Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: D. Dietlin

TIME: 8:40

LOCATION: 25 Jay's Lane

Grab

REPORTED: 01.

01/25/2019

ORDER #: G1932433

SAMPLE DATE: 1/18/2019 DATE RECEIVED: 1/18/2019

SAMPLE ID: Special

DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (µg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1932433-01</u>	
Total Trihalomethanes	32	80.0	0.5	EPA 524.2	01/24/2019
Bromoform	0.7		0.5	EPA 524.2	01/24/2019
Chloroform	10.7		0.5	EPA 524.2	01/24/2019
Bromodichloromethane	12.5		0.5	EPA 524.2	01/24/2019
Dibromochloromethane	7.9		0.5	EPA 524.2	01/24/2019

Compound	% Recovered	QC Li	mits (%)
1,2-dichlorobenzene-d4	104	70	130
4-bromofluorobenzene	108	70	130

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street REPORTED: 01/25/2019 Hanover, MA 02339 ORDER #: G1932433 COLLECTED BY: D. Dietlin SAMPLE DATE: 1/18/2019 8:50 TIME: DATE RECEIVED: 1/18/2019 Special

LOCATION: Hydrant Across 25 Jay's Lane SAMPLE ID:

> Grab **DESCRIPTION:** DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (µg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1932433-02</u>	
Total Trihalomethanes	32	80.0	0.5	EPA 524.2	01/24/2019
Bromoform	0.7		0.5	EPA 524.2	01/24/2019
Chloroform	10.8		0.5	EPA 524.2	01/24/2019
Bromodichloromethane	12.4		0.5	EPA 524.2	01/24/2019
Dibromochloromethane	7.6		0.5	EPA 524.2	01/24/2019

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

Compound	% Recovered	QC Lii	mits (%)
1,2-dichlorobenzene-d4	106	70	130
4-bromofluorobenzene	107	70	130

Approved	By:							

ND = Not Detected

(Lab Manager)

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

^{1.} These limits are maximum contaminant levels (MCL) as adopted by the Commonwealth of Massachusetts and represent the maximum acceptable level in drinking Water.

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

 40 Pond Street
 REPORTED: 01/31/2019

 Hanover, MA 02339
 ORDER #: G1932599

 COLLECTED BY: N. Merritt
 SAMPLE DATE: 1/25/2019

 TIME: 12:47
 DATE RECEIVED: 1/25/2019

LOCATION: Hydrant 38-004 SAMPLE ID:

Grab DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (μg/L)	Detection Limit (μg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1932599-01</u>	
Total Trihalomethanes	33	80.0	0.5	EPA 524.2	01/29/2019
Bromoform	1.0		0.5	EPA 524.2	01/29/2019
Chloroform	9.5		0.5	EPA 524.2	01/29/2019
Bromodichloromethane	12.8		0.5	EPA 524.2	01/29/2019
Dibromochloromethane	9.6		0.5	EPA 524.2	01/29/2019

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

Compound	% Recovered	QC Lii	mits (%)
1,2-dichlorobenzene-d4	104	70	130
4-bromofluorobenzene	107	70	130

Special

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA002).

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

 40 Pond Street
 REPORTED: 01/31/2019

 Hanover, MA 02339
 ORDER #: G1932599

 COLLECTED BY: N. Merritt
 SAMPLE DATE: 1/25/2019

 TIME: 12:57
 DATE RECEIVED: 1/25/2019

LOCATION: Hydrant 30-012

Grab DESCRIPTION: DRINKING WATER

SAMPLE ID:

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (μg/L)	Detection Limit (μg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1932599-02</u>	
Total Trihalomethanes	32	80.0	0.5	EPA 524.2	01/29/2019
Bromoform	1.0		0.5	EPA 524.2	01/29/2019
Chloroform	9.1		0.5	EPA 524.2	01/29/2019
Bromodichloromethane	12.4		0.5	EPA 524.2	01/29/2019
Dibromochloromethane	9.3		0.5	EPA 524.2	01/29/2019

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

Compound	% Recovered	QC Li	mits (%)
1,2-dichlorobenzene-d4	105	70	130
4-bromofluorobenzene	107	70	130

Special

Unless otherwise noted, all analyses were conducted by Analytical Balance, Corp. (M-MA002).

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

 40 Pond Street
 REPORTED: 01/31/2019

 Hanover, MA 02339
 ORDER #: G1932599

 COLLECTED BY: N. Merritt
 SAMPLE DATE: 1/25/2019

 TIME: 12:37
 DATE RECEIVED: 1/25/2019

LOCATION: Hydrant 38-002 SAMPLE ID: Special

Grab DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (μg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1932599-03</u>	
Total Trihalomethanes	26	80.0	0.5	EPA 524.2	01/29/2019
Bromoform	7.6		0.5	EPA 524.2	01/29/2019
Chloroform	3.2		0.5	EPA 524.2	01/29/2019
Bromodichloromethane	5.7		0.5	EPA 524.2	01/29/2019
Dibromochloromethane	9.7		0.5	EPA 524.2	01/29/2019

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

Compound	% Recovered	QC Liı	mits (%)
1,2-dichlorobenzene-d4	102	70	130
4-bromofluorobenzene	107	70	130

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA002).

