### **Trihalomethane Report**

Location

**Data Check - Unsigned** 

COM

Resubmit Reason:

**Original Collection:** 

PWS ID #: 4122000

City/Town: HANOVER

PWS Name:

Location ID

HANOVER WATER DEPT

PWS Class:

Primary Lab MA Cert #: M-MA022

Primary Lab Name: ANALYTICAL BALANCE CORP

Location ID	Location	Routine/ Special:	Collected By:	Collection Date:	O/R/C:	Resubmit Reason:	Original Collection:
10383	925 CIRCUIT ST - FIRE STATION #3	RS	W. MILLS	3/3/2015	0		
Sample Commen	ts:	Analysis Comme	ents:	Lab	Sample ID:		
				157	499901		

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab II	): Analytical Lab:
BROMODICHLOROMETHANE	22.5	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	7.0	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
CHLOROFORM	28.9	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	18.8	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	77.2	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP

0 10385 70 PONDEROSA RS W. MILLS 3/3/2015

Routine/ Special: Collected By:

Lab Sample ID: Sample Comments: **Analysis Comments:** 

157499902

**Collection Date:** 

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab II	): Analytical Lab:
BROMODICHLOROMETHANE	22.9	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	9.3	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
CHLOROFORM	16.9	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	30.9	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	80.0	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP

Routine/ Special: Collected By: **Collection Date:** O/R/C: Resubmit Reason: **Original Collection:** Location ID Location 3/3/2015 0 10388 33 ROCKLAND ST - HANOVER RS W. MILLS

**FITNESS** 

Sample Comments: **Analysis Comments:**  Lab Sample ID:

O/R/C:

157499903

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID	: Analytical Lab:
BROMODICHLOROMETHANE	25.0	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	0.6	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
M/S = Multiple or Single sources repre	sented in sample	e site.		PWS ID #:	4122000		3/16/2015 8:45:09 AM
D/S = Distribution or Source sample si				PWS Name:	HANOVER WATER DEPT		Page 1 of 2
R/F = Raw or Finished water sample s	ile.						raye IUI Z

MDL = Method Detection Limit.

UOM = Unit of Measurement.

O/R/C = Original submittal or Resubmitted submittal or Confirmation sample.

**Trihalomethane Report** 

Location

**Data Check - Unsigned** 

	•						_	
CHLOROFORM	46.7	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP	
DIBROMOCHLOROMETHANE	7.9	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP	
TOTAL TRIHALOMETHANES	80.2	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP	

10387

2055 WASHINGTON ST - COMPUTER RS

Routine/ Special: Collected By:

Collection Date:

O/R/C:

Resubmit Reason:

**Original Collection:** 

CENTER

W. MILLS

3/3/2015

0

Sample Comments:

Location ID

**Analysis Comments:** 

Lab Sample ID:

157499904

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab II	D: Analytical Lab:
BROMODICHLOROMETHANE	8.5	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	5.6	ÚG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
CHLOROFORM	3.6	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	12.9	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	30.6	UG/L	0.5	EPA 524.2	3/6/2015	M-MA022	ANALYTICAL BALANCE CORP

EDEP Transaction ID:

727920

M/S = Multiple or Single sources represented in sample site.

D/S = Distribution or Source sample site. R/F = Raw or Finished water sample site.

MDL = Method Detection Limit. UOM = Unit of Measurement.

O/R/C = Original submittal or Resubmitted submittal or Confirmation sample.

PWS ID #: 4122000

PWS Name: HANOVER WATER DEPT

3/16/2015 8:45:09 AM

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**Environmental Chemistry** 

**Site Assessment** 

**Quality Assurance Services** 



**Environmental Services Site Sampling Data Auditing** 

Neal Merritt

### CERTIFICATE OF ANALYSIS

Hanover Water Dept.

40 Pond St. REPORTED: 03/27/2015 Hanover, MA 02339 ORDER #: G1575286 COLLECTED BY: W. Mills SAMPLE DATE: 3/17/2015 DATE RECEIVED: 3/17/2015

TIME: 13:35

LOCATION: Pond St. Clearwell

Grab

SAMPLE ID: Special

**DESCRIPTION:** DRINKING WATER

#### RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL <sup>1</sup> (μg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed				
Trihalomethanes 524.2 LAB-ID#: <u>1575286-01</u>									
Total Trihalomethanes	4.6	80.0	0.5	EPA 524.2	03/24/2015				
Bromoform	1.0		0.5	EPA 524.2	03/24/2015				
Chloroform	0.8		0.5	EPA 524.2	03/24/2015				
Bromodichloromethane	1.2		0.5	EPA 524.2	03/24/2015				
Dibromochloromethane	1.6		0.5	EPA 524.2	03/24/2015				

Surrogate Recoveries (As required by EPA methods 524.1 and 524.2)

Compound	% Recovered	QC Limits (%)		
1,2-dichlorobenzene-d4	97	70	130	
4-bromofluorobenzene	95	70	130	

**Environmental Chemistry** 

Site Assessment

**Quality Assurance Services** 



**Environmental Services Site Sampling Data Auditing** 

Neal Merritt

#### CERTIFICATE OF ANALYSIS

Hanover Water Dept.

