



Town of Swampscott Department of Public Works

22 Monument Avenue

Swampscott, Massachusetts 01907

Tel: 781-596-8860

Fax: 781-596-8828

Gino A. Cresta Jr., Director
gcresta@swampscottma.gov

Kelly Stevens, Assistant Engineer
kstevens@swampscottma.gov

September 1, 2019

Mr. Neil Handler
Senior Enforcement Officer
Water Technical Unit
U.S. Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Mail Code OES04-4
Boston, MA 02109-3912

**SUBJECT: Consent Decree Compliance Report
Period 2/1/2019 to 7/31/2019**

Dear Mr. Handler:

Pursuant to Paragraph 66 of the Consent Decree between the U.S. EPA and the Town of Swampscott, MA, I am providing the following certification statement with regard to the preparation and submittal of: **Compliance Reporting – 2/1/2019 to 7/31/2019**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Gino A. Cresta, Jr.
Director of Public Works



MEMORANDUM

TO: Neil Handler | US EPA

CC: Gino Cresta, Kelly Stevens | Town of Swampscott
Mark Thompson, Cecilia Carmona, Dan Scott | Kleinfelder

FROM: David Peterson | Kleinfelder

DATE: September 1, 2019

**SUBJECT: COMPLIANCE REPORTING - CASE 1:15-CV-13388-DJC
SWAMPSCOTT, MASSACHUSETTS**

Purpose:

This Compliance Report is provided pursuant to Paragraph 33 of the subject Consent Decree between the United States of America and the Town of Swampscott, MA. This report covers the reporting period noted below:

Reporting Period: February 1, 2019 through July 31, 2019

Through this reporting period, activities primarily included the construction of the Phase 1B sewer rehabilitation within the Stacey's Brook area and the start of an Illicit Discharge Detection and Elimination (IDDE) program in areas outside of Stacey's Brook (Article 19 of Consent Decree). The following report summarizes the activities performed during the Reporting Period.

Phase 1B Status Summary

The Phase 1B construction contract includes comprehensive sewer rehabilitation in specific neighborhoods in the Stacey's Brook catchment area consisting of cured in place pipe (CIPP) lining of sewer mainlines and laterals, sewer manhole rehabilitation, and split-wall sewer manhole rehabilitation (Type 2 underdrain manholes). The majority of the project scope is the comprehensive rehabilitation of the sewer collection system within the drain catchment that converges at the intersection of Stetson Avenue and Norfolk Avenue. Following the completion of Phase 1B construction, two rounds of wet weather and two rounds of dry weather post construction water quality monitoring will be performed consistent with the IDDE procedure detailed in the Consent Decree between the Town and the US EPA. The wet and dry weather samples will be tested for enterococcus, surfactants, ammonia and chlorine concentrations. The post construction monitoring will be completed in the drainage manhole immediately upstream of the intersection of Stetson Avenue and Norfolk Avenue and at the King's Beach outfall.



As of July 31, 2019, the General Contractor for the Phase 1B construction project, Rapid Flow, completed approximately 530 vertical feet of sewer manhole lining (46% complete) and CIPP lining of approximately 16,918 linear feet of mainline sewer pipeline (99% complete) and 94 sewer service laterals (44% complete). The current schedule submitted by Rapid Flow estimates that construction will be complete on or around October 15, 2019 (see Attachment A).

Design of Improvements Beyond Stacey's Brook

The original deadline for the Town to design improvements to remove non-stormwater discharges to the MS4 within areas not tributary to Stacey's Brook was April 1, 2019. On November 29, 2018, the Town Administrator, Sean R. Fitzgerald, submitted a written request to Neil Handler for the US EPA to provide written approval to extend the schedule presented in Paragraph 19 of the Town's Consent Decree to April 1, 2020. US EPA approved this schedule extension request in a letter dated February 20, 2019 (See Attachment B).

In May of 2019, Kleinfelder and the Town began planning an IDDE program to inform a design to remove non-stormwater discharges to the MS4 within areas not tributary to Stacey's Brook. On July 16, 2019, Dan Scott of Kleinfelder submitted to Neil Handler, a memorandum outlining the specific details of the IDDE program. This memorandum is a detailed follow up to the September 29, 2017 memorandum from Kleinfelder to Neil Handler required by paragraph 18 of the Consent Decree.

The IDDE program consists of sewer, drain and underdrain investigations, water quality testing of drain manholes/outfalls, targeted drain manhole inspections and stormwater quality testing, smoke testing of the drainage system, building inspections/dye testing, and CCTV of sewer and drain mainline CCTV. As of July 31, 2019, Kleinfelder completed the sewer, drain and underdrain investigations and began the water quality testing of drain manholes/outfalls.

The following is the anticipated schedule for completing the requirements of paragraph 19 of the Consent Decree:

- Complete IDDE Field Work – September 2019
- Start final design – Winter 2019
- Submit final design to EPA – Prior to April 1, 2020



Tracking Data Tables:

In accordance with Paragraph 33 of the Consent Decree, a series of tracking tables are presented furnishing the information requested.

- a) Chronology of SSO Events Occurring during Reporting Period
- b) Catchment Area Inspections completed during Reporting Period
- c) Percentage of Catchment Area Investigated and Addressed
- d) Listing of Illicit Discharges Verified during Reporting Period
 - i) Illicit Connections
 - ii) Sanitary Sewer Defects
- e) Map of Location of Each Illicit Discharge Verified during Reporting Period
- f) Chart of Inspections Completed and Enforcement Actions Taken during Reporting Period
- g) List of Plans, Reports and other Submissions Required by this Consent Decree made during the Reporting Period
- h) Copies of Sampling Results Received during Reporting Period
- i) Planned Activities during the 6 Months Following the Reporting Period
- j) Summary of Non-Compliance with this Consent Decree during the Reporting Period



a) Chronology of SSO Events Occurring during Reporting Period

Paragraph # -->

i.	i.	x.	ii.	iii.	iii.	iii.	iv.	iv.	v.	vi.	vii.	vii.	viii.	ix.	ix.	xi.	xii.
Date/Time Reported	Date/Time Event Stopped	Date Reported to EPA and DEP	Location	Final Disposition	Property Backup (address)	Receiving Drainage Structure	Receiving Surface Water	Location Release Reached Surface Water	Source of Notification	Cause(s) of Release	Cause = Blockage	Cause = Capacity Issue	Measures Taken to Stop Discharge	Volume of Release (Gallons)	Basis of Estimate	Measures Taken to Prevent Future SSOs	Date of Last SSO at this Location
No SSOs were reported during this period																	

xiii. GIS Map Locating each Illicit Discharge and SSO Event
 No illicit discharges or SSO events were reported during this reporting period and therefore, a GIS map is not provided.



b) Catchment Area Inspections completed during Reporting Period
c) Percentage of Catchment Area Investigated and Addressed

Note that this reporting is in relation to meeting the Remedial Measures stipulated in Section VII of the consent decree. In order to meet the objectives of the consent decree, the Town's scope of work is not specifically following an IDDE Plan, but rather, is directly following the Remedial Measures themselves, and the Scope of Work for the Stacey's Brook drainage area that was submitted to the EPA on 10/26/2015.

