2019 Monitoring Schedule

SHERMAN TOWNSHIP

WSSN: 02590

Collect samples early in the monitoring period. This schedule reflects expected routine monitoring and is subject to change. To receive credit for monitoring, include the **WSSN, Site Code**, and **County** on your request for analysis form. Collect all samples close to the shipping time and send overnight delivery. Send all sample results to your Department of Environmental Quality (DEQ) district office unless you use the DEQ laboratory. Test codes, sample units, and costs are listed to help you complete the DEQ laboratory form. Prices subject to change without notice. The DEQ laboratory is closed on state holidays.

Location: Plant tap

Collect these samples at the entry point to the distribution system (after treatment, if applicable.)

Sample Type	# Samples/ Frequency	Collect Before	Site Code	Fee	Unit Number	Test Code
Automated Partial Chemistry	This DEQ lab scan includes nitrate, nitrite, fluoride, and sodium whose monitoring frequency requirements differ from one another. Before requesting analyses from a laboratory other than the DEQ laboratory, check with your DEQ district staff for the specific monitoring requirements.					
	1/12 months	**09/30/2019**	CH001	$18.00	32	R
Volatile Organic Compounds	1/36 months	**09/30/2019**	CH001	$100.00	36VO	CXVO
Complete Metals	1/108 months	09/30/2021	CH001	$102.00	36ME	CMET2
Cyanide	1/108 months	09/30/2026	CH001	$25.00	36CNa	CCN
SOC – Pesticides	1/36 months	**09/30/2019**	CH001	$125.00	36PT	CXPT
SOC – Herbicides	1/36 months	**09/30/2019**	CH001	$120.00	36HB	CXHB
SOC – Carbamates	1/36 months	**09/30/2019**	CH001	$120.00	36LP	CXLP
Gross Alpha (Radiological)	1/108 months	09/30/2024	CH001	Not performed at the DEQ Laboratory. A list of certified labs is at www.michigan.gov/DEQ. Select Water, Drinking Water, Community Water Supply, then Certified Labs under Programs and Activities.		
Radium 226 & Radium 228	1/108 months	09/30/2026	CH001			
Water Quality Parameters* pH, sulfate, chloride, orthophosphate dosage, orthophosphate residual	1/Every Two Weeks Beginning July 2019	**Every Two Weeks Beginning July 2019**	CH001	Various	Various	Various

Location: Distribution System

Sample Type	Collect According to your ...	# Samples/ Frequency	Collect	Site Code	Fee	Unit Number	Test Code
Bacteriological (coliforms)	RTCR Sample Siting Plan	1/Monthly	Monthly	DIST	$16.00	30	BPTC
Chlorine Residual	DBP Monitoring Plan	If serving chlorinated water, measure the residual disinfectant level at the same point and at the same time as the bacteriological sample and report the results and average to the DEQ.					
Total Trihalomethanes		1/36 months	**During August 2019**	See DBP Monitoring Plan	$65.00	36VO	CXTM
Haloacetic Acids		1/36 months	**During August 2019**	See DBP Monitoring Plan	$130.00	36HA	CXHA
Water Quality Parameters* pH, alkalinity, sulfate, chloride, orthophosphate	Representative Sites	1/Quarter Beginning July 2019	**Quarterly Beginning July 2019**	DIST	Various	Various	Various
Lead and Copper for Corrosion Control	Lead and Copper Sampling Pool	5/12 months	**Between 06/01 and 9/30/2019**	DIST	$26.00	36CC	CCUB

* See insert for additional information about water quality parameter analysis.

Water advisory Committee

Distribution System Materials Inventory

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MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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Distribution System Materials Inventory

- Rule 1604(c)(ii): The materials inventory under this subsection shall identify whether and where construction materials listed in 40 C.F.R. §141.42(d) are present in the **piping, storage structure, pumps, and controls** used to deliver water to the public, **including service lines**.
- 40 C.F.R. §141.42(d):
  - Lead from piping, solder, caulking, interior lining of distribution mains, alloys, and home plumbing.
  - Copper from piping and alloys, service lines, and home plumbing.
  - Galvanized piping, service lines, and home plumbing.
  - Ferrous piping materials such as cast iron and steel.
  - Asbestos cement pipe.