40 Pond St. REPORTED: 03/27/2015 Hanover, MA 02339 ORDER #: G1575286 COLLECTED BY: W. Mills SAMPLE DATE: 3/17/2015 TIME: 13:45 DATE RECEIVED: 3/17/2015 Special

LOCATION: Pond St. 100 Ft. Finish

SAMPLE ID: Grab

**DESCRIPTION:** DRINKING WATER

#### RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL <sup>1</sup> (μg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2	LAB-ID#:	<u>1575286-02</u>			
Total Trihalomethanes	12.0	80.0	0.5	EPA 524.2	03/24/2015
Bromoform	3.2		0.5	EPA 524.2	03/24/2015
Chloroform	1.3		0.5	EPA 524.2	03/24/2015
Bromodichloromethane	2.8		0.5	EPA 524.2	03/24/2015
Dibromochloromethane	4.7		0.5	EPA 524.2	03/24/2015

Surrogate Recoveries (As required by EPA methods 524.1 and 524.2)

Compound	% Recovered	QC Li	mits (%)
1,2-dichlorobenzene-d4	96	70	130
4-bromofluorobenzene	95	70	130

pproved	By:	

ND = Not Detected (Lab Manager)

<sup>1.</sup> These limits are maximum contaminant levels (MCL) as adopted by the Commonwealth of Massachusetts and represent the maximum acceptable level in drinking Water.

# **Haloacetic Acids Report**

**Data Check - Unsigned** 

PWS ID #: 4122000

City/Town: HANOVER

HANOVER WATER DEPT PWS Name:

PWS Class:

COM

Primary Lab MA Cert #: M-MA022

Primary Lab Name ANALYTICAL BALANCE CORP

Location ID	Location		Routine	e/ Special:	Collected By:	Collection Date:	O/R/C:	Resubmit Reason:	Original Collection
10383	925 CIRCUIT ST	Γ - FIRE STATION	1#3 RS	<b>3</b> ,	W. MILLS	6/5/2015	0		
Sample Comme	nts:		Anal	ysis Comme	nts:	Lab S	ample ID:		
						1577	748401		
Contaminant:		Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical L	ab ID: Analyti	cal Lab:
MONOCHLORO	ACETIC ACID	ND	UG/L	2	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Υ
DIBROMOACET	IC ACID	ND	UG/L	. 1	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Y
TRICHLOROAC	ETIC ACID	ND	UG/L	1	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Υ
MONOBROMOA	CETIC ACID	ND	UG/L	2	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Υ
DICHLOROACE	TIC ACID	ND	UG/L	. 3	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Υ
HALOACETIC A	CIDS	ND	UG/L	1	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Y
Location ID	Location	<del></del>	Routine	 e/ Special:	Collected By:	Collection Date:	O/R/C:	Resubmit Reason:	Original Collection
10385	70 PONDEROS	A	RS	3	W. MILLS	6/5/2015	0		
Sample Comme	nts:		Anal	ysis Comme	nts:	Lab S	ample ID:		
						1577	48402		
Contaminant:		Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical L	ab ID: Analytic	cal Lab:
MONOCHLORO	ACETIC ACID	ND	UG/L	2	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Υ
DIBROMOACET	IC ACID	ND	UG/L	1	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Y
TRICHLOROACI	ETIC ACID	5.9	UG/L	1	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Y
MONOBROMOA	CETIC ACID	ND	ÚG/L	2	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Y
DICHLOROACE.	TIC ACID	ND	UG/L	3	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Y
HALOACETIC A	CIDS	5.9	UG/L	1	EPA 552.2	6/16/2015	M-RI002	ESS LABORATOR	Y
Location ID	Location		Routine	e/ Special:	Collected By:	Collection Date:	O/R/C:	Resubmit Reason:	Original Collection
10388	33 ROCKLAND S FITNESS	ST - HANOVER	RS	<b>3</b>	W. MILLS	6/5/2015	0		
Sample Comme	nts:		Anal	ysis Comme	nts:	Lab S	ample ID:		
						1577	48403		

M/S = Multiple or Single sources represented in sample site.

D/S = Distribution or Source sample site.

R/F = Raw or Finished water sample site.

MDL = Method Detection Limit.

UOM = Unit of Measurement.

O/R/C = Original submittal or Resubmitted submittal or Confirmation sample.

