



Lead and Copper Analysis Report

I. PWS INFORMATION: Please refer to your DEP Lead & Copper sampling plan for approved sampling locations.

PWS ID #: **4036002**City / Town: **SAGAMORE BEACH, MA**PWS Name: **North Sagamore Water District**PWS Class: **COM** ☒ NTNC ☐ TNC ☐

Routine or Special Samples <input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	Original, Resubmitted or Confirmation Report <input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	If Resubmitted Report, list below:	
		(1) Reason for Resubmission <input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction	(2) Collection Date of Original Sample
SAMPLE NOTES – (Such as, if a Manifold/Multiple sample, list the sources that were on-line during sample collection).			

II. ANALYTICAL LABORATORY INFORMATION:

Primary Lab MA Cert. #: Primary Lab Name: **Barnstable County Health**Subcontracted? (Y/N)

Analyte	Action Level (mg/L)	Lab Method	MDL (mg/L)	Analysis Lab MA Cert.#	Analysis Lab Name
Lead:	0.015				
Copper:	1.3				
LAB SAMPLE NOTES					

DEP Approved Sample Location (See DEP approved LCR plan for sampling locations)		Collection Date	LEAD		COPPER		Lab Sample ID#
			Result (mg/L)	Date Analyzed	Result (mg/L)	Date Analyzed	
1	36 Pilgrim Road	9/10/2014	ND	9/12/2014	0.10	9/12/2014	
2	9 Manomet Road	9/11/2014	ND	9/12/2014	0.11	9/12/2014	
3	17 Diandy Road	9/10/2014	.0030	9/12/2014	0.083	9/12/2014	
4	28 Siasconset Drive	9/11/2014	ND	9/12/2014	0.12	9/12/2014	
5	64 Norris Road	9/15/2014	ND	9/17/2014	0.16	9/17/2014	
6	52 Norris Road	9/10/2014	ND	9/12/2014	0.38	9/12/2014	
7	35 Diandy Road	9/11/2014	ND	9/12/2014	0.035	9/12/2014	
8	17 Norris Road	9/10/2014	ND	9/12/2014	0.23	9/12/2014	
9	20 Diandy Road	9/10/2014	ND	9/12/2014	0.071	9/12/2014	
10	275 Williston Road	9/10/2014	ND	9/12/2014	0.29	9/12/2014	
11	273 Willistonroad	9/10/2014	ND	9/12/2014	0.012	9/12/2014	
12	23 Norris Road	9/11/2014	ND	9/12/2014	0.16	9/12/2014	
13	63 Siasconset Road	9/16/2014	ND	9/17/2019	.18	9/17/2014	
14	100 Standish Road	9/10/2014	ND	9/12/2014	0.23	9/12/2014	
15	276 Williston Road	9/10/2014	ND	9/12/2014	0.14	9/12/2014	
16	15 Mcgrath Road	9/17/2014	ND	9/29/2014	.11	9/29/2014	
17	186 Phillips Road	9/15/2014	ND	9/17/2014	0.13	9/17/2014	
18	55 Bournedale Road	9/10/2014	ND	9/12/2014	0.0049	9/12/2014	
19	1 Wampanoag Road	9/19/2014	ND	9/29/2014	.23	9/29/2014	
20	57 Samoset Road	9/10/2014	ND	9/12/2014	0.28	9/12/2014	
Report SCHOOL RESULTS collected in accordance with 310 CMR 22.06B (7)(a)9 below. Do not use these school results in 90 th percentile calculations.							
1	Swift Memorial Day Care	9/10/2014	ND	9/12/2014	0.13	9/12/2014	
2	Girl's Bathroom						
3	Swift Memorial Day Care	9/10/2014	ND	9/12/2014	0.13	9/12/2014	
4	Boy's Bathroom						

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: _____

If not submitting these results electronically, mail ONE copy 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.

COM & NTNC Public Water Suppliers must submit Forms LCR-D or LCR-E with this form to the appropriate DEP Regional Office.

