll-a, Uncorrected	0.40	U	ug/L
Phaeophytin-a	0.40	U	ug/L

Reference Method: SOP-PCR-1.0

Batch ID: P344786

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

Reference Method: SOP-PCR-1.0

Batch ID: P344842

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

Reference Method: SOP-PCR-1.2

Batch ID: P344786

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

Quality Assurance Report Method Blank Results

Reference Method: SOP-PCR-1.2
 Batch ID: P344842

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

Reference Method: SOP-PCR-1.3
 Batch ID: P344748

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

Reference Method: SOP-PCR-1.4
 Batch ID: P342207

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

Reference Method: SOP-PCR-1.4
 Batch ID: P344786

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

Reference Method: SOP-PCR-1.4
 Batch ID: P344842

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: P342393

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	103		P	84 - 116

Reference Method: SOP-PCR-1.0
 Batch ID: P344786

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	60.9	115	P/P	50 - 175
HF183-qPCR	117	115	P/P	50 - 175

Reference Method: SOP-PCR-1.0
 Batch ID: P344842

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	120	104	P/P	50 - 175

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SOP-PCR-1.2
Batch ID: P344786

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
GULL2-qPCR	65.2	95.9	P/P	50 - 300
GULL2-qPCR	67.4	95.9	P/P	50 - 300

Reference Method: SOP-PCR-1.2
Batch ID: P344842

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
GULL2-qPCR	92.0	68.0	P/P	50 - 300

Reference Method: SOP-PCR-1.3
Batch ID: P344748

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
GFD-purified-qPCR	134	29.1	P/F	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P342207

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-qPCR	101	90.5	P/P	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P344786

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-qPCR	101	71.9	P/P	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P344842

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-qPCR	79.2	83.3	P/P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.0
Batch ID: P344786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1977968	HF183-qPCR	96.0		P	50 - 175
1978108	HF183-qPCR	99.1		P	50 - 175
1978110	HF183-qPCR	104		P	50 - 175
1978111	HF183-qPCR	107		P	50 - 175
1978684	HF183-qPCR	109	96.7	P/P	50 - 175
1978942	HF183-qPCR	104		P	50 - 175
1979108	HF183-qPCR	106		P	50 - 175
1979109	HF183-qPCR	98.5		P	50 - 175
1979111	HF183-qPCR	104		P	50 - 175
1979368	HF183-qPCR	97.0		P	50 - 175
1981725	HF183-qPCR	101		P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.0
Batch ID: P344842

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978108	HF183-qPCR	79.3		P	50 - 175
1980236	HF183-qPCR	78.4		P	50 - 175
1980237	HF183-qPCR	91.2		P	50 - 175
1980276	HF183-qPCR	109		P	50 - 175
1981021	HF183-qPCR	107		P	50 - 175
1981614	HF183-qPCR	95.0		P	50 - 175
1981615	HF183-qPCR	93.9		P	50 - 175
1981701	HF183-qPCR	98.1		P	50 - 175
1981702	HF183-qPCR	106		P	50 - 175
1986512	HF183-qPCR	123		P	50 - 175
1991711	HF183-qPCR	106		P	50 - 175
1991712	HF183-qPCR	101	101	P/P	50 - 175

Reference Method: SOP-PCR-1.2
Batch ID: P344786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978108	GULL2-qPCR	76.4		P	50 - 300
1978110	GULL2-qPCR	99.1		P	50 - 300
1978942	GULL2-qPCR	67.2		P	50 - 300
1979108	GULL2-qPCR	71.5		P	50 - 300
1979109	GULL2-qPCR	72.3		P	50 - 300
1979111	GULL2-qPCR	78.4		P	50 - 300

Reference Method: SOP-PCR-1.2
Batch ID: P344842

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978108	GULL2-qPCR	56.1		P	50 - 300

Reference Method: SOP-PCR-1.3
Batch ID: P344748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978108	GFD-purified-qPCR	57.3		P	50 - 175
1978110	GFD-purified-qPCR	214		F	50 - 175
1978942	GFD-purified-qPCR	142		P	50 - 175
1979109	GFD-purified-qPCR	194	182	F/F	50 - 175
1982100	GFD-purified-qPCR	92.9		P	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P342207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973138	BacR-qPCR	59.9		P	50 - 175
1973139	BacR-qPCR	90.6		P	50 - 175
1973140	BacR-qPCR	66.2		P	50 - 175
1973481	BacR-qPCR	65.9		P	50 - 175
1978108	BacR-qPCR	65.4		P	50 - 175
1978109	BacR-qPCR	84.1	76.2	P/P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.4
Batch ID: P344786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1977968	BacR-qPCR	58.2		P	50 - 175
1978110	BacR-qPCR	74.1		P	50 - 175
1978111	BacR-qPCR	95.6		P	50 - 175
1978942	BacR-qPCR	96.3		P	50 - 175
1979108	BacR-qPCR	64.3		P	50 - 175
1979109	BacR-qPCR	77.8		P	50 - 175
1979111	BacR-qPCR	69.3		P	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P344842

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978108	BacR-qPCR	68.0		P	50 - 175
1981021	BacR-qPCR	56.1		P	50 - 175
1981614	BacR-qPCR	63.3		P	50 - 175
1981615	BacR-qPCR	56.3		P	50 - 175
1991711	BacR-qPCR	50.6		P	50 - 175
1991712	BacR-qPCR	75.1	62.2	P/P	50 - 175
1991823	BacR-qPCR	72.7		P	50 - 175