6/22/2015 3:22:46 PM

PWS Name: HANOVER WATER DEPT

Page

# **Haloacetic Acids Report**

## **Data Check - Unsigned**

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab	ID: Analytical Lab:
MONOCHLOROACETIC ACID	ND	UG/L	2	EPA 552.2	6/16/2015	M-RI002	ESS LABORATORY
DIBROMOACETIC ACID	2.6	UG/L	1	EPA 552.2	6/16/2015	M-RI002	ESS LABORATORY
TRICHLOROACETIC ACID	1.7	UG/L	1	EPA 552.2	6/16/2015	M-RI002	ESS LABORATORY
MONOBROMOACETIC ACID	ND	UG/L	2	EPA 552.2	6/16/2015	M-RI002	ESS LABORATORY
DICHLOROACETIC ACID	4.0	UG/L	3	EPA 552.2	6/16/2015	M-RI002	ESS LABORATORY
HALOACETIC ACIDS	8.3	UG/L	1	EPA 552.2	6/16/2015	M-RI002	ESS LABORATORY

Location ID Routine/ Special: Collected By: **Collection Date:** O/R/C: Resubmit Reason: **Original Collection:** 10387 2055 WASHINGTON ST - COMPUTER RS W. MILLS 6/5/2015 0

CENTER

#### Sample Comments:

#### **Analysis Comments:**

#### Lab Sample ID:

157748404

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID:	Analytical Lab:		
MONOCHLOROACETIC ACID	ND	UG/L	2	EPA 552.2	6/16/2015	M-RI002 E	ESS LABORATORY		
DIBROMOACETIC ACID	4.0	UG/L	1	EPA 552.2	6/16/2015	M-RI002	ESS LABORATORY		
TRICHLOROACETIC ACID	8.2	UG/L	1	EPA 552.2	6/16/2015	M-R1002 E	ESS LABORATORY		
MONOBROMOACETIC ACID	ND	UG/L	2	EPA 552.2	6/16/2015	M-R1002 E	ESS LABORATORY		
DICHLOROACETIC ACID	10.2	UG/L	3	EPA 552.2	6/16/2015	M-R1002	ESS LABORATORY		
HALOACETIC ACIDS	22.4	UG/L	1	EPA 552.2	6/16/2015	M-RI002 E	ESS LABORATORY		

EDEP Transaction ID:

752109

M/S = Multiple or Single sources represented in sample site.

D/S = Distribution or Source sample site.

R/F = Raw or Finished water sample site.

MDL = Method Detection Limit.

UOM = Unit of Measurement.

O/R/C = Original submittal or Resubmitted submittal or Confirmation sample.

PWS ID #: 4122000

PWS Name: HANOVER WATER DEPT

6/22/2015 3:22:46 PM

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### Trihalomethane Report

PWS ID #: 4122000 City/Town: HANOVER

PWS Name: HANOVER WATER DEPT PWS Class: COM

Primary Lab MA Cert #: M-MA022 Primary Lab Name: ANALYTICAL BALANCE CORP

**Location ID** Routine/ Special: Collected By: **Collection Date:** O/R/C: Resubmit Reason: **Original Collection:** Location 10383 925 CIRCUIT ST - FIRE STATION #3 RS W. MILLS O 6/5/2015 Sample Comments: **Analysis Comments:** Lab Sample ID: 157748401 Contaminant: Result: UOM: MDL: **Analytical Method: Analysis Date: Analytical Lab ID:** Analytical Lab: **BROMODICHLOROMETHANE** 11.9 UG/L 0.5 EPA 524.2 6/10/2015 M-MA022 ANALYTICAL BALANCE CORP **BROMOFORM** 6.6 UG/L 0.5 EPA 524.2 6/10/2015 M-MA022 ANALYTICAL BALANCE CORP CHLOROFORM 8.0 UG/L 0.5 EPA 524.2 6/10/2015 M-MA022 ANALYTICAL BALANCE CORP DIBROMOCHLOROMETHANE 15.6 UG/L 0.5 EPA 524.2 6/10/2015 M-MA022 ANALYTICAL BALANCE CORP 42.1 TOTAL TRIHALOMETHANES UG/L 0.5 EPA 524.2 6/10/2015 M-MA022 ANALYTICAL BALANCE CORP O/R/C: Routine/ Special: Collected By: **Collection Date:** Location ID Resubmit Reason: Original Collection: Location 10385 0 70 PONDEROSA RS W. MILLS 6/5/2015 Sample Comments: **Analysis Comments:** Lab Sample ID: 157748402 Contaminant: Result: UOM: MDL: **Analytical Method: Analysis Date:** Analytical Lab ID: Analytical Lab: **BROMODICHLOROMETHANE** 35.0 UG/L 0.5 EPA 524.2 6/10/2015 M-MA022 ANALYTICAL BALANCE CORP **BROMOFORM** 4.9 UG/L 0.5 EPA 524.2 6/10/2015 M-MA022 ANALYTICAL BALANCE CORP **CHLOROFORM** 30.9 UG/L 0.5 EPA 524.2 6/10/2015 M-MA022 ANALYTICAL BALANCE CORP DIBROMOCHLOROMETHANE 26.7 UG/L 0.5 EPA 524.2 6/10/2015 M-MA022 ANALYTICAL BALANCE CORP **TOTAL TRIHALOMETHANES** 97.5 UG/L 0.5 EPA 524.2 6/10/2015 M-MA022 ANALYTICAL BALANCE CORP Routine/ Special: Collected By: O/R/C: Location ID Location **Collection Date:** Resubmit Reason: Original Collection: 10388 33 ROCKLAND ST - HANOVER RS W. MILLS 6/5/2015 0 **FITNESS** Sample Comments: **Analysis Comments:** Lab Sample ID: 157748403

