



## Total Trihalomethanes Report

## I. PWS INFORMATION: Please refer to your DEP Water Quality Sampling Schedule (WQSS) to help complete this form

PWS ID #:	<b>3116000</b>	City / Town:	<b>GROVELAND</b>
	<b>GROVELAND WATER DEPARTMENT</b>	PWS Class:	COM <input checked="" type="checkbox"/> NTNC <input type="checkbox"/>

DEP LOCATION (LOC) ID#	DEP Location Name	Sample Acidified?	Date Collected	Collected By
A	20001 FENS ASSOCIATES	Yes <input checked="" type="checkbox"/>	8/2/17	J. KOTULI
B	20002 PENTUCKET JR. HIGH	Yes <input checked="" type="checkbox"/>	8/2/17	J. KOTULI
C		Yes <input type="checkbox"/>		
D		Yes <input type="checkbox"/>		

	Routine or Special Sample	Original, Resubmitted or Confirmation Report	If Resubmitted Report, list below:	
			(1) Reason for Resubmission	(2) Collection Date of Original Sample
A	<input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Ranalysis <input type="checkbox"/> Report Correction	
B	<input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Ranalysis <input type="checkbox"/> Report Correction	
C	<input type="checkbox"/> RS <input type="checkbox"/> SS	<input type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Ranalysis <input type="checkbox"/> Report Correction	
D	<input type="checkbox"/> RS <input type="checkbox"/> SS	<input type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Ranalysis <input type="checkbox"/> Report Correction	

SAMPLE NOTES	
A	
B	
C	
D	

## II. ANALYTICAL LABORATORY INFORMATION:

Primary Lab MA Cert. #:	<b>MA026</b>	Primary Lab Name:	<b>Biomarine Inc.</b>	Subcontracted? (Y/N)	<b>Y</b>
Analysis Lab MA Cert. #:	<b>M-CT008</b>	Analysis Lab Name:	<b>MICROBAC LABS INC.</b>		

Contaminant	MCL $\mu\text{g/L}$	MDL $\mu\text{g/L}$	RESULTS <sup>1</sup> $\mu\text{g/L}$			
			A	B	C	D
<b>TOTAL THMs</b>	<b>80</b>	0.500	13.2	9.47		
Bromoform		0.500	4.41	5.34		
Chloroform		0.500	1.68	ND		
Bromodichloromethane		0.500	2.84	0.970		
Dibromochloromethane		0.500	4.25	3.16		
Lab Method			524.2 RV. 4.1	524.2 RV. 4.1		
Date Extracted (551.1 only)			-	-		
Date Analyzed			8/4/17	8/4/17		
Lab Sample ID#			D7H0487-01-65167A	D7H0487-02-65167B		
Surrogate #1:	4-Bromofluorobenzene		94.4%	96.4%	%	%
Surrogate #2:	1-2-Dichlorobenzend-d4		91.0%	92.3%	%	%

<sup>1</sup> Report result as a number greater than 0 or ND (not a < MDL value).

LAB SAMPLE NOTES	
A	
B	
C	
D	

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Lab Director Signature:

Date: 8/11/17

If not submitting these results electronically, mail TWO copies of this report to your DEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner.

DEP REVIEW STATUS (Initial & Date)	Review Comments	<input type="checkbox"/> WQTS Data Entered
<input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____		



# Haloacetic Acids Report

**I. PWS INFORMATION:** Please refer to your DEP Water Quality Sampling Schedule (WQSS) to help complete this form

PWS ID #: **3116000** City / Town: **GROVELAND**  
 PWS Name: **GROVELAND WATER DEPARTMENT** PWS Class: **COM**  **NTNC**

DEP LOCATION (LOC) ID#	DEP Location Name		Date Collected	Collected By
<b>A</b>	<b>20001</b>	<b>FENS ASSOCIATES</b>	8/2/17	J. KOTULI
<b>B</b>	<b>20002</b>	<b>PENTUCKET JR. HIGH</b>	8/2/17	J. KOTULI
<b>C</b>				
<b>D</b>				
	Routine or Special Sample	Original, Resubmitted or Confirmation Report	If Resubmitted Report, list below:	
			(1) Reason for Resubmission	(2) Collection Date of Original Sample
<b>A</b>	<input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Ranalysis <input type="checkbox"/> Report Correction	
<b>B</b>	<input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Ranalysis <input type="checkbox"/> Report Correction	
<b>C</b>	<input type="checkbox"/> RS <input type="checkbox"/> SS	<input type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Ranalysis <input type="checkbox"/> Report Correction	
<b>D</b>	<input type="checkbox"/> RS <input type="checkbox"/> SS	<input type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Ranalysis <input type="checkbox"/> Report Correction	
SAMPLE NOTES				
<b>A</b>				
<b>B</b>				
<b>C</b>				
<b>D</b>				

**II. ANALYTICAL LABORATORY INFORMATION:**

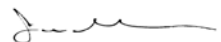
Primary Lab MA Cert. #: **MA026** Primary Lab Name: **Biomarine Inc.** Subcontracted? (Y/N) **Y**  
 Analysis Lab MA Cert. #: **M-CT008** Analysis Lab Name: **MICROBAC LABS INC.**