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street REPORTED: 01/31/2019 Hanover, MA 02339 ORDER #: G1932599 COLLECTED BY: N. Merritt SAMPLE DATE: 1/25/2019 12:22 TIME: DATE RECEIVED: 1/25/2019 Special

LOCATION: Hydrant 47-001 SAMPLE ID:

> Grab **DESCRIPTION:** DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (μg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	1932599-04	
Total Trihalomethanes	23	80.0	0.5	EPA 524.2	01/29/2019
Bromoform	5.9		0.5	EPA 524.2	01/29/2019
Chloroform	3.0		0.5	EPA 524.2	01/29/2019
Bromodichloromethane	5.4		0.5	EPA 524.2	01/29/2019
Dibromochloromethane	8.7		0.5	EPA 524.2	01/29/2019

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

Compound	% Recovered	QC Limits (%	
1,2-dichlorobenzene-d4	102	70 130	
4-bromofluorobenzene	107	70	130

ND = Not Detected

(Lab Manager)

Unless otherwise noted, all analyses were conducted by Aalytical Balance Corp. (M-MA002).

^{1.} These limits are maximum contaminant levels (MCL) as adopted by the Commonwealth of Massachusetts and represent the maximum acceptable level in drinking Water.

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street REPORTED: 02/11/2019 Hanover, MA 02339 ORDER #: G1932725 COLLECTED BY: D. Dietlin SAMPLE DATE: 1/31/2019 TIME: 11:00 DATE RECEIVED: 1/31/2019

LOCATION: McDonalds 1392 Washington Street SAMPLE ID:

Grab

Special DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (μg/L)	Detection Limit (μg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1932725-01</u>	
Total Trihalomethanes	39	80.0	0.5	EPA 524.2	02/08/2019
Bromoform	1.8		0.5	EPA 524.2	02/08/2019
Chloroform	10.4		0.5	EPA 524.2	02/08/2019
Bromodichloromethane	14.5		0.5	EPA 524.2	02/08/2019
Dibromochloromethane	12.1		0.5	EPA 524.2	02/08/2019

Compound	% Recovered	QC Limits (%	
1,2-dichlorobenzene-d4	112	70	130
4-bromofluorobenzene	113	70	130

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

 40 Pond Street
 REPORTED: 02/11/2019

 Hanover, MA 02339
 ORDER #: G1932725

 COLLECTED BY: D. Dietlin
 SAMPLE DATE: 1/31/2019

TIME: 11:14

LOCATION: Sullivan Tire 1792 Washington Street SAMPLE ID: Special

Grab

DESCRIPTION: DRINKING WATER

DATE RECEIVED: 1/31/2019

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (µg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1932725-02</u>	
Total Trihalomethanes	31	80.0	0.5	EPA 524.2	02/08/2019
Bromoform	1.6		0.5	EPA 524.2	02/08/2019
Chloroform	6.8		0.5	EPA 524.2	02/08/2019
Bromodichloromethane	11.5		0.5	EPA 524.2	02/08/2019
Dibromochloromethane	10.7		0.5	EPA 524.2	02/08/2019

Compound	% Recovered	QC Limits (%	
1,2-dichlorobenzene-d4	115	70	130
4-bromofluorobenzene	114	70	130

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street REPORTED: Hanover, MA 02339 ORDER #:

COLLECTED BY: D. Dietlin TIME: 11:28

LOCATION: Valvoline 1988 Wsahington Street

Grab

ORDER #: G1932725
SAMPLE DATE: 1/31/2019

DATE RECEIVED: 1/31/2019 SAMPLE ID: Special

DESCRIPTION: DRINKING WATER

02/11/2019

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (μg/L)	Detection Limit (μg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1932725-03</u>	
Total Trihalomethanes	31	80.0	0.5	EPA 524.2	02/08/2019
Bromoform	1.6		0.5	EPA 524.2	02/08/2019
Chloroform	6.7		0.5	EPA 524.2	02/08/2019
Bromodichloromethane	11.8		0.5	EPA 524.2	02/08/2019
Dibromochloromethane	10.5		0.5	EPA 524.2	02/08/2019

Compound	% Recovered	QC Limits (%	
1,2-dichlorobenzene-d4	114	70	130
4-bromofluorobenzene	116	70	130

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

 40 Pond Street
 REPORTED: 02/11/2019

 Hanover, MA 02339
 ORDER #: G1932725

 COLLECTED BY: D. Dietlin
 SAMPLE DATE: 1/31/2019

 TIME: 11:41
 DATE RECEIVED: 1/31/2019

LOCATION: Infinity 2060 Washington Street SAMPLE ID: Special

Grab DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (µg/L)	MCL ¹ (μg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
<i>Trihalomethanes 524.2</i> LAB-ID#: 1932725-04					
Total Trihalomethanes	42	80.0	0.5	EPA 524.2	02/08/2019
Bromoform	2.0		0.5	EPA 524.2	02/08/2019
Chloroform	10.8		0.5	EPA 524.2	02/08/2019
Bromodichloromethane	15.4		0.5	EPA 524.2	02/08/2019
Dibromochloromethane	13.4		0.5	EPA 524.2	02/08/2019

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

Compound	% Recovered	QC Limits (%	
1,2-dichlorobenzene-d4	114	70 130	
4-bromofluorobenzene	117	70	130

Approved	By:

ND = Not Detected

(Lab Manager) / Date

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA022).