**Data Check - Unsigned** 

Page

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID:	Analytical Lab:
BROMODICHLOROMETHANE	14.9	UG/L	0.5	EPA 524.2	6/10/2015	M-MA022 A	NALYTICAL BALANCE CORP
BROMOFORM	0.5	UG/L	0.5	EPA 524.2	6/10/2015	M-MA022 A	NALYTICAL BALANCE CORP
M/S = Multiple or Single sources repre		e site.		PWS ID #:	4122000	1	6/22/2015 3:22:46 PM
D/S = Distribution or Source sample s R/F = Raw or Finished water sample s				PWS Name:	HANOVER WATER DEPT		Page 1 of 2

MDL = Method Detection Limit.

UOM = Unit of Measurement.

O/R/C = Original submittal or Resubmitted submittal or Confirmation sample.

# **Trihalomethane Report**

### **Data Check - Unsigned**

Resubmit Reason:

**Original Collection:** 

CHLOROFORM	57.2	UG/L	0.5	EPA 524.2	6/10/2015	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	4.0	UG/L	0.5	EPA 524.2	6/10/2015	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	76.6	UG/L	0.5	EPA 524.2	6/10/2015	M-MA022	ANALYTICAL BALANCE CORP

Location ID Location Routine/ Special: Collected By: **Collection Date:** O/R/C: 10387 2055 WASHINGTON ST - COMPUTER RS W. MILLS 6/5/2015 0

CENTER

Sample Comments:

**Analysis Comments:** 

Lab Sample ID:

157748404

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID	: Analytical Lab:
BROMODICHLOROMETHANE	23.5	UG/L	0.5	EPA 524.2	6/10/2015	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	1.8	UG/L	0.5	EPA 524.2	6/10/2015	M-MA022	ANALYTICAL BALANCE CORP
CHLOROFORM	24.5	UG/L	0.5	EPA 524.2	6/10/2015	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	15.9	UG/L	0.5	EPA 524.2	6/10/2015	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	65.7	UG/L	0.5	EPA 524.2	6/10/2015	M-MA022	ANALYTICAL BALANCE CORP

EDEP Transaction ID:

752109

M/S = Multiple or Single sources represented in sample site.

D/S = Distribution or Source sample site.

R/F = Raw or Finished water sample site.

MDL = Method Detection Limit.

UOM = Unit of Measurement.

O/R/C = Original submittal or Resubmitted submittal or Confirmation sample.

PWS ID #: 4122000

PWS Name: HANOVER WATER DEPT

6/22/2015 3:22:46 PM

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**Environmental Chemistry** 

Site Assessment

**Quality Assurance Services** 



**Environmental Services Site Sampling Data Auditing** 

Neal Merritt

#### CERTIFICATE OF ANALYSIS

Hanover Water Dept.

40 Pond St. REPORTED: Hanover, MA 02339 COLLECTED BY: W. Mills

TIME: 12:00

LOCATION: 58 Rockland St.

08/12/2015 ORDER #: G1579420

SAMPLE DATE: 8/4/2015 DATE RECEIVED: 8/4/2015

SAMPLE ID: Special

DESCRIPTION: DRINKING WATER

#### RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL <sup>1</sup> (μg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	1579420-01	
Total Trihalomethanes	7.1	80.0	0.5	EPA 524.2	08/10/2015
Bromoform	1.1		0.5	EPA 524.2	08/10/2015
Chloroform	1.1		0.5	EPA 524.2	08/10/2015
Bromodichloromethane	1.9		0.5	EPA 524.2	08/10/2015
Dibromochloromethane	3.0		0.5	EPA 524.2	08/10/2015

Surrogate Recoveries (As required by EPA methods 524.1 and 524.2)

Compound	% Recovered	QC Li	mits (%)
1,2-dichlorobenzene-d4	94	70	130
4-bromofluorobenzene	89	70	130

approved	Bv:	
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ND = Not Detected (Lab Manager)

<sup>1.</sup> These limits are maximum contaminant levels (MCL) as adopted by the Commonwealth of Massachusetts and represent the maximum acceptable level in drinking Water.