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

**Lead and Copper - 90th PERCENTILE COMPLIANCE Report**

(For Systems Required to Collect More Than 5 Samples)

I. PWS INFORMATION: Please refer to your DEP Lead & Copper sampling plan for approved sampling locations.

PWS ID #:

4036002

City / Town:

SAGAMORE BEACH, MA

PWS Name:

North Sagamore Water District

PWS Class:

COM ☒ **NTNC** ☐Sampling
Frequency:
(choose one)☐ FIRST SEMI-ANNUAL SAMPLING PERIOD☐ SECOND SEMI-ANNUAL SAMPLING PERIOD☐ REDUCED - ANNUAL☒ REDUCED - EVERY THREE YEARS☐ LEAD SERVICE LINE (LSL) REPLACEMENT PROGRAM☐ DEMONSTRATION

Step 1: Place *lead* results in ascending order (from lowest to highest value) with lowest value at # 1, in the table below. Repeat for *copper* results. Please report results that are ND or less than (<) the laboratory's reported detection limit (MDL) as zero. Results at or above the laboratory's detection limit (MDL) but below 0.005 mg/L for lead or 0.05 mg/L for copper shall be reported as measured or may be reported as 0.0025 mg/L for lead or 0.025 mg/L for copper.

Step 2: Multiply the total number of samples collected by 0.9 (this is your 90th percentile sample number). Round to the nearest whole number, if necessary.

Step 3: Compare the sample result at the 90th percentile sample number against the corresponding action level. If the 90th percentile value is higher than the action level, then you have an exceedance and are required to contact MassDEP as soon as possible for information on compliance actions.

Note: Do not include school results on this form unless the PWS is a school.

LEAD RESULTS (mg/L)

#	Results	#	Results	#	Results	#	Results
1*	ND	16	ND	31		46	
2	ND	17	ND	32		47	
3	ND	18	ND	33		48	
4	ND	19	ND	34		49	
5	ND	20	.0030	35		50	
6	ND	21		36		51	
7	ND	22		37		52	
8	ND	23		38		53	
9	ND	24		39		54	
10	ND	25		40		55	
11	ND	26		41		56	
12	ND	27		42		57	
13	ND	28		43		58	
14	ND	29		44		59	
15	ND	30		45		60	

COPPER RESULTS (mg/L)

#	Results	#	Results	#	Results	#	Results
1*	0.0049	16	0.23	31		46	
2	0.012	17	0.23	32		47	
3	0.035	18	0.28	33		48	
4	0.071	19	0.29	34		49	
5	0.083	20	0.38	35		50	
6	0.10	21		36		51	
7	0.11	22		37		52	
8	0.11	23		38		53	
9	0.12	24		39		54	
10	0.13	25		40		55	
11	0.14	26		41		56	
12	0.16	27		42		57	
13	0.16	28		43		58	
14	0.18	29		44		59	
15	0.23	30		45		60	

*Lowest Value

My system was required to collect: 20 lead and copper samples. My system collected: 20 lead and copper samples.

Total # of samples collected: 20 x 0.9 = 18 This number is my system's 90th percentile sample #.

Circle the 90th percentile sample # for both lead and copper in the table above, and enter the results in the appropriate spaces below.

ND (Lead result at 90 th percentile sample#)	Compared to 0.015 mg/L (The lead action level)	0.28 (Copper result at 90 th percentile sample#)	Compared to 1.3 mg/L (The copper action level)
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II. CERTIFICATION:

Check and complete the correct statement for lead as determined by the above results. If you have an exceedance and you are a community system you must comply with the Consumer Confidence Rule (CCR) reporting requirements in accordance with 310 CMR 22.16A(4)(i)6.

☒ My system was **at or below** the lead action level.

☐ My system **exceeded** the lead action level and _____ sampling sites **exceeded** the lead action level.
(Insert # of samples)

Check and complete the correct statement for copper as determined from the above results. If you have an exceedance and you are a community system you must comply with the Consumer Confidence Rule (CCR) reporting requirements in accordance with 310 CMR 22.16A(4)(i)6.

☒ My system was **at or below** the copper action level.

