

Copy of Report letter  
Sent in Groups  
5/15/20 19 homes



MI 0600 Benton Harbor Water  
Results to Resident + net  
Sampled 9/23/20

6/26/20 20 letters  
6/29/20 16 letters  
6/30/20 7 letters

### Benton Harbor Water Department Report of Lead and Copper Testing Results.

To: Name; [REDACTED] At: Address; [REDACTED] Your home's code: rpb1; Report Date: June 26, 2020

Thank you for participating in our 2<sup>nd</sup> group of 60 testing sites for Lead and Copper with Rev Pinkney Help. The samples you returned to us have been analyzed for Our new Corrosion Protection system by our laboratory operators. That was sample bottle #4. The first draw, bottle 1<sup>st</sup> and the 5<sup>th</sup> draw sample were sent to the EGLE (MDEQ) Laboratory in Lansing, MI. and the reports have returned back to us. The Action Level for Lead is 15 ppb; the goal level for lead is 0; The Action Level for Copper is 1300 ppb

A 0 (zero) is considered a Non-Detect of either Lead or Copper.

1 <sup>st</sup> Draw Lead Result ppb	1 <sup>st</sup> Draw Copper Result ppb	5 <sup>th</sup> Draw Lead Result ppb	5 <sup>th</sup> Draw Copper Result ppb		Action Level for Lead is	15 ppb
1.1	9.4	0	2.5		Action Level for Copper is	1,300 ppb
In House	Testing	For Water	Quality	Parameters		
OPP Residual mg/L Target is set at 1.5 mg/L	Chloride results mg/L	Sulfate results mg/L	Chloride to Sulfate Ratio	A ratio < 1.0 is not corrosive and > 1.0 is Corrosive.		
2.76	29	40	0.73			

OPP is our corrosion treatment it stands for Orthophosphosphate. It is specific for Lead material and has a recommended rate of 3.0 mg/L. Michigan Water Quality Experts consider OPP as an excellent Lead corrosion inhibitor.

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and it can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

To reduce exposure to lead and copper in drinking water:

- Run the water until it becomes cold, approximately 30 seconds to 2 minutes.
- Use cold water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; lead and copper dissolves more easily in hot water.
- Do not boil water to remove lead and copper. Boiling water will not reduce lead and copper levels.
- Look for alternative sources or treatment of water. If your lead result is above 15 ppb, you may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010, or [www.nsf.org](http://www.nsf.org) for information on performance standards for water filters.
- Faucets, fittings, and valves purchased before 2014 may contain up to 8 percent lead. Faucets, fittings, and valves purchased after 2014 may contain up to 0.25 percent lead, including those advertised or labeled as "lead-free". These items may be contributing to the lead found in your drinking water.

Additional Information is available on the City Web Site at [bhcity.us](http://bhcity.us). You can also visit the Berrien County Health Department's web site at [www.bchdmi.org](http://www.bchdmi.org) › Lead-Drinking-Water

Any questions you can call or email Mike O'Malley, Water Spt. at (269) 363-0575 and

[momalley@cityofbentonharbormi.gov](mailto:momalley@cityofbentonharbormi.gov) Mike is hard to reach, his email is readily available.



Copy of Report letter  
Sent in Groups  
5/15/20 19 homes

62 total  
Z



MI 0600 Benton Harbor Water  
Results to Resident that  
Sampled  
9/23/20

6/26/20 20 letters  
6/29/20 16 letters  
6/30/20 7 letters

### Benton Harbor Water Department Report of Lead and Copper Testing Results.

To: Name [REDACTED] At: Address; [REDACTED] Your home's code rpb1; Report Date: June 26, 2020

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In House	Testing	For Water	Quality	Parameters		
OPP Residual mg/L Target is set at 1.5 mg/L	Chloride results mg/L	Sulfate results mg/L	Chloride to Sulfate Ratio	A ratio < 1.0 is not corrosive and > 1.0 is Corrosive.		
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OPP is our corrosion treatment it stands for Orthophosphosphate. It is specific for Lead material and has a recommended rate of 3.0 mg/L. Michigan Water Quality Experts consider OPP as an excellent Lead corrosion inhibitor.

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and it can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

To reduce exposure to lead and copper in drinking water:

- Run the water until it becomes cold, approximately 30 seconds to 2 minutes.
- Use cold water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; lead and copper dissolves more easily in hot water.
- Do not boil water to remove lead and copper. Boiling water will not reduce lead and copper levels.
- Look for alternative sources or treatment of water. If your lead result is above 15 ppb, you may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010, or [www.nsf.org](http://www.nsf.org) for information on performance standards for water filters.
- Faucets, fittings, and valves purchased before 2014 may contain up to 8 percent lead. Faucets, fittings, and valves purchased after 2014 may contain up to 0.25 percent lead, including those advertised or labeled as "lead-free". These items may be contributing to the lead found in your drinking water.

Additional Information is available on the City Web Site at [bhcity.us](http://bhcity.us). You can also visit the Berrien County Health Department's web site at [www.bchdmi.org](http://www.bchdmi.org) › Lead-Drinking-Water

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**CONSUMER NOTICE OF LEAD AND COPPER RESULTS IN DRINKING WATER  
SITE WITH A LEAD SERVICE LINE**

Water Supply Name: Benton Harbor Water  
 County: Berrien WSSN: 0600  
 Sample Location: Residential Homes 62 of Date Sampled: 4/28/20 - 6/9/20

Thank you for participating in the lead and copper monitoring of drinking water. The levels of lead and copper found at your location are in the table below. Your home is served by a lead service line. This means that the pipe that brings water to your home contains lead. The first liter sample represents the water you are likely to drink when turning on the tap, and the fifth liter sample likely represents the water in the service line.

Contaminant	Action Level	Maximum Contaminant Level Goal	1 <sup>st</sup> Liter Result	5 <sup>th</sup> Liter Result
Lead (ppb)	15	0		
Copper (ppb)	1300	1300		

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.  
**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.  
**ppb:** Parts per billion or micrograms per liter.  
**ND:** Not detected.

To reduce exposure to lead and copper in drinking water:

- **Run your water before drinking.** The more time water has been sitting in your home's pipes, the more lead it may contain. Therefore, if your water has not been used for several hours, run the water before using it for drinking or cooking. This flushes lead-containing water from the pipes. Additional flushing may be required for homes that have been vacant or have a longer service line.
  - If you **do not** have a lead service line, run the water for 30 seconds to two minutes, or until it becomes cold or reaches a steady temperature.
  - If you **do** have a lead service line, run the water for at least five minutes to flush water from both the interior building plumbing and the lead service line.
- **Use cold water for drinking, cooking, and preparing baby formula.** Do not cook with or drink water from the hot water tap. Lead and copper dissolves more easily in hot water.
- **Do not boil water to remove lead and copper.** Boiling water will not reduce lead and copper levels.
- **Consider using a filter to reduce lead in drinking water.** Read the package to be sure the filter is NSF 53 certified to reduce lead or contact NSF International at 800-NSF-8010, or [www.nsf.org](http://www.nsf.org) for more information.
- **Consider purchasing bottled water.** The bottled water standard for lead is 5 ppb.
- **Identify older plumbing fixtures that likely contain lead.** Older faucets, fittings, and valves sold before 2014 may contain higher levels of lead, even if marked "lead-free." Faucets, fittings, and valves sold after January 2014 are required to meet a more restrictive "lead-free" definition but may still contain up to 0.25 percent lead.
- **Clean your aerator.** As part of routine maintenance, the aerator should be removed at least every six months to rinse out any debris that may include particulate lead.
- **Get your child tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.



**Lead** can cause serious health and developmental problems. It can cause damage to the brain and kidneys, and it can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Although other sources of lead exposure exist, such as lead paint, and lead contaminated dust, your water supply is contacting you to reduce your risk of exposure to lead in drinking water. If you have questions about other sources of lead exposure, please contact your local health department.

**Copper** is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

The United States Environmental Protection Agency (U.S. EPA) estimates that 20 percent or more of human exposure to lead may come from drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water.

For more information on reducing lead exposure around your home and the health effects of lead, visit the U.S. EPA's website at [www.epa.gov/lead](http://www.epa.gov/lead), call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

For more information on copper, visit the United States Center for Disease Control website at [www.atsdr.cdc.gov/index.html](http://www.atsdr.cdc.gov/index.html), or contact your health provider.

For more information regarding your water supply, contact us at: BC(12) # 410





GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
LANSING



LIESL EICHLER CLARK  
DIRECTOR

February 13, 2020

VIA EMAIL AND U.S. MAIL

Mr. Ellis Mitchell  
City of Benton Harbor  
200 Wall Street  
Benton Harbor, Michigan 49022

WSSN: 00600  
County: Berrien  
Supply: Benton Harbor

Dear Mr. Mitchell:

SUBJECT: Water System Corrosion Treatment

On October 22, 2018, the Department of Environment, Great Lakes, and Energy (EGLE), Drinking Water and Environmental Health Division (DWEHD), issued a letter to the City of Benton Harbor (the City) for a lead action level exceedance (ALE). In response, the City applied for a construction permit for installation of corrosion control treatment, under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). On February 25, 2019, EGLE issued the Act 399 construction permit to the City to address the ALE by means of installing a corrosion control treatment system. The treatment chemical permitted, based on a recommendation by Elhorn Engineering, was Carus 8600 which is comprised of 70% orthophosphate and 30% polyphosphate. The target dose was 1.5 milligrams per liter (mg/L) as orthophosphate, and the City's water operators have consistently reached that treatment goal. This has resulted in a residual of approximately 1.5 mg/L orthophosphate in the distribution system.

A review of the last three lead and copper sampling rounds collected by the City concludes the treatment is not achieving desired results quickly enough. The most recent round of samples was collected approximately eight months after the beginning of corrosion control treatment.

The City met with representatives from EGLE on January 15, 2020, to discuss results from the City's lead and copper sampling as it relates to the City's corrosion control treatment. The purpose of this letter is to provide a summary of that meeting and outline next steps for the City to pursue designation of optimized corrosion control treatment as required by Rule 604f of the administrative rules promulgated under Act 399.

Based on a review of the corrosion control treatment and the last three rounds of tap samples for lead and copper, **the City is hereby directed to change its current blended phosphate chemical from the 70%/30% ortho/poly-phosphate to a product with a minimum of 90% orthophosphate.** The chemical selected must be ANSI/NSF 60 certified for use in drinking water systems. **The City is also hereby directed to adopt a new treatment rate, such that a minimum of 3.0 mg/L orthophosphate (as phosphate) residual is maintained throughout the distribution system.** This



designation is being made under R325.10604f(3)(d). The reason for this change is to speed up treatment effectiveness. EGLE's intent is to quickly put into place treatment that will more efficiently lower corrosion rates in the distribution system for greater protection of public health. This decision is based on corrosion control treatment studies and analyses of documented analogous treatment systems with other water supplies of similar source water chemistry.

The above phosphate treatment strategy is intended to provide immediate improvement of corrosion protection in the distribution system but, without further study, it is not certain to be the optimum treatment strategy. Therefore, the City is directed to have a third-party consultant submit to the department a corrosion control study proposal following the requirements of Rule 325.10604f(3)(c) of the administrative rules promulgated under Act 399. This study proposal must be submitted to the department within six months following the date that the directed treatment change is completed. The study plan must focus on identifying optimum corrosion control treatment for the City's water system. Reference to analogous water systems alone will not suffice to meet this requirement.

In addition, the permitted corrosion control treatment scheme requires the high service pump suction header valve that is next to High Service Pump 3 be closed. This is to force the flow of all water from the suction well through the meter and corrosion control treatment. At the onsite meeting referenced above, it was indicated that the valve state is unknown. Please immediately verify in writing to the department the valve has been closed according to the permit.

#### **TRANSITION AND TIMELINE**

Prior to changing chemicals, the City must obtain approval of the specific chemical selected by requesting revision of the construction permit under Act 399.

Following approval, the transition to a minimum 90% orthophosphate product must occur as soon as possible, but not later than February 28, 2020.

The City must follow these guidelines during transition to the new chemical:

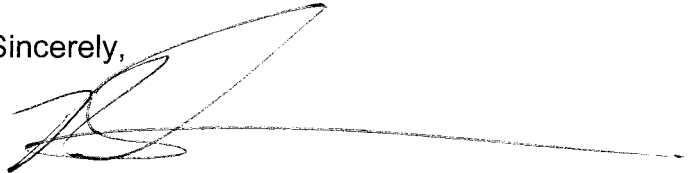
1. Blending of the two phosphate products must not occur. The transition should be abrupt.
2. Immediately following the transition to the new treatment, gentle flushing of the distribution system will help provide a thorough transition.
3. Increased monitoring of the plant tap and distribution sites will verify when the transition has concluded and the directed residual of a minimum 3.0 mg/L orthophosphate as phosphate is achieved.



Mr. Ellis Mitchell  
Page 3  
February 13, 2020

We anticipate and appreciate your cooperation in resolving this matter. If you have any questions regarding this letter, please contact me at 616-307-6736 or OnanB@Michigan.gov; or you can contact Mr. Ernie Sarkipato, Surface Water Treatment Specialist, Engineering Unit, Field Operations Section, DWEHD, at 616-307-0261; SarkipatoE@Michigan.gov; or EGLE-DWEHD, 350 Ottawa Avenue NW, Unit 10, Grand Rapids, Michigan 49506.

Sincerely,

A handwritten signature in black ink, appearing to be 'B. Onan', with a long horizontal line extending to the right.

Brandon Onan, Supervisor  
Lead & Copper Unit  
Community Water Supply Section  
Drinking Water and Environmental Health Division

cc: Mr. Mike O'Malley, City of Benton Harbor  
Mr. Darold Harlan, Fleis & Vandenbrink  
Mr. Todd Luks, Elhorn Engineering  
Ms. Nicki Britten, Berrien County Health Department  
Mr. Eric Oswald, EGLE  
Mr. Mike Bolf, EGLE  
Mr. Ernie Sarkipato, EGLE





GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
LANSING



LIESL EICHLER CLARK  
DIRECTOR

July 15, 2020

VIA EMAIL AND U.S. MAIL

Mr. Ellis Mitchell  
City of Benton Harbor  
200 Wall Street  
Benton Harbor, Michigan 49022

WSSN: 00600  
County: Berrien  
Supply: Benton Harbor

Dear Mr. Mitchell:

**SUBJECT: Lead and Copper Monitoring - Action Level (AL) Exceedance**

The Benton Harbor community water supply's 90<sup>th</sup> percentile value exceeded the AL for lead during the most recent round of lead and copper monitoring of drinking water taps from January 1, 2020, through June 30, 2020, as summarized below.

Contaminant	AL	MCLG*	90 <sup>th</sup> Percentile Value	Number of Sites Above AL	Range of Sample Results	Typical Source of Contaminant
Lead	15 parts per billion (ppb)	0	23	9	0 - 440 ppb	Corrosion of household plumbing systems; Service lines that may contain lead; Erosion of natural deposits
Copper	1.3 parts per million (ppm)	1.3	0.0	0	0 – 0.2 ppm	Corrosion of household plumbing systems; Erosion of natural deposits

\*MCLG: Maximum contaminant level goal means the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

An AL exceedance is not a violation, but it triggers other requirements under the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Requirements include water quality parameter (WQP) monitoring, source water monitoring, corrosion control treatment, and public education (PE). Please refer to the "Timetable of Upcoming Requirements" for your specific deadline for each of the following requirements.

**Issue a Public Advisory (PA)**

An amendment to Act 399 on March 29, 2017, requires a public water supply to issue a PA within three business days to inform all persons served about the lead AL exceedance. It is the intent of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to work with you to develop the PA materials to ensure it complies with the requirements set forth in Act 399. A template has already been provided to you. Please contact EGLE if you plan to use broadcast media as your delivery method.

### **Deliver Consumer Notice of Lead and Copper Results**

Within 30 days of learning the results, you must provide individual lead and copper tap results to the people who receive water from sites that were sampled even if lead and copper were not detected. You must also send us certification that you met all delivery requirements along with a sample copy of your consumer notice 90 days after the end of the monitoring period. To download the *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate* in Microsoft Word or PDF format, visit [Michigan.gov/LCR](http://Michigan.gov/LCR).

### **Distribute PE**

Sixty days from the date of this letter or sixty days after the end of the monitoring period that exceeded the AL, whichever is sooner, deliver PE materials to all consumers.

This material is intended to educate consumers about lead health effects, sources of lead, and steps to minimize exposure. Note that the PE material must include information about the following: the exceedance in your water supply, what you are doing to reduce lead levels, lead service lines in your distribution system, and the history of lead levels in your water supply. A template has already been provided to you.

A sample copy of the final PE material along with a PE distribution certification form must be submitted to EGLE no later than ten days after the PE is due. Repeat each year until the lead AL is no longer exceeded.

### **Conduct WQP Monitoring**

Continue collecting one set of WQP samples every two weeks from the entry point to the distribution system, TP001 (Treatment Plant Tap), and quarterly from ten locations in the distribution system.

The WQP samples shall be analyzed for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature. Temperature and pH are field tests and should be completed at the time of sample collection.

If you use EGLE's laboratory, order bottles by calling 517-335-8184, or by downloading the form EQP 2301 *Bottle Order Form* from [Michigan.gov/EGLELab](http://Michigan.gov/EGLELab). Click on Drinking Water. The tests are analyzed from one sample bottle per location. Request the analyses using the following test codes:

Test Code	Cost	Bottle Number	Test Description
CORR	\$51.00	33	Conductivity, Alkalinity, Phosphate, and Calcium
R	\$18.00	32,33	Chloride, Sulfate



### **Conduct Source Water Monitoring**

Thank you for completing this requirement on March 16, 2019. You must repeat this sampling every third year until both lead and copper ALs are met during the entire three-year period.