### **Haloacetic Acids Report**

PWS ID #: 4122000

City/Town: HANOVER

PWS Name: HANOVER WATER DEPT

Primary Lab MA Cert #: M-MA022

Primary Lab Name: ANALYTICAL BALANCE CORP

**Data Check - Unsigned** 

PWS Class: COM

Location ID Location Routine/ Special: Collected By: **Collection Date:** O/R/C: Resubmit Reason: **Original Collection:** RS R. FARLEY O

10383 925 CIRCUIT ST - FIRE STATION #3

9/10/2015

Sample Comments:

**Analysis Comments:** 

Lab Sample ID: 158070701

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID:	Analytical Lab:				
MONOCHLOROACETIC ACID	ND	UG/L	2	EPA 552.2	9/18/2015	M-RI002	ESS LABORATORY				
DIBROMOACETIC ACID	1.6	UG/L	1	EPA 552.2	9/18/2015	M-RI002 E	SS LABORATORY				
TRICHLOROACETIC ACID	ND	UG/L	1	EPA 552.2	9/18/2015	M-RI002 E	ESS LABORATORY				
MONOBROMOACETIC ACID	ND	UG/L	2	EPA 552.2	9/18/2015	M-RI002 E	SS LABORATORY				
DICHLOROACETIC ACID	ND	UG/L	3	EPA 552.2	9/18/2015	M-RI002 E	SS LABORATORY				
HALOACETIC ACIDS	1.6	UG/L	1	EPA 552.2	9/18/2015	M-R1002 E	SS LABORATORY				

Location ID Location Routine/ Special: Collected By: **Collection Date:** O/R/C: Resubmit Reason: **Original Collection:** 10385 70 PONDEROSA RS R. FARLEY 9/10/2015 0

Sample Comments:

**Analysis Comments:** 

Lab Sample ID:

158070702

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID	: Analytical Lab
MONOCHLOROACETIC ACID	ND	UG/L	2	EPA 552.2	9/18/2015	M-RI002	ESS LABORATORY
DIBROMOACETIC ACID	1.0	UG/L	1	EPA 552.2	9/18/2015	M-RI002	ESS LABORATORY
TRICHLOROACETIC ACID	2.0	UG/L	1	EPA 552.2	9/18/2015	M-RI002	ESS LABORATORY
MONOBROMOACETIC ACID	ND	UG/L	2	EPA 552.2	9/18/2015	M-RI002	ESS LABORATORY
DICHLOROACETIC ACID	ND	UG/L	3	EPA 552.2	9/18/2015	M-RI002	ESS LABORATORY
HALOACETIC ACIDS	3.0	UG/L	1	EPA 552.2	9/18/2015	M-RI002	ESS LABORATORY

Location ID Routine/ Special: Location Collected By: **Collection Date:** O/R/C: Resubmit Reason: **Original Collection:** 

33 ROCKLAND ST - HANOVER **FITNESS** 

RS

R. FARLEY

9/10/2015

**Sample Comments:** 

10388

**Analysis Comments:** 

Lab Sample ID:

0

158070703

M/S = Multiple or Single sources represented in sample site.

PWS ID #: D/S = Distribution or Source sample site.

4122000

9/28/2015 8:55:04 AM

R/F = Raw or Finished water sample site.

PWS Name: HANOVER WATER DEPT

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MDL = Method Detection Limit.

UOM = Unit of Measurement. O/R/C = Original submittal or Resubmitted submittal or Confirmation sample.

# **Haloacetic Acids Report**

# **Data Check - Unsigned**

Contaminant:	R	esult: L	JOM:	MDL:	Analytical Method:	Analysis Date:	Analytical La	ab ID:	Analytical Lab:
MONOCHLORO	ACETIC ACID	ND	UG/L	2	EPA 552.2	9/18/2015	M-RI002	ESS LABOR	RATORY
DIBROMOACETI	C ACID	1.7	UG/L	1	EPA 552.2	9/18/2015	M-RI002	ESS LABOR	RATORY
TRICHLOROACE	ETIC ACID	1.3	UG/L	1	EPA 552.2	9/18/2015	M-RI002	ESS LABOR	RATORY
MONOBROMOA	CETIC ACID	ND	UG/L	2	EPA 552.2	9/18/2015	M-RI002	ESS LABOR	RATORY
DICHLOROACET	FIC ACID	ND	UG/L	3	EPA 552.2	9/18/2015	M-RI002	ESS LABOR	RATORY
HALOACETIC AC	CIDS	3.0	UG/L	1	EPA 552.2	9/18/2015	M-R1002	ESS LABO	RATORY
Location ID	Location		Routine	e/ Special:	Collected By:	Collection Date:	O/R/C:	Resubmit Reas	on: Original Collection:
10387	2055 WASHINGTON S CENTER	T - COMPUTE	R RS	;	R. FARLEY	9/10/2015	0		

**Sample Comments:** 

**Analysis Comments:** 

Lab Sample ID:

158070704

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID:	Analytical Lab:	
MONOCHLOROACETIC ACID	ND	UG/L	2	EPA 552.2	9/18/2015	M-RI002 ES	S LABORATORY	
DIBROMOACETIC ACID	4.5	UG/L	1	EPA 552.2	9/18/2015	M-RI002 ES	S LABORATORY	
TRICHLOROACETIC ACID	3.8	UG/L	.1	EPA 552.2	9/18/2015	M-RI002 ES	S LABORATORY	
MONOBROMOACETIC ACID	ND ND	UG/L	2	EPA 552.2	9/18/2015	M-RI002 ES	S LABORATORY	
DICHLOROACETIC ACID	3.9	UG/L	3	EPA 552.2	9/18/2015	M-RI002 ES	S LABORATORY	
HALOACETIC ACIDS	12.2	UG/L	1	EPA 552.2	9/18/2015	M-RI002 ES	S LABORATORY	

EDEP Transaction ID:

777312

M/S = Multiple or Single sources represented in sample site. D/S = Distribution or Source sample site.

R/F = Raw or Finished water sample site.

MDL = Method Detection Limit.

UOM = Unit of Measurement.

O/R/C = Original submittal or Resubmitted submittal or Confirmation sample.

PWS ID #: 4122000

PWS Name: HANOVER WATER DEPT

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### **Trihalomethane Report**

PWS ID #: 4122000

City/Town: HANOVER

PWS Name: HANOVER WATER DEPT **Data Check - Unsigned** 

PWS Class: COM

Location ID	Location		Routir	ne/ Special:	Collected By:	Collection Date:	O/R/C:	Resubmit Reason:	Original Collection
10383	925 CIRCUIT ST -	FIRE STATION #3	RS RS		R. FARLEY	9/10/2015	0		
Sample Comme	nts:		Analysis Comments:			Lab	Sample ID:		
v.					<u>:</u>	158	3070701		
Contaminant:		Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical I	ab ID: Analy	rtical Lab:
BROMODICHLO	ROMETHANE	9.4	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BA	LANCE CORP
BROMOFORM		6.2	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BA	LANCE CORP
CHLOROFORM		6.4	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BA	LANCE CORP
DIBROMOCHLO	ROMETHANE	12.8	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BA	LANCE CORP
TOTAL TRIHALO	DMETHANES	34.8	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BA	LANCE CORP
Location ID	Location		Routir	ne/ Special:	Collected By:	Collection Date:	O/R/C:	Resubmit Reason:	Original Collection:
10385	70 PONDEROSA		RS		R. FARLEY	9/10/2015	0		
Sample Comme	nts:		Analysis Comments:			Lab	Sample ID:		
			-			158	070702		
Contaminant:		Result: I	JOM:	MDL:	Analytical Method:	Analysis Date:	Analytical I	ab ID: Analy	tical Lab:
BROMODICHLO	ROMETHANE	27.2	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BA	LANCE CORP
BROMOFORM		8.4	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BA	LANCE CORP
CHLOROFORM		18.5	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BA	LANCE CORP
	ROMETHANE	28.6	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BA	LANCE CORP
DIBROMOCHLO									

Sample Comments:

10388

**Analysis Comments:** 

R. FARLEY

RS

Lab Sample ID:

0

158070703

9/10/2015

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID:	Analytical Lab:
BROMODICHLOROMETHANE	2.0	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	1.3	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BALANCE CORP
M/S = Multiple or Single sources repre D/S = Distribution or Source sample s	e site.		PWS ID #:	4122000		9/28/2015 8:55:05 AM	
R/F = Raw or Finished water sample s				PWS Name:	HANOVER WATER DEPT		Page 1 of 2

MDL = Method Detection Limit.

UOM = Unit of Measurement.

O/R/C = Original submittal or Resubmitted submittal or Confirmation sample.

33 ROCKLAND ST - HANOVER

**FITNESS** 

# **Trihalomethane Report**

# **Data Check - Unsigned**

CHLOROFORM	1.5	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	3.2	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	8.0	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BALANCE CORP

Location ID Location Routine/ Special: Collected By: **Collection Date:** 10387 2055 WASHINGTON ST - COMPUTER RS

O/R/C:

Resubmit Reason:

CENTER

R. FARLEY

9/10/2015

0

Original Collection:

Sample Comments:

**Analysis Comments:** 

Lab Sample ID:

158070704

Contaminant:	Result:	UOM: MDL:		<b>Analytical Method:</b>	Analysis Date:	Analytical Lab ID	: Analytical Lab:
BROMODICHLOROMETHANE	15.8	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	4.2	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BALANCE CORP
CHLOROFORM	9.6	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	17.0	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	46.6	UG/L	0.5	EPA 524.2	9/10/2015	M-MA022	ANALYTICAL BALANCE CORP

**EDEP Transaction ID:** 

777312

M/S = Multiple or Single sources represented in sample site.

D/S = Distribution or Source sample site. R/F = Raw or Finished water sample site.

MDL = Method Detection Limit.

UOM = Unit of Measurement.