33.b.i, ii	Sub-Catchment Area ID	Number of Drain Manholes in Sub-Catchment	Number of Drain Manholes Inspected						Number of Drain Manholes Addressed					
			Previous Reporting Periods		This Reporting Period		To-Date		Previous Reporting Periods		This Reporting Period		To-Date	
			QTY	%	QTY	%	QTY	%	QTY	%	QTY	%	QTY	%
1	Stacey's Brook	236	21	9%	0	0%	21	9%	6	3%	0	0%	6	3%
2	Other	372	47	13%	22	6%	69	19%	0	0%	0	0	0	0
		TOTAL	68		0		68		6		0		6	

33.b.iii, 33.c	Sub-Catchment Area ID	Length of Drain in Sub-Catchment	Length of Drain Inspected						Length of Drain Addressed					
			Previous Reporting Periods		This Reporting Period		To-Date		Previous Reporting Periods		This Reporting Period		To-Date	
			FT	%	FT	%	FT	%	FT	%	FT	%	FT	%
1	Stacey's Brook	55,600	21,000	38%	0	0%	21,000	38%	650	1%	0	0%	650	1%
2	Other	95,000	0	0	0	0	0	0	0	0%	0	0	0	0
		TOTAL	21,000		0		21,000		650		0		650	



d) Listing of Illicit Discharges Verified during Reporting Period

									Total Volume Removed (Gallons)								
									Prior Reporting Periods	181,416							
									Reporting Period	Not quantified							
									Cumulative To Date	181,416							
Discharge Type	Date Verified	Location / Address	SOURCE: Building Type	SOURCE: Sewer Exfiltration	Estimated Flow (GPM)	Actions Taken to Remove	Date Removed	Cost to Remove	Volume Removed (Reporting Period)	Actively Discharging > 60 Days	Explanation	Schedule for Removal	Private Discharges Persisting > 90 days	Town's Legal Enforcement Actions	Reasons for Delay		
Paragraph->	i.	i.	i.	i.	ii.	iii.	iv.	v.	vi.	vii.	vii.	viii.	ix.	ix.	x.		
Sewer Defect	2/6/2019	7 Rockland Street	Residential	Sewer Service Repair	not estimated	Private contractor performed repair	2/6/2019	unknown	unknown	No	n/a	completed	No	None	n/a		
Sewer Defect	2/19/2019	64 Franklin Ave	Residential	Sewer Service Repair	not estimated	Private contractor performed repair	2/25/2019	unknown	unknown	No	n/a	completed	No	None	n/a		
Sewer Defect	5/1/2019	20 Nichols Street	Residential	Sewer Service Repair	not estimated	Private contractor performed repair	5/1/2019	unknown	unknown	No	n/a	completed	No	None	n/a		
Sewer Defect	7/2/2019	27 Lewis Road	Residential	Sewer Service Repair	not estimated	Private contractor performed repair	7/2/2019	unknown	unknown	No	n/a	completed	No	None	n/a		



e) Map of Location of Each Illicit Discharge Verified during Reporting Period

Illicit discharges reported in Section d) are illustrated on the map in Attachment C.

f) Chart of Inspections Completed and Enforcement Actions Taken during Reporting Period

Number of Routine Inspections	Number of Complaint-Response Related Inspections	Number of Total Construction Inspections
308	3	5

Enforcement Actions Taken (Type)	Enforcement Actions Taken (Number)
Notifications to Property Owner	0
Entry To Perform Duties	0
Penalty (Fines)	0
Orders	0
Civil Relief	0
Town Resolved using own means (no enforcement)	0



g) List of Plans, Reports and other Submissions Required by this Consent Decree made during the Reporting Period

Submission Description	Date Completed	Consent Decree Paragraph Reference
Bi-Annual Progress Report	3/1/2019	33

h) Copies of Sampling Results Received during Reporting Period

Stormwater water quality sampling from the Phase 1B project area and the ABSB project area are provided in Attachment D.

i) Planned Activities during the 6 Months Following the Reporting Period

During the period August 1, 2019 through January 31, 2020 the following activities are anticipated:

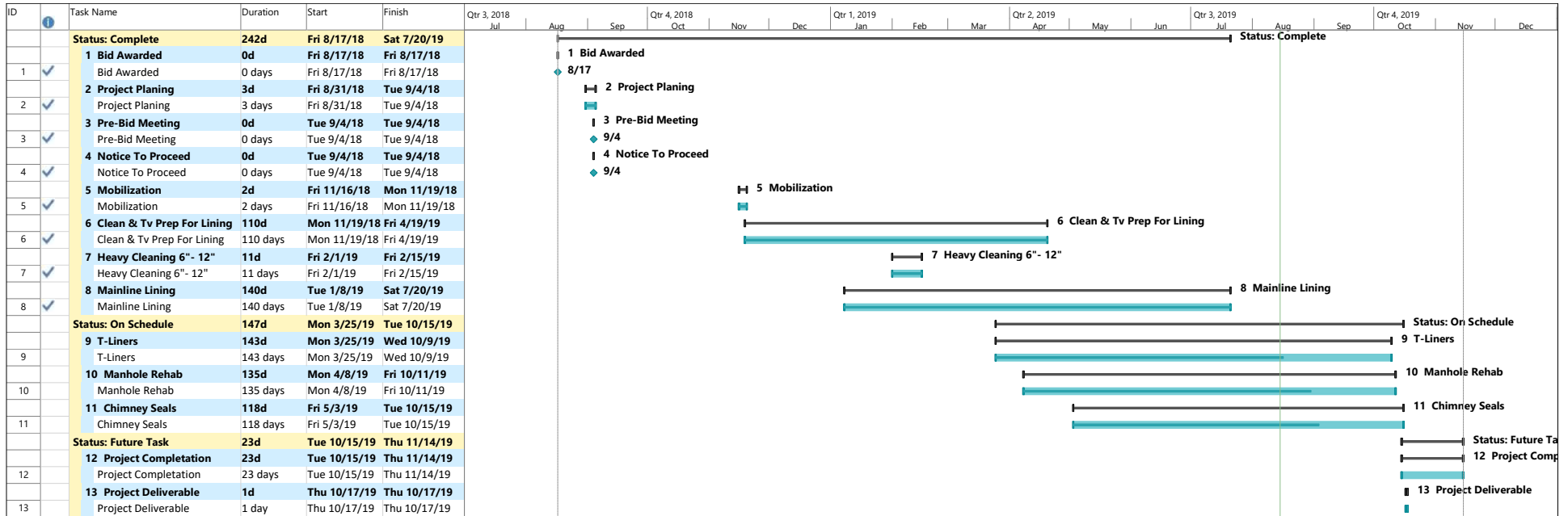
- Complete the construction of Phase 1B improvements. The Contractor has until October 2019 to complete the construction of the Phase 1B Contract.
- Complete post construction Phase 1B wet weather and dry weather water quality sampling for enterococcus concentrations to evaluate measurable changes in stormwater water quality to baseline data in the Stacey’s Book drainage catchment.
- Complete the IDDE in areas outside of Stacey’s Brook to inform the design required by Paragraph 19 of the Town’s Consent Decree. The findings of the IDDE program will be summarized in a preliminary design report.

The final design will be submitted to the EPA during the February 1, 2020 – July 31, 2020 report

j) Summary of Non-Compliance with this Consent Decree during the Reporting Period

There has been no non-compliance during this report period.