^{1.} These limits are maximum contaminant levels (MCL) as adopted by the Commonwealth of Massachusetts and represent the maximum acceptable level in drinking Water.

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street REPORTED: Hanover, MA 02339 ORDER #:

COLLECTED BY: N. Merritt TIME: 8:00

LOCATION: 168 Dwelley Lane

Kitchen Sink

REPORTED: 02/11/2019 ORDER #: G1932745

SAMPLE DATE: 2/1/2019

DATE RECEIVED: 2/1/2019

SAMPLE ID: Special

DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (μg/L)	Detection Limit (μg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1932745-01</u>	
Total Trihalomethanes	75	80.0	0.5	EPA 524.2	02/08/2019
Bromoform	2.5		0.5	EPA 524.2	02/08/2019
Chloroform	27.7		0.5	EPA 524.2	02/08/2019
Bromodichloromethane	27.0		0.5	EPA 524.2	02/08/2019
Dibromochloromethane	18.2		0.5	EPA 524.2	02/08/2019

Compound	% Recovered	QC Liı	mits (%)
1,2-dichlorobenzene-d4	115	70	130
4-bromofluorobenzene	113	70	130

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

 40 Pond Street
 REPORTED: 02/11/2019

 Hanover, MA 02339
 ORDER #: G1932745

 COLLECTED BY: N. Merritt
 SAMPLE DATE: 2/1/2019

 TIME: 7:55
 DATE RECEIVED: 2/1/2019

LOCATION: 168 Dwelley Lane SAMPLE ID: Special

Post Brita Filter DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (μg/L)	Detection Limit (μg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1932745-02</u>	
Total Trihalomethanes	11	80.0	0.5	EPA 524.2	02/08/2019
Bromoform	ND		0.5	EPA 524.2	02/08/2019
Chloroform	4.8		0.5	EPA 524.2	02/08/2019
Bromodichloromethane	4.0		0.5	EPA 524.2	02/08/2019
Dibromochloromethane	2.2		0.5	EPA 524.2	02/08/2019

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

Compound	% Recovered	QC Liı	mits (%)
1,2-dichlorobenzene-d4	111	70	130
4-bromofluorobenzene	110	70	130

ND = Not Detected

(Lab Manager) / Date

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA002).

^{1.} These limits are maximum contaminant levels (MCL) as adopted by the Commonwealth of Massachusetts and represent the maximum acceptable level in drinking Water.

Trihalomethane Report

Data Check - Unsigned

PWS ID #: 4122000

City/Town: HANOVER

PWS Name:

HANOVER WATER DEPT

PWS Class:

COM

Page

1 of 2

Primary Lab MA Cert # M-MA022

Primary Lab Name: ANALYTICAL BALANCE CORP.

Location ID	Location		Routi	ne/ Special:	Collected By:	Collection Date:	O/R/C:	Resubmit Reason:	Original Collection
10383	925 CIRCUIT ST - I	FIRE STATION #	3 RS		D. DIETLIN	3/5/2019	0		
Sample Comme	ents:		Anal	ysis Comme	ents:	Lab Sa	ample ID:		
						1933	53901		
Contaminant:		Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical La	b ID: Analy	/tical Lab:
BROMODICHLO	ROMETHANE	11.2	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP
BROMOFORM		4.8	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	ALANCE CORP
CHLOROFORM		8.9	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	ALANCE CORP
DIBROMOCHLO	ROMETHANÉ	11.9	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	ALANCE CORP
TOTAL TRIHALO	OMETHANES	37	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	
Location ID	Location		Routi	ne/ Special:	Collected By:	Collection Date:	O/R/C;	Resubmit Reason:	Original Collection
10385	70 PONDEROSA		RS		D. DIETLIN	3/5/2019	0		
Sample Comme	ents:		Anal	sis Comme	ents:	Lab Sa	ample ID:		
-						19335	53902		
Contaminant:		Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical La	b ID: Analy	rtical Lab:
BROMODICHLO	ROMETHANE	17.8	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP
BROMOFORM		3.7	ŲG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP
CHLOROFORM		14.7	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP
DIBROMOCHLO		15.9	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP
TOTAL TRIHALO	OMETHANES	52	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP
Location ID	Location		Routir	e/ Special:	Collected By:	Collection Date:	O/R/C: I	Resubmit Reason:	Original Collection:
10389	24 ROCKLAND ST UNIT 8	- ATLANTIC SYS	. RS		D. DIETLIN	3/5/2019	0		
Sample Comme	nts:		Anal	sis Comme	ents:	Lab Sa	ample ID:		
					•	19335	53903		
Contaminant:		Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical La	o ID: Analy	rtical Lab:
BROMODICHLO	ROMETHANE	7.2	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP
BROMOFORM		4.1	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP
	Single sources represer	nted in sample sit	e.		PWS ID #:	4122000		3/18/2019 8:	57:13 AM
	or Source sample site. shed water sample site.				PWS Name:	HANOVER WATER DEPT		Page	1 of 2