### **Reduce Corrosion Rates**

Minimize lead in the drinking water by reducing corrosion of water pipes and household plumbing that contain lead. This is Benton Harbor's fourth AL exceedance. Benton Harbor has made corrective actions to the corrosion control treatment system per EGLE's direction in a letter dated February 13, 2020. EGLE anticipates this change having a positive impact on the distribution system's corrosion rates and will assess the effectiveness of the current corrosion control treatment based on sequential sampling at homes in the distribution system, corrosion control study results, and future rounds of compliance sampling.

### **Lead and Copper Monitoring**

To show the ALs can be met, continue collecting lead and copper samples from 60 sites between July 1 and December 31, 2020, and again between January 1 and June 30, 2021.

If you need to select new sites, choose the highest Tier sites available within the distribution system, giving Tier 1 sites first priority. Document any changes on your Lead and Copper Sampling Site Plan and submit it to your local district office email address. If you have Tier 1 or Tier 2 sites, i.e. sites with a lead service line, compliance sampling will require that you collect a first-liter and fifth-liter sample from each sampling location.

Within 30 days of learning of results, provide individual lead and copper tap results to people who receive water from sites that were sampled. Even if lead or copper was not detected, all monitoring, reporting, consumer notification, and EGLE certification requirements remain in effect.

### **Consumer Confidence Report (CCR)**

Include this AL exceedance in your CCR, which is due to our office, your customers, and the local health department by July 1, 2021. You may use the table format from the first page of this letter.

Also, because the lead AL was exceeded, include the following health effects language:

*Infants and children who drink water containing lead could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.*

**What Happens Next?**

If you can show that both lead and copper ALs are met in two consecutive six-month periods then many of the requirements outlined in this letter will no longer apply.

**Timetable of Upcoming Requirements**

<b>Complete By</b>	<b>Requirement</b>	<b>Comments</b>
Within three business days	Distribute a PA.	Distribute a PA to inform all persons served by the water supply of the lead AL exceedance. Distribution of the notice must be in a form and manner designed to fit the specific situation and must be reasonably calculated to reach all persons served by the public water supply.
Right away	<i>Deliver Consumer Notice of Lead and Copper Results</i> to persons served at each site tested within 30 days of knowing the result.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Microsoft Word or PDF format from <a href="http://Michigan.gov/LCR">Michigan.gov/LCR</a> .
Every two weeks	Collect WQP samples.	Collect one set of WQP samples every two weeks from the entry point to the distribution system for pH, temperature, alkalinity, calcium, conductivity, orthophosphate, chloride, and sulfate.
August 29, 2020	Perform PE activities including delivering PE materials to all consumers.	PE required activities are listed in the enclosed template and checklist. Repeat every year until the lead AL is met in the most recent round of sampling.
September 8, 2020	Send EGLE certification of PE compliance along with a sample copy of the materials delivered.	Sample certification enclosed. Required whenever PE required.
Between July 1 and December 31, 2020	Collect samples 60 sites from the distribution system and have them analyzed for lead and copper.	Report the results to EGLE and deliver the consumer notice of individual lead and copper results using the downloadable <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> . <b>Report due January 10, 2021.</b>
Between July 1 and December 31, 2020	Collect WQP samples.	Collect WQP samples from ten locations in the distribution system quarterly.
September 30, 2020	For the January through June 2020 monitoring, send EGLE certification of consumer notice of lead and copper results compliance along with a sample copy of the notice delivered.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Microsoft Word or PDF format from <a href="http://Michigan.gov/LCR">Michigan.gov/LCR</a> .
Between January 1 and June 30, 2021	Collect samples 60 sites from the distribution system and have them analyzed for lead and copper.	Report the results to EGLE and deliver the consumer notice of individual lead and copper results using the downloadable <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> . <b>Report due July 10, 2021.</b>
Between January 1 and June 30, 2021	Collect WQP samples.	Collect WQP samples from ten locations in the distribution system quarterly.



Mr. Ellis Mitchell

Page 5

July 15, 2020

Complete By	Requirement	Comments
March 31, 2021	For the July through December 2021 monitoring, send EGLE certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Word or PDF format from Michigan.gov/LCR.
July 1, 2021	Report the 2020 AL exceedance in the CCR.	Specific lead health effects language must be included.
September 28, 2021	For the January through June 2021 monitoring, send EGLE certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Word or PDF format from Michigan.gov/LCR.
March 31, 2022	Collect one lead and copper sample from each entry point to the distribution system.	Repeat every third year until both ALs are met for the whole three-year period.

We recognize that the Lead and Copper Rule is complex and may be confusing. We will continue to offer assistance in implementing these regulations. If you have any questions, please contact us at BoltJ@Michigan.gov; OnanB@Michigan.gov; or at the phone numbers provided below.

Sincerely,

Jeni Bolt, Environmental Quality Specialist  
Lead and Copper Unit  
Drinking Water and Environmental  
Health Division  
517-331-5161

Brandon Onan, Supervisor  
Lead and Copper Unit  
Drinking Water and Environmental  
Health Division  
616-307-6736

Enclosures (PA Checklist, PE Distribution Checklist, WQP report form, Tier Criteria)

cc/enc: Mr. Mike O'Malley, City of Benton Harbor

Ms. Nicki Britten, Berrien County Health Department

Mr. Nick Margaritis, Berrien County Health Department

Mr. Steve Crider, Michigan Department of Health and Human Services

Mr. Mike Bolf, EGLE

Mr. Ernie Sarkipato, EGLE

Mr. Jeremy Klein, EGLE



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February 4, 2021

VIA EMAIL AND U.S. MAIL

Mr. Ellis Mitchell  
City of Benton Harbor  
200 Wall Street  
Benton Harbor, Michigan 49022

WSSN: 00600  
County: Berrien  
Supply: Benton Harbor

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**SUBJECT: Lead and Copper Monitoring - Action Level (AL) Exceedance**

The Benton Harbor community water supply's 90<sup>th</sup> percentile value exceeded the AL for lead during the most recent round of lead and copper monitoring of drinking water taps from July 1 to December 31, 2020, as summarized below.

Contaminant	AL	MCLG*	90 <sup>th</sup> Percentile Value	Number of Sites Above AL	Range of Sample Results	Typical Source of Contaminant
Lead	15 parts per billion (ppb)	0	24 ppb	11	0 - 240 ppb	Corrosion of household plumbing systems; Service lines that may contain lead; Erosion of natural deposits
Copper	1.3 parts per million (ppm)	1.3	0.0	0	0 – 0.2 ppm	Corrosion of household plumbing systems; Erosion of natural deposits

\*MCLG: Maximum contaminant level goal means the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

An AL exceedance is not a violation, but it triggers other requirements under the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Requirements include water quality parameter (WQP) monitoring, source water monitoring, corrosion control treatment, and public education (PE). Please refer to the "Timetable of Upcoming Requirements" for your specific deadlines for each of the following requirements.

**Issue a Public Advisory (PA)**

An amendment to Act 399 on March 29, 2017, requires a public water supply to issue a PA within three business days to inform all persons served about the lead AL exceedance. It is the intent of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to work with you to develop the PA materials to ensure it complies with the requirements set forth in Act 399. A template has already been provided to you. Please contact EGLE if you plan to use broadcast media as your delivery method.



### **Deliver Consumer Notice of Lead and Copper Results**

Thank you for completing this requirement timely.

### **Distribute PE**

Sixty days after the end of the monitoring period that exceeded the AL deliver PE materials to all consumers.

This material is intended to educate consumers about lead health effects, sources of lead, and steps to minimize exposure. Note that the PE material must include information about the following: the exceedance in your water supply, what you are doing to reduce lead levels, lead service lines in your distribution system, and the history of lead levels in your water supply. A template has already been provided to you.

A sample copy of the final PE material along with a PE distribution certification form must be submitted to EGLE no later than ten days after the PE is due. Repeat each year until the lead AL is no longer exceeded.

### **Conduct WQP Monitoring**

Continue collecting one set of WQP samples every two weeks from the entry point to the distribution system, TP001 (Treatment Plant Tap), and quarterly from ten locations in the distribution system.

The WQP samples shall be analyzed for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature. Temperature and pH are field tests and should be completed at the time of sample collection.

If you use EGLE's laboratory, order bottles by calling 517-335-8184 or by downloading the form EQP 2301 *Bottle Order Form* from [Michigan.gov/EGLELab](http://Michigan.gov/EGLELab). Click on Drinking Water. The tests are analyzed from one sample bottle per location. Request the analyses using the following test codes:

Test Code	Cost	Bottle Number	Test Description
CORR	\$51.00	33	Conductivity, Alkalinity, Phosphate, and Calcium
R	\$18.00	32,33	Chloride, Sulfate

### **Conduct Source Water Monitoring**

Thank you for completing this requirement on March 16, 2019. You must repeat this sampling every third year until both lead and copper ALs are met during the entire three-year period.

### **Minimize Corrosion**

Minimize lead in the drinking water by reducing corrosion of water pipes and household plumbing that contain lead. This is Benton Harbor's fifth AL exceedance. Benton Harbor has made corrective actions to the corrosion control treatment system per EGLE's

direction in a letter dated February 13, 2020. EGLE anticipates this change having a positive impact on the distribution system's corrosion rates and will assess the effectiveness of the current corrosion control treatment based on sequential sampling at homes in the distribution system and future rounds of compliance monitoring.

### **Lead and Copper Monitoring**

To show the ALs can be met, collect a lead and copper sample from 60 sites between January 1 and June 30, 2021, and again between July 1 and December 31, 2021. These sites should be selected from your Lead and Copper Sampling Plan.

If you need to select new sites, choose the highest Tier criteria available within your distribution system, giving Tier 1 sites first priority. Document any changes on your Lead and Copper Sample Site Plan and submit it to your local district office email address. If you have Tier 1 or Tier 2 sites, i.e. sites with a lead service line, compliance sampling will require that you collect a first-liter and fifth-liter sample from each sampling location.

Within 30 days of learning of results, provide individual lead and copper tap results to people who receive water from sites that were sampled. Even if lead or copper was not detected, all monitoring, reporting, consumer notification, and EGLE certification requirements remain in effect.

### **Consumer Confidence Report (CCR)**

Include this AL exceedance in your CCR, which is due to our office, your customers, and the local health department by July 1, 2021. You may use the table format from the first page of this letter.

Also, because the lead AL was exceeded, include the following health effects language:

*Infants and children who drink water containing lead could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.*

### **What Happens Next?**

If you can show that both lead and copper ALs are met in two consecutive six-month periods, then many of the requirements outlined in this letter will no longer apply.



### Timetable of Upcoming Requirements

Complete By	Requirement	Comments
Within three business days	Distribute a PA.	Distribute a PA to inform all persons served by the water supply of the lead AL exceedance. Distribution of the notice must be in a form and manner designed to fit the specific situation and must be reasonably calculated to reach all persons served by the public water supply.
Continue	Collect WQP samples (entry point to the distribution system).	Collect one set of WQP samples every two weeks from the entry point to the distribution system, TP001 (Treatment Plant Tap).
March 1, 2021	Perform PE activities including delivering PE materials to all consumers.	PE required activities are listed in enclosed template and checklist. Repeat every year until the lead AL is met in the most recent round of sampling.
March 11, 2021	Send EGLE certification of PE compliance along with a sample copy of the materials delivered.	Sample certification enclosed. Required whenever PE required.
Between January 1 and June 30, 2021	Collect samples from 60 sites from the distribution system and have them analyzed for lead and copper.	Report the results to EGLE and deliver the consumer notice of individual lead and copper results using the downloadable <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> . <b>Report due July 10, 2021.</b>
Between January 1 and June 30, 2021	Collect WQP samples (Distribution system).	Collect one set of WQP samples from 10 locations in the distribution system quarterly. Analyze the samples for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature.
July 1, 2021	Report the 2020 AL exceedances in the CCR.	Specific lead health effects language must be included.
Between July 1 and December 31, 2021	Collect samples from 60 sites from the distribution system and have them analyzed for lead and copper.	Report the results to EGLE and deliver the consumer notice of individual lead and copper results using the downloadable <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> . <b>Report due January 10, 2022.</b>
Between July 1 and December 31, 2021	Collect WQP samples (Distribution system).	Collect one set of WQP samples from 10 locations in the distribution system quarterly. Analyze the samples for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature.
September 30, 2021	For the January through June 2021 monitoring, send EGLE certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Word or PDF format from Michigan.gov/LCR.
March 31, 2022	For the July through December 2021 monitoring, send EGLE certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Word or PDF format from Michigan.gov/LCR.
March 31, 2022	Collect one lead and copper sample from your entry point to the distribution system, TP001 (Treatment Plant Tap).	Repeat every third year until both ALs are met for the whole three-year period.

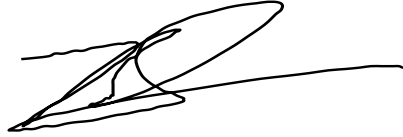
Mr. Ellis Mitchell  
Page 5  
February 4, 2021

We recognize that the Lead and Copper Rule is complex and may be confusing. We will continue to offer assistance in implementing these regulations. If you have any questions, please contact us at BoltJ@Michigan.gov; OnanB@Michigan.gov; or at the phone numbers provided below.

Sincerely,



Jeni Bolt, Environmental Quality Specialist  
Lead and Copper Unit  
Drinking Water and Environmental  
Health Division  
517-331-5161



Brandon Onan, Supervisor  
Lead and Copper Unit  
Drinking Water and Environmental  
Health Division  
616-307-6736

Enclosures (PA Checklist, PE Distribution Check, WQP report form, Tier Criteria)

cc/enc: Mr. George Regan, F&V Operations  
Ms. Nicki Britten, Berrien County Health Department  
Mr. Nick Margaritis, Berrien County Health Department  
Mr. Steve Crider, Michigan Department of Health and Human Services  
Mr. Mike Bolf, EGLE  
Mr. Ernie Sarkipato, EGLE  
Mr. Matt Sylvester, EGLE  
Mr. Jeremy Klein, EGLE



MIO600 Benton Harbor Lead Copper Report 1st half 2020  
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION

**LEAD AND COPPER REPORT AND  
CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY  
FORM A – SUPPLIES WITH LEAD SERVICE LINES**

Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399,  
as amended (Act 399), MCL 325.1001 et seq., and the Administrative Rules.

Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within ten days after the end of the monitoring period. This form may be used to meet this requirement. Form instructions are available on pages 8 - 10. Submit the information to the appropriate Michigan Department of Environment, Great Lakes, and Energy (EGLE) district office.

1. Supply Name: Benton Harbor  
2. County: Berrien  
3. WSSN: 0600  
4. Population: 9,670 5. Monitoring Period: From: 1/1/2020 To: 6/30/2020  
6. Minimum # of Samples Required: 60 7. # of Samples Taken: 63  
8. Name of Certified Laboratory: Eurofins Eaton Analytical

9. SAMPLE CRITERIA:

This form is for water supplies collecting <u>some</u> or <u>all</u> lead and copper samples from sites WITH LEAD SERVICE LINES. All other supplies should use Form B.		
Yes	No	
x		Are some or all samples from sites WITH lead service lines? If no sites served by a lead service line, STOP and use Form B.
x	<input type="checkbox"/>	Did you prioritize sample collection according to the following: <ul style="list-style-type: none"><li>• Tier 1 sites must be used unless insufficient Tier 1 sites available.</li><li>• If insufficient Tier 1 sites available, then Tier 2 sites must be used.</li><li>• If insufficient Tier 2 sites, then Tier 3 sites must be used.</li><li>• If no Tier 1, 2, or 3 sites are available, sites must be representative of plumbing materials typically found throughout the water system.</li></ul>
x	x	Were the same sampling sites used as in the previous monitoring period? If no, explain (attach additional pages if needed):
Comments: In order to meet the extra number of samples (60) that EGLE is demanding, we had to reach out to homes that may have never agreed to sample before. We as a community water supply had to depend upon outside agencies to fill the pool to the extra required.		