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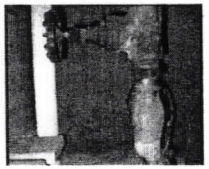
Anything with Galvanized into house will prob. need to be replaced

Distribution System Materials Inventory

- Every water supply is required to create a DSMI
  - Preliminary DSMI due January 1, 2020
  - **Complete** DSMI due January 1, 2025
- DSMI's are to be living documents that are updated continuously and reported to the department every 5 years
- DSMI's can help supplies identify lead service lines and possible sampling locations



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Preliminary DSMI

- Supplies have different starting points
- Goal is to gather existing information and submit a summary

1. Generalized determinations based on construction age, codes, practices, ordinances and records maintenance procedures
2. Identify, compile, and summarize detailed service connection records
3. **Document the basis for determinations.**
4. Determine format for record-keeping including on-going maintenance
5. Submit narrative and summary form (to be finalized) to EGLE
6. Continue to update records based on field work, new information, etc.

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Questions to Answer for Preliminary DSMI

- Describe the sources of information used to obtain data.
- Describe your level of confidence in the sources of information
- How common is it to find discrepancies in your service line data?
  - Example: services we expected to be lead turn out to be copper.
  - Does this happen; Frequently, Occasionally, Seldom, Never
- In general, characterize the composition of lead service lines
  - Full lines, partials, goosenecks

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Complete DSMI

Plan to get to a completed DSMI should be based on the Preliminary DSMI

Nuances of the Complete DSMI to note:

- Not Lead Service Lines – based on building records, documented institutional practices and/or visual verification
- Lead Service Lines – average of 5% must be removed each year on average
- Unknown Service Lines – Assumed to be LSLs, keep working to verify. These are added into the number of lines that must be replaced.

Big Questions for EGLE:

- What statistically valid strategies will be acceptable for verifying that subsets of homes do not have LSLs?
- How do we determine which existing records are acceptable documentation and which need verification?
- Others

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Example of a Complete Inventory Spreadsheet

ID	Bldg Type	Age	Private SL		Public SL		Gooseneck	
			Material	Source	Material	Source	Material	Source
123456	S	1	C	R	L	F	L	F
123457	M	3	C	R	C	R	C	R

Building Type	Code
Single Family Residence	S
Multi-Family Residence	M
Public Building	P
Commercial Building	C

Material	Code
Lead	L
Galvanized	G
Copper	C
Plastic	P
Other	O

Source	Code
Records Only	R
Field Inspection Only	F
Record Validation	V
Record Invalidation	I

Age	Code
<1960	1
1960 – 1988	2
1989 – 2014	3
>2014	4

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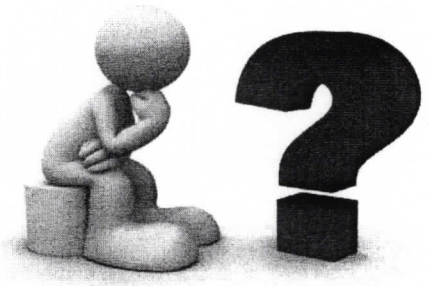
Questions?



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Preliminary DSMI Information Sources

- Plumbing codes;
- Plumbing permits;
- Distribution maps and drawings;
- Inspection and maintenance records;
- Meter installation records;
- Standard operating procedures;
- Operation and maintenance manuals;
- Permit files;
- Existing water quality data;
- Interviews with senior personnel, building inspectors, and retirees; and
- Community survey

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Summary Information

- For Service Lines:
  - Building Types
    - # Single Family Residences
    - # Multi-Family Residences
    - # Public or Commercial Buildings
  - Materials
    - Lead
    - Galvanized Steel
    - Copper
    - Plastic
    - Other
- Basis of Determination
  - Records Only
  - Field Inspection
  - Other

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on website W.A.C.

Examples of Summaries

Estimated Number of Service Connections by Service Line Material

A service line includes any section of pipe from the water main to the building plumbing at the first shut-off valve inside the building, or 18 inches inside the building, whichever is shorter.

Any Portion Contains Lead	Contains Galvanized Previously Connected to Lead*	Unknown			Contains neither Lead, nor Galvanized Previously Connected to Lead	Total**
		Likely Contains Lead	Likely Does Not Contain Lead	Material(s) Unknown		

*If a galvanized line is still connected to lead, it is a lead service line and must be counted in the first column
**The total number should equal the total number of potable water service lines in your water supply (residential, commercial, industrial, other)

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Examples of Good Information to Keep

Partial LSL Material Types	Number
LSL + Galvanized	125
LSL + Copper	196
LSL + Plastic	0
LSL + Other	0

LSL Types	Number
Full LSL	225
Partial LSL	321
Gooseneck only	54

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