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

R/F = Raw or Finished water sample site.

MDL = Method Detection Limit.

Massachusetts Department of Environmental Protection - Drinking Water Program

Trihalomethane Report

Data Check - Unsigned

Location ID	Location	•			Collected By:	Collection Date:	O/R/C:	Resubmit Reason:	Original Collection
TOTAL TRIHALO	METHANES	25	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP
DIBROMOCHLOR	ROMETHANE	9.7	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP
CHLOROFORM		3.7	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BA	LANCE CORP

10387 2060 WASHINGTON ST - PRIME INFINITY

RS D. DIETLIN 3/5/2019

Original Collection:

Sample Comments:

Analysis Comments:

Lab Sample ID:

0

193353904

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID	: Analytical Lab:
BROMODICHLOROMETHANE	7.8	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	1.4	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BALANCE CORP
CHLOROFORM	6.7	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	6.4	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	22	UG/L	0.5	EPA 524.2	3/6/2019	M-MA022	ANALYTICAL BALANCE CORP

EDEP Transaction ID:

1092108

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

3/18/2019 8:57:13 AM

Page

2 of 2

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: N. Merritt

TIME:

7:10

LOCATION:

1558 Broadway Brita Filter

001A

REPORTED:

03/28/2019

ORDER #:

G1933935

SAMPLE DATE:

3/19/2019

DATE RECEIVED: 3/19/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ¹ (µg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	1933935-02	
Total Trihalomethanes	15	80.0	0.5	EPA 524.2	03/26/2019
Bromoform	8.2		0.5	EPA 524.2	03/26/2019
Chloroform	0.5		0.5	EPA 524.2	03/26/2019
Bromodichloromethane	1.5		0.5	EPA 524.2	03/26/2019
Dibromochloromethane	4.3		0.5	EPA 524.2	03/26/2019

Compound	% Recovered	QC Li	imits (%) 130 130
1,2-dichlorobenzene-d4	94	70	130
4-bromofluorobenzene	101	70	130

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department 40 Pond Street

Hanover, MA 02339

COLLECTED BY: N. Merritt

TIME:

7:10

LOCATION:

1558 Broadway Kitchen Sink

001

REPORTED:

03/28/2019

ORDER #:

G1933935

SAMPLE DATE:

3/19/2019

DATE RECEIVED: 3/19/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (µg/L)	MCL 1 (µg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#	#: <u>1933935-01</u>	
Total Trihalomethanes	33	80.0	0.5	EPA 524.2	03/26/2019
Bromoform	17.6		0.5	EPA 524.2	03/26/2019
Chloroform	1.3		0.5	EPA 524.2	03/26/2019
Bromodichloromethane	3.8		0.5	EPA 524.2	03/26/2019
Dibromochloromethane	10.4		0.5	EPA 524.2	03/26/2019

Compound	% Recovered	QC Limits (%)		
1,2-dichlorobenzene-d4	96	70	130	
4-bromofluorobenzene	101	70	130	

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

40 Pond Street

Hanover, MA 02339

COLLECTED BY: N. Merritt

Hanover Water Department

TIME:

8:45

LOCATION:

Hydrant 58-100 (94 Old Bridge Road)

REPORTED:

03/28/2019

ORDER #:

G1933935

SAMPLE DATE:

3/19/2019

DATE RECEIVED: 3/19/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Result (µg/L)	MCL ¹ (µg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
•		LAB-ID#:	<u>1933935-03</u>	
34	80.0	0.5	EPA 524.2	03/26/2019
21.2		0.5	EPA 524.2	03/26/2019
0.7		0.5	EPA 524.2	03/26/2019
2.6		0.5	EPA 524.2	03/26/2019
9.1		0.5	EPA 524.2	03/26/2019
	34 21.2 0.7 2.6	34 80.0 21.2 0.7 2.6	μg/L) (μg/L) Limit (μg/L) 134 80.0 0.5 21.2 0.5 0.7 0.5 2.6 0.5	μg/L) (μg/L) Limit (μg/L) Method LAB-ID#: 1933935-03 34 80.0 0.5 EPA 524.2 21.2 0.5 EPA 524.2 0.7 0.5 EPA 524.2 2.6 0.5 EPA 524.2