O/R/C = Original submittal or Resubmitted submittal or Confirmation sample.

PWS ID #: 4122000

PWS Name: HANOVER WATER DEPT

9/28/2015 8:55:05 AM

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### **THM**

### Massachusetts Department of Environmental Protection - Drinking Water Program Total Trihalomethanes Report

Name: Hanover Water	Department			City/Town: PWS Class: COM	_Hanoverx NTNC NC			
DEP Location (LOC) ID#		DEP Location Name	Sample Acidified?	Date Collected		lected by		
A 10383  B 10385  C 10388		Fire Station #3	XYes	12/01/2015	w	W. Mills		
		70 Ponderosa Drive	XYes	12/01/2015	w	. Mills		
		33 Rockland Street	XYes	12/01/2015	w	. Mills		
10387		2055 Washington Street	XYes	12/01/2015	w	W. Mills		
Routine or Special Sample	Origina	l or Resubmitted Report		If resubmitte	ed report, fist below:			
			Reas	Collection	date of driginal sample			
_x _RSSSx _OriginalResubmittedConfurmation			ResampleRear	nalysis Report Corr.				
xRSSS	x_OriginalResubmit	ed Confirmation	Resample Rear	nelysis Report Corr.				
xRSSS	xOriginalResubmit		ResampleRear	Report Corr.				
x RS SS	x Original Resubmit		Resample Rear	Report Corr.				
te notes - (Such as manifold/multiple sacr	ple, list any sources that were on line du	ring collection).		· · · · · · · · · · · · · · · · · · ·				
						<del></del>		
nalytical Laboratory Info	rmation:					<del> </del>		
ury Lab MA Cert. # _ <mark>M-M</mark> /sis Lab MA Cert. # _M-M	A022 Primary Lal	o Name: _Analytical Balan b Name: _Analytical Balan	ce Corp. Subcont	racted? Y _x_ N				
Contaminant	MCL (µg/L)	MDL.	ice Corp.	Results <sup>1</sup> (µg/L)				
		(μg/L)	A .	В	C	D		
THMs	80		40.9	58.7	33.1			
oform		0.5	14.2	6.4	3.5	45.6		
roform		0.5	4.0	14.6	7.0	1.3		
nodichloromethane		0.5	7.7	19.3	10.6	17.8		
			7.7	17.3	10.0	16.6		
omochloromethane		0.5	150	18.4	120			
		0.5	15.0	18.4	12.0	9.9		
nethod		0.5	EPA 524.2	EPA 524,2	EPA 524.2	9.9 EPA 524.2		
nethod extracted (551.1 only)		0.5	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2		
extracted (551.1 only)		0.5	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2		
extracted (551.1 only) analyzed Sample ID	1.2-dichlorobenzene d.	0.5	EPA 524.2	EPA 524.2 	EPA 524.2  12/04/2015 82988-03	EPA 524.2		
method extracted (551.1 only) analyzed Sample ID		0.5	EPA 524.2 12/04/2015 82988-01 95%	EPA 524.2 12/04/2015 82988-02 94%	EPA 524.2 12/04/2015 82988-03 79%	EPA 524.2		
extracted (551.1 only) analyzed Sample ID agate # 1	4-bromofluorobenzene	0.5	EPA 524.2	EPA 524.2 	EPA 524.2  12/04/2015 82988-03	EPA 524.2		
nethod extracted (551.1 only) analyzed ample ID gate # 1 gate # 2	4-bromofluorobenzene	0.5	EPA 524.2 12/04/2015 82988-01 95%	EPA 524.2 12/04/2015 82988-02 94%	EPA 524.2 12/04/2015 82988-03 79%	EPA 524.2		
extracted (551.1 only) smalyzed sample ID gate # 1 gate # 2 esults as a number greater than 0 or ND (	4-bromofluorobenzene	0.5	EPA 524.2 12/04/2015 82988-01 95%	EPA 524.2 12/04/2015 82988-02 94%	EPA 524.2 12/04/2015 82988-03 79%	EPA 524.2		
extracted (551.1 only) analyzed Sample ID agate # 1 agate # 2 results as a number greater than 0 or ND ( Lab sample notes:	4-bromofluorobenzene	0.5	EPA 524.2 12/04/2015 82988-01 95%	EPA 524.2 12/04/2015 82988-02 94%	EPA 524.2 12/04/2015 82988-03 79%	EPA 524.2		
extracted (551.1 only)  analyzed  sample ID  agate # 1  gate # 2  esults as a number greater than 0 or ND (  Lab sample notes:	4-bromofluorobenzene	0.5	EPA 524.2 12/04/2015 82988-01 95%	EPA 524.2 12/04/2015 82988-02 94%	EPA 524.2 12/04/2015 82988-03 79%	12/04/2015 82988-04 73%		
under penalties of law that I am th	4-bronnofluorobenzene not a <mdl accurate<="" authorized="" c="" d="" fill="" herein="" is="" person="" td="" to="" true,="" value).=""><td>0.5</td><td>EPA 524.2 12/04/2015 82988-01 95%</td><td>EPA 524.2 12/04/2015 82988-02 94% 100%</td><td>EPA 524.2  12/04/2015  82988-03  79%  84%</td><td>ty signed by Robert E. Bentley - UNITED STATE bytical Balance Co</td></mdl>	0.5	EPA 524.2 12/04/2015 82988-01 95%	EPA 524.2 12/04/2015 82988-02 94% 100%	EPA 524.2  12/04/2015  82988-03  79%  84%	ty signed by Robert E. Bentley - UNITED STATE bytical Balance Co		
extracted (551.1 only)  analyzed  sample ID  agate # 1  gate # 2  esults as a number greater than 0 or ND (  Lab sample notes:	4-bromofluorobenzene not a <mdl accurate="" authorized="" d="" fill="" herein="" is="" person="" td="" te="" to="" true,="" value).="" wledge.<=""><td></td><td>EPA 524.2 </td><td>Robe Bentl</td><td>EPA 524.2  12/04/2015 82988-03 79% 84%</td><td>EPA 524.2  12/04/2015 82988-04 73% 88%  by signed by Robe y both E. Bentley - UNITED STATE shytical Balance Co</td></mdl>		EPA 524.2	Robe Bentl	EPA 524.2  12/04/2015 82988-03 79% 84%	EPA 524.2  12/04/2015 82988-04 73% 88%  by signed by Robe y both E. Bentley - UNITED STATE shytical Balance Co		