Attachment A
Stacey's Brook Phase 1B
Schedule



Project: Project Schedule
Date: Thu 8/15/19



Swampscott Stacey's Brook Sewer System Rehabilitation Project

Phase 1B

Attachment B
EPA Letter to the Town



U.S. Department of Justice

Andrew E. Lelling
United States Attorney
District of Massachusetts

Main Reception: (617) 748-3100

John Joseph Moakley United States Courthouse
1 Courthouse Way
Suite 9200
Boston, Massachusetts 02210

February 20, 2019

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Sean R. Fitzgerald, Town Administrator
The Town of Swampscott
22 Monument Avenue
Swampscott, MA 01907

Re: Request by the Town of Swampscott to Modify the Schedule Relating to Paragraph 19 in the Consent Decree entered into between the United States of America and the Town of Swampscott (Case 1:15-cv-13388-DJC)

Dear Mr. Fitzgerald:

The Environmental Protection Agency ("EPA") is in receipt of your letter dated November 29, 2018, requesting an extension to the deadline for completing Paragraph 19 of the 2015 Consent Decree entered into between the United States of America and the Town of Swampscott ("CD").

Paragraph 19 requires the Town of Swampscott (the "Town") to complete the design of infrastructure improvements necessary to eliminate non-stormwater flows from the Town's storm drain system in areas outside of the Stacey Brook stormwater catchment area by April 1, 2019. The Town has requested additional time to complete this task in order to focus its efforts and resources on completing the Phase 1 Sewer Rehabilitation project. Work under the Phase 1 Sewer Rehabilitation project will begin in early 2019 and will include the lining of portions of the wastewater collection system in the Stacey Brook stormwater catchment area. The Stacey Brook area is known to contain high levels of bacteria and other pollutants in the stormwater being discharged through the King's Beach outfall into the Nahant or Massachusetts Bay.

Mr. Sean R. Fitzgerald
Town Administrator
Page Two
February 20, 2019

By this letter, EPA is approving an extension of the deadline for completing the work described in Paragraph 19 until April 1, 2020, pursuant to Section XIX of the CD. Please feel free to contact Neil Handler of the EPA at (617) 918-1334 if you have any questions, or the undersigned at (617) 748-3103.

Sincerely,

Susan M. Poswistilo

Susan M. Poswistilo
Assistant U.S. Attorney

by ejs

cc: Gino Cresta, Town of Swampscott
Jeff Kopf, EPA (electronic copy)
Neil Handler, EPA (electronic copy)

Attachment C
Stormwater Water Quality
Testing Results

Stacey's Brook Water Quality Testing
3/27/19

REPORT

Lab. ID #: 88675
Report Date: 4/2/19
Total Pages: 2

 Attn: Mr. David Peterson
 Kleinfelder
 One Beacon St., Suite 8100
 Boston, MA 02108

Sample Received Date/Time:	3/27/19, 2:05 PM
Sample Received Temperature:	N/A
Sample Collected By:	N.A. (Client)
Sample Analyzed Date/Time:	3/27/19, 3:20 PM
Sample Analyzed By:	M-MA-1100
Sample Identification:	Five (5) water samples labeled:
	1) KLF1 (Collected Date/Time: 3/27/19, 10:31 AM)
	2) KLF2 (Collected Date/Time: 3/27/19, 11:05 AM)
	3) KLF3 (Collected Date/Time: 3/27/19, 11:38 AM)
	4) KLF4 (Collected Date/Time: 3/27/19, 11:59 AM)
	5) KLF5 (Collected Date/Time: 3/27/19, 12:28 PM)

TEST RESULTS:

<u>Sample #</u>	<u>Enterococci</u> (CFU/100mL)
1.	130
2.	3100
3.	50
4.	1000
5.	130

Method Reference
EPA 1600, 2006

MCL: Maximum Contaminant Level

Mod: Modified Method

*: Exceed MCL

†: Analyzed by Sub. Partner

‡: Not in a scope of M-MA-1100

Mass. Cert. No.: M-MA-1100

cc: Eddison Minotta, Peer Consultants

 Report reviewed
 and approved by:


 4/2/19

Lab. Director

Signed Date

ABSB Dry Weather Testing - Day 1 - 7/9/19

Morning Results



ANALYTICAL REPORT

Lab Number:	L1929630
Client:	Kleinfelder One Beacon Street Suite 8100 Boston, MA 02108
ATTN:	Dan Scott
Phone:	(617) 498-4722
Project Name:	Not Specified
Project Number:	Not Specified
Report Date:	07/11/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1929630
Report Date: 07/11/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1929630-01	KLF-2AB-ABSB	WATER	Not Specified	07/09/19 09:04	07/09/19
L1929630-02	KLF-3AB-ABSB	WATER	Not Specified	07/09/19 10:36	07/09/19
L1929630-03	KLF-4AB-ABSB	WATER	Not Specified	07/09/19 11:14	07/09/19
L1929630-04	KLF-5AB-ABSB	WATER	Not Specified	07/09/19 11:40	07/09/19

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1929630
Report Date: 07/11/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1929630
Report Date: 07/11/19

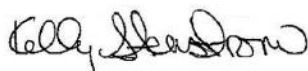
Case Narrative (continued)

Enterococcus

L1929630-03: The result is estimated due to the elevated concentration in the sample. Due to the expiration of the method required holding time, re-analysis could not be performed.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/11/19

INORGANICS & MISCELLANEOUS

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1929630
Report Date: 07/11/19

SAMPLE RESULTS

Lab ID: L1929630-01
 Client ID: KLF-2AB-ABSB
 Sample Location: Not Specified

Date Collected: 07/09/19 09:04
 Date Received: 07/09/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	5200		col/100ml	100	--	100	-	07/09/19 16:35	23,1600	AJ

Disregard Results -
 Sample Taken from
 a Catchbasin



Project Name: Not Specified

Lab Number: L1929630

Project Number: Not Specified

Report Date: 07/11/19

SAMPLE RESULTS

Lab ID: L1929630-02

Date Collected: 07/09/19 10:36

Client ID: KLF-3AB-ABSB

Date Received: 07/09/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	3200		col/100ml	100	--	100	-	07/09/19 16:35	23,1600	AJ



Project Name: Not Specified

Lab Number: L1929630

Project Number: Not Specified

Report Date: 07/11/19

SAMPLE RESULTS

Lab ID: L1929630-03

Date Collected: 07/09/19 11:14

Client ID: KLF-4AB-ABSB

Date Received: 07/09/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	78000		col/100ml	100	--	100	-	07/09/19 16:35	23,1600	AJ



Project Name: Not Specified

Lab Number: L1929630

Project Number: Not Specified

Report Date: 07/11/19

SAMPLE RESULTS

Lab ID: L1929630-04

Date Collected: 07/09/19 11:40

Client ID: KLF-5AB-ABSB

Date Received: 07/09/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	180		col/100ml	2.0	--	2	-	07/09/19 16:35	23,1600	AJ



Project Name:

Lab Number: L1929630

Project Number: Not Specified

Report Date: 07/11/19

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab for sample(s): 01-04 Batch: WG1257713-1									
ENTEROCOCCUS	ND	col/100ml	1.0	--	1	-	07/09/19 16:35	23,1600	AJ