Compound	% Recovered	QC Li	mits (%)	
1,2-dichlorobenzene-d4	96 70		130	
4-bromofluorobenzene	103	70	130	

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department 40 Pond Street

Hanover, MA 02339

COLLECTED BY: N. Merritt

TIME:

9:33

LOCATION:

233 Curtis Mill Lane

003

REPORTED:

03/28/2019

ORDER #:

G1933935

SAMPLE DATE:

3/19/2019

DATE RECEIVED: 3/19/2019

SAMPLE ID:

DESCRIPTION:

Special

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (μg/L)	MCL ' (µg/L)	Detection Limit (ug/L	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#	: <u>1933935-04</u>	•
Total Trihalomethanes	49	80.0	0.5	EPA 524.2	03/26/2019
Bromoform	2.2		0.5	EPA 524.2	03/26/2019
Chloroform	14.8		0.5	EPA 524.2	03/26/2019
Bromodichloromethane	17		0.5	EPA 524.2	03/26/2019
Dibromochloromethane	14.6		0.5	EPA 524.2	03/26/2019

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

	% Recovered	QC Limits (%)		
1,2-dichlorobenzene-d4	97	70	130	
4-bromofluorobenzene	101	70	130	

Timothy A

Approved By: Begley

ND = Not Detected

(Lab Manager) Date

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA022).

^{1.} These limits are maximum contaminant levels (MCL) as adopted by the Commonwealth of Massachusetts and represent the maximum acceptable level in drinking Water.

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department 40 Pond Street

Hanover, MA 02339

COLLECTED BY: N. Merritt

TIME:

10:10

LOCATION:

73 Phillips Street

Grab

REPORTED:

04/17/2019

ORDER #:

G1934551

SAMPLE DATE:

4/9/2019

DATE RECEIVED: 4/9/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (µg/L)	MCL. ¹ (μg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	1934551-02	
Total Trihalomethanes	73	80.0	0.5	EPA 524.2	04/15/2019
Bromoform	3.3		0.5	EPA 524.2	04/15/2019
Chloroform	24		0.5	EPA 524.2	04/15/2019
Bromodichloromethane	25.3		0.5	EPA 524.2	04/15/2019
Dibromochloromethane	20.1		0.5	EPA 524.2	04/15/2019

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

Сотроинд	% Recovered	QC Limits (%)		
1,2-dichlorobenzene-d4	113	70	130	
4-bromofluorobenzene	113	70	130	

Timothy A.

Approved By: Begley

(Lab Manager)

ND = Not Detected

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

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: N. Merritt

TIME:

9:47

LOCATION:

55 Tower Hill Drive

Grab

REPORTED:

04/17/2019

ORDER #:

G1934551

SAMPLE DATE:

4/9/2019

DATE RECEIVED: 4/9/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (µg/L)	MCL ¹ (µg/L)	Detection Limit (µg/L)	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID#:	<u>1934551-01</u>	
Total Trihalomethanes	49	80.0	0.5	EPA 524.2	04/15/2019
Bromoform	1.7		0.5	EPA 524.2	04/15/2019
Chloroform	14.7		0.5	EPA 524.2	04/15/2019
Bromodichloromethane	17.4		0.5	EPA 524.2	04/15/2019
Dibromochloromethane	14.9		0.5	EPA 524.2	04/15/2019

Compound	% Recovered	QC Li	mits (%)
1,2-dichlorobenzene-d4	114	70	130
4-bromofluorobenzene	113	70	130

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: N. Merritt

TIME:

10:19

LOCATION:

37 Phillips St.-Brita Filter

Grab

REPORTED:

05/08/2019

ORDER#:

G1934945

SAMPLE DATE:

4/22/2019

DATE RECEIVED: 4/23/2019

4/22/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Company (recolated)	(Cant. gig()	26.7 46.0 46.0		Name (1976) Section	Control of the Contro
Trihalomethanes 524.2			LAB-ID)#: <u>1934945-04</u>	
Total Trihalomethanes	8.6	80.0	0.5	EPA 524.2	04/25/2019
Bromoform	ND		0.5	EPA 524.2	04/25/2019
Chloroform	3.7		0.5	EPA 524.2	04/25/2019
Bromodichloromethane	0.6		0.5	EPA 524.2	04/25/2019
Dibromochloromethane	ND		0.5	EPA 524.2	04/25/2019

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

Compound	% Recovered	QC Li	mits (%)
1,2-dichlorobenzene-d4	126	70	130
4-bromofluorobenzene	125	70	130

Approved By: Timothy A. Begley

Try A. Degley and y famous A Begley

ND = Not Detected

(Lab Manager) / Date

^{1.} These limits are maximum contaminant levels (MCL) as adopted by the Commonwealth of Massachusetts and represent the maximum acceptable level in drinking Water.