10. SIGNATURE:

Name: Mike O'Malley

Signature:

Title: Water Operator IN Charge

Phone: (269) 363-0575

Date: 6/30/20



# 11. TAP SAMPLING DATA

Sheet 1 of 3

Sample Location	Sample Date	Tier	Category	Building	Service Line Very Likely = known Likely = lead nearby Unknown = lead in area	Tap Type	1 <sup>st</sup> Liter Sample			5 <sup>th</sup> Liter Sample		
							Lead ug/L	Copper ug/L	Lab Sample Number	Lead ug/L	Copper mg/L ug/L	Lab Sample Number
RP2	4/30/2020	1	A	Unknown	Likely	Kitchen	1.4	0	4621306	0	1.1	4621325
RP3	4/28/2020	1	A	Unknown	very Likely	Kitchen	1.2	0	4621307	1.6	0	4621326
RP4	4/28/2020	1	A	Unknown	Likely	Kitchen	0	2.5	4621308	0	1.5	4621327
RP5	4/29/2020	1	A	Unknown	PLSLR	Kitchen	0	9	4621309	0	6.1	4621328
RP6	4/29/2020	1	A	Unknown	Likely	Kitchen	0	2.5	4621310	0	1.4	4621329
RP7	4/28/2020	1	A	Unknown	very Likely	Kitchen	5.2	150	4621311	5.1	28	4621330
RP9	4/29/2020	1	A	Unknown	Possible	Kitchen	0	2.1	4621312	0	2.6	4621331
RP10	4/29/2020	1	A	Unknown	very Likely	Kitchen	3	1.3	4621313	9.2	1.9	4621332
RP11	4/29/2020	1	A	Unknown	Possible	Kitchen	0	5.7	4621314	0	4	4621333
RP13	4/29/2020	1	A	Unknown	Possible	Kitchen	1.3	3	4621315	0	0	4621334
RP14	4/29/2020	1	A	Unknown	Likely	Kitchen	7.2	3	4621316	10	1.6	4621335
RP15	4/29/2020	1	A	Unknown	very Likely	Kitchen	1.7	0	4621317	0	0	4621336
RP16	4/29/2020	1	A	Unknown	Possible	Kitchen	440	130	4621318	1	2.7	4621337
RP17	4/28/2020	1	A	Unknown	Possible	Kitchen	3.5	17	4621319	5.1	8.6	4621338
RP19	4/28/2020	1	A	Unknown	very Likely	Kitchen	0	8.9	4621320	0	7.2	4621339
RP21	4/29/2020	1	A	Unknown	very Likely	Kitchen	0	2.3	4621321	0	1.7	4621340
RP23	4/30/2020	1	A	Unknown	very Likely	Kitchen	0	17	4621322	0	4.2	4621341
RP24	4/28/2020	1	A	Unknown	very Likely	Kitchen	0	2.3	4621323	0	2.4	4621342
RP25	4/29/2020	1	A	Unknown	Likely	Kitchen	3	1.3	4621324	5.1	1.3	4621343
RPb1	5/6/2020	1	A	Unknown	Possible	Kitchen	1.1	9.4	4624126	0	2.5	4624146
RPb2	5/6/2020	1	A	Unknown	very Likely	Kitchen	1.1	0	4624127	2	0	4624147
RPb3	5/7/2020	1	A	Unknown	very Likely	Kitchen	0.0	37.0	4624128	0.0	9.6	4624148
RPb4	5/6/2020	1	A	Unknown	Possible	Kitchen	1.8	13.0	4624129	3.4	2.6	4624149
RPb5	5/6/2020	1	A	Unknown	Possible	Kitchen	0.0	8.7	4624130	0.0	8.3	4624150

11. TAP SAMPLING DATA  
Sheet 2 of 3

Sample Location	Sample Date	Tier	Category	Building	Service Line	Tap Type	1 <sup>st</sup> Liter Sample				5 <sup>th</sup> Liter Sample			
		1	A	Plumbing Unknown	Very Likely = known Likely = lead nearby Unknown = Lead in area	Kitchen	Lead	Copper	Lab Sample Number	Lead	Copper	Lab Sample Number		
							ug/L	ug/L		ug/L	mg/L ug/L		ug/L	
rbp6	5/8/2020	1	A	Unknown	Very Likely	Kitchen	2.4	1.7	4624131	1.3	1.2	4624151		
rbp7	5/7/2020	1	A	Unknown	Very Likely	Kitchen	0.0	3.2	4624132	0.0	1.1	4624152		
rbp8	5/7/2020	1	A	Unknown	Very Likely	Kitchen	21.0	4.4	4624133	4.2	1.5	4624153		
rbp9	5/7/2020	1	A	Unknown	Very Likely	Kitchen	3.6	1.1	4624134	7.9	4.4	4624154		
rbp10	5/7/2020	1	A	Unknown	likely	Kitchen	5.7	2.3	4624135	14.0	2.0	4624155		
rbp11	5/7/2020	1	A	Unknown	Very Likely	Kitchen	9.2	2.0	4624136	23.0	2.6	4624156		
rbp12	5/7/2020	1	A	Unknown	Very Likely	Kitchen	8.5	6.4	4624137	5.3	1.4	4624157		
rbp13	5/7/2020	1	A	Unknown	Very Likely	Kitchen	0.0	4.1	4624138	0.0	1.7	4624158		
rbp15	5/7/2020	1	A	Unknown	Very Likely	Kitchen	6.2	48.0	4624139	4.3	50.0	4624159		
rbp16	5/7/2020	1	A	Unknown	Very Likely	Kitchen	2.4	1.7	4624140	1.3	1.1	4624160		
rbp17	5/7/2020	1	A	Unknown	Very Likely	Kitchen	0.0	1.4	4624141	0.0	5.1	4624161		
rbp18	5/7/2020	1	A	Unknown	Very Likely	Kitchen	0.0	1.2	4624142	0.0	1.8	4624162		
rbp19	5/5/2020	1	A	Unknown	Very Likely	Kitchen	0.0	2.2	4624143	0.0	1.3	4624163		
rbp20	5/7/2020	1	A	Unknown	Very Likely	Kitchen	100.0	5.4	4624144	5.3	1.0	4624164		
rbp21	5/8/2020	1	A	Unknown	Very Likely	Kitchen	3.5	230.0	4624145	1.4	20.0	4624165		
RPC 1	5/13/2020	1	A	Unknown	Very Likely	Kitchen	0	10	4629473	0	2	4629490		
RPC 2	5/13/2020	1	A	Unknown	Very Likely	Kitchen	2.4	2.1	4629474	2	1.6	4629491		
RPC 3	5/13/2020	1	A	Unknown	Very Likely	Kitchen	1.5	2.6	4629475	1.5	0	4629492		
RPC 4	5/12/2020	1	A	Unknown	Very Likely	Kitchen	29	4.4	4629476	11	1.6	4629493		
RPC 5	5/12/2020	1	A	Unknown	Very Likely	Kitchen	0	3.2	4629477	0	2.9	4629494		
RPC 6	5/13/2020	1	A	Unknown	Likely	Kitchen	0	18	4629478	0	14	4629495		
RPC 7	5/13/2020	1	A	Unknown	Very Likely	Kitchen	0	2.5	4629479	0	2.8	4629496		
RPC 8	5/13/2020	1	A	Unknown	Very Likely	Kitchen	1.5	9.1	4629480	0	2	4629497		
RPC 9	5/13/2020	1	A	Unknown	Very Likely	Kitchen	22	7.3	4629481	18	7.5	4629498		
RPC 10	5/13/2020	1	A	Unknown	Very Likely	Kitchen	0	0	4629482	0	0	4629499		
RPC 11	5/13/2020	1	A	Unknown	Very Likely	Kitchen	0	7.8	4629483	0	1.4	4629500		



## 11. TAP SAMPLING DATA

Sheet 3 of 3

Sample Location	Sample Date	Tier	Category	Building	Service Line Very Likely = known Likely = lead nearby Unknown = lead in area	Tap Type	1 <sup>st</sup> Liter Sample				5 <sup>th</sup> Liter Sample			
							Lead ug/L	Copper ug/L	Lab Sample Number	Lead ug/L	Copper mg/L	Lab Sample Number	Lead ug/L	Copper mg/L
RPC 12	5/13/2020	1	A	Unknown	very Likely	Kitchen	2.2	5	4629484	2.4	2.7	4629501		
RPC 13	5/12/2020	1	A	Unknown	Likely	Kitchen	0	1.1	4629485	0	0	4629502		
RPC 14	5/13/2020	1	A	Unknown	very Likely	Kitchen	0	0	4629486	8.3	2	4629503		
RPC 15	5/13/2020	1	A	Unknown	very Likely	Kitchen	1.4	36	4629487	1.3	2.9	4629504		
RPC 16	5/13/2020	1	A	Unknown	very Likely	Kitchen	44	3.7	4629488	81	1.8	4629505		
RPC 17	5/13/2020	1	A	Unknown	very Likely	Kitchen	6.4	2.9	4629489	4.3	1.5	4629506		
RPd 1	6/9/2020	1	A	Unknown	Likely	Kitchen	23	1.8	4651648	2.4	1.3	4651655		
RPd 2	6/10/2020	1	A	Unknown	Likely	Kitchen	3.4	33	4651649	2.9	2.6	4651656		
RPd 3	6/10/2020	1	A	Unknown	very Likely	Kitchen	11	45	4651650	3.9	28	4651657		
RPd 4	6/10/2020	1	A	Unknown	very Likely	Kitchen	4.4	5.6	4651651	6.6	7.5	4651658		
RPd 5	6/10/2020	1	A	Unknown	very Likely	Kitchen	1.4	3.9	4651652	1.6	1.2	4651659		
RPd 6	6/10/2020	1	A	Unknown	Likely	Kitchen	0	2.2	4651653	0	2.1	4651660		
RPd 7	6/10/2020	1	A	Unknown	very Likely	Kitchen	17	28	4651654	23	26	4651661		



## Memo to File

System: Benton Harbor  
WSSN: 00600  
Monitoring July-Dec 2020  
Period:  
Date: 2/23/2021  
Topic Sample inclusion for 565 Clay

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Notes on the Lead and Copper Report form indicated that the samples collected at 565 Clay did not have 6hrs stagnation time before the sample was collected.

When the system was asked for additional information, the sample instructions sheet for 565 Clay was provided.

On the sample instruction sheet, the black ink indicates that the sample had sufficient stagnation time between 12/3/2020 11pm and 12/4/2020 10am. Notes in red ink indicate that a leaking tub faucet and use of water at 3am make proper stagnation unlikely.

Since there are discrepancies between the notes on the form EGLE is including the sample in the 90<sup>th</sup> calculation. This does not change the 90<sup>th</sup> percentile or range of sample results.

The system has been counselled on reducing errors on sample instruction forms. Additionally, when problems arise they should avoid altering the original document and sign and date any changes.



Jeni Bolt  
Environmental Quality Specialist  
Drinking Water and Environmental Health Division  
Michigan Department of Environment, Great Lakes, and  
Energy  
517-331-5161 | [boltj@Michigan.gov](mailto:boltj@Michigan.gov)



WSSN 0600

The City of Benton Harbor and F&V Operations and Resource Management are submitting the following report(s) to Michigan Department of Environment, Great Lakes and Energy:

Lead and Copper Report 2<sup>nd</sup> half 2020 \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system or those persons directly responsible for gathering such information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

Benton Harbor Representative: Ellis Mitchell

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

F&V Operations Representative: N/A

Signature: N/A \_\_\_\_\_

Date: N/A \_\_\_\_\_



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION  
**LEAD AND COPPER REPORT AND  
CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY  
FORM A – SUPPLIES WITH LEAD SERVICE LINES**

*Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399,  
as amended (Act 399), MCL 325.1001 et seq., and the Administrative Rules.*

*Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.*

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within ten days after the end of the monitoring period. This form may be used to meet this requirement. Form instructions are available on pages 8 - 10. Submit the information to the appropriate Michigan Department of Environment, Great Lakes, and Energy (EGLE) district office.

1. Supply Name: Benton Harbor  
2. County: Berrien 3. WSSN: 0600  
4. Population: 9826 5. Monitoring Period: From: 07/01/2020 To: 12/31/2020  
6. Minimum # of Samples Required: 60 7. # of Samples Taken: 64  
8. Name of Certified Laboratory: State of Michigan and Eurofins Eaton Analytical

9. SAMPLE CRITERIA:

This form is for water supplies collecting <u>some</u> or <u>all</u> lead and copper samples from sites WITH LEAD SERVICE LINES. All other supplies should use Form B.		
Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are some or all samples from sites WITH lead service lines? If no sites served by a lead service line, STOP and use Form B.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Did you prioritize sample collection according to the following: <ul style="list-style-type: none"> <li>• Tier 1 sites must be used unless insufficient Tier 1 sites available.</li> <li>• If insufficient Tier 1 sites available, then Tier 2 sites must be used.</li> <li>• If insufficient Tier 2 sites, then Tier 3 sites must be used.</li> <li>• If no Tier 1, 2, or 3 sites are available, sites must be representative of plumbing materials typically found throughout the water system.</li> </ul>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Were the same sampling sites used as in the previous monitoring period? If no, explain (attach additional pages if needed): Not all previous sites were willing to participate.
Comments: Sampling and notification data prior to 11/09/2020 was conducted by former operator in charge. Service line material data is based on available records provided by previous operator in charge.		

10. SIGNATURE:

Name: \_\_\_\_\_ Signature: \_\_\_\_\_  
Title: \_\_\_\_\_ Phone: \_\_\_\_\_ Date: \_\_\_\_\_

**Water Supply Name:**

WSSN:

1 Tier	2 Category	Description	1 Tier	2 Category	Description	3 Material	4 Tap Type
Tier 1	A*	Single Family w/ lead service line	Tier 2	D*	Multi Family or building w/ lead service line	L* = Lead	K = Kitchen Sink
	B	Single Family w/ interior lead plumbing		E	Multi Family or building w/ interior lead plumbing	C = Copper	B = Bathroom Sink
	C	Multi Family Residence (MFR) w/ a LSL* or lead interior plumbing. If MFRs comprise at least 20% of total service connections.	Tier 3	F	Single Family w/ copper plumbing with lead solder installed before 1988	CLS = Copper with lead solder	O = Other (not an option for residential sites)
	* Use Form A if any samples collected from sites with LSLs to allow reporting of 1 <sup>st</sup> and 5 <sup>th</sup> tier results.			OT	if no Tier 1, 2, 3 sites, use sites representative of plumbing commonly found throughout the supply	G = Galvanized P = Plastic	
			Other			* Use Form A if any samples collected from sites with lead service lines to report 1 <sup>st</sup> and 5 <sup>th</sup> tier results	



## Bolt, Jennifer (EGLE)

---

**From:** Robert Jones <rjones@fv-operations.com>  
**Sent:** Wednesday, February 3, 2021 11:19 AM  
**To:** Bolt, Jennifer (EGLE)  
**Subject:** Lead Copper Report  
**Attachments:** Benton Harbor LCR Report H2 2020 Revised 02 01 2021.xlsx

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### Robert Jones

**F&V OPERATIONS AND RESOURCE MANAGEMENT, INC.**  
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O: 616.588.2900 | C: 810.220.9441 | F: 616.977.1005  
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# WSSN 0600 City of Benton Harbor 2nd Half 2020

## Lead and Copper Report and Consumer Notice for Community Water Supply Form A -Supplies

Sample Location	Sample Date	Tier (1,2, 3, OT)	Category	Building Plumbing	Service Line (L, C, G, P)	Tap Type (K, B)	1st Draw		5th Draw	
							Lead ppb	Copper ppb	Lead ppb	Copper ppb
1292 Bishop	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	1.8	1.5	1.9	1.2
931 Monroe	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	4.6	2	9.2	1.8
1129 Jennings	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	17	2	20	1.3
1354 Bishop	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	1.3	0	1.1	0
948 Ogden	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	6.9	52	7.1	44
1133 Jennings	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	25	4.2	25	2.7
1248 Broadway	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	4.1	0	2	0
1026 Bishop	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	5.5	45	4.4	2.7
1271 Pavone	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	8.6	8.4	3.9	11
1259 Bishop	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	6.3	4.2	5.1	0
285 Hastings	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	1.6	7.2	1.3	1.6
1086 Superior	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	7	0	11	0
174 Hastings	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	3.4	1.1	4.4	1.2
649 Pipestone	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	31	5.7	20	14
1112 Agard	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	8.2	1.1	1.6
1053 Jennings	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	4.1	5.8	0	6.6
1020 Bishop	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	14	0	5.8
1251 Columbus	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	2.6	36	5.1	42
142 Cross St.	10/20/20	Tier 1	A	Unk	Lead	KITCHEN	7	1.9	8.3	1
885 Mineral	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	0	4.2	0	5.5
1110 Ogden	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	28	16	29	13
781 Buss	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	100	3.9	1.6	0
610 Superior	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	5.2	37	3	3.1
1124 Colfax	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	3.8	4.9	3.2	5
1016 LaVette	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	6.1	1.6	5.1	0
1197 Agard	10/15/20	Tier 1	A	Unk	Lead	KITCHEN	2.9	0	2.9	0
999 Pearl St	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	9.8	7.3	28	16

1178 Broadway	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	18	1.6	19	1.9
857 Ogden	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	21	0	24	0
141 Winan	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	2.4	1.3	4.5
768 Broadway	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.2	0	1.1
812 Lavette	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	240	36	50	2.5
1264 Pavone	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
166 Searles	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	12	2.1	13	2
819 Vineyard	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	1.2	4.8	2.4	2.4
1237 Columbus	10/06/20	Tier 1	A	Unk	Lead	KITCHEN	27	3.4	40	3.7
1115 Superior	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	3.6	51	3.9	54
578 Edwards	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	0	19	6.6	150
341 Brunson	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.5	0	2
1011 Pearl St	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	2.1	6.5	1.8	2.4
1191 Pavone	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.2	1.6	2.1
1069 Hurd	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	2.9	25	3.7	1.5
1225 Colfax	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	4.5	2.9	3.2	0
1289 Bishop	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	8.7	1.1	4.2	0
1291 Superior St	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2	0	2	0
1244 Jennings	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	1	0
185 Parker Ave	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	5	0
1161 Union St	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	3	0	5	0
504 Territorial Rd	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
552 Buena Vista	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2	0	2	0
1143 Union	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	5	0	4	0
854 LaSalle St	12/3/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	1	0
232 Hastings Ave	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
201 Garfield	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	1	0
400 John Street	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	1	0
204 Garfield	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
1043 Agard	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	4	0	2	0
1037 Pearl	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
582 Niles	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	2	0
660 McGuigan	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
1167 Broadway	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
1066 Monroe	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
855 Lavette	12/3/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
565 Clay (stagnation)	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2	0	2	0

1212 Pearl St	14-Oct-20	Tier 1	A	Unk	Lead	Kitchen	20	2.9	1.1	1.6
161 Kline	29-Oct-20	Tier 1	A	Unk	Lead	Kitchen	0	4.7		
538 Columbus	20-Oct-20	Tier 1	A	Unk	Lead	Kitchen	5.2	3.1	3.6	1.8
Sample #1	08-Jul-20	Unk	Unk	Unk	Unk	Unk	0	11		
Sample #5	08-Jul-20	Unk	Unk	Unk	Unk	Unk			0	2.7



**RECEIVED**  
**Dec 21 2020**  
EGLE-DWEHD-CWSS-LCU

Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE TRENONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID: LJ36725773**  
**Work Order: 012013021300\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **565 CLAY, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 10:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring Water Quality Problem**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

**Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.**

**Monroe County Health Dept.**  
**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

By authority of PA 368 of 1978 as amended  
Report Created on: 12/21/2020 1:28:48PM  
Page 1 of 1

**Archived:** Thursday, February 18, 2021 10:33:42 AM

**From:** [Robert Jones](#)

**Sent:** Mon, 15 Feb 2021 19:38:16

**To:** [Bolt, Jennifer \(EGLE\)](#)

**Cc:** [Sarkipato, Ernest \(EGLE\)](#)

**Subject:** 565 Clay COC

**Importance:** Normal

**Sensitivity:** None

**Attachments:**

[565 clay coc.pdf](#) 

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Sorry for delay

**Robert Jones**

**F&V OPERATIONS AND RESOURCE MANAGEMENT, INC.**

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O: 616.588.2900 | C: 810.220.9441 | F: 616.977.1005

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could not  
complete as  
tub faucet runs no  
stop.  
Test invalid.  
Child used water  
at 3am.