Quality Assurance Report Precision

Reference Method: SM 10200 H (mod.)
Batch ID: P342393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978063	Chlorophyll-a, Uncorrected	9.23	Sample	P	0 - 25

Reference Method: SOP-PCR-1.0
Batch ID: P344786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978684	HF183-qPCR	12.2	Spike	P	0 - 25
1978684	HF183-qPCR	12.2	Spike	P	0 - 25

Reference Method: SOP-PCR-1.0
Batch ID: P344842

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991712	HF183-qPCR	0.390	Spike	P	0 - 25

Reference Method: SOP-PCR-1.3
Batch ID: P344748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979109	GFD-purified-qPCR	5.94	Spike	P	0 - 25

Quality Assurance Report Precision

Reference Method: SOP-PCR-1.4
Batch ID: P342207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978109	BacR-qPCR	9.80	Spike	P	0 - 25

Reference Method: SOP-PCR-1.4
Batch ID: P344842

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991712	BacR-qPCR	18.8	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: 1978108
Field Sample ID: G1SW0046

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	98.2	P	50 - 300
SOP-PCR-1.0	SKETA-qPCR	103	P	50 - 300
SOP-PCR-1.2	SKETA-qPCR	80.8	P	50 - 300
SOP-PCR-1.2	SKETA-qPCR	97.0	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	89.8	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	96.6	P	50 - 300

Lab Sample ID: 1978109
Field Sample ID: G1SW0066

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.4	SKETA-qPCR	108	P	50 - 300

Lab Sample ID: 1978110
Field Sample ID: G2SW0047

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	81.3	P	50 - 300
SOP-PCR-1.2	SKETA-qPCR	62.0	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	63.7	P	50 - 300

Lab Sample ID: 1978111
Field Sample ID: G2SW0046

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	99.6	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	97.7	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	103								
	Chlorophyll-a, Uncorrected								9.23	
SOP-PCR-1.0	HF183-qPCR	60.9	115	117	99.1	96.0	104			12.2 12.2
		115			107					
	HF183-qPCR	104	120		123	79.3	106			0.390
					101					
SOP-PCR-1.2	GULL2-qPCR	65.2	95.9	67.4	76.4	99.1	67.2			
		95.9			71.5					
	GULL2-qPCR	68.0	92.0		56.1					
SOP-PCR-1.3	GFD-purified-qPCR	29.1	134		57.3	92.9	214			5.94
					142					
SOP-PCR-1.4	BacR-qPCR	90.5	101		59.9	90.6	66.2			9.80
					65.4					
	BacR-qPCR	71.9	101		58.2	74.1	95.6			
					96.3					
	BacR-qPCR	83.3	79.2		68.0	50.6	75.1			18.8
					62.2					

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 1603 / E84589	Escherichia coli by membrane filter method using modified mTEC by Advanced Environmental Tampa Lab for SWD	1978113, 1978114, 1978115, 1978116, 1978117
SM 10200 H (mod.) / E31780	Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry	1978105, 1978106, 1978107
SOP-PCR-1.0 / E31780	Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction	1978108, 1978110, 1978111
SOP-PCR-1.2 / E31780	Detection and quantification of coastal bird specific Catellicoccus marimammalium Gull2 genetic marker with quantitative polymerase chain reaction	1978108, 1978110
SOP-PCR-1.3 / E31780	Detection and quantification of bird specific Helicobacter GFD genetic marker with quantitative polymerase chain reaction	1978108, 1978110
SOP-PCR-1.4 / E31780	Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction	1978108, 1978109, 1978110, 1978111
SOP-PCR-4.0 / E31780	Preparation of Samples by Filtration and held for qPCR Analysis	1978108, 1978109, 1978110, 1978111

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 1603	03/26/2018	03/26/2018 16:30		03/27/2018 15:30	AEL - Tampa	1978113, 1978114, 1978115, 1978116, 1978117
SM 10200 H (mod.)	03/27/2018	03/27/2018 13:20	Cathy Sherrer	03/28/2018 10:35	Kim M. Spencer	1978105, 1978106, 1978107
SOP-PCR-1.0	03/27/2018	03/27/2018 13:20	Puja Jasrotia	05/08/2018 09:15	Sarah Menz	1978110, 1978111
	03/27/2018	03/27/2018 13:20	Sarah Menz	05/15/2018 12:52	Sarah Menz	1978108
SOP-PCR-1.2	03/27/2018	03/27/2018 13:20	Puja Jasrotia	05/08/2018 15:31	Sarah Menz	1978110
	03/27/2018	03/27/2018 13:20	Sarah Menz	05/16/2018 15:33	Sarah Menz	1978108
SOP-PCR-1.3	03/27/2018	03/27/2018 13:20	Sarah Menz	05/10/2018 09:52	Sarah Menz	1978108, 1978110
SOP-PCR-1.4	03/27/2018	03/27/2018 13:20	Puja Jasrotia	04/06/2018 10:21	Sarah Menz	1978109
	03/27/2018	03/27/2018 13:20	Puja Jasrotia	05/08/2018 12:54	Sarah Menz	1978110, 1978111
	03/27/2018	03/27/2018 13:20	Sarah Menz	05/16/2018 12:10	Sarah Menz	1978108
SOP-PCR-4.0	03/27/2018	03/27/2018 13:20	Angela Smith	05/07/2018 13:02	Puja Jasrotia	1978108, 1978109, 1978110, 1978111