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: N. Merritt

TIME:

10:49

LOCATION:

Pond St. WTP-Finished

Grab

REPORTED:

05/08/2019

ORDER #:

G1934945

SAMPLE DATE:

4/22/2019 DATE RECEIVED: 4/23/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

SECTION OF THE PROPERTY OF THE	RESULT	5 OF ANALISIS			
Compound (regulated)	ss Result (ag/L)			AMA Velica. Nedson	Analyzei
Trihalomethanes 524.2			LAB-II)#: <u>1934945-01</u>	
Total Trihalomethanes	21	80.0	0.5	EPA 524.2	04/25/2019
Bromoform	0.8		0.5	EPA 524.2	04/25/2019
Chloroform	5.1		0.5	EPA 524.2	04/25/2019
Bromodichloromethane	8.3		0.5	EPA 524.2	04/25/2019
Dibromochloromethane	6.3		0.5	EPA 524.2	04/25/2019

Compound	% Recovered	QC Li	mits (%)
1,2-dichlorobenzene-d4	123	70	130
4-bromofluorobenzene	125	70	130

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: N. Merritt

TIME:

11:08

LOCATION:

Beal WTP-Finished

Grab

REPORTED:

05/08/2019

ORDER #:

G1934945

SAMPLE DATE:

スプンサンサン

DATE RECEIVED: 4/23/2019

4/22/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

	RESUL	15 OF ANALYSIS			
Compound (regulated)	Result	3478		genniënese	
	3,80/64	3 (6/2)		Verseu	Audivret
Trihalomethanes 524.2	and the state of t		LAB-II	D#: <u>193</u> 4945-02	
Total Trihalomethanes	14	80.0	0.5	EPA 524.2	04/25/2019
Bromoform	8.3		0.5	EPA 524.2	04/25/2019
Chloroform	ND		0.5	EPA 524.2	04/25/2019
Bromodichloromethane	1.2	m+0 cs	0.5	EPA 524.2	04/25/2019
Dibromochloromethane	4.5		0.5	EPA 524.2	04/25/2019

Compound	% Recovered	QC Li	mits (%)
1,2-dichlorobenzene-d4	124	70	130
4-bromofluorobenzene	122	70	130

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling Data Auditing

Neal Merritt

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: N. Merritt

TIME:

11:37

LOCATION:

Broadway WTP-Finished

Grab

REPORTED:

05/08/2019

ORDER #:

G1934945

SAMPLE DATE:

4/22/2019

DATE RECEIVED: 4/23/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Restal) (B21)			e Kjáliktest. Atedoxí	27
Trihalomethanes 524,2			LAB-II		Analyze
Total Trihalomethanes	7.4	80.0	0.5	EPA 524.2	04/25/2019
Bromoform	0.9		0.5	EPA 524.2	04/25/2019
Chloroform	1.9		0.5	EPA 524.2	04/25/2019
Bromodichloromethane	1.9		0.5	EPA 524.2	04/25/2019
Dibromochloromethane	2.8		0.5	EPA 524.2	04/25/2019

Compound	% Recovered	QC Li	mits (%)	
1,2-dichlorobenzene-d4	125	70	130	
4-bromofluorobenzene	124	70	130	

Trihalomethane Report

PWS ID #: 4122000

City/Town: HANOVER

PWS Name: HANOVER WATER DEPT PWS Class:

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

Location IDLocationRoutine/ Special:Collected By:Collection Date:O/R/C:Resubmit Reason:Original Collection:10383925 CIRCUIT ST - FIRE STATION #3RSD. DIETLIN6/4/2019O

Sample Comments: Analysis Comments: Lab Sample ID:

193636901

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID	: Analytical Lab:
BROMODICHLOROMETHANE	15.5	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	7.0	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
CHLOROFORM	16.5	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	14.1	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	53	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP

Location IDLocationRoutine/ Special:Collected By:Collection Date:O/R/C:Resubmit Reason:1038570 PONDEROSARSD. DIETLIN6/4/2019O

Sample Comments: Analysis Comments: Lab Sample ID:

193636902

Data Check - Unsigned

COM

Original Collection:

6/24/2019 9:51:42 AM

1 of 2

Page

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID	: Analytical Lab:
BROMODICHLOROMETHANE	26.5	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	1.1	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
CHLOROFORM	40.6	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	11.3	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	80	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP

Location IDLocationRoutine/ Special:Collected By:Collection Date:O/R/C:Resubmit Reason:Original Collection:1038924 ROCKLAND ST - ATLANTIC SYS.RSD. DIETLIN6/4/2019O

8 TINU

Sample Comments: Analysis Comments: Lab Sample ID:

193636903

4122000

PWS Name: HANOVER WATER DEPT

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab	D: Analytical Lab:
BROMODICHLOROMETHANE	9.7	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	0.6	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP

PWS ID #:

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.