# Massachusetts Department of Environmental Protection - Drinking Water Program Total Tribalomethanes Report

**THM** 

/S ID #:412200 /S Name: Hanove	r Water Department				City/Town: PWS Class: COM	Hanover_x_NTNCNC_					
DEP Loc (LOC) I			DEP Location Name	Sample Acidified?	Date Collected	Collected by					
Α	10374		Pond Street WTP	XYes	12/01/2015	w	. Mills				
В			PC Beal WTP	XYes	12/01/2015	w	. Mills				
C 10386			Broadway WTP	XYos	12/01/2015	W	. Milks				
			· · · · · · · · · · · · · · · · · · ·	XYcs							
Routine or Special Sample		Original o	r Resubmitted Report		If resubmitte	d report, list below:					
				Reeso	Collection	date of original sample					
xRSSS	x_OriginalResubmittedConfirmation			ResampleReans	alysis Report Corr.						
	x RS SS x Original Resubmitted Confirmation				ResampleReanalysis Report Corr.						
1	x RS SS x Original Resultmitted Confirmation				ResampleReanalysis Report Corr.						
RS SS	Original			Resample Ream	rlysis Report Corr.						
nple metes - (Such as manifold/m	sultiple sample, list any sources the	hat were on line during	g collection).								
		· · · · · · · · · · · · · · · · · · ·									
 	n Information										
nary Lab MA Cert. #		Primary Lab N	Name: _Analytical Bais	ance Corp. Subcontr	acted? Y _x_ N						
lysis Lab MA Cert. #			Name: Analytical Bal								
Contaminant		MCL (µg/L)	MDL (µg/L)		Results <sup>1</sup> (µ	g/L)	T				
				Α	В	c	Ð				
tal THMs		80		23.7	4.7	1.9					
omoform			0.5	ND	2.2	ND					
loroform			0.5	8.5	ND	0.7					
omodichloromethane			0.5	10.3	0.6	0.6					
bromochloromethane			0.5	4.9	1.9	0.6					
b method				EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2				
ite extracted (551.1 only)											
te analyzed		<del></del>		12/04/2015	12/04/2015	12/04/2015					
b Sample ID	-			82988-05	82988-06						
rrogate # 1	1.2-dichlor	robenzene d <sub>4</sub>				82988-07					
rrogate # 2				79%	92%	97% .	%				
rt results as a number greater than		uorobenzene		81%	96%	106%	%				
Lab sample notes:											
^				1							
В											
с											
Ð											
							illy signed by Rob				
					Robe	rt F	Robert E. Bentley				
for worden according of hours the	at land to the second of the				5 11	Ar Ar	6 - UNITED STAT Ialytical Balance				
fy under penalties of law the is form and the information	contained herein is true, ac	ed to fill ccurate			Benti	rt E.	b@h2otest.net				
emplete to the best extent of	my knowledge.		Primary	Lab Director Signature/Date:12/2	1/2016						
submitting these results elec	tronically, mail TWO conic	es of this renort to	VOUR DEP Regional Office and	ster than I days after the and coul-	nanth in udiah	his and a second second					
submitting these results electing period, whichever is soon P REVIEW STATUS (Initia	MAYI.	es of this report to	your DEP Regional Office no	later than 10 days after the end of the s	nonth in which you received t	his report or no later than 10	days after the end of				