Important

**Benton Harbor Water Department**

**Lead and Copper Sampling**

Dear: \_\_\_\_\_

Address: 565 Clay

**Thank you for assisting us in sampling for lead and copper.**

***Please let your water sit for 6 or more hours.***

You need to begin the testing before anyone uses any water in the house. Usually, first thing in the morning or after returning home from work.

The 5 bottles in your box need to be filled one after another for the State required testing.

Bottle 1 and 5 are used to sample for lead in water pipes to the home. These are filled and capped.

Bottles 2, 3, and 4 are a place holder. These are poured out after and returned empty.

**Please fill out this sheet once you are done. We need:**

✓ The date and time you turned the water off for the 6-hour holding time:

Water Off: Date: 12-3-20 Time: 11pm

Then the Date and Time you started to collect the 5 sample bottles:

✓ Water Sample at: Date: 12-4-20 Time: 10am

✓ Signature/Initials \_\_\_\_\_

Phone # \_\_\_\_\_

Put everything in the box and leave it outside for us to pick up.

If you could call Toni at the water plant (269) 447-1945 with questions or that you are ready for pick up.

**Archived:** Thursday, February 18, 2021 10:33:47 AM

**From:** [Robert Jones](#)

**Sent:** Tue, 16 Feb 2021 15:13:43

**To:** [Bolt, Jennifer \(EGLE\)](#)

**Cc:** [Sarkipato, Ernest \(EGLE\)](#) [Catherine Winn](#)

**Subject:** RE: 565 Clay COC

**Importance:** Normal

**Sensitivity:** None

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All the information was entered prior to being received at water plant with the samples. Information would be provided by sampler and collector (Reverend Pinckney)

---

**From:** Bolt, Jennifer (EGLE) <[BOLTJ@michigan.gov](mailto:BOLTJ@michigan.gov)>

**Sent:** Tuesday, February 16, 2021 10:07 AM

**To:** Robert Jones <[rjones@fv-operations.com](mailto:rjones@fv-operations.com)>

**Cc:** Sarkipato, Ernest (EGLE) <[SARKIPATOE@michigan.gov](mailto:SARKIPATOE@michigan.gov)>

**Subject:** RE: 565 Clay COC

Hey Rob and Ernie,

I see some issues with this. The instruction sheet itself was completed and signed in black ink. That information indicates that the sample had > 6hrs stagnation.

Then there is red ink that indicates that the water runs non-stop and someone used the water at 3am. There is no signature.

So my questions are as follows....

So who wrote in red?

Is there a direct relationship to the sample collector?

How was this information collected?

Why wasn't it signed or initialed if this was a change to the original document?

Please let me know if this would be better discussed in a phone call. I can set up a meeting whenever would be convenient for you both.

Thank you,



Jeni Bolt

Environmental Quality Specialist

Drinking Water and Environmental Health Division

Michigan Department of Environment, Great Lakes, and Energy

517-331-5161 | [boltj@michigan.gov](mailto:boltj@michigan.gov)

[Michigan.gov/LCR](https://Michigan.gov/LCR) | [Michigan.gov/drinkingwater](https://Michigan.gov/drinkingwater)





**From:** Robert Jones <[rjones@fv-operations.com](mailto:rjones@fv-operations.com)>  
**Sent:** Monday, February 15, 2021 2:38 PM  
**To:** Bolt, Jennifer (EGLE) <[BOLTJ@michigan.gov](mailto:BOLTJ@michigan.gov)>  
**Cc:** Sarkipato, Ernest (EGLE) <[SARKIPATOE@michigan.gov](mailto:SARKIPATOE@michigan.gov)>  
**Subject:** 565 Clay COC

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Sorry for delay

## Robert Jones

### F&V OPERATIONS AND RESOURCE MANAGEMENT, INC.

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O: 616.588.2900 | C: 810.220.9441 | F: 616.977.1005  
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**RECEIVED**  
**Dec 21 2020**  
EGLE-DWEHD-CWSS-LCU

Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36726773**  
**Work Order: 01201320\_01**

System Name/Owner: **BENTON HARBOR**  
Collection Address: **565 CLAY, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 10:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

The analyses performed by the EGL Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

**Monroe County Health Dept.**  
**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit	mg/L: milligrams / Liter (ppm)	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	Laboratory Contact: Marlene Kane
Not Detected: Not detected at or above the reporting limit (RL)	Report Created on: 12/21/2020 1:33:35PM	



WSSN 0600

The City of Benton Harbor and F&V Operations and Resource Management are submitting the following report(s) to Michigan Department of Environment, Great Lakes and Energy:

Lead and Copper Report 2<sup>nd</sup> half 2020 \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system or those persons directly responsible for gathering such information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

Benton Harbor Representative: Ellis Mitchell

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

F&V Operations Representative: N/A

Signature: N/A \_\_\_\_\_

Date: N/A \_\_\_\_\_



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION  
**LEAD AND COPPER REPORT AND  
CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY  
FORM A – SUPPLIES WITH LEAD SERVICE LINES**

*Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399,  
as amended (Act 399), MCL 325.1001 et seq., and the Administrative Rules.*

*Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.*

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within ten days after the end of the monitoring period. This form may be used to meet this requirement. Form instructions are available on pages 8 - 10. Submit the information to the appropriate Michigan Department of Environment, Great Lakes, and Energy (EGLE) district office.

1. Supply Name: Benton Harbor  
2. County: Berrien 3. WSSN: 0600  
4. Population: 9826 5. Monitoring Period: From: 07/01/2020 To: 12/31/2020  
6. Minimum # of Samples Required: 60 7. # of Samples Taken: 64  
8. Name of Certified Laboratory: State of Michigan and Eurofins Eaton Analytical

9. SAMPLE CRITERIA:

This form is for water supplies collecting <u>some</u> or <u>all</u> lead and copper samples from sites WITH LEAD SERVICE LINES. All other supplies should use Form B.		
Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are some or all samples from sites WITH lead service lines? If no sites served by a lead service line, STOP and use Form B.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Did you prioritize sample collection according to the following: <ul style="list-style-type: none"> <li>• Tier 1 sites must be used unless insufficient Tier 1 sites available.</li> <li>• If insufficient Tier 1 sites available, then Tier 2 sites must be used.</li> <li>• If insufficient Tier 2 sites, then Tier 3 sites must be used.</li> <li>• If no Tier 1, 2, or 3 sites are available, sites must be representative of plumbing materials typically found throughout the water system.</li> </ul>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Were the same sampling sites used as in the previous monitoring period? If no, explain (attach additional pages if needed): Not all previous sites were willing to participate.
Comments: Sampling and notification data prior to 11/09/2020 was conducted by former operator in charge. Service line material data is based on available records provided by previous operator in charge.		

10. SIGNATURE:

Name: \_\_\_\_\_ Signature: \_\_\_\_\_  
Title: \_\_\_\_\_ Phone: \_\_\_\_\_ Date: \_\_\_\_\_

**Water Supply Name:**

WSSN:

[illegible]

1 Tier	2 Category	Description	1 Tier	2 Category	Description	3 Material	4 Tap Type
Tier 1	A*	Single Family w/ lead service line	Tier 2	D*	Multi Family or building w/ lead service line	L* = Lead	K = Kitchen Sink
	B	Single Family w/ interior lead plumbing			Multi Family or building w/ interior lead plumbing	C = Copper	B = Bathroom Sink
	C	Multi Family Residence (MFR) w/ a LSL* or lead interior plumbing, if MFRs comprise at least 20% of total service connections.			Single Family w/ copper plumbing with lead solder installed before 1988	CLS = Copper with lead solder	O = Other (not an option for residential sites)
	* Use Form A if any samples collected from sites with LSLs to allow reporting of 1 <sup>st</sup> and 5 <sup>th</sup> tier results.		Tier 3	F		P = Plastic	
			Other	OT		* Use Form A if any samples collected from sites with lead service lines to report 1 <sup>st</sup> and 5 <sup>th</sup> tier results	



# WSSN 0600 City of Benton Harbor 2nd Half 2020

## Lead and Copper Report and Consumer Notice for Community Water Supply Form A -Supplies

Sample Location	Sample Date	Tier (1, 2, 3, OT)	Category	Building Plumbing	Service Line (L, C, G, P)	Tap Type (K, B)	1st Draw		5th Draw	
							Lead ppb	Copper ppb	Lead ppb	Copper ppb
1292 Bishop	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	1.8	1.5	1.9	1.2
931 Monroe	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	4.6	2	9.2	1.8
1129 Jennings	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	17	2	20	1.3
1354 Bishop	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	1.3	0	1.1	0
948 Ogden	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	6.9	52	7.1	44
1133 Jennings	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	25	4.2	25	2.7
1248 Broadway	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	4.1	0	2	0
1026 Bishop	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	5.5	45	4.4	2.7
1271 Pavone	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	8.6	8.4	3.9	11
1259 Bishop	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	6.3	4.2	5.1	0
285 Hastings	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	1.6	7.2	1.3	1.6
1086 Superior	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	7	0	11	0
174 Hastings	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	3.4	1.1	4.4	1.2
649 Pipestone	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	31	5.7	20	14
1112 Agard	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	8.2	1.1	1.6
1053 Jennings	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	4.1	5.8	0	6.6
1020 Bishop	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	14	0	5.8
1251 Columbus	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	2.6	36	5.1	42
142 Cross St.	10/20/20	Tier 1	A	Unk	Lead	KITCHEN	7	1.9	8.3	1
885 Mineral	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	0	4.2	0	5.5
1110 Ogden	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	28	16	29	13
781 Buss	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	100	3.9	1.6	0
610 Superior	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	5.2	37	3	3.1
1124 Colfax	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	3.8	4.9	3.2	5
1016 LaVette	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	6.1	1.6	5.1	0
1197 Agard	10/15/20	Tier 1	A	Unk	Lead	KITCHEN	2.9	0	2.9	0

999 Pearl St	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	9.8	7.3	28	16
1178 Broadway	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	18	1.6	19	1.9
857 Ogden	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	21	0	24	0
141 Winan	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	2.4	1.3	4.5
768 Broadway	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.2	0	1.1
812 Lavette	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	240	36	50	2.5
1264 Pavone	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
166 Searles	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	12	2.1	13	2
819 Vineyard	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	1.2	4.8	2.4	2.4
1237 Columbus	10/06/20	Tier 1	A	Unk	Lead	KITCHEN	27	3.4	40	3.7
1115 Superior	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	3.6	51	3.9	54
578 Edwards	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	0	19	6.6	150
341 Brunson	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.5	0	2
1011 Pearl St	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	2.1	6.5	1.8	2.4
1191 Pavone	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.2	1.6	2.1
1069 Hurd	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	2.9	25	3.7	1.5
1225 Colfax	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	4.5	2.9	3.2	0
1289 Bishop	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	8.7	1.1	4.2	0
1291 Superior St	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2	0	2	0
1244 Jennings	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	1	0
185 Parker Ave	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	5	0
1161 Union St	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	3	0	5	0
504 Territorial Rd	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
552 Buena Vista	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2	0	2	0
1143 Union	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	5	0	4	0
854 LaSalle St	12/3/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	1	0
232 Hastings Ave	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
201 Garfield	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	1	0
400 John Street	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	1	0
204 Garfield	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
1043 Agard	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	4	0	2	0
1037 Pearl	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
582 Niles	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	2	0
660 McGuigan	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
1167 Broadway	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
1066 Monroe	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0

855 Lavette	12/3/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
565 Clay (stagnation	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2	0	2	0

**CONSUMER NOTICE OF LEAD AND COPPER RESULTS  
REQUIREMENTS AND CERTIFICATION**

Each community water supply must deliver a Consumer Notice of Lead and Copper Results (Consumer Notice) to the occupants at each location sampled within 30 days of learning the sample results as required under R 325.10410(5) of the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended. Failure to deliver the Consumer Notice to each location on time will result in a reporting violation.

**Instructions:**

- A. Use the Consumer Notice Form A template for sites with lead service lines or Consumer Notice Form B template for sites without lead service lines. See the examples on Page 10 to document results from both sites with a lead service line and without a lead service line.
- B. Complete one Consumer Notice for each home or building that was sampled. **MAKE SURE UNITS ARE CORRECT BEFORE DISTRIBUTING TO CONSUMERS.**  
Note: 1 mg/L = 1 ppm = 1,000 ppb      Example: 0.002 mg/L = 0.002 ppm = 2 ppb
- C. Mail or hand deliver each Consumer Notice to the corresponding home or building sampled.
- D. Water supplies have 90 days after the end of the monitoring period to submit a sample copy of the Consumer Notice along with a signed certification that notices have been distributed as required under R 325.10710d(f)(3) to the appropriate EGLE district office. When possible, EGLE encourages water supplies to send the sample Consumer Notice and certification (page 4 of this document) along with the Lead and Copper Report (pages 1 and 2 of this document), which is due within ten days after the end of the monitoring period. Please **COMPLETE** all forms accurately to avoid resubmittal.


**Certification:**

I hereby certify that the Consumer Notice of Lead and Copper Results (Consumer Notice) has been provided to persons served at each of the taps that were tested, including all the following information:

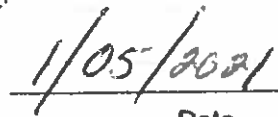
- Delivery was by mail, hand delivery, or another method approved by EGLE.
- Delivery was within 30 days of knowing the result.
- Consumer Notice includes required content:
  - The results of lead and copper tap monitoring for the site that was sampled.
  - An explanation of the health effects of lead and copper.
  - Steps consumers can take to reduce exposure to lead in drinking water.
  - Contact information for the public water supply.
  - The maximum contaminant level goal and the action level for lead and copper with the definitions explaining each.

*Please initial each line verifying that each requirement was completed:*

- ☒ A Consumer Notice was sent to persons served at each of the taps that were tested.
- ☒ Delivery was by mail, hand delivery, or another method approved by EGLE.
- ☒ Each Consumer Notice was delivered to the resident within 30 days of knowing the results.
- ☒ Each Consumer Notice included the required content as stated above.
- ☒ A sample copy of a Consumer Notice sent to a resident is attached.

  
Signature

  
Title

  
Date



**CONSUMER NOTICE OF LEAD AND COPPER RESULTS IN DRINKING WATER**  
**SITE WITH A LEAD SERVICE LINE**

Water Supply Name: Benton Harbor  
County: Berrien WSSN: 0600  
Sample Location: 201 Garfield Date Sampled: 12/4/2020

Thank you for participating in the lead and copper monitoring of drinking water. The levels of lead and copper found at your location are in the table below. Your home is served by a lead service line. This means that the pipe that brings water to your home contains lead. The first liter sample represents the water you are likely to drink when turning on the tap, and the fifth liter sample likely represents the water in the service line.

Contaminant	Action Level	Maximum Contaminant Level Goal	1 <sup>st</sup> Liter Result	5 <sup>th</sup> Liter Result
Lead (ppb)	15	0	1	1
Copper (ppb)	1300	1300	0	0

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.  
**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.  
**ppb:** Parts per billion or micrograms per liter.  
**ND:** Not detected.

To reduce exposure to lead and copper in drinking water:

- **Run your water before drinking.** The more time water has been sitting in your home's pipes, the more lead it may contain. Therefore, if your water has not been used for several hours, run the water before using it for drinking or cooking. This flushes lead-containing water from the pipes. Additional flushing may be required for homes that have been vacant or have a longer service line.
  - If you do not have a lead service line, run the water for 30 seconds to two minutes, or until it becomes cold or reaches a steady temperature.
  - If you do have a lead service line, run the water for at least five minutes to flush water from both the interior building plumbing and the lead service line.
- **Use cold water for drinking, cooking, and preparing baby formula.** Do not cook with or drink water from the hot water tap. Lead and copper dissolves more easily in hot water.
- **Do not boil water to remove lead and copper.** Boiling water will not reduce lead and copper levels.
- **Consider using a filter to reduce lead in drinking water.** Read the package to be sure the filter is NSF 53 certified to reduce lead or contact NSF International at 800-NSF-8010, or [www.nsf.org](http://www.nsf.org) for more information.
- **Consider purchasing bottled water.** The bottled water standard for lead is 5 ppb.
- **Identify older plumbing fixtures that likely contain lead.** Older faucets, fittings, and valves sold before 2014 may contain higher levels of lead, even if marked "lead-free." Faucets, fittings, and valves sold after January 2014 are required to meet a more restrictive "lead-free" definition but may still contain up to 0.25 percent lead.
- **Clean your aerator.** As part of routine maintenance, the aerator should be removed at least every six months to rinse out any debris that may include particulate lead.
- **Get your child tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A  
EQP5942a**EGLE**

**Lead** can cause serious health and developmental problems. It can cause damage to the brain and kidneys, and it can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Although other sources of lead exposure exist, such as lead paint, and lead contaminated dust, your water supply is contacting you to reduce your risk of exposure to lead in drinking water. If you have questions about other sources of lead exposure, please contact your local health department.