Massachusetts Department of Environmental Protection - Drinking Water Program

Trihalomethane Report

Data Check - Unsigned

CHLOROFORM	10.0	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	6.3	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	27	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP

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

10387 2060 WASHINGTON ST - PRIME RS D. DIETLIN 6/4/2019 O

INFINITY

Sample Comments: Analysis Comments: Lab Sample ID:

193636904

Contaminant:	Result:	UOM:	MDL:	Analytical Method:	Analysis Date:	Analytical Lab ID	: Analytical Lab:
BROMODICHLOROMETHANE	23.6	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
BROMOFORM	ND	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
CHLOROFORM	39.6	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
DIBROMOCHLOROMETHANE	9.0	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP
TOTAL TRIHALOMETHANES	72	UG/L	0.5	EPA 524.2	6/12/2019	M-MA022	ANALYTICAL BALANCE CORP

EDEP Transaction ID: 1116708

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

6/24/2019 9:51:42 AM

Page 2 of 2

Site Assessment

Quality Assurance Services



Environmental Services
Site Sampling
Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: D. Dietlin

TIME:

9:15

LOCATION:

248 Larchmont Lane

Grab

REPORTED:

08/07/2019

ORDER #:

G1938337

SAMPLE DATE:

.....

DATE RECEIVED: 7/30/2019

7/30/2019

SAMPLE ID:

DESCRIPTION:

Special DRINKING WATER

RESULTS OF ANALYSIS

Charles (Charles Contrate and Charles and Charles and Charles (Charles Charles Charles Charles (Charles Charles Charles Charles (Charles Charles Charles Charles (Charles Charles Charles Charles Charles (Charles Charles Charles Charles Charles Charles (Charles Charles Charles Charles Charles (Charles Charles Charles Charles Charles Charles (Charles Charles Charles Charles Charles (Charles Charles Charles Charles Charles Charles (Charles Charles Charles Charles Charles Charles (Charles Charles Charles Charles Charles Charles Charles (Charles Charles Charles Charles Charles Charles Charles Charles (Charles Charl	RESCEIS	OI MINABIDID			
Compound (regulated)	Result (ug/L)	MGL* == (ug/L)	Delection Limit (129/1	Analytical Method	Date Analyzed
Trihalomethanes 524.2			LAB-ID	0#: <u>1938337-05</u>	
Total Trihalomethanes	122	80.0	0.5	EPA 524.2	08/02/2019
Bromoform	1.1		0.5	EPA 524.2	08/02/2019
Chloroform	74.1		0.5	EPA 524.2	08/02/2019
Bromodichloromethane	36.7		0.5	EPA 524.2	08/02/2019
Dibromochloromethane	10.3		0.5	EPA 524.2	08/02/2019

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

Compound	% Recovered	QC Li	mits (%)	
1,2-dichlorobenzene-d4	106	70	130	
4-bromofluorobenzene	107	70	130	

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (MA-022). Chemically, this water does not meet the Maximum Contaminant Levels requirements for drinking as established by the Commonwealth of Massachusetts. The TTHMs are in excess of the allowable criteria.

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: D. Dietlin

TIME:

9:15

LOCATION:

248 Larchmont Lane-Brita

Grab

REPORTED:

08/07/2019

ORDER #:

G1938337

SAMPLE DATE:

7/30/2019

DATE RECEIVED: 7/30/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (ug/L)	MCL. [†] (Mg/L)	Detection Limit (pg/l	Analytical Method	Dete Analyzed
Trihalomethanes 524.2			LAB-ID	#: <u>1938337-06</u>	e a meneral and a superior and a sup
Total Trihalomethanes	13	80.0	0.5	EPA 524.2	08/02/2019
Bromoform	ND		0.5	EPA 524.2	08/02/2019
Chloroform	8.0		0.5	EPA 524.2	08/02/2019
Bromodichloromethane	3.5		0.5	EPA 524.2	08/02/2019
Dibromochloromethane	1.1		0.5	EPA 524.2	08/02/2019

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

Compound	% Recovered	QC Lii	nits (%)	
1,2-dichlorobenzene-d4	107	70	130	
4-bromofluorobenzene	105	70	130	

Unless otherwise noted, all analyses were conducted by Analtytical Balance Corp. (MA-022).

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: D. Dietlin

TIME:

9:35

LOCATION:

234 Curtis Mill Lane

Grab

REPORTED:

08/07/2019

ORDER #:

G1938337

SAMPLE DATE:

7/30/2019

DATE RECEIVED: 7/30/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated):	Result MCL Detection Analytical				
	(Jg/L):	(mg/L)	Limit (µg/l	2) Method	Anatyzed
Trihalomethanes 524.2			LAB-II)#: <u>1938337-07</u>	
Total Trihalomethanes	82	80.0	0.5	EPA 524.2	08/02/2019
Bromoform	ND		0.5	EPA 524.2	08/02/2019
Chloroform	57.5		0.5	EPA 524.2	08/02/2019
Bromodichloromethane	20.5		0.5	EPA 524.2	08/02/2019
Dibromochloromethane	4.4		0.5	EPA 524.2	08/02/2019

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

Compound	% Recovered	QC Limits (%)	
1,2-dichlorobenzene-d4	104	70	130
4-bromofluorobenzene	105	70	130

Approved By: Amanda Cronin

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp (MA-022). Chemically, this water does not meet the Maximum Contaminant Level requirements for drinking as established by the Commonwealth of Massachusetts. The TTHMs are in excess of the allowable criteria.