Project Name: Not Specified

Project Number: Not Specified

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1929630-01A	Bacteria Cup Na2S2O3 preserved	A	NA		3.5	Y	Absent		ENTRO-MF(.33)
L1929630-01B	Bacteria Cup Na2S2O3 preserved	A	NA		3.5	Y	Absent		ENTRO-MF(.33)
L1929630-02A	Bacteria Cup Na2S2O3 preserved	A	NA		3.5	Y	Absent		ENTRO-MF(.33)
L1929630-02B	Bacteria Cup Na2S2O3 preserved	A	NA		3.5	Y	Absent		ENTRO-MF(.33)
L1929630-03A	Bacteria Cup Na2S2O3 preserved	A	NA		3.5	Y	Absent		ENTRO-MF(.33)
L1929630-03B	Bacteria Cup Na2S2O3 preserved	A	NA		3.5	Y	Absent		ENTRO-MF(.33)
L1929630-04A	Bacteria Cup Na2S2O3 preserved	A	NA		3.5	Y	Absent		ENTRO-MF(.33)
L1929630-04B	Bacteria Cup Na2S2O3 preserved	A	NA		3.5	Y	Absent		ENTRO-MF(.33)

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1929630
Report Date: 07/11/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1929630
Report Date: 07/11/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1.8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1929630
Report Date: 07/11/19

REFERENCES

- 23 Method 1600: Membrane Filter Test Method for Enterococci in Water, EPA-821-R-97-004a, May 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE _____ OF _____

Date Rec'd in Lab: 7/9/19

ALPHA Job #: L192962

8 Walkup Drive
Westboro, MA 01561
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name:

Project Location:

Project #:

Project Manager:

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Report Information - Data Deliverables

ADEx EMAIL

Billing Information

Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program _____ Criteria _____

Client Information

Client: Klein Felder

Address:

Phone:

Email:

Additional Project Information:

ANALYSIS	VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> MCP 15	EPH: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	PCB: <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do	TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
29630-01	KLF-2A-ABSB	7/9/19	9:04		DJ
-02	KLF-2B-ABSB	7/9/19	9:04		DJ
-0203	KLF-3A-ABSB	7/9/19	10:36		DJ
-04	KLF-3B-ABSB	7/9/19	10:36		DJ
CP-0505	KLF-4A-ABSB	7/9/19	11:14		DJ
	KLF-4B-ABSB	7/9/19	11:14		DJ
-04	KLF-5A-ABSB	7/9/19	11:44		DJ
	KLF-5B-ABSB	7/9/19	11:44		DJ

Container Type

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₅
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type

Preservative

Relinquished By:

[Signature]
T. Handley

Date/Time

7/9/19 11:40
7/9/19 12:10

Received By:

[Signature]
AAC
KAL

Date/Time

7/9/19 11:40
7/9/19 12:10

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ABSB Dry Weather Testing - Day 1 - 7/9/19
Afternoon Results



ANALYTICAL REPORT

Lab Number:	L1929802
Client:	Kleinfelder One Beacon Street Suite 8100 Boston, MA 02108
ATTN:	Dan Scott
Phone:	(617) 498-4722
Project Name:	SWAMPSCOTT-ABSB
Project Number:	Not Specified
Report Date:	07/12/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1929802
Report Date: 07/12/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1929802-01	KLF-6-ABSB	WATER	SWAMPSCOTT, MA	07/09/19 13:18	07/09/19
L1929802-02	KLF-7-ABSB	WATER	SWAMPSCOTT, MA	07/09/19 13:44	07/09/19
L1929802-03	KLF-8-ABSB	WATER	SWAMPSCOTT, MA	07/09/19 15:35	07/09/19
L1929802-04	KLF-1-ABSB	WATER	SWAMPSCOTT, MA	07/09/19 14:36	07/09/19

Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1929802
Report Date: 07/12/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.


Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/12/19

INORGANICS & MISCELLANEOUS

Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1929802
Report Date: 07/12/19

SAMPLE RESULTS

Lab ID: L1929802-01
Client ID: KLF-6-ABSB
Sample Location: SWAMPSCOTT, MA

Date Collected: 07/09/19 13:18
Date Received: 07/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	26000		col/100ml	100		100		07/09/19 19:30	23,1600	AJ

**Disregard Results -
Sample Taken from
a Catchbasin**



Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1929802
Report Date: 07/12/19

SAMPLE RESULTS

Lab ID: L1929802-02
Client ID: KLF-7-ABSB
Sample Location: SWAMPSCOTT, MA

Date Collected: 07/09/19 13:44
Date Received: 07/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	370		col/100ml	10	--	10	-	07/09/19 19:30	23,1600	AJ



Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1929802
Report Date: 07/12/19

SAMPLE RESULTS

Lab ID: L1929802-03
Client ID: KLF-8-ABSB
Sample Location: SWAMPSCOTT, MA

Date Collected: 07/09/19 15:35
Date Received: 07/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	9400		col/100ml	100		100		07/09/19 19:30	23,1600	AJ

Disregard Results -
 Sample Taken from
 a Catchbasin



Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1929802
Report Date: 07/12/19

SAMPLE RESULTS

Lab ID: L1929802-04
Client ID: KLF-1-ABSB
Sample Location: SWAMPSCOTT, MA

Date Collected: 07/09/19 14:36
Date Received: 07/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	330		col/100ml	10	--	10	-	07/09/19 19:30	23,1600	AJ



Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1929802
Report Date: 07/12/19

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab for sample(s): 01-04 Batch: WG1257770-1									
ENTEROCOCCUS	ND	col/100ml	1.0	--	1	-	07/09/19 19:30	23,1600	AJ

Project Name: SWAMPSCOTT-ABSB**Lab Number:** L1929802**Project Number:** Not Specified**Report Date:** 07/12/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1929802-01A	Bacteria Cup Na2S2O3 preserved	A	NA		3.6	Y	Absent		ENTRO-MF(.33)
L1929802-01B	Bacteria Cup Na2S2O3 preserved	A	NA		3.6	Y	Absent		ENTRO-MF(.33)
L1929802-02A	Bacteria Cup Na2S2O3 preserved	A	NA		3.6	Y	Absent		ENTRO-MF(.33)
L1929802-02B	Bacteria Cup Na2S2O3 preserved	A	NA		3.6	Y	Absent		ENTRO-MF(.33)
L1929802-03A	Bacteria Cup Na2S2O3 preserved	A	NA		3.6	Y	Absent		ENTRO-MF(.33)
L1929802-03B	Bacteria Cup Na2S2O3 preserved	A	NA		3.6	Y	Absent		ENTRO-MF(.33)
L1929802-04A	Bacteria Cup Na2S2O3 preserved	A	NA		3.6	Y	Absent		ENTRO-MF(.33)
L1929802-04B	Bacteria Cup Na2S2O3 preserved	A	NA		3.6	Y	Absent		ENTRO-MF(.33)

Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1929802
Report Date: 07/12/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: SWAMPSCOTT-ABSB**Lab Number:** L1929802**Project Number:** Not Specified**Report Date:** 07/12/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1.8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1929802
Report Date: 07/12/19

REFERENCES

- 23 Method 1600: Membrane Filter Test Method for Enterococci in Water, EPA-821-R-97-004a, May 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE _____ OF _____

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Date Rec'd in Lab: 7/9/19

ALPHA Job #: L19 29802

Client Information

Client: Klein Felder
Address: one Beacon St
Boston, MA
Phone: 857-266-4365
Email: DScott@Kleinfelder.com

Project Information

Project Name: Swampscott - ABSB
Project Location: Swampscott, MA
Project #: _____
Project Manager: Dan Scott
ALPHA Quote #: _____