**Copper** is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

The United States Environmental Protection Agency (U.S. EPA) estimates that 20 percent or more of human exposure to lead may come from drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water.

For more information on reducing lead exposure around your home and the health effects of lead, visit the U.S. EPA's website at [www.epa.gov/lead](http://www.epa.gov/lead), call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

For more information on copper, visit the United States Center for Disease Control website at [www.atsdr.cdc.gov/index.html](http://www.atsdr.cdc.gov/index.html), or contact your health provider.

For more information regarding your water supply, contact us at: 269.927.8471

**RECEIVED**  
**Dec 21 2020**  
EGLE-DWEHD-CWSS-LCU

Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36635773**  
**Work Order: 01201302100\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **1291 SUPERIOR, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code:  
Collector: **Other**  
Date Collected: **12/04/2020 12:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

**Monroe County Health Dept.**  
**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Page 1 of 1

**RECEIVED**  
**Dec 21 2020**  
EGLE-DWEHD-CWSS-LCU

Official Laboratory Report

Report To: **ROBERT JONES**  
**CITY OF MONROE WATER PLANT**  
1275 HILLOE BLVD  
ST JOSEPH MONROE MI 48161

**Sample ID: LJ36696773**  
Work Order: **01201320100\_01**

System Name/Owner: **ROBERT JONES**  
Collection Address: **1291 SUPERIOR BLVD, MONROE**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/04/2020 12:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Page 1 of 1



**RECEIVED**  
**Dec 21 2020**  
EGLE-DWEHD-CWSS-LCU

Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ3663773**  
**Work Order: 1201320100\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **1143 UNION, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 04:10 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

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MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Page 1 of 1

**RECEIVED**  
**Dec 21 2020**  
EGLE-DWEHD-CWSS-LCU

Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
1275 HILLORE BLVD  
ST JOSEPH, MI 48161

**Sample ID: LJ36638773**  
Work Order: **012013201400\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **1143 UNION ST, BENTON HARBOR, MI 48007**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/04/2020 04:10**  
Date Received: **12/10/2020 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 48007**  
**269 927-5623**

RL: Reporting Limit	mg/L: milligrams / Liter (ppm)	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	Laboratory Contact: Marlene Kane
Not Detected: Not detected at or above the reporting limit (RL)	Report Created on: 12/21/2020 1:33:35PM	

**RECEIVED**  
**Dec 21 2020**  
EGLE-DWEHD-CWSS-LCU

Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
1275 HILLOE FRONT ST  
ST JOSEPH, MI 48161

**Sample ID: LJ3669773**  
Work Order: **01201820100\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **1037 PEARL ST, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 06:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

By authority of PA 368 of 1978 as amended  
Report Created on: 12/21/2020 1:28:48PM  
Page 1 of 1

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID LJ36706773**  
**Work Order 01201320100\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **1037 PEARL ST, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 06:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Monroe County Health Dept.**  
**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
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CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE BLVD**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36706773**  
**Work Order: 01201820100\_01**

System Name/Owner: **BENTON HARBOR**  
Collection Address: **1043 AGARD, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/04/2020 08:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
1275 HILLOE BLVD  
ST JOSEPH, MI 48161

**Sample ID: LJ36708773**  
Work Order: **01201820100\_01**

System Name/Owner: **BENTON HARBOR**  
Collection Address: **1043 AGARD, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/04/2020 08:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID LJ36708773**  
**Work Order 01201320100\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **854 LASALLE, BENTON HARBOR**  
Collected By: **HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/03/2020 23:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID LJ36706773**  
**Work Order 012013201400\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **854 LASALLE, BENTON HARBOR**  
Collected By: **HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/03/2020 23:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49023**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

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CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE BLVD**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36705773**  
**Work Order: 01201821400\_01**

System Name/Owner: **BENTON HARBOR**  
Collection Address: **855 LAVERGNE ST, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 23:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE BLVD**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36706773**  
**Work Order: 0120132140\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **855 LAVERGNE ST, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 23:00**  
Date Received: **12/10/2020 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Berrien County**  
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**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
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CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36705773**  
**Work Order: 012013021400\_01**

System Name/Owner: **BENTON HARBOR**  
Collection Address: **204 GARFIELD, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 08:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLORE BLVD**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36708773**  
**Work Order: 12013201400\_01**

System Name/Owner: **BENTON HARBOR**  
Collection Address: **204 GARFIELD, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 08:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit	mg/L: milligrams / Liter (ppm)	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	Laboratory Contact: Marlene Kane
AL: Action Level	MPN: Most Probable Number	CAS: Chemical Abstract Service
Not Detected: Not detected at or above the reporting limit (RL)	Report Created on: 12/21/2020 1:33:35PM	Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36708773**  
**Work Order: 012013201400\_01**

System Name/Owner: **BENTON HARBOR**  
Collection Address: **201 GARFIELD, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/04/2020 07:30**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
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MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
1275 HILLOE BLVD  
ST JOSEPH, MI 48161

**Sample ID: LJ36716773**  
**Work Order: 01201320140\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **201 GARFIELD, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **Other**  
Collector: **Other**  
Date Collected: **12/04/2020 07:30**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
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**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit	mg/L: milligrams / Liter (ppm)	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	Laboratory Contact: Marlene Kane
AL: Action Level	MPN: Most Probable Number	CAS: Chemical Abstract Service
Not Detected: Not detected at or above the reporting limit (RL)	Report Created on: 12/21/2020 1:33:35PM	Laboratory Contact: Marlene Kane



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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE REBONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID: LJ36736773**  
**Work Order: 012013201400\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **504 TERRITIALE ROAD, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 08:30 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49023**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLORE BLVD**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36718773**  
**Work Order: 0120182140\_01**

System Name/Owner: **BENTON HARBOR**  
Collection Address: **504 TERRACE RD, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/04/2020 08:30**  
Date Received: **12/10/2020 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID: LJ36718773**  
**Work Order: 0120182140\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **1066 MONROE BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 04:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring Water Quality Problem**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID: LJ36716773**  
**Work Order: 0120182200\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **1066 MONROE BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 04:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring Water Quality Problem**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit	mg/L: milligrams / Liter (ppm)	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	Laboratory Contact: Marlene Kane
AL: Action Level	MPN: Most Probable Number	CAS: Chemical Abstract Service
Not Detected: Not detected at or above the reporting limit (RL)	Report Created on: 12/21/2020 1:33:35PM	Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36735773**  
**Work Order: 1201302100\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **1167 BROADWAY BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 05:50**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**2353 E. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36736773**  
**Work Order: 1201320\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **1167 BROADWAY BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 05:50**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE BLVD**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36715773**  
**Work Order: 1201320\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **660 MCGUGAN BLVD BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 06:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36718773**  
**Work Order: 01201820\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **660 MCGUGAN, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 06:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit	mg/L: milligrams / Liter (ppm)	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	Laboratory Contact: Marlene Kane
AL: Action Level	MPN: Most Probable Number	CAS: Chemical Abstract Service
Not Detected: Not detected at or above the reporting limit (RL)	Report Created on: 12/21/2020 1:33:35PM	Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE BLVD**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36718773**  
**Work Order: 01201820\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **582 NILES, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 08:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE BLVD**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36726773**  
**Work Order: 120132020\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **582 NILES, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 08:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit	mg/L: milligrams / Liter (ppm)	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	Laboratory Contact: Marlene Kane
AL: Action Level	MPN: Most Probable Number	CAS: Chemical Abstract Service
Not Detected: Not detected at or above the reporting limit (RL)	Report Created on: 12/21/2020 1:33:35PM	Laboratory Contact: Marlene Kane



**RECEIVED**  
**Dec 21 2020**  
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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE BLVD**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36726773**  
**Work Order: 120132020\_01**

System Name/Owner: **BENTON HARBOR**  
Collection Address: **400 JOHN ST BENTON HARBOR**  
Collected By: **[REDACTED]**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 06:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Monroe, MI 48161-2234**  
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**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE BLVD**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36728773**  
**Work Order: 01201320\_01**

System Name/Owner: **BENTON HARBOR**  
Collection Address: **400 JOHN ST BENTON HARBOR**  
Collected By: **[REDACTED]**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 06:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Monroe County Health Dept.**  
**Berrien County**  
**2353 S. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE REBONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID LJ36728773**  
**Work Order 0120130220\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **552 BUENA VISTA BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 07:30 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLORE FRONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID: LJ36726773**  
**Work Order: 01201820\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **552 BUENA VISTA, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/04/2020 07:30**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

By authority of PA 368 of 1978 as amended  
Report Created on: 12/21/2020 1:28:48PM  
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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE TRL**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36725773**  
**Work Order: 01201320100\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **565 CLAY, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 10:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**Benton Harbor, MI 49022**  
**269 927-5623**

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MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
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CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

By authority of PA 368 of 1978 as amended  
Report Created on: 12/21/2020 1:28:48PM  
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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID: LJ36726773**  
**Work Order: 01201320\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **565 CLAY, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 10:00**  
Date Received: **12/10/2020 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit	mg/L: milligrams / Liter (ppm)	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	Laboratory Contact: Marlene Kane
Not Detected: Not detected at or above the reporting limit (RL)	Report Created on: 12/21/2020 1:33:35PM	

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE REBONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID: LJ36725773**  
**Work Order: 012013021300\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **1161 UNION, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 06:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE REBONT ST**  
**ST JOSEPH MONROE MI 48161**

**Sample ID: LJ36728773**  
**Work Order: 012013021400\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **1161 UNION, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 06:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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Not Detected: Not detected at or above the reporting limit (RL)

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Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36728773**  
**Work Order: 01201820100\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **1244 JENNINGS, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 09:00 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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Laboratory Contact: Marlene Kane

By authority of PA 368 of 1978 as amended  
Report Created on: 12/21/2020 1:28:48PM

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36736773**  
**Work Order: 0120132010\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **1244 JENNINGS, BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/04/2020 09:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

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AL: Action Level  
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Laboratory Contact: Marlene Kane

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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE FRONT ST**  
**ST JOSEPH, MI 48161**

**Sample ID: LJ36738773**  
**Work Order: 0120182030\_01**

System Name/Owner: **BENTON HARBOR CITY OF MONROE**  
Collection Address: **185 PARKER AVE BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other**  
Date Collected: **12/09/2020 08:00**  
Date Received: **12/10/2020 08:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
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Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
**1275 HILLOE BLVD**  
**ST JOSEPH MONROE MI 48161**

**Sample ID: LJ36738773**  
**Work Order: 0120182030\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **232 HASTINGS BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 08:20 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Page 1 of 1

**RECEIVED**  
**Dec 21 2020**  
EGLE-DWEHD-CWSS-LCU

Official Laboratory Report

Report To: **ROBERT JONES**  
**MONROE WATER PLANT**  
1275 HILLOE BLVD  
ST JOSEPH, MI 48161

**Sample ID: LJ36736773**  
**Work Order: 01201821400\_01**

System Name/Owner: **BENTON CITY OF MONROE**  
Collection Address: **232 HASTINGS BENTON HARBOR**  
Collected By: **RESIDENT HOME OWNER**  
Township/Well#/Section: **//**  
County: **Berrien Monroe**  
Sample Point: **KITCHEN SINK FIRST DRAW**  
Water System: **Treated Public Distribution System**

WSSN/Pool ID: **0000 04450**  
Source: **TYPE I**  
Site Code: **DIST**  
Collector: **Other Other**  
Date Collected: **12/04/2020 08:20 05:15**  
Date Received: **12/10/2020 08:39 09:39**  
Purpose: **Routine Monitoring**

TESTING INFORMATION						REGULATORY INFORMATION			
Analyte Name	Result	Units	RL	Date Tested	Date	MCL/AL	Method	CAS #	
Copper	Not detected	mg/L	0.05	12/14/2020		1.3	EPA 200.8	7440-50-8	
Lead	Not detected	mg/L	0.001	12/14/2020		0.015	EPA 200.8	7439-92-1	

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

**Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.**

**Monroe County Health Dept.**  
**Berrien County**  
**2353 E. Cluster Road**  
**2149 E. Napier Ave**  
**Monroe, MI 48161-2234**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number  
Report Created on: 12/21/2020 1:33:35PM

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Page 1 of 1

**Michigan Department of Environmental Quality**

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***Replicate Laboratory Report for  
Lansing Drinking Water Laboratory***

---

**Owner/Location Information:**

BENTON HARBOR  
185 PARKER AVE  
BENTON HARBOR MI 49085

LLJ36731

**Sample/Collection Information:**

WSSN: 0600  
County: Berrien  
Township:  
Section:  
Well #:

Collection Date: 12/4/2020 8:00:00 AM  
Arrival Date: 12/10/2020 8:39:56 AM

Site Code: DIST  
Water Source: Public Community Water Supply  
Sample Reason: Routine Monitoring  
Sample Point: Treated Public Distribution System  
Point Description: KITCHEN SINK FIRST DRAW  
Collector: Other  
Collected By: RESIDENT

---

<u>CasNo</u>	<u>Analyte</u>	<u>Result</u>	<u>Detect</u>	<u>Units</u>	<u>Method</u>
7440-50-8	COPPER (RECOVERABLE)	ND	0.05	mg/L	EPA 200.8
7439-92-1	LEAD (TOTAL)	0.009	0.001	mg/L	EPA 200.8

---

**Laboratory Comments:**

By authority of PA 368 of 1978 as amended.

Print Date: 1/1/0001 12:00:00 AM

## LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

\*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street  
 South Bend, IN 46617  
 Tel: (574) 233-4777  
 Fax: (574) 233-8207  
 1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor  
 Attn: Michael O'Malley  
 200 East Wall Street  
 Benton Harbor, MI 49002

Report: 485377  
 Priority: Standard Written  
 Status: Final  
 PWS ID: MI600

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4624126	rpb1 Sample 1st	200.8	05/06/20 18:28	Client	05/11/20 10:55
4624127	rpb2 Sample 1st	200.8	05/06/20 18:28	Client	05/11/20 10:55
4624128	rpb3 Sample 1st	200.8	05/07/20 08:45	Client	05/11/20 10:55
4624129	rpb4 Sample 1st	200.8	05/06/20 21:20	Client	05/11/20 10:55
4624130	rpb5 Sample 1st	200.8	05/06/20 18:28	Client	05/11/20 10:55
4624131	rpb6 Sample 1st	200.8	05/08/20 08:30	Client	05/11/20 10:55
4624132	rpb7 Sample 1st	200.8	05/07/20 06:45	Client	05/11/20 10:55
4624133	rpb8 Sample 1st	200.8	05/07/20 08:00	Client	05/11/20 10:55
4624134	rpb9 Sample 1st	200.8	05/07/20 09:37	Client	05/11/20 10:55
4624135	rpb10 Sample 1st	200.8	05/07/20 10:43	Client	05/11/20 10:55
4624136	rpb11 Sample 1st	200.8	05/07/20 06:40	Client	05/11/20 10:55
4624137	rpb12 Sample 1st	200.8	05/07/20 07:40	Client	05/11/20 10:55
4624138	rpb13 Sample 1st	200.8	05/07/20 07:20	Client	05/11/20 10:55
4624139	rpb15 Sample 1st	200.8	05/07/20 06:00	Client	05/11/20 10:55
4624140	rpb16 Sample 1st	200.8	05/07/20 07:00	Client	05/11/20 10:55
4624141	rpb17 Sample 1st	200.8	05/07/20 07:45	Client	05/11/20 10:55
4624142	rpb18 Sample 1st	200.8	05/07/20 08:00	Client	05/11/20 10:55
4624143	rpb19 Sample 1st	200.8	05/05/20 14:30	Client	05/11/20 10:55
4624144	rpb20 Sample 1st	200.8	05/07/20 07:00	Client	05/11/20 10:55
4624145	rpb21 Sample 1st	200.8	05/08/20 16:14	Client	05/11/20 10:55
4624146	rpb1 Sample 5th	200.8	05/06/20 18:28	Client	05/11/20 10:55
4624147	rpb2 Sample 5th	200.8	05/06/20 18:28	Client	05/11/20 10:55
4624148	rpb3 Sample 5th	200.8	05/07/20 08:45	Client	05/11/20 10:55
4624149	rpb4 Sample 5th	200.8	05/06/20 21:20	Client	05/11/20 10:55
4624150	rpb5 Sample 5th	200.8	05/06/20 18:28	Client	05/11/20 10:55
4624151	rpb6 Sample 5th	200.8	05/08/20 08:30	Client	05/11/20 10:55
4624152	rpb7 Sample 5th	200.8	05/07/20 06:45	Client	05/11/20 10:55
4624153	rpb8 Sample 5th	200.8	05/07/20 08:00	Client	05/11/20 10:55
4624154	rpb9 Sample 5th	200.8	05/07/20 09:37	Client	05/11/20 10:55
4624155	rpb10 Sample 5th	200.8	05/07/20 10:43	Client	05/11/20 10:55
4624156	rpb11 Sample 5th	200.8	05/07/20 06:40	Client	05/11/20 10:55

Client Name: City of Benton Harbor

Report #: 485377

4624157	rpb12 Sample 5th	200.8	05/07/20 07:40	Client	05/11/20 10:55
4624158	rpb13 Sample 5th	200.8	05/07/20 07:20	Client	05/11/20 10:55
4624159	rpb15 Sample 5th	200.8	05/07/20 06:00	Client	05/11/20 10:55
4624160	rpb16 Sample 5th	200.8	05/07/20 07:00	Client	05/11/20 10:55
4624161	rpb17 Sample 5th	200.8	05/07/20 07:45	Client	05/11/20 10:55
4624162	rpb18 Sample 5th	200.8	05/07/20 08:00	Client	05/11/20 10:55
4624163	rpb19 Sample 5th	200.8	05/05/20 14:30	Client	05/11/20 10:55
4624164	rpb20 Sample 5th	200.8	05/07/20 07:00	Client	05/11/20 10:55
4624165	rpb211 Sample 5th	200.8	05/08/20 04:14	Client	05/11/20 10:55