☐ My system **exceeded** the copper action level and _____ sampling sites **exceeded** the copper action level.
(Insert # of samples)

My signature below indicates that all sampling sites on this report have been previously approved in writing by the DEP and that I have complied with 310 CMR 22.06B(7). I have also notified the owner of each sampling site of their sites' individual results. I certify under penalty 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 of my knowledge and belief.

Matthew Sawicki (Superintendent)
Title

Matthew R. Sawicki
Signature of PWS or Owner's Representative

9/29/2014
Date



The Official Website of the Executive Office of Energy and Environmental Affairs

Energy and Environmental Affairs

EEA Home > Agencies > MassDEP > Water Resources > Drinking Water > Overview of Lead in Massachusetts Drinking Water

Overview of Lead in Massachusetts Drinking Water

In order to help protect the public, in 1991 EPA published a regulation to control lead and copper in drinking water. This regulation is known as the Lead and Copper Rule (also referred to as the LCR). Massachusetts DEP has been given primacy to oversee and implement federal Safe Drinking Water Act requirements, including the LCR. Below are some frequently asked questions about the applicable requirements and the actions that are being taken here in Massachusetts.

1. Where does lead in drinking water come from and why is it a problem?

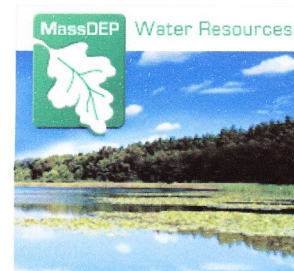
- Lead primarily enters drinking water through plumbing materials and service lines. Source waters are rarely the cause of elevated lead levels in finished drinking water.
- Corrosive (e.g., low pH or acidic) water can result in the leaching of lead from service lines and plumbing materials into drinking water.
- Over-exposure to lead may cause health problems ranging from stomach distress to brain damage.

2. What is the Lead and Copper Rule (LCR)?

- The LCR is a federal regulation implemented by the U.S. EPA and State environmental agencies (MassDEP).
- LCR is designed to minimize the ingestion of lead and copper through drinking water by reducing the corrosiveness of finished water.
- LCR applies to all Community and Non-Transient Non-Community Water Systems (CWS and NTNCWS) statewide (approximately 800 systems in Massachusetts).
- There is no maximum contaminant level (MCL) for lead. However, the LCR does establish an Action Level and a corrosion control Treatment Technique for both lead and copper.
- The Action Level for lead is 0.015 milligrams per liter (mg/L), a.k.a. 15 parts per billion (ppb).
- The Action Level is compared to the 90th percentile value of all sampling results collected during each monitoring period. (Meaning, that if more than 10 out of 100 samples taken exceed 15 ppb, then the Action Level is triggered.)
- Exceeding the Action Level is not a violation.
- If the 90th percentile value exceeds the lead action level, additional actions are required; these are described in more detail below:
 - Collection of additional water quality data, including a sample of the source water
 - Conduct public education
 - Evaluate corrosion control treatment and install it if needed. If corrosion control treatment was in place at time of exceedance, commence lead line replacements

3. How is LCR Implemented in Massachusetts?

- CWS and NTNCWS public water systems (PWSs) work with MassDEP to develop a sampling plan. This sampling plan is based on an evaluation of materials used in the distribution system and service lines. This sampling plan identifies service locations (single and multi-family residences) that are most likely to have high levels of lead due to the presence of lead service lines, lead interior plumbing, or copper pipes with lead solder.
- The number of samples that need to be collected depends on the population served. For example, a PWS that serves less than 100 people must collect 5 samples, whereas a PWS that serves over 100,000 people must collect 100 samples.
- The PWS asks homeowners/occupants to volunteer to collect water samples from the taps at the identified service locations (taps must be used regularly, such as kitchen taps); these samples must be analyzed by a state-certified laboratory.
- PWSs must provide all owners and/or occupants of homes and buildings sampled for lead with the sample results (whether they are above or below the action level).
- Initially, PWSs must collect one set of samples during two consecutive six month periods. If the PWS does not exceed the lead or copper Action Levels during those two six-month periods, the PWS is eligible for annual monitoring (rather than semi-annual). PWSs on annual monitoring can apply for a waiver to go to a three-year monitoring schedule if they have three annual monitoring periods without exceeding the lead or copper Action Level.