Report Information - Data Deliverables

ADEX EMAIL

Billing Information

Same as Client info PO #: _____

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program _____ Criteria _____

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due: N/A

Additional Project Information:

ANALYSIS		SAMPLE INFO	
VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 924.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	Filtration	<input type="checkbox"/> Field <input type="checkbox"/> Lab to do
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8	Preservation	<input type="checkbox"/> Lab to do
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
PCB: <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		
<u>Enterro.</u>			

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	Sample Comments	TOTAL # BOTTLES
		Date	Time				
<u>29802-01</u>	<u>KLF-6 - ABSB</u>	<u>7/9/19</u>	<u>1:18</u>		<u>DFS</u>		<u>2</u>
<u>02</u>	<u>KLF-7 - ABSB</u>	<u>7/9/19</u>	<u>1:44</u>		<u>DFS</u>		<u>2</u>
<u>03</u>	<u>KLF-8 - ABSB</u>	<u>7/9/19</u>	<u>3:35</u>		<u>DFS</u>		<u>2</u>
<u>04</u>	<u>KLF-1 - ABSB</u>	<u>7/9/19</u>	<u>2:36</u>		<u>DFS</u>		<u>2</u>

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type	
Preservative	<u>✓</u>

Relinquished By: <u>[Signature]</u>	Date/Time <u>7/9/19 16:10</u>	Received By: <u>[Signature]</u>	Date/Time <u>7/9/19 16:10</u>
	<u>7/9/19 18:25</u>		<u>7/9/19 18:25</u>

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.
FORM NO: 01-01 (rev. 12-Mar-2012)

ABSB Dry Weather Testing - Day 2 - 7/16/19
Morning Testing and Stacey's Brook Sampling



ANALYTICAL REPORT

Lab Number:	L1931096
Client:	Kleinfelder One Beacon Street Suite 8100 Boston, MA 02108
ATTN:	Dan Scott
Phone:	(617) 498-4722
Project Name:	SWAMPSCOTT-ABSB
Project Number:	Not Specified
Report Date:	07/22/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1931096
Report Date: 07/22/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1931096-01	KLF-03-ABSB	WATER	Not Specified	07/16/19 11:12	07/16/19
L1931096-02	KLF-04-ABSB	WATER	Not Specified	07/16/19 07:09	07/16/19
L1931096-03	KLF-01-ABSB	WATER	Not Specified	07/16/19 08:39	07/16/19
L1931096-04	KLF-05-ABSB	WATER	Not Specified	07/16/19 11:47	07/16/19
L1931096-05	KLF-01-SB	WATER	Not Specified	07/16/19 09:14	07/16/19
L1931096-06	KLF-02-SB	WATER	Not Specified	07/16/19 08:25	07/16/19
L1931096-07	KLF-04-SB	WATER	Not Specified	07/16/19 09:39	07/16/19
L1931096-08	KLF-05-SB	WATER	Not Specified	07/16/19 10:11	07/16/19

Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1931096
Report Date: 07/22/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.


Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/22/19

INORGANICS & MISCELLANEOUS

Project Name: SWAMPSCOTT-ABSB**Lab Number:** L1931096**Project Number:** Not Specified**Report Date:** 07/22/19**SAMPLE RESULTS**

Lab ID: L1931096-01

Date Collected: 07/16/19 11:12

Client ID: KLF-03-ABSB

Date Received: 07/16/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	20000		col/100ml	100	--	100	-	07/16/19 15:50	23,1600	AJ



Project Name: SWAMPSCOTT-ABSB**Lab Number:** L1931096**Project Number:** Not Specified**Report Date:** 07/22/19**SAMPLE RESULTS**

Lab ID: L1931096-02

Date Collected: 07/16/19 07:09

Client ID: KLF-04-ABSB

Date Received: 07/16/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	54000		col/100ml	100	--	100	-	07/16/19 14:55	23,1600	AJ



Project Name: SWAMPSCOTT-ABSB**Lab Number:** L1931096**Project Number:** Not Specified**Report Date:** 07/22/19**SAMPLE RESULTS**

Lab ID: L1931096-03

Date Collected: 07/16/19 08:39

Client ID: KLF-01-ABSB

Date Received: 07/16/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	34		col/100ml	2.0	--	2	-	07/16/19 15:50	23,1600	AJ



Project Name: SWAMPSCOTT-ABSB**Lab Number:** L1931096**Project Number:** Not Specified**Report Date:** 07/22/19**SAMPLE RESULTS**

Lab ID: L1931096-04

Date Collected: 07/16/19 11:47

Client ID: KLF-05-ABSB

Date Received: 07/16/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	210		col/100ml	10	--	10	-	07/16/19 15:50	23,1600	AJ



Project Name: SWAMPSCOTT-ABSB

Lab Number: L1931096

Project Number: Not Specified

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1931096-05

Date Collected: 07/16/19 09:14

Client ID: KLF-01-SB

Date Received: 07/16/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	14000		col/100ml	100	--	100	-	07/16/19 15:50	23,1600	AJ



Project Name: SWAMPSCOTT-ABSB

Lab Number: L1931096

Project Number: Not Specified

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1931096-06

Date Collected: 07/16/19 08:25

Client ID: KLF-02-SB

Date Received: 07/16/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	28		col/100ml	2.0	--	2	-	07/16/19 15:50	23,1600	AJ



Project Name: SWAMPSCOTT-ABSB**Lab Number:** L1931096**Project Number:** Not Specified**Report Date:** 07/22/19**SAMPLE RESULTS**

Lab ID: L1931096-07

Date Collected: 07/16/19 09:39

Client ID: KLF-04-SB

Date Received: 07/16/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	12000		col/100ml	100	--	100	-	07/16/19 15:50	23,1600	AJ



Project Name: SWAMPSCOTT-ABSB

Lab Number: L1931096

Project Number: Not Specified

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1931096-08

Date Collected: 07/16/19 10:11

Client ID: KLF-05-SB

Date Received: 07/16/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	150000		col/100ml	100	--	100	-	07/16/19 15:50	23,1600	AJ



Project Name: SWAMPSCOTT-ABSB

Lab Number: L1931096

Project Number: Not Specified

Report Date: 07/22/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab for sample(s): 02 Batch: WG1260567-1										
ENTEROCOCCUS	ND		col/100ml	1.0	--	1	-	07/16/19 14:55	23,1600	AJ
Microbiological Analysis - Westborough Lab for sample(s): 01,03-08 Batch: WG1260569-1										
ENTEROCOCCUS	ND		col/100ml	1.0	--	1	-	07/16/19 15:50	23,1600	AJ

Project Name: SWAMPSCOTT-ABSB**Lab Number:** L1931096**Project Number:** Not Specified**Report Date:** 07/22/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1931096-01A	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-01B	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-02A	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-02B	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-03A	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-03B	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-04A	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-04B	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-05A	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-05B	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-06A	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-06B	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-07A	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-07B	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-08A	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)
L1931096-08B	Bacteria Cup Na2S2O3 preserved	A	NA		4.2	Y	Absent		ENTRO-MF(.33)

Project Name: SWAMPSCOTT-ABSB
Project Number: Not Specified

Lab Number: L1931096
Report Date: 07/22/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: SWAMPSCOTT-ABSB**Lab Number:** L1931096**Project Number:** Not Specified**Report Date:** 07/22/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1.8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name: SWAMPSCOTT-ABS
Project Number: Not Specified