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

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Authorized Signature

Title

05/26/2020

Date

Client Name: City of Benton Harbor

Report #: 485377

Client Name: City of Benton Harbor

Report #: 485377

Sampling Point: rpb1 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	9.4	ug/L	---	05/21/20 11:41	4624126
7439-92-1	Lead	200.8	15 !	1.0	1.1	ug/L	---	05/21/20 11:41	4624126

Sampling Point: rpb2 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/21/20 11:44	4624127
7439-92-1	Lead	200.8	15 !	1.0	1.1	ug/L	---	05/21/20 11:44	4624127

Sampling Point: rpb3 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	37	ug/L	---	05/21/20 11:51	4624128
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 11:51	4624128

Sampling Point: rpb4 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	13	ug/L	---	05/21/20 11:53	4624129
7439-92-1	Lead	200.8	15 !	1.0	1.8	ug/L	---	05/21/20 11:53	4624129

Sampling Point: rpb5 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	8.7	ug/L	---	05/21/20 11:55	4624130
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 11:55	4624130

Client Name: City of Benton Harbor

Report #: 485377

Sampling Point: rpb6 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.7	ug/L	---	05/21/20 11:58	4624131
7439-92-1	Lead	200.8	15 !	1.0	2.4	ug/L	---	05/21/20 11:58	4624131

Sampling Point: rpb7 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.2	ug/L	---	05/21/20 12:00	4624132
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 12:00	4624132

Sampling Point: rpb8 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.4	ug/L	---	05/21/20 12:03	4624133
7439-92-1	Lead	200.8	15 !	1.0	21	ug/L	---	05/21/20 12:03	4624133

Sampling Point: rpb9 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.1	ug/L	---	05/21/20 12:05	4624134
7439-92-1	Lead	200.8	15 !	1.0	3.6	ug/L	---	05/21/20 12:05	4624134

Sampling Point: rpb10 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.3	ug/L	---	05/21/20 12:07	4624135
7439-92-1	Lead	200.8	15 !	1.0	5.7	ug/L	---	05/21/20 12:07	4624135



Client Name: City of Benton Harbor

Report #: 485377

Sampling Point: rpb11 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.0	ug/L	---	05/21/20 12:15	4624136
7439-92-1	Lead	200.8	15 !	1.0	9.2	ug/L	---	05/21/20 12:15	4624136

Sampling Point: rpb12 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	6.4	ug/L	---	05/21/20 12:17	4624137
7439-92-1	Lead	200.8	15 !	1.0	8.5	ug/L	---	05/21/20 12:17	4624137

Sampling Point: rpb13 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.1	ug/L	---	05/21/20 12:24	4624138
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 12:24	4624138

Sampling Point: rpb15 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	48	ug/L	---	05/21/20 12:26	4624139
7439-92-1	Lead	200.8	15 !	1.0	6.2	ug/L	---	05/21/20 12:26	4624139

Sampling Point: rpb16 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.7	ug/L	---	05/21/20 12:29	4624140
7439-92-1	Lead	200.8	15 !	1.0	2.4	ug/L	---	05/21/20 12:29	4624140

Client Name: City of Benton Harbor

Report #: 485377

Sampling Point: rpb17 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.4	ug/L	---	05/21/20 12:31	4624141
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 12:31	4624141

Sampling Point: rpb18 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.2	ug/L	---	05/21/20 12:33	4624142
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 12:33	4624142

Sampling Point: rpb19 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.2	ug/L	---	05/21/20 12:36	4624143
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 12:36	4624143

Sampling Point: rpb20 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.4	ug/L	---	05/21/20 12:38	4624144
7439-92-1	Lead	200.8	15 !	1.0	100	ug/L	---	05/21/20 12:38	4624144

Sampling Point: rpb21 Sample 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	230	ug/L	---	05/21/20 12:41	4624145
7439-92-1	Lead	200.8	15 !	1.0	3.5	ug/L	---	05/21/20 12:41	4624145

Client Name: City of Benton Harbor

Report #: 485377

Sampling Point: rpb1 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.5	ug/L	---	05/21/20 12:53	4624146
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 12:53	4624146

Sampling Point: rpb2 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/21/20 12:55	4624147
7439-92-1	Lead	200.8	15 !	1.0	2.0	ug/L	---	05/21/20 12:55	4624147

Sampling Point: rpb3 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	9.6	ug/L	---	05/21/20 13:02	4624148
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 13:02	4624148

Sampling Point: rpb4 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.6	ug/L	---	05/21/20 13:04	4624149
7439-92-1	Lead	200.8	15 !	1.0	3.4	ug/L	---	05/21/20 13:04	4624149

Sampling Point: rpb5 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	8.3	ug/L	---	05/21/20 13:07	4624150
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 13:07	4624150

Client Name: City of Benton Harbor

Report #: 485377

Sampling Point: rpb6 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.2	ug/L	---	05/21/20 13:09	4624151
7439-92-1	Lead	200.8	15 !	1.0	1.3	ug/L	---	05/21/20 13:09	4624151

Sampling Point: rpb7 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.1	ug/L	---	05/21/20 13:12	4624152
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 13:12	4624152

Sampling Point: rpb8 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.5	ug/L	---	05/21/20 13:14	4624153
7439-92-1	Lead	200.8	15 !	1.0	4.2	ug/L	---	05/21/20 13:14	4624153

Sampling Point: rpb9 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.4	ug/L	---	05/21/20 13:16	4624154
7439-92-1	Lead	200.8	15 !	1.0	7.9	ug/L	---	05/21/20 13:16	4624154

Sampling Point: rpb10 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.0	ug/L	---	05/21/20 13:19	4624155
7439-92-1	Lead	200.8	15 !	1.0	14	ug/L	---	05/21/20 13:19	4624155

Client Name: City of Benton Harbor

Report #: 485377

Sampling Point: rpb11 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.6	ug/L	---	05/21/20 13:26	4624156
7439-92-1	Lead	200.8	15 !	1.0	23	ug/L	---	05/21/20 13:26	4624156

Sampling Point: rpb12 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.4	ug/L	---	05/21/20 13:28	4624157
7439-92-1	Lead	200.8	15 !	1.0	5.3	ug/L	---	05/21/20 13:28	4624157

Sampling Point: rpb13 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.7	ug/L	---	05/21/20 13:35	4624158
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 13:35	4624158

Sampling Point: rpb15 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	50	ug/L	---	05/21/20 13:38	4624159
7439-92-1	Lead	200.8	15 !	1.0	4.3	ug/L	---	05/21/20 13:38	4624159

Sampling Point: rpb16 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.1	ug/L	---	05/21/20 13:40	4624160
7439-92-1	Lead	200.8	15 !	1.0	1.3	ug/L	---	05/21/20 13:40	4624160



Client Name: City of Benton Harbor

Report #: 485377

Sampling Point: rpb17 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.1	ug/L	---	05/21/20 13:42	4624161
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 13:42	4624161

Sampling Point: rpb18 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.8	ug/L	---	05/21/20 13:45	4624162
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 13:45	4624162

Sampling Point: rpb19 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.3	ug/L	---	05/21/20 13:47	4624163
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/21/20 13:47	4624163

Sampling Point: rpb20 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.0	ug/L	---	05/21/20 13:50	4624164
7439-92-1	Lead	200.8	15 !	1.0	5.3	ug/L	---	05/21/20 13:50	4624164

Sampling Point: rpb211 Sample 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	20	ug/L	---	05/21/20 13:52	4624165
7439-92-1	Lead	200.8	15 !	1.0	1.4	ug/L	---	05/21/20 13:52	4624165

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

## Lab Definitions

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.







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## CHAIN OF CUSTODY RECORD

Page 2 of 2

REPORT TO:		SAMPLER (Signature)		PWS ID #		STATE (sample origin)		PROJECT NAME		PO#		# OF CONTAINERS		MATRIX CODE		TURNAROUND TIME	
Mike O'Malley, momalley@cityofbentonharbormi.gov BILL TO:		Mike O'Malley		600		MI		Lead Copper RPB 2nd round May 5 to May 8 2020		S05112							
awade@cityofbentonharbormi.gov		COMPLIANCE MONITORING		Yes		No		POPULATION SERVED		SOURCE WATER		Lake Michigan		SAMPLE REMARKS		CHLORINATED	
LAB Number		COLLECTION		SAMPLING SITE		TEST NAME											
DATE		TIME		AM		PM											
1 5/16/20 140		5/16/20 7:00 AM		x				rpb16 sample 1st; sample 5th		Lead and Copper 1st draw and 5th Draw		Yes		Yes		SW	
2 141		5/16/20 7:45 AM		x				rpb17 sample 1st; sample 5th		Lead and Copper 1st draw and 5th Draw		Yes		Yes		SW	
3 142		5/16/20 8:00 AM		x				rpb18 sample 1st; sample 5th		Lead and Copper 1st draw and 5th Draw		Yes		Yes		SW	
4 143		5/16/20 2:30 PM				x		rpb19 sample 1st; sample 5th		Lead and Copper 1st draw and 5th Draw		Yes		Yes		SW	
5 144		5/16/20 7:00 AM		x				rpb20 sample 1st; sample 5th		Lead and Copper 1st draw and 5th Draw		Yes		Yes		SW	
6 145		5/16/20 4:14 AM		x				rpb21 sample 1st; sample 5th		Lead and Copper 1st draw and 5th Draw		Yes		Yes		SW	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
RELINQUISHED BY (Signature)		DATE		TIME		RECEIVED BY (Signature)		DATE		TIME		LAB COMMENTS					
5/16/20 7:00 AM		5/16/20 7:00 AM		PM		Mike O'Malley		5/16/20		10:55 AM							
RELINQUISHED BY (Signature)		DATE		TIME		RECEIVED BY (Signature)		DATE		TIME							
5/16/20 10:55 AM		5/16/20 10:55 AM		PM		K. O'Neil		5/16/20		10:55 AM							
RELINQUISHED BY (Signature)		DATE		TIME		RECEIVED FOR LABORATORY BY:		DATE		TIME		CONDITIONS UPON RECEIPT (check one):					
5/16/20 10:55 AM		5/16/20 10:55 AM		PM		K. O'Neil		5/16/20		10:55 AM		Iced: Wet/Blue Ambient: N/A					
MATRIX CODES:		TURN-AROUND TIME (TAT) - SURCHARGES															
DW-DRINKING WATER		SW = Standard Written: (15 working days)		0%													
RW-REAGENT WATER		RW* = Rush Written: (5 working days)		50%													
GW-GROUND WATER		RW* = Rush Written: (5 working days)		75%													
EW-EXPOSURE WATER																	
SW-SURFACE WATER																	
PW-POOL WATER																	
WW-WASTE WATER																	

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.

IV\* = Immediate Verbal: (3 working days)  
IW\* = Immediate Written: (3 working days)  
SP\* = Weekend, Holiday  
STAT\* = Less than 48 hours

IV\* = Immediate Verbal: (3 working days)  
IW\* = Immediate Written: (3 working days)  
SP\* = Weekend, Holiday  
STAT\* = Less than 48 hours

\* Please call, expedited service not available for all testing

06-LO-F0435 Issue 6.0 Effective Date: 2015-09-20

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agreed to in writing by EEA.





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## CHAIN OF CUSTODY RECORD

Page 1 of 2

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REPORT TO:					SAMPLER (Signature)			PWS ID #		STATE (sample origin)		PROJECT NAME		PO#		# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME	
Mike O'Malley, momalley@cityofbentonharbormi.gov BILL TO: Momalley@cityofbentonharbormi.gov awade@cityofbentonharbormi.gov					Mike O'Malley			600		MI		Lead Copper RPB 2nd round May 5 to May 8 2020		S05112					
COMPLIANCE MONITORING					Yes		No		POPULATION SERVED		SOURCE WATER								
					Yes				9,639		Lake Michigan								
LAB Number		COLLECTION			SAMPLING SITE			TEST NAME			SAMPLE REMARKS		CHLORINATED		# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME		
		DATE	TIME	AM	PM									YES				NO	
1	41024 146	5/6/20	6:28 PM		x	rpb1	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
2	1 147	5/6/20	6:28 PM		x	rpb2	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
3	148	5/7/20	8:45 AM		x	rpb3	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
4	149	5/6/20	9:20 PM		x	rpb4	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
5	150	5/6/20	6:28 PM		x	rpb5	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
6	151	5/8/20	8:30 AM	x		rpb6	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
7	152	5/7/20	6:45 AM	x		rpb7	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
8	153	5/7/20	8:00 AM	x		rpb8	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
9	154	5/7/20	9:37 AM	x		rpb9	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
10	155	5/7/20	10:43 AM	x		rpb10	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
11	156	5/7/20	6:40 AM	x		rpb11	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
12	157	5/7/20	7:40 AM	x		rpb12	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
13	158	5/7/20	7:20 AM	x		rpb13	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW
14	159	5/7/20	6:00 AM	x		rpb15	sample 1st; sample 5th			Lead and Copper 1st draw and 5th Draw					Yes		2	SW	SW

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT
	5/11/20	3:00 PM		5/11/20	10:58 AM	
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	
	5/11/20	10:55 AM				LAB COMMENTS
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME	CONDITIONS UPON RECEIPT (check one): <input type="checkbox"/> Iced: Wet/Blue <input checked="" type="checkbox"/> Ambient <input type="checkbox"/> °C Upon Receipt <input type="checkbox"/> N/A
				5/11/2020	10:55 AM	

<b>MATRIX CODES:</b> DW-DRINKING WATER RW-REAGENT WATER GW-GROUND WATER EW-EXPOSURE WATER SW-SURFACE WATER PW-POOL WATER WW-WASTE WATER	<b>TURN-AROUND TIME (TAT) - SURCHARGES</b> SW = Standard Written: (15 working days) 0% RV* = Rush Verbal: (5 working days) 50% RW* = Rush Written: (5 working days) 75% * Please call, expedited service not available for all testing	IV* = Immediate Verbal: (3 working days) 100% IW* = Immediate Written: (3 working days) 125% SP* = Weekend, Holiday CALL STAT* = Less than 48 hours CALL	Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.
--	--	---	---

06-LO-F0435 Issue 6.0 Effective Date: 2016-09-20

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## CHAIN OF CUSTODY RECORD

Page 2 of 2

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REPORT TO:				SAMPLER (Signature)				PWS ID #		STATE (sample origin)		PROJECT NAME		PO#		# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME							
Mike O'Malley, momalley@cityofbentonharbormi.gov				Mike O'Malley				600		MI		Lead Copper RPB 2nd round May 5 to May 8 2020		S05112											
BILL TO:				COMPLIANCE MONITORING				POPULATION SERVED		SOURCE WATER		Lead Copper RPB 2nd round May 5 to May 8 2020		S05112											
awade@cityofbentonharbormi.gov				Yes				No		9,639		Lake Michigan													
LAB Number				COLLECTION				SAMPLING SITE				TEST NAME				SAMPLE REMARKS		CHLORINATED		# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME			
				DATE TIME AM PM														YES NO							
1 16024 1600				5/7/20 7:00 AM x				rpb16 sample 1st; sample 5th				Lead and Copper 1st draw and 5th Draw						Yes		2		SW		\$W	
2 1601				5/7/20 7:45 AM x				rpb17 sample 1st; sample 5th				Lead and Copper 1st draw and 5th Draw						Yes		2		SW		\$W	
3 1602				5/7/20 8:00 AM x				rpb18 sample 1st; sample 5th				Lead and Copper 1st draw and 5th Draw						Yes		2		SW		\$W	
4 1603				5/5/20 2:30 PM x				rpb19 sample 1st; sample 5th				Lead and Copper 1st draw and 5th Draw						Yes		2		SW		\$W	
5 1604				5/7/20 7:00 AM x				rpb20 sample 1st; sample 5th				Lead and Copper 1st draw and 5th Draw						Yes		2		SW		\$W	
6 1605				5/8/20 4:14 AM x				rpb21 sample 1st; sample 5th				Lead and Copper 1st draw and 5th Draw						Yes		2		SW		\$W	
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT
	5/11/20	7:00 PM		5/11/20	10:35 PM	
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	
	5/11/20	10:35 PM				LAB COMMENTS
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME	
CONDITIONS UPON RECEIPT (check one):						N/A
Iced: Wet/Blue <input checked="" type="checkbox"/> Ambient <input type="checkbox"/> °C Upon Receipt						

<b>MATRIX CODES:</b> DW-DRINKING WATER RW-REAGENT WATER GW-GROUND WATER EW-EXPOSURE WATER SW-SURFACE WATER PW-POOL WATER WW-WASTE WATER	<b>TURN-AROUND TIME (TAT) - SURCHARGES</b> SW = Standard Written: (15 working days) 0% RV* = Rush Verbal: (5 working days) 50% RW* = Rush Written: (5 working days) 75% * Please call, expedited service not available for all testing	IV* = Immediate Verbal: (3 working days) 100% IW* = Immediate Written: (3 working days) 125% SP* = Weekend, Holiday CALL STAT* = Less than 48 hours CALL	Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.
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## LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

\*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street  
 South Bend, IN 46617  
 Tel: (574) 233-4777  
 Fax: (574) 233-8207  
 1 800 332 4345

## Laboratory Report

Client: Benton Harbor, City of  
 Attn: Michael O'Malley  
 200 East Wall Street  
 Benton Harbor, MI 49002