[A to Z Quick Links](#)

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Lead in Drinking Water

Specific information on lead in drinking water for the general public, schools and day care facilities, and public water suppliers.

Contaminants

Information and resources on lead, copper, mercury, perchlorate, and other drinking water contaminants.

What happens if the Action Level is exceeded?

- The PWS must go back to semi-annual monitoring until the 90th percentile results are below the Action Level for two consecutive six-month periods.
- The PWS must take all applicable follow-up actions:
- Collect additional water quality parameters (pH, alkalinity, calcium, conductivity, orthophosphate, silica, and temperature) during the monitoring period in which the lead action level was exceeded (if the PWS is not already collecting this information). These parameters can help to determine if corrosion control treatment is operating properly or to develop an optimal corrosion control treatment if one isn't currently in place.
- Submit an optimal corrosion control treatment recommendation to the state if the PWS has not already done so (systems serving more than 50,000 customers have all submitted these recommendations).
- Collect a source water lead sample to determine if the source water is contributing to the elevated lead levels.
- Conduct public education to inform all consumers about steps that the PWS has taken, steps that the consumer should take to protect their health, and to let the consumer know that they may have to replace lead service lines under their control.
- If the PWS has corrosion control in place and has still exceeded the lead action level, the PWS must update its material evaluation to identify all lead service lines and goosenecks and replace 7 percent of these service lines within 12 months of the exceedance, and continue this practice until monitoring results no longer exceed the lead action level.

When is a PWS that Exceeds the Action Level in Compliance with LCR?

- When the lead Action Level has been exceeded, if the PWS fulfills all required follow-up actions listed above within the timelines laid out in the Rule, then the PWS remains in compliance with the Rule.

When is a PWS that Exceeds the Action Level Out of Compliance with LCR?

- If the PWS fails to take any of the required follow-up actions listed above, the PWS has violated the Rule and enforcement actions are initiated.

4. Additional Measures Taken in Massachusetts to Protect the Public from Ingesting Lead through Drinking Water***The Lead Contamination Control Act (LCCA)***

- Established under the federal Safe Drinking Water Act in 1988 to reduce lead in the drinking water of schools and childcare facilities.
- All schools (K-12) and Early Education and Care Programs facilities are covered under the LCCA.
- MassDEP is responsible for managing the LCCA in Massachusetts. Partners include MA Department of Public Health (DPH), MA Department of Elementary and Secondary Education (ESE), MA Department of Early Education and Care (EEC) and the United States Environmental Protection Agency (U.S. EPA).
- MassDEP provides educational information and assistance to Early Education and Care Program and K-12 facilities covered by the LCCA. Every five years, MassDEP requests updated information from these facility administrators about lead and copper monitoring and remediation efforts at their facilities.
- Providing this information to MassDEP is voluntary. This updated information is used to provide additional training and technical assistance opportunities.

Additional Measures for Schools and Early Education and Child Care Programs

- All Community Water Systems are required by Massachusetts Drinking Water Regulations to collect lead and copper samples from at least two Schools or Early Education and Care Program facilities that they serve in each sampling period, when they collect their LCR samples.
- Early Education and Care Programs facilities with routine plumbing changes are encouraged to collect and analyze additional samples to complete an evaluation of all taps within their facility at least once every three years.

MassDEP's Relationship with the Massachusetts Department of Public Health (DPH)

- MassDEP works closely with DPH's Bureau of Environmental Health (BEH)
- BEH oversees the Massachusetts program that requires lead screens for all children between the ages of 9 and 12 months and again at between 2 and 3 years for their blood lead levels. In high risk communities, children are tested again at age 4.
- A summary of these results is publicly available.

MassDEP's Relationship with the U.S. Environmental Protection Agency (EPA) Region 1

- MassDEP works very closely with EPA Region 1 on implementation of the Safe Drinking Water Act, including implementation of LCR. This includes routine reporting of LCR data to EPA.

- EPA Region 1 is working closely with the New England States to gather additional information from the states and to provide additional assistance and guidance.

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