Lab Number: L1931096
Report Date: 07/22/19

REFERENCES

- 23 Method 1600: Membrane Filter Test Method for Enterococci in Water, EPA-821-R-97-004a, May 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE _____ OF _____

Date Rec'd in Lab: 7/16/19

ALPHA Job #: L1931096

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name:
Project Location:
Project #:
Project Manager:
ALPHA Quote #:

Report Information - Data Deliverables

ADEx EMAIL

Billing Information

Same as Client info PO #:

Client Information

Client:
Address:
Phone:
Email:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved!)
Date Due:

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program _____ Criteria _____

Additional Project Information:

ANALYSIS	VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SAMPLE INFO
	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> MCP 15	Filtration	
METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PPT3	<input type="checkbox"/> Field	
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> Lab to do	
VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	Preservation	
<input type="checkbox"/> PCB <input type="checkbox"/> PEST	<input type="checkbox"/> Lab to do	
TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		
Enterococcus		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
31096 - 01	KLF-03-ABSB	7/16/19	11:12		DJ
02	KLF-04-ABSB	7/16/19	7:09		DJ
03	KLF-01-ABSB	7/16/19	8:39		DJ
04	KLF-05-ABSB	7/16/19	11:47		DJ
05	KLF-01-SB	7/16/19	9:14		DJ
06	KLF-02-SB	7/16/19	8:25		DJ
	KLF-03-1				
07	KLF-04-SB	7/16/19	9:39		DJ
08	KLF-05-SB	7/16/19	10:11		DJ

TOTAL # BOTTLES

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type
Preservative

Relinquished By: <i>T. Hinchelle</i>	Date/Time 7/16/19 11:55	Received By: <i>T. Hinchelle</i>	Date/Time 7/16/19 11:55
	7/16/19 1340		7/16/19 1340

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.
FORM NO: 01-01 (rev. 12-Mar-2012)

ABSB Dry Weather Testing - Day 2 - 7/16/19
Afternoon Testing



ANALYTICAL REPORT

Lab Number:	L1931201
Client:	Kleinfelder One Beacon Street Suite 8100 Boston, MA 02108
ATTN:	Dan Scott
Phone:	(617) 498-4722
Project Name:	SWAMPSCOTT ABSB
Project Number:	Not Specified
Report Date:	07/22/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: SWAMPSCOTT ABSB
Project Number: Not Specified

Lab Number: L1931201
Report Date: 07/22/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1931201-01	KLF-06-ABSB	WATER	Not Specified	07/16/19 13:09	07/16/19
L1931201-02	KLF-07-ABSB	WATER	Not Specified	07/16/19 13:40	07/16/19
L1931201-03	KLF-08-ABSB	WATER	Not Specified	07/16/19 15:04	07/16/19
L1931201-04	KLF-09-ABSB	WATER	Not Specified	07/16/19 15:12	07/16/19
L1931201-05	KLF-02-ABSB	WATER	Not Specified	07/16/19 14:38	07/16/19

Project Name: SWAMPSCOTT ABSB
Project Number: Not Specified

Lab Number: L1931201
Report Date: 07/22/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.


Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/22/19

INORGANICS & MISCELLANEOUS

Project Name: SWAMPSCOTT ABSB
Project Number: Not Specified

Lab Number: L1931201
Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1931201-01
Client ID: KLF-06-ABSB
Sample Location: Not Specified

Date Collected: 07/16/19 13:09
Date Received: 07/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	15000		col/100ml	100		100		07/16/19 19:40	23,1600	AJ

Disregard Results -
 Sample Taken from
 a Catchbasin



Project Name: SWAMPSCOTT ABSB
Project Number: Not Specified

Lab Number: L1931201
Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1931201-02
Client ID: KLF-07-ABSB
Sample Location: Not Specified

Date Collected: 07/16/19 13:40
Date Received: 07/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	3500		col/100ml	100	--	100	-	07/16/19 19:40	23,1600	AJ



Project Name: SWAMPSCOTT ABSB

Project Number: Not Specified

Lab Number: L1931201

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1931201-03

Client ID: KLF-08-ABSB

Sample Location: Not Specified

Date Collected: 07/16/19 15:04

Date Received: 07/16/19

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	540		col/100ml	10	--	10	-	07/16/19 19:40	23,1600	AJ

Disregard Results -
Sample Taken from
a Catchbasin



Project Name: SWAMPSCOTT ABSB
Project Number: Not Specified

Lab Number: L1931201
Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1931201-04
Client ID: KLF-09-ABSB
Sample Location: Not Specified

Date Collected: 07/16/19 15:12
Date Received: 07/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	660		col/100ml	9.0	--	9	-	07/16/19 19:40	23,1600	AJ



Project Name: SWAMPSCOTT ABSB
Project Number: Not Specified

Lab Number: L1931201
Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1931201-05
Client ID: KLF-02-ABSB
Sample Location: Not Specified

Date Collected: 07/16/19 14:38
Date Received: 07/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	8000		col/100ml	100		100		07/16/19 19:40	23,1600	AJ

Disregard Results -
 Sample Taken from
 a Catchbasin



Project Name: SWAMPSCOTT ABSB
Project Number: Not Specified

Lab Number: L1931201
Report Date: 07/22/19

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab for sample(s): 01-05 Batch: WG1260641-1									
ENTEROCOCCUS	ND	col/100ml	1.0	--	1	-	07/16/19 19:40	23,1600	AJ

Project Name: SWAMPSCOTT ABSB**Lab Number:** L1931201**Project Number:** Not Specified**Report Date:** 07/22/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1931201-01A	Bacteria Cup Na2S2O3 preserved	A	NA		4.5	Y	Absent		ENTRO-MF(.33)
L1931201-01B	Bacteria Cup Na2S2O3 preserved	A	NA		4.5	Y	Absent		ENTRO-MF(.33)
L1931201-02A	Bacteria Cup Na2S2O3 preserved	A	NA		4.5	Y	Absent		ENTRO-MF(.33)
L1931201-02B	Bacteria Cup Na2S2O3 preserved	A	NA		4.5	Y	Absent		ENTRO-MF(.33)
L1931201-03A	Bacteria Cup Na2S2O3 preserved	A	NA		4.5	Y	Absent		ENTRO-MF(.33)
L1931201-03B	Bacteria Cup Na2S2O3 preserved	A	NA		4.5	Y	Absent		ENTRO-MF(.33)
L1931201-04A	Bacteria Cup Na2S2O3 preserved	A	NA		4.5	Y	Absent		ENTRO-MF(.33)
L1931201-04B	Bacteria Cup Na2S2O3 preserved	A	NA		4.5	Y	Absent		ENTRO-MF(.33)
L1931201-05A	Bacteria Cup Na2S2O3 preserved	A	NA		4.5	Y	Absent		ENTRO-MF(.33)
L1931201-05B	Bacteria Cup Na2S2O3 preserved	A	NA		4.5	Y	Absent		ENTRO-MF(.33)

Project Name: SWAMPSCOTT ABSB
Project Number: Not Specified

Lab Number: L1931201
Report Date: 07/22/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: SWAMPSCOTT ABSB**Lab Number:** L1931201**Project Number:** Not Specified**Report Date:** 07/22/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1.8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name: SWAMPSCOTT ABSB
Project Number: Not Specified