ND = Not Detected

^{1.} These limits are maximum contaminant levels (MCL) as adopted by the Commonwealth of Massachusetts and represent the maximum acceptable level in drinking Water.

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: D. Dietlin

TIME:

8:15

LOCATION:

539 Water Street

Grab

REPORTED:

08/07/2019

ORDER #:

G1938337

7/30/2019

SAMPLE DATE: DATE RECEIVED: 7/30/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (µg/L)	MCE ¹ (pg/L)	Detection Limit (pg/l		Dute Analyzed
Trihalomethanes 524.2			LAB-ID	#: <u>1938337-03</u>	
Total Trihalomethanes	25	80.0	0.5	EPA 524.2	08/02/2019
Bromoform	13.8		0.5	EPA 524.2	08/02/2019
Chloroform	0.6		0.5	EPA 524.2	08/02/2019
Bromodichloromethane	2.4		0.5	EPA 524.2	08/02/2019
Dibromochloromethane	8.1		0.5	EPA 524.2	08/02/2019

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

Compound	% Recovered	QC Li	mits (%)	
1,2-dichlorobenzene-d4	102	70	130	
4-bromofluorobenzene	104	70	130	

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (MA-022).

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: D. Dietlin

TIME:

8:15

LOCATION:

539 Water Street-Brita

Grab

REPORTED:

08/07/2019

ORDER #:

G1938337

SAMPLE DATE:

7/30/2019

DATE RECEIVED: 7/30/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (µg/L)	MCL (pg/L)	Detection Limit (µg/L		Date Analyzed
Trihalomethanes 524,2			LAB-ID	#: <u>1938337-04</u>	
Total Trihalomethanes	11	80.0	0.5	EPA 524.2	08/02/2019
Bromoform	6.0		0.5	EPA 524.2	08/02/2019
Chloroform	0.9		0.5	EPA 524.2	08/02/2019
Bromodichloromethane	1.4		0.5	EPA 524.2	08/02/2019
Dibromochloromethane	2.9		0.5	EPA 524.2	08/02/2019

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

Compound	% Recovered	QC Li	mits (%)
1,2-dichlorobenzene-d4	108	70	130
4-bromofluorobenzene	102	70	130

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (MA-022).

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling **Data Auditing**

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: D. Dietlin

TIME:

8:45

LOCATION:

1215 Webster Street

Grab

REPORTED:

08/07/2019

ORDER #:

G1938337

SAMPLE DATE:

7/30/2019

DATE RECEIVED: 7/30/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (µg/L)	MCL ^(t) (ug/L)	Detection Limit (pg/L		Date Analyzed
Trihalomethanes 524.2			LAB-ID	#: <u>1938337-01</u>	
Total Trihalomethanes	130	80.0	0.5	EPA 524.2	08/02/2019
Bromoform	1.3		0.5	EPA 524.2	08/02/2019
Chloroform	82.4		0.5	EPA 524.2	08/02/2019
Bromodichloromethane	36.0		0.5	EPA 524.2	08/02/2019
Dibromochloromethane	10.1		0.5	EPA 524.2	08/02/2019

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

Compound	% Recovered	QC Limits (%)		
1,2-dichlorobenzene-d4	109	70	130	
4-bromofluorobenzene	103	70	130	

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (MA-022). Chemically, this water does not meet the Maximum Contaminant Level requirements as by the Commonwealth of Massachusetts. The TTHMs are in excess of the allowable criteria.

Site Assessment

Quality Assurance Services



Environmental Services Site Sampling Data Auditing

Neal Merritt

CERTIFICATE OF ANALYSIS

Hanover Water Department

40 Pond Street

Hanover, MA 02339

COLLECTED BY: D. Dietlin

TIME:

8:45

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1215 Webster Street-Brita

Grab

REPORTED:

08/07/2019

ORDER #:

G1938337

SAMPLE DATE:

7/30/2019

DATE RECEIVED: 7/30/2019

SAMPLE ID:

Special

DESCRIPTION:

DRINKING WATER

RESULTS OF ANALYSIS

Compound (regulated)	Result (µg/L)	MCL [†] (ng/L)	Detection Limit (119/L)		Date Analyzed
Trihalomethanes 524.2			LAB-ID#	: <u>1938337-02</u>	
Total Trihalomethanes	ND	80.0	0.5	EPA 524.2	08/02/2019
Bromoform	ND		0.5	EPA 524.2	08/02/2019
Chloroform	ND		0.5	EPA 524.2	08/02/2019
Bromodichloromethane	ND		0.5	EPA 524.2	08/02/2019
Dibromochloromethane	ND		0.5	EPA 524.2	08/02/2019

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

Compound	% Recovered	QC Limits (%	
1,2-dichlorobenzene-d4	109	70	130
4-bromofluorobenzene	105	70	130

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (MA-022).