Contaminant	MCL µg/L	MDL µg/L	RESULTS <sup>1</sup> µg/L			
			A	B	C	D
<b>TOTAL HAA5</b>	<b>60</b>	1.00	ND	ND		
MONOCHLOROACETIC ACID		1.00	ND	ND		
DICHLOROACETIC ACID		0.500	ND	ND		
TRICHLOROACETIC ACID		0.500	ND	ND		
MONOBROMOACETIC ACID		0.500	ND	ND		
DIBROMOACETIC ACID		0.500	ND	ND		
<b>Lab Method</b>			552.2	552.5		
<b>Date Extracted</b>			8/4/17	8/4/17		
<b>Date Analyzed</b>			8/7/17	8/7/17		
<b>Lab Sample ID#</b>			D7H0487-01-65167A	D7H0487-02-65167B		
<b>Surrogate:</b>	<b>2,3 Dibromopropionic acid</b>		111%	111%	%	%

<sup>1</sup> Report Total HAA5s result as a number greater than 0 or ND (not a < MDL value).

LAB SAMPLE NOTES	
<b>A</b>	
<b>B</b>	
<b>C</b>	
<b>D</b>	

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Lab Director Signature:   
 Date: **8/11/17**

If not submitting these results electronically, mail TWO copies of this report to your DEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner.



# Haloacetic Acids Report

DEP REVIEW STATUS (Initial & Date) <input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____	Review Comments		<input type="checkbox"/> WQTS Data Entered
--	--------------------	--	---



Microbac Laboratories, Inc. - Dayville

CERTIFICATE OF ANALYSIS

D7H0487

Biomarine

Project Name: 65167

Tracey Fraser
16 East Main Street
Gloucester, MA 01930

Project / PO Number: 65167
Received: 08/03/2017
Reported: 08/09/2017

Analytical Testing Parameters

Table with client and sample information: Client Sample ID: 65167A, Sample Matrix: Drinking Water, Lab Sample ID: D7H0487-01, Collected By: Customer, Collection Date: 08/02/2017 11:45

Table for Semi-Volatile Organic Compounds - GC/ECD. Columns: Compound Name, Result, RL, Units, Note, Prepared, Analyzed, Lab. Includes method EPA 552.2 and various acid measurements.

Table for Volatile Organic Compounds - GC/MS - THMs. Columns: Compound Name, Result, RL, Units, Note, Prepared, Analyzed, Lab. Includes method EPA 524.2, Rv 4.1 and various trihalomethane measurements.



Microbac Laboratories, Inc. - Dayville

CERTIFICATE OF ANALYSIS

D7H0487

<b>Client Sample ID:</b> 65167B	<b>Collected By:</b> Customer
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 08/02/2017 9:51
<b>Lab Sample ID:</b> D7H0487-02	

Semi-Volatile Organic Compounds - GC/ECD	Result	RL	Units	Note	Prepared	Analyzed	Lab
<b>Method: EPA 552.2</b>							
Total Haloacetic acids (HAA5)	<1.00	1.00	ug/L		08/04/17 1030	08/07/17 1920	
Bromoacetic acid	<0.500	0.500	ug/L		08/04/17 1030	08/07/17 1920	DAY
Chloroacetic acid	<1.00	1.00	ug/L		08/04/17 1030	08/07/17 1920	DAY
Dibromoacetic acid [2C]	<0.500	0.500	ug/L		08/04/17 1030	08/07/17 1920	DAY
Dichloroacetic acid [2C]	<0.500	0.500	ug/L		08/04/17 1030	08/07/17 1920	DAY
Trichloroacetic acid	<0.500	0.500	ug/L		08/04/17 1030	08/07/17 1920	DAY
Surrogate: 2,3-Dibromopropionic acid	111	Limit: 70-130	% Rec		08/04/17 1030	08/07/17 1920	DAY
Surrogate: 2,3-Dibromopropionic acid [2C]	104	Limit: 70-130	% Rec		08/04/17 1030	08/07/17 1920	DAY

Volatile Organic Compounds - GC/MS - THMs	Result	RL	Units	Note	Prepared	Analyzed	Lab
<b>Method: EPA 524.2, Rv 4.1</b>							
Total Trihalomethanes	9.47	0.500	ug/L			08/04/17 2232	
Bromodichloromethane	0.970	0.500	ug/L			08/04/17 2232	DAY
Bromoform	5.34	0.500	ug/L			08/04/17 2232	DAY
Chloroform	<0.500	0.500	ug/L			08/04/17 2232	DAY
Dibromochloromethane	3.16	0.500	ug/L			08/04/17 2232	DAY
Surrogate: 4-Bromofluorobenzene	96.4	Limit: 70-130	% Rec			08/04/17 2232	DAY
Surrogate: 1,2-Dichlorobenzene-d4	92.3	Limit: 70-130	% Rec			08/04/17 2232	DAY

Laboratory

DAY: Microbac Laboratories, Inc. - Dayville

Definitions

MCL: US EPA Maximum Contaminant Level
RL: Reporting Limit

Project Requested Certification(s)

Microbac Laboratories, Inc. - Dayville
M-CT008

Massachusetts Department of Environmental Protection

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.

Reviewed and Approved By:

[Handwritten Signature]

David P. Dickinson For Krysti M. Skidgell
Project Manager
krysti.skidgell@microbac.com
08/09/2017 12:29

Microbac Laboratories, Inc.