Lab Number: L1931201
Report Date: 07/22/19

REFERENCES

- 23 Method 1600: Membrane Filter Test Method for Enterococci in Water, EPA-821-R-97-004a, May 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 7/16/19

ALPHA Job #: L1931201

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: Swampscott ABS

Project Location:

Project #:

Project Manager:

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Report Information - Data Deliverables

ADEX EMAIL

Billing Information

Same as Client info PO #:

Client Information

Client: Kleinfelder

Address: 1 Beacon St
Boston, MA

Phone:

Email: djenkins@kleinfelder.com

Additional Project Information:

Regulatory Requirements & Project Information Requirements

- Yes No MA MCP Analytical Methods
- Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
- Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
- Yes No NPDES RGP
- Other State /Fed Program _____ Criteria _____

ANALYSIS		SAMPLE INFO	
VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 824 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	Filtration	<input type="checkbox"/> Field <input type="checkbox"/> Lab to do
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRA8 <input type="checkbox"/> RCRA6	Preservation	<input type="checkbox"/> Lab to do
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
<input type="checkbox"/> PCB <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		
<u>Enterococcus</u>			
Sample Comments		TOTAL # BOTTLES	

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
<u>31201-01</u>	<u>KLF-06-ABSB</u>	<u>7/16/19</u>	<u>1:09</u>		<u>DJ</u>
<u>-02</u>	<u>KLF-07-ABSB</u>	<u>7/16/19</u>	<u>1:40</u>		<u>DJ</u>
<u>-03</u>	<u>KLF-08-ABSB</u>	<u>7/16/19</u>	<u>3:04</u>		<u>DJ</u>
<u>-04</u>	<u>KLF-09-ABSB</u>	<u>7/16/19</u>	<u>3:12</u>		<u>DJ</u>
<u>-05</u>	<u>KLF-02-ABSB</u>	<u>7/16/19</u>	<u>2:38</u>		<u>DJ</u>

Container Type P= Plastic A= Amber glass V= Vial G= Glass B= Bacteria cup C= Cube O= Other E= Encore D= BOD Bottle	Preservative A= None B= HCl C= HNO ₃ D= H ₂ SO ₄ E= NaOH F= MeOH G= NaHSO ₄ H= Na ₂ S ₂ O ₃ I= Ascorbic Acid J= NH ₄ Cl K= Zn Acetate O= Other
--	---

Container Type	
Preservative	

Relinquished By:	Date/Time	Received By:	Date/Time
<u>[Signature]</u>	<u>7/16/19</u>	<u>[Signature]</u>	<u>7-16-19 1537</u>
<u>[Signature]</u>	<u>7-16-19 1836</u>	<u>[Signature]</u>	<u>7/16/19 1836</u>

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.
FORM NO: 01-01 (rev. 12-Mar-2012)

Wet Weather Testing - Day 1 - 7/23/19



ANALYTICAL REPORT

Lab Number:	L1932436
Client:	Kleinfelder One Beacon Street Suite 8100 Boston, MA 02108
ATTN:	Doris Jenkins
Phone:	(617) 497-7800
Project Name:	ABSB
Project Number:	Not Specified
Report Date:	07/30/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1932436-01	KLF-1-ABSB	WATER	SWAMPSCOTT	07/23/19 08:12	07/23/19
L1932436-02	KLF-2-ABSB	WATER	SWAMPSCOTT	07/23/19 08:49	07/23/19
L1932436-03	KLF-3-ABSB	WATER	SWAMPSCOTT	07/23/19 10:50	07/23/19
L1932436-04	KLF-4-ABSB	WATER	SWAMPSCOTT	07/23/19 10:24	07/23/19
L1932436-05	KLF-5-ABSB	WATER	SWAMPSCOTT	07/23/19 11:26	07/23/19
L1932436-06	KLF-6-ABSB	WATER	SWAMPSCOTT	07/23/19 11:50	07/23/19
L1932436-07	KLF-7-ABSB	WATER	SWAMPSCOTT	07/23/19 10:02	07/23/19
L1932436-08	KLF-8-ABSB	WATER	SWAMPSCOTT	07/23/19 09:30	07/23/19

Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.


Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/30/19

INORGANICS & MISCELLANEOUS

Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

SAMPLE RESULTS

Lab ID: L1932436-01
Client ID: KLF-1-ABSB
Sample Location: SWAMPSCOTT

Date Collected: 07/23/19 08:12
Date Received: 07/23/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	19000		col/100ml	100	--	100	-	07/23/19 15:50	23,1600	AJ



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

SAMPLE RESULTS

Lab ID: L1932436-02
Client ID: KLF-2-ABSB
Sample Location: SWAMPSCOTT

Date Collected: 07/23/19 08:49
Date Received: 07/23/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	57000		col/100ml	100	--	100	-	07/23/19 15:50	23,1600	AJ



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

SAMPLE RESULTS

Lab ID: L1932436-03
Client ID: KLF-3-ABSB
Sample Location: SWAMPSCOTT

Date Collected: 07/23/19 10:50
Date Received: 07/23/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	8100		col/100ml	100	--	100	-	07/23/19 15:50	23,1600	AJ



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

SAMPLE RESULTS

Lab ID: L1932436-04
Client ID: KLF-4-ABSB
Sample Location: SWAMPSCOTT

Date Collected: 07/23/19 10:24
Date Received: 07/23/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	12000		col/100ml	100	--	100	-	07/23/19 15:50	23,1600	AJ



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

SAMPLE RESULTS

Lab ID: L1932436-05
 Client ID: KLF-5-ABSB
 Sample Location: SWAMPSCOTT

Date Collected: 07/23/19 11:26
 Date Received: 07/23/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	7800		col/100ml	100	--	100	-	07/23/19 15:50	23,1600	AJ



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

SAMPLE RESULTS

Lab ID: L1932436-06
Client ID: KLF-6-ABSB
Sample Location: SWAMPSCOTT

Date Collected: 07/23/19 11:50
Date Received: 07/23/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	15000		col/100ml	100	--	100	-	07/23/19 15:50	23,1600	AJ



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

SAMPLE RESULTS

Lab ID: L1932436-07
Client ID: KLF-7-ABSB
Sample Location: SWAMPSCOTT

Date Collected: 07/23/19 10:02
Date Received: 07/23/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	15000		col/100ml	100	--	100	-	07/23/19 15:50	23,1600	AJ



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

SAMPLE RESULTS

Lab ID: L1932436-08
Client ID: KLF-8-ABSB
Sample Location: SWAMPSCOTT

Date Collected: 07/23/19 09:30
Date Received: 07/23/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab										
ENTEROCOCCUS	12000		col/100ml	100	--	100	-	07/23/19 15:50	23,1600	AJ



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Microbiological Analysis - Westborough Lab for sample(s): 01-08 Batch: WG1263461-1									
ENTEROCOCCUS	ND	col/100ml	1.0	--	1	-	07/23/19 15:50	23,1600	AJ

Project Name: ABSB**Lab Number:** L1932436**Project Number:** Not Specified**Report Date:** 07/30/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1932436-01A	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-01B	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-02A	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-02B	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-03A	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-03B	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-04A	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-04B	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-05A	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-05B	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-06A	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-06B	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-07A	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-07B	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-08A	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)
L1932436-08B	Bacteria Cup Na2S2O3 preserved	A	NA		4.7	Y	Absent		ENTRO-MF(.33)

Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1.8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name: ABSB
Project Number: Not Specified

Lab Number: L1932436
Report Date: 07/30/19

REFERENCES

- 23 Method 1600: Membrane Filter Test Method for Enterococci in Water, EPA-821-R-97-004a, May 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE _____ OF _____

Date Rec'd in Lab: 7/23/19

ALPHA Job #: L1932436

Client Information
 Client: Kleinfelder
 Address: 1 Beacon St
 Boston, MA
 Phone:
 Email: djenkins@kleinfelder.com

Project Information
 Project Name: ABSB
 Project Location: Swampscott
 Project #:
 Project Manager:
 ALPHA Quote #:

Report Information - Data Deliverables
 ADEx EMAIL
Billing Information
 Same as Client info PO #:

Turn-Around Time
 Standard RUSH (only confirmed if pre-approved)
 Date Due:

Regulatory Requirements & Project Information Requirements
 Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program Criteria

Additional Project Information:

ANALYSIS	VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	EPH: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PPT3	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> PCB <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do	TOTAL # BOTTLES
	Enterococcus						Sample Comments		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
32436-01	KLF-1-ABSB	7/23/19	8:12		DJ
02	KLF-2-ABSB	7/23/19	8:49		DJ
03	KLF-3-ABSB	7/23/19	10:50		DJ
04	KLF-4-ABSB	7/23/19	10:24		DJ
05	KLF-5-ABSB	7/23/19	11:26		DJ
06	KLF-6-ABSB	7/23/19	11:50		DJ
07	KLF-7-ABSB	7/23/19	10:02		DJ
08	KLF-8-ABSB	7/23/19	9:30		DJ

Container Type
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacteria cup
 C= Cube
 O= Other
 E= Encore
 D= BOD Bottle

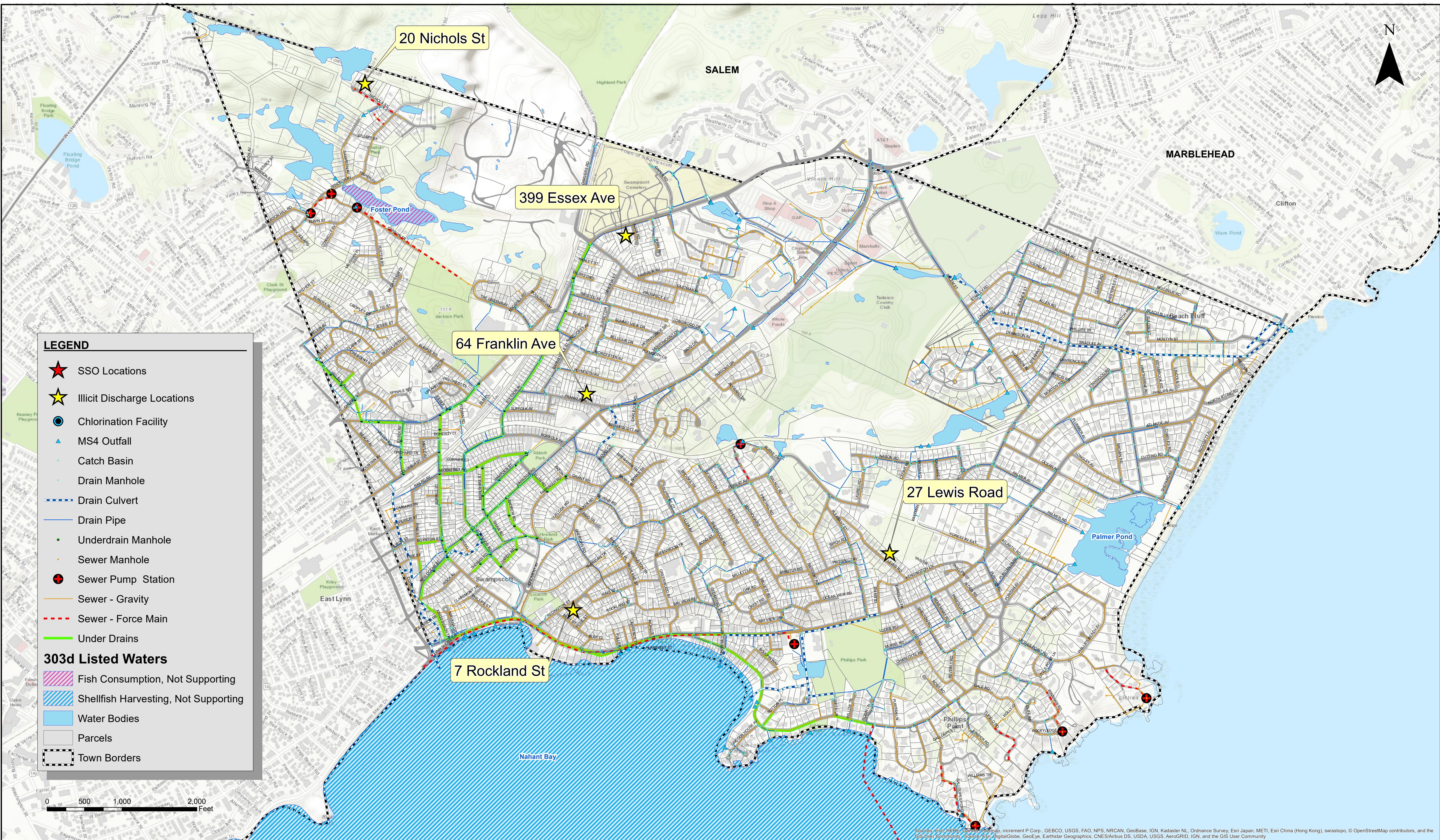
Preservative
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= MeOH
 G= NaHSO₄
 H= Na₂S₂O₈
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

Container Type									
Preservative									

Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i>	7/23/19 13:05	<i>[Signature]</i>	7/23/19 13:05
<i>[Signature]</i>	7/23/19 14:18	<i>[Signature]</i>	7/23/19 14:18

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.
 FORM NO: 01-01 (rev. 12-Mar-2012)

Attachment D
Illicit Discharge and SSO
Overview Map



LEGEND

- ★ SSO Locations
- ★ Illicit Discharge Locations
- Chlorination Facility
- ▲ MS4 Outfall
- Catch Basin
- Drain Manhole
- Drain Culvert
- Drain Pipe
- Underdrain Manhole
- Sewer Manhole
- Sewer Pump Station
- Sewer - Gravity
- Sewer - Force Main
- Under Drains

303d Listed Waters

- ▨ Fish Consumption, Not Supporting
- ▨ Shellfish Harvesting, Not Supporting
- Water Bodies
- Parcels
- Town Borders



The information contained on this graphic representation has been compiled from a variety of sources and is subject to change without notice. The user of this information is advised to verify the accuracy, completeness, timeliness, or origin of the information contained on this graphic representation in the field or by other means. The user of this information is advised to verify the accuracy, completeness, timeliness, or origin of the information contained on this graphic representation in the field or by other means.



PROJECT NO.	20172822
DRAWN BY:	8/30/2019
DRAWN BY:	DS
CHECKED BY:	DTP
FILE NAME:	Compliance Reporting

ATTACHMENT A	
ILLICIT DISCHARGE & SSO LOCATIONS	
REPORTING PERIOD: 2/1/19 to 7/31/19	
EPA Consent Decree Swampscott, Massachusetts	