Report: 486115  
 Priority: Standard Written  
 Status: Final  
 PWS ID: MI600

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4629473	RPC 1 Sample 1st Draw	200.8	05/14/20 08:00	Client	05/18/20 13:50
4629474	RPC 2 Sample 1st Draw	200.8	05/14/20 06:00	Client	05/18/20 13:50
4629475	RPC 3 Sample 1st Draw	200.8	05/14/20 07:00	Client	05/18/20 13:50
4629476	RPC 4 Sample 1st Draw	200.8	05/13/20 16:00	Client	05/18/20 13:50
4629477	RPC 5 Sample 1st Draw	200.8	05/13/20 22:00	Client	05/18/20 13:50
4629478	RPC 6 Sample 1st Draw	200.8	05/14/20 06:00	Client	05/18/20 13:50
4629479	RPC 7 Sample 1st Draw	200.8	05/14/20 08:00	Client	05/18/20 13:50
4629480	RPC 8 Sample 1st Draw	200.8	05/14/20 06:30	Client	05/18/20 13:50
4629481	RPC 9 Sample 1st Draw	200.8	05/14/20 04:00	Client	05/18/20 13:50
4629482	RPC 10 Sample 1st Draw	200.8	05/14/20 07:00	Client	05/18/20 13:50
4629483	RPC 11 Sample 1st Draw	200.8	05/14/20 06:00	Client	05/18/20 13:50
4629484	RPC 12 Sample 1st Draw	200.8	05/14/20 07:00	Client	05/18/20 13:50
4629485	RPC 13 Sample 1st Draw	200.8	05/13/20 21:30	Client	05/18/20 13:50
4629486	RPC 14 Sample 1st Draw	200.8	05/14/20 07:30	Client	05/18/20 13:50
4629487	RPC 15 Sample 1st Draw	200.8	05/13/20 07:05	Client	05/18/20 13:50
4629488	RPC 16 Sample 1st Draw	200.8	05/13/20 07:30	Client	05/18/20 13:50
4629489	RPC 17 Sample 1st Draw	200.8	05/13/20 07:30	Client	05/18/20 13:50
4629490	RPC 1 Sample 5th Draw	200.8	05/14/20 08:00	Client	05/18/20 13:50
4629491	RPC 2 Sample 5th Draw	200.8	05/14/20 06:00	Client	05/18/20 13:50
4629492	RPC 3 Sample 5th Draw	200.8	05/14/20 07:00	Client	05/18/20 13:50
4629493	RPC 4 Sample 5th Draw	200.8	05/13/20 16:00	Client	05/18/20 13:50
4629494	RPC 5 Sample 5th Draw	200.8	05/13/20 22:00	Client	05/18/20 13:50
4629495	RPC 6 Sample 5th Draw	200.8	05/14/20 06:00	Client	05/18/20 13:50
4629496	RPC 7 Sample 5th Draw	200.8	05/14/20 08:00	Client	05/18/20 13:50
4629497	RPC 8 Sample 5th Draw	200.8	05/14/20 06:30	Client	05/18/20 13:50
4629498	RPC 9 Sample 5th Draw	200.8	05/14/20 04:00	Client	05/18/20 13:50
4629499	RPC 10 Sample 5th Draw	200.8	05/14/20 07:00	Client	05/18/20 13:50
4629500	RPC 11 Sample 5th Draw	200.8	05/14/20 06:00	Client	05/18/20 13:50
4629501	RPC 12 Sample 5th Draw	200.8	05/14/20 07:00	Client	05/18/20 13:50
4629502	RPC 13 Sample 5th Draw	200.8	05/13/20 21:30	Client	05/18/20 13:50
4629503	RPC 14 Sample 5th Draw	200.8	05/14/20 07:30	Client	05/18/20 13:50

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4629504	RPC 15 Sample 5th Draw	200.8	05/13/20 07:05	Client	05/18/20 13:50
4629505	RPC 16 Sample 5th Draw	200.8	05/13/20 07:30	Client	05/18/20 13:50
4629506	RPC 17 Sample 5th Draw	200.8	05/13/20 07:30	Client	05/18/20 13:50

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

*Note: This report may not be reproduced, except in full, without written approval from EEA.*



Authorized Signature

Title

05/29/2020

Date

Client Name: Benton Harbor, City of

Report #: 486115

Client Name: Benton Harbor, City of

Report #: 486115

Sampling Point: RPC 1 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	<b>10</b>	ug/L	---	05/26/20 15:26	4629473
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 15:26	4629473

Sampling Point: RPC 2 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	<b>2.1</b>	ug/L	---	05/26/20 15:28	4629474
7439-92-1	Lead	200.8	15 !	1.0	<b>2.4</b>	ug/L	---	05/26/20 15:28	4629474

Sampling Point: RPC 3 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	<b>2.6</b>	ug/L	---	05/26/20 15:31	4629475
7439-92-1	Lead	200.8	15 !	1.0	<b>1.5</b>	ug/L	---	05/26/20 15:31	4629475

Sampling Point: RPC 4 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	<b>4.4</b>	ug/L	---	05/26/20 15:34	4629476
7439-92-1	Lead	200.8	15 !	1.0	<b>29</b>	ug/L	---	05/26/20 15:34	4629476

Sampling Point: RPC 5 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	<b>3.2</b>	ug/L	---	05/26/20 15:37	4629477
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 15:37	4629477



Client Name: Benton Harbor, City of

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Sampling Point: RPC 6 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	18	ug/L	05/21/20 09:55	05/22/20 12:47	4629478
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	05/21/20 09:55	05/22/20 12:47	4629478

Sampling Point: RPC 7 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.5	ug/L	---	05/26/20 15:39	4629479
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 15:39	4629479

Sampling Point: RPC 8 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	9.1	ug/L	---	05/26/20 15:48	4629480
7439-92-1	Lead	200.8	15 !	1.0	1.5	ug/L	---	05/26/20 15:48	4629480

Sampling Point: RPC 9 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	7.3	ug/L	---	05/26/20 15:56	4629481
7439-92-1	Lead	200.8	15 !	1.0	22	ug/L	---	05/26/20 15:56	4629481

Sampling Point: RPC 10 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/26/20 15:59	4629482
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 15:59	4629482

Client Name: Benton Harbor, City of

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Sampling Point: RPC 11 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	7.8	ug/L	---	05/26/20 16:01	4629483
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 16:01	4629483

Sampling Point: RPC 12 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.0	ug/L	---	05/26/20 16:04	4629484
7439-92-1	Lead	200.8	15 !	1.0	2.2	ug/L	---	05/26/20 16:04	4629484

Sampling Point: RPC 13 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.1	ug/L	---	05/26/20 16:07	4629485
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 16:07	4629485

Sampling Point: RPC 14 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/26/20 16:10	4629486
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 16:10	4629486

Sampling Point: RPC 15 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	36	ug/L	---	05/26/20 16:12	4629487
7439-92-1	Lead	200.8	15 !	1.0	1.4	ug/L	---	05/26/20 16:12	4629487

Client Name: Benton Harbor, City of

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Sampling Point: RPC 16 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.7	ug/L	---	05/26/20 16:15	4629488
7439-92-1	Lead	200.8	15 !	1.0	44	ug/L	---	05/26/20 16:15	4629488

Sampling Point: RPC 17 Sample 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.9	ug/L	---	05/26/20 16:18	4629489
7439-92-1	Lead	200.8	15 !	1.0	6.4	ug/L	---	05/26/20 16:18	4629489

Sampling Point: RPC 1 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.0	ug/L	---	05/26/20 16:32	4629490
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 16:32	4629490

Sampling Point: RPC 2 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.6	ug/L	---	05/26/20 16:40	4629491
7439-92-1	Lead	200.8	15 !	1.0	2.0	ug/L	---	05/26/20 16:40	4629491

Sampling Point: RPC 3 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/26/20 16:43	4629492
7439-92-1	Lead	200.8	15 !	1.0	1.5	ug/L	---	05/26/20 16:43	4629492

Client Name: Benton Harbor, City of

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Sampling Point: RPC 4 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.6	ug/L	---	05/26/20 16:45	4629493
7439-92-1	Lead	200.8	15 !	1.0	11	ug/L	---	05/26/20 16:45	4629493

Sampling Point: RPC 5 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.9	ug/L	---	05/26/20 16:48	4629494
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 16:48	4629494

Sampling Point: RPC 6 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	14	ug/L	---	05/26/20 16:51	4629495
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 16:51	4629495

Sampling Point: RPC 7 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.8	ug/L	---	05/26/20 16:54	4629496
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 16:54	4629496

Sampling Point: RPC 8 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.0	ug/L	---	05/26/20 16:56	4629497
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 16:56	4629497

Client Name: Benton Harbor, City of

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Sampling Point: RPC 9 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	7.5	ug/L	---	05/26/20 16:59	4629498
7439-92-1	Lead	200.8	15 !	1.0	18	ug/L	---	05/26/20 16:59	4629498

Sampling Point: RPC 10 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/26/20 17:02	4629499
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 17:02	4629499

Sampling Point: RPC 11 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.4	ug/L	---	05/26/20 17:10	4629500
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 17:10	4629500

Sampling Point: RPC 12 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.7	ug/L	---	05/26/20 17:19	4629501
7439-92-1	Lead	200.8	15 !	1.0	2.4	ug/L	---	05/26/20 17:19	4629501

Sampling Point: RPC 13 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/26/20 17:21	4629502
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/26/20 17:21	4629502



Client Name: Benton Harbor, City of

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Sampling Point: RPC 14 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.0	ug/L	---	05/26/20 17:24	4629503
7439-92-1	Lead	200.8	15 !	1.0	8.3	ug/L	---	05/26/20 17:24	4629503

Sampling Point: RPC 15 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.9	ug/L	---	05/26/20 17:27	4629504
7439-92-1	Lead	200.8	15 !	1.0	1.3	ug/L	---	05/26/20 17:27	4629504

Sampling Point: RPC 16 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.8	ug/L	---	05/26/20 17:30	4629505
7439-92-1	Lead	200.8	15 !	1.0	81	ug/L	---	05/26/20 17:30	4629505

Sampling Point: RPC 17 Sample 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.5	ug/L	---	05/26/20 17:32	4629506
7439-92-1	Lead	200.8	15 !	1.0	4.3	ug/L	---	05/26/20 17:32	4629506

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

## Lab Definitions

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Eaton Analytical

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Order # 399308  
Batch # 486115

## CHAIN OF CUSTODY RECORD

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Shaded area for EEA use only

REPORT TO:		SAMPLER (Signature)		PWS ID #		STATE (sample origin)		PROJECT NAME		PO#		MATRIX CODE			
BILL TO:		COMPLIANCE MONITORING		Yes		No		POPULATION SERVED		SOURCE WATER		S05119			
LAB Number		COLLECTION		SAMPLING SITE		TEST NAME		SAMPLE REMARKS		CHLORINATED		TURNAROUND TIME			
		DATE	TIME	AM	PM					YES		NO			
1	41029473	05/14/20	8:00 AM	x		RPC 1 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
2	474	05/14/20	6:00 AM	x		RPC 2 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
3	475	05/14/20	7:00 AM	x		RPC 3 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
4	476	05/13/20	4:00 PM		x	RPC 4 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
5	477	05/13/20	10:00 PM		x	RPC 5 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
6	478	05/14/20	6:00 AM	x		RPC 6 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
7	479	05/14/20	8:00 AM	x		RPC 7 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
8	480	05/14/20	6:30 AM	x		RPC 8 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
9	481	05/14/20	4:00 AM	x		RPC 9 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
10	482	05/14/20	7:00 AM	x		RPC 10 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
11	483	05/14/20	6:00 AM	x		RPC 11 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
12	484	05/14/20	7:00 AM	x		RPC 12 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
13	485	05/13/20	9:30 PM		x	RPC 13 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
14	486	05/14/20	7:30 AM	x		RPC 14 Sample 1st Draw & 5th Draw		Lead and Copper 1st Draw & 5th Draw		x		2 SW \$W			
RELINQUISHED BY: (Signature)		DATE		TIME		RECEIVED BY: (Signature)		DATE		TIME		LAB COMMENTS			
		5/15/20		7:30 AM				5/18		1:50 PM		LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT			
RELINQUISHED BY: (Signature)		DATE		TIME		RECEIVED BY: (Signature)		DATE		TIME		LAB COMMENTS			
		5/18/20		1:50 PM				5/18		1:50 PM		LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT			
RELINQUISHED BY: (Signature)		DATE		TIME		RECEIVED FOR LABORATORY BY:		DATE		TIME		CONDITIONS UPON RECEIPT (check one):			
		5/18/20		1:50 PM				5/18-2020		1:50 PM		___ Iced: Wet/Blue ___ Ambient: ___ °C Upon Receipt: ___ N/A			
MATRIX CODES:		TURN-AROUND TIME (TAT) - SURCHARGES		IN* = Immediate Verbal: (3 working days)		100%		IW* = Immediate Written: (3 working days)		125%		SP* = Weekend, Holiday		CALL	
DW-DRINKING WATER		SW = Standard Written: (15 working days)		0%		75%		STAT* = Less than 48 hours		CALL		Samples received within 48 hours with less than 48 hours holding time remaining only be subject to additional charges.			
RW-REAGENT WATER		RV* = Rush Verbal: (5 working days)		50%											
GW-GROUND WATER		RW* = Rush Written: (5 working days)		75%											
EW-EXPOSURE WATER															
SW-SURFACE WATER															
PW-POOL WATER															
WW-WASTE WATER															

\* Plus call, expedited services not available for all testing

06-LO-F0435 Issue 6.0 Effective Date: 2016-09-20

Sample analysis will be provided according to the standard EEA Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agreed to in writing by EEA.









110 S. Hill Street  
South Bend, IN 46617  
T: 1.800.332.4345  
F: 1.574.233.8207

Order # 599308  
Batch # 186115

Eaton Analytical

# CHAIN OF CUSTODY RECORD

Page 1 of 2

REPORT TO:		Shaded area for EEA use only		PWS ID #		STATE (sample origin)		PROJECT NAME		PO#		MATRIX CODE	
Mike O'Malley, momalley@cityofbentonhami.gov		Mike O'Malley		Residents		MI		Lead and Copper 1st Half 2020		S05119			
BILL TO:		COMPLIANCE MONITORING		Yes		No		POPULATION SERVED		SOURCE WATER			
Momalley@cityofbentonhami.gov		x						9,639		Lake Michigan			
LAB Number		COLLECTION		SAMPLING SITE		TEST NAME		SAMPLE REMARKS		CHLORINATED		TURNAROUND TIME	
		DATE		TIME		AM		PM		YES		NO	
1 41029 490		05/14/20		8:00 AM		x				1st and 5th		x	
2 491		05/14/20		6:00 AM		x				1st and 5th		x	
3 492		05/14/20		7:00 AM		x				1st and 5th		x	
4 493		05/13/20		4:00 PM		x				1st and 5th		x	
5 494		05/13/20		10:00 PM		x				1st and 5th		x	
6 495		05/14/20		6:00 AM		x				1st and 5th		x	
7 496		05/14/20		8:00 AM		x				1st and 5th		x	
8 497		05/14/20		6:30 AM		x				1st and 5th		x	
9 498		05/14/20		4:00 AM		x				1st and 5th		x	
10 499		05/14/20		7:00 AM		x				1st and 5th		x	
11 500		05/14/20		6:00 AM		x				1st and 5th		x	
12 501		05/14/20		7:00 AM		x				1st and 5th		x	
13 502		05/13/20		9:30 PM		x				1st and 5th		x	
14 503		05/14/20		7:30 AM		x				1st and 5th		x	
RELINQUISHED BY: (Signature)		DATE		TIME		AM		PM		DATE		TIME	
5/15/20		5/15/20		7:00		AM		PM		5/18		1:50	
RELINQUISHED BY: (Signature)		DATE		TIME		AM		PM		DATE		TIME	
5/18/20		5/18/20		1:50		AM		PM		5/18		1:50	
RELINQUISHED BY: (Signature)		DATE		TIME		AM		PM		DATE		TIME	
5/18/20		5/18/20		1:50		AM		PM		5/18-2020		1:50	
MATRIX CODES:		TURN-AROUND TIME (TAT) - SURCHARGES		IV* = Immediate Verbal: (3 working days) 100%		IW* = Immediate Written: (3 working days) 125%		SP* = Weekend, Holiday CALL		STAT* = Less than 48 hours CALL		CONDITIONS UPON RECEIPT (check one): ___ Iced: Wet/Blue ___ Ambient ___ °C Upon Receipt ___ N/A	
DW-DRINKING WATER		SW = Standard Written: (15 working days) 0%		RV* = Rush Verbal: (5 working days) 50%		RW* = Rush Written: (5 working days) 75%							
RW-REAGENT WATER													
GW-GROUND WATER													
EW-EXPOSURE WATER													
SW-SURFACE WATER													
PW-POOL WATER													
WW-WASTE WATER													





## LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

\*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

## Laboratory Report

Client: Benton Harbor, City of  
Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 488775  
Priority: Standard Written  
Status: Final  
PWS ID: MI600

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4651648	RPd 1 1st	200.8	06/09/20 17:15	Client	06/17/20 09:55
4651649	RPd 2 1st	200.8	06/10/20 07:45	Client	06/17/20 09:55
4651650	RPd 3 1st	200.8	06/10/20 07:00	Client	06/17/20 09:55
4651651	RPd 4 1st	200.8	06/10/20 08:30	Client	06/17/20 09:55
4651652	RPd 5 1st	200.8	06/10/20 07:00	Client	06/17/20 09:55
4651653	RPd 6 1st	200.8	06/10/20 04:00	Client	06/17/20 09:55
4651654	RPd 7 1st	200.8	06/10/20 08:00	Client	06/17/20 09:55
4651655	RPd 1 5th	200.8	06/09/20 17:18	Client	06/17/20 09:55
4651656	RPd 2 5th	200.8	06/10/20 07:45	Client	06/17/20 09:55
4651657	RPd 3 5th	200.8	06/10/20 07:00	Client	06/17/20 09:55
4651658	RPd 4 5th	200.8	06/10/20 08:30	Client	06/17/20 09:55
4651659	RPd 5 5th	200.8	06/10/20 07:00	Client	06/17/20 09:55
4651660	RPd 6 5th	200.8	06/10/20 04:00	Client	06/17/20 09:55
4651661	RPd 7 5th	200.8	06/10/20 08:00	Client	06/17/20 09:55
Report Summary					

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

*Note: This report may not be reproduced, except in full, without written approval from EEA.*

		06/27/2020
Authorized Signature	Title	Date
Client Name: Benton Harbor, City of		
Report #: 488775		

Client Name: Benton Harbor, City of

Report #: 488775

Sampling Point: RPd 1 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.8	ug/L	---	06/23/20 20:14	4651648
7439-92-1	Lead	200.8	15 !	1.0	23	ug/L	---	06/23/20 20:14	4651648

Sampling Point: RPd 2 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	33	ug/L	---	06/23/20 20:17	4651649
7439-92-1	Lead	200.8	15 !	1.0	3.4	ug/L	---	06/23/20 20:17	4651649

Sampling Point: RPd 3 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	45	ug/L	---	06/23/20 20:20	4651650
7439-92-1	Lead	200.8	15 !	1.0	11	ug/L	---	06/23/20 20:20	4651650

Sampling Point: RPd 4 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.6	ug/L	---	06/23/20 17:42	4651651
7439-92-1	Lead	200.8	15 !	1.0	4.4	ug/L	---	06/23/20 17:42	4651651

Sampling Point: RPd 5 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.9	ug/L	---	06/23/20 17:45	4651652
7439-92-1	Lead	200.8	15 !	1.0	1.4	ug/L	---	06/23/20 17:45	4651652



Client Name: Benton Harbor, City of

Report #: 488775

Sampling Point: RPd 6 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.2	ug/L	---	06/23/20 17:53	4651653
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	06/23/20 17:53	4651653

Sampling Point: RPd 7 1st

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	28	ug/L	---	06/23/20 17:56	4651654
7439-92-1	Lead	200.8	15 !	1.0	17	ug/L	---	06/23/20 17:56	4651654

Sampling Point: RPd 1 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.3	ug/L	---	06/23/20 17:59	4651655
7439-92-1	Lead	200.8	15 !	1.0	2.4	ug/L	---	06/23/20 17:59	4651655

Sampling Point: RPd 2 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.6	ug/L	---	06/23/20 18:01	4651656
7439-92-1	Lead	200.8	15 !	1.0	2.9	ug/L	---	06/23/20 18:01	4651656

Sampling Point: RPd 3 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	28	ug/L	---	06/23/20 18:04	4651657
7439-92-1	Lead	200.8	15 !	1.0	3.9	ug/L	---	06/23/20 18:04	4651657

Client Name: Benton Harbor, City of

Report #: 488775

Sampling Point: RPd 4 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	7.5	ug/L	---	06/23/20 18:07	4651658
7439-92-1	Lead	200.8	15 !	1.0	6.6	ug/L	---	06/23/20 18:07	4651658

Sampling Point: RPd 5 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.2	ug/L	---	06/23/20 18:10	4651659
7439-92-1	Lead	200.8	15 !	1.0	1.6	ug/L	---	06/23/20 18:10	4651659

Sampling Point: RPd 6 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.1	ug/L	---	06/23/20 18:13	4651660
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	06/23/20 18:13	4651660

Sampling Point: RPd 7 5th

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	26	ug/L	---	06/23/20 18:21	4651661
7439-92-1	Lead	200.8	15 !	1.0	23	ug/L	---	06/23/20 18:21	4651661

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

## Lab Definitions

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) * 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



## LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

\*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street  
 South Bend, IN 46617  
 Tel: (574) 233-4777  
 Fax: (574) 233-8207  
 1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor  
 Attn: Michael O'Malley  
 200 East Wall Street  
 Benton Harbor, MI 49002

Report: 485017  
 Priority: Standard Written  
 Status: Final  
 PWS ID: MI600

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4621306	RP2 1st Draw	200.8	04/30/20 10:00	Client	05/04/20 14:45
4621307	RP3 1st Draw	200.8	04/28/20 19:00	Client	05/04/20 14:45
4621308	RP4 1st Draw	200.8	04/28/20 10:00	Client	05/04/20 14:45
4621309	RP5 1st Draw	200.8	04/29/20 05:30	Client	05/04/20 14:45
4621310	RP6 1st Draw	200.8	04/29/20 09:21	Client	05/04/20 14:45
4621311	RP7 1st Draw	200.8	04/28/20 21:00	Client	05/04/20 14:45
4621312	RP9 1st Draw	200.8	04/29/20 08:00	Client	05/04/20 14:45
4621313	RP11 1st Draw	200.8	04/29/20 12:00	Client	05/04/20 14:45
4621314	RP13 1st Draw	200.8	04/29/20 08:00	Client	05/04/20 14:45
4621315	RP14 5A	200.8	04/29/20 08:17	Client	05/04/20 14:45
4621316	RP15 1st Draw	200.8	04/29/20 06:00	Client	05/04/20 14:45
4621317	RP16 1st Draw	200.8	04/29/20 05:00	Client	05/04/20 14:45
4621318	RP17 1st Draw	200.8	04/28/20 21:38	Client	05/04/20 14:45
4621319	RP19 1st Draw	200.8	04/28/20 21:36	Client	05/04/20 14:45
4621320	RP21 1st Draw	200.8	04/29/20 06:00	Client	05/04/20 14:45
4621321	RP23 1st Draw	200.8	04/30/20 04:00	Client	05/04/20 14:45
4621322	RP24 1st Draw	200.8	04/28/20 18:00	Client	05/04/20 14:45
4621323	RP25 1st Draw	200.8	04/29/20 07:00	Client	05/04/20 14:45
4621324	RP10 1st Draw	200.8	04/30/20 00:00	Client	05/04/20 14:45
4621325	RP2 5th Draw	200.8	04/30/20 10:00	Client	05/04/20 14:45
4621326	RP3 5th Draw	200.8	04/28/20 19:00	Client	05/04/20 14:45
4621327	RP4 5th Draw	200.8	04/28/20 10:00	Client	05/04/20 14:45
4621328	RP5 5th Draw	200.8	04/29/20 05:30	Client	05/04/20 14:45
4621329	RP6 5th Draw	200.8	04/29/20 09:21	Client	05/04/20 14:45
4621330	RP7 5th Draw	200.8	04/28/20 09:00	Client	05/04/20 14:45
4621331	RP9 5th Draw	200.8	04/29/20 08:00	Client	05/04/20 14:45
4621332	RP11 5th Draw	200.8	04/29/20 00:00	Client	05/04/20 14:45
4621333	RP13 5th Draw	200.8	04/29/20 08:00	Client	05/04/20 14:45
4621334	RP14 5B	200.8	04/29/20 08:17	Client	05/04/20 14:45
4621335	RP15 5th Draw	200.8	04/29/20 06:00	Client	05/04/20 14:45
4621336	RP16 5th Draw	200.8	04/29/20 05:00	Client	05/04/20 14:45

Client Name: City of Benton Harbor

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4621337	RP17 5th Draw	200.8	04/28/20 23:38	Client	05/04/20 14:45
4621338	RP19 5th Draw	200.8	04/28/20 21:36	Client	05/04/20 14:45
4621339	RP21 5th Draw	200.8	04/29/20 06:00	Client	05/04/20 14:45
4621340	RP23 5th Draw	200.8	04/30/20 04:00	Client	05/04/20 14:45
4621341	RP24 5th Draw	200.8	04/28/20 18:00	Client	05/04/20 14:45
4621342	RP25 5th Draw	200.8	04/29/20 07:00	Client	05/04/20 14:45
4621343	RP10 5th Draw	200.8	04/30/20 00:00	Client	05/04/20 14:45

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

*Note: This report may not be reproduced, except in full, without written approval from EEA.*



Authorized Signature

Title

05/13/2020

Date

Client Name: City of Benton Harbor

Report #: 485017

Client Name: City of Benton Harbor

Report #: 485017

Sampling Point: RP2 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.4	ug/L	---	05/08/20 11:26	4621306
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 11:26	4621306

Sampling Point: RP3 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/08/20 11:29	4621307
7439-92-1	Lead	200.8	15 !	1.0	1.2	ug/L	---	05/08/20 11:29	4621307

Sampling Point: RP4 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.5	ug/L	---	05/08/20 11:36	4621308
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 11:36	4621308

Sampling Point: RP5 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	9.0	ug/L	---	05/08/20 11:38	4621309
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 11:38	4621309

Sampling Point: RP6 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.5	ug/L	---	05/08/20 11:41	4621310
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 11:41	4621310

Client Name: City of Benton Harbor

Report #: 485017

Sampling Point: RP7 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	150	ug/L	---	05/08/20 11:43	4621311
7439-92-1	Lead	200.8	15 !	1.0	5.2	ug/L	---	05/08/20 11:43	4621311

Sampling Point: RP9 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.1	ug/L	---	05/08/20 11:45	4621312
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 11:45	4621312

Sampling Point: RP11 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.7	ug/L	---	05/08/20 11:48	4621313
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 11:48	4621313

Sampling Point: RP13 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.0	ug/L	---	05/08/20 11:50	4621314
7439-92-1	Lead	200.8	15 !	1.0	1.3	ug/L	---	05/08/20 11:50	4621314

Sampling Point: RP14 5A

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.0	ug/L	---	05/08/20 11:53	4621315
7439-92-1	Lead	200.8	15 !	1.0	7.2	ug/L	---	05/08/20 11:53	4621315



Client Name: City of Benton Harbor

Report #: 485017

Sampling Point: RP15 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/08/20 12:00	4621316
7439-92-1	Lead	200.8	15 !	1.0	1.7	ug/L	---	05/08/20 12:00	4621316

Sampling Point: RP16 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	130	ug/L	05/11/20 11:10	05/12/20 13:37	4621317
7439-92-1	Lead	200.8	15 !	1.0	440	ug/L	05/11/20 11:10	05/12/20 13:37	4621317

Sampling Point: RP17 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	17	ug/L	---	05/08/20 12:02	4621318
7439-92-1	Lead	200.8	15 !	1.0	3.5	ug/L	---	05/08/20 12:02	4621318

Sampling Point: RP19 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	8.9	ug/L	---	05/08/20 12:10	4621319
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:10	4621319

Sampling Point: RP21 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.3	ug/L	---	05/08/20 12:12	4621320
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:12	4621320

Client Name: City of Benton Harbor

Report #: 485017

Sampling Point: RP23 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	17	ug/L	---	05/08/20 12:14	4621321
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:14	4621321

Sampling Point: RP24 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.3	ug/L	---	05/08/20 12:17	4621322
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:17	4621322

Sampling Point: RP25 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	6.8	ug/L	---	05/08/20 12:19	4621323
7439-92-1	Lead	200.8	15 !	1.0	3.8	ug/L	---	05/08/20 12:19	4621323

Sampling Point: RP10 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.3	ug/L	---	05/08/20 12:22	4621324
7439-92-1	Lead	200.8	15 !	1.0	3.0	ug/L	---	05/08/20 12:22	4621324

Sampling Point: RP2 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.1	ug/L	---	05/08/20 12:24	4621325
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:24	4621325

Client Name: City of Benton Harbor

Report #: 485017

Sampling Point: RP3 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/08/20 12:27	4621326
7439-92-1	Lead	200.8	15 !	1.0	1.6	ug/L	---	05/08/20 12:27	4621326

Sampling Point: RP4 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.5	ug/L	---	05/08/20 12:39	4621327
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:39	4621327

Sampling Point: RP5 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	6.1	ug/L	---	05/08/20 12:41	4621328
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:41	4621328

Sampling Point: RP6 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.4	ug/L	---	05/08/20 12:48	4621329
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:48	4621329

Sampling Point: RP7 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	28	ug/L	---	05/08/20 12:51	4621330
7439-92-1	Lead	200.8	15 !	1.0	5.1	ug/L	---	05/08/20 12:51	4621330

Client Name: City of Benton Harbor

Report #: 485017

Sampling Point: RP9 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.6	ug/L	---	05/08/20 12:53	4621331
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:53	4621331

Sampling Point: RP11 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.0	ug/L	---	05/08/20 12:56	4621332
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:56	4621332

Sampling Point: RP13 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/08/20 12:58	4621333
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 12:58	4621333

Sampling Point: RP14 5B

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.6	ug/L	---	05/08/20 13:00	4621334
7439-92-1	Lead	200.8	15 !	1.0	10	ug/L	---	05/08/20 13:00	4621334

Sampling Point: RP15 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	05/08/20 13:03	4621335
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 13:03	4621335

Client Name: City of Benton Harbor

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Sampling Point: RP16 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.7	ug/L	---	05/08/20 13:05	4621336
7439-92-1	Lead	200.8	15 !	1.0	1.0	ug/L	---	05/08/20 13:05	4621336

Sampling Point: RP17 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	8.6	ug/L	---	05/08/20 13:12	4621337
7439-92-1	Lead	200.8	15 !	1.0	5.1	ug/L	---	05/08/20 13:12	4621337

Sampling Point: RP19 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	7.2	ug/L	---	05/08/20 13:15	4621338
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 13:15	4621338

Sampling Point: RP21 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.7	ug/L	---	05/08/20 13:22	4621339
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 13:22	4621339

Sampling Point: RP23 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.2	ug/L	---	05/08/20 13:24	4621340
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 13:24	4621340



Client Name: City of Benton Harbor

Report #: 485017

Sampling Point: RP24 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.4	ug/L	---	05/08/20 13:27	4621341
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	05/08/20 13:27	4621341

Sampling Point: RP25 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.3	ug/L	---	05/08/20 13:29	4621342
7439-92-1	Lead	200.8	15 !	1.0	5.1	ug/L	---	05/08/20 13:29	4621342

Sampling Point: RP10 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.9	ug/L	---	05/08/20 13:32	4621343
7439-92-1	Lead	200.8	15 !	1.0	9.2	ug/L	---	05/08/20 13:32	4621343

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

## Lab Definitions

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.







Eaton Analytical

110 S. Hill Street  
South Bend, IN 46617  
T: 1.800.332.4345  
F: 1.574.233.8207

Order #  
Batch #

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## CHAIN OF CUSTODY RECORD

Page 2 of 2

REPORT TO:

Mike O'Malley, momalley@cityofbentontnharbormi.gov  
BILL TO:

awade@cityofbentontnharbormi.gov

SAMPLER (Signature)

Mike O'Malley BH Residents

PWS ID #

600

STATE (sample origin)

MI

PROJECT NAME

Lead and Copper  
1st Half of 2020

PO#

S05160

MATRIX CODE

SW

LAB Number

COLLECTION

SAMPLING SITE

TEST NAME

SAMPLE REMARKS

CHLORINATED

YES

NO

TURNAROUND TIME

DATE TIME AM PM

04/29/20 6:00 X

04/30/20 4:00 X

04/28/20 6:00 X

04/29/20 7:00 X

04/29/20 7:00 X

04/29/20 7:00 X

04/29/20 7:00 X

04/29/20 7:00 X

04/29/20 7:00 X

04/29/20 7:00 X

04/29/20 7:00 X

04/29/20 7:00 X

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04/29/20 7:00 X

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04/29/20 7:00 X

04/29/20 7:00 X

04/29/20 7:00 X

04/29/20 7:00 X

RELINQUISHED BY: (Signature)

DATE

TIME

AM PM

5/4/20

7:00

RELINQUISHED BY: (Signature)

DATE

TIME

AM PM

5/4/20

2:05

RELINQUISHED BY: (Signature)

DATE

TIME

AM PM

5/4/20

1:44

RECEIVED BY: (Signature)

DATE

TIME

AM PM

5/4/20

2:05

RECEIVED BY: (Signature)

DATE

TIME

AM PM

5/4/20

2:05

RECEIVED FOR LABORATORY BY:

DATE

TIME

AM PM

5/4/20

1:44

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS

4-30-2020 00:00 pm

4-30-2020 00:00 pm

4-30-2020 00:00 pm

4-30-2020 00:00 pm

4-30-2020 00:00 pm

4-30-2020 00:00 pm

4-30-2020 00:00 pm

4-30-2020 00:00 pm

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4-30-2020 00:00 pm

4-30-2020 00:00 pm

4-30-2020 00:00 pm

4-30-2020 00:00 pm

4-30-2020 00:00 pm

MATRIX CODES:

DW-DRINKING WATER

RW-REAGENT WATER

GW-GROUND WATER

EW-EXPOSURE WATER

SW-SURFACE WATER

PW-POOL WATER

WW-WASTE WATER

IV\* = Immediate Verbal: (3 working days)

IW\* = Immediate Written: (3 working days)

SP\* = Weekend, Holiday

STAT\* = Less than 48 hours

100%

125%

CALL

CALL

SW = Standard Written: (15 working days)

RV\* = Rush Verbal: (5 working days)

RW\* = Rush Written: (5 working days)

75%

0%

50%

75%

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written: (15 working days)

RV\* = Rush Verbal: (5 working days)

RW\* = Rush Written: (5 working days)

75%

0%

50%

75%

CONDITIONS UPON RECEIPT (check one):

\_\_\_ Iced: Wet/Blue \_\_\_ Ambient

\_\_\_ °C Upon Receipt

\_\_\_ N/A

\* Please call, expedited service not available for all testing

06-LO-F0435 Issue 6.0 Effective Date: 2016-09-20

Sample analysis will be provided according to the standard EEA Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agreed to in writing by EEA.





Eaton Analytical

110 S. Hill Street  
South Bend, IN 46617  
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F: 1.574.233.8207

Order #  
Batch #

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REPORT TO:

Mike O'Malley, momalley@cityofbentonharbormi.gov

BILL TO:

awade@cityofbentonharbormi.gov

## CHAIN OF CUSTODY RECORD

Page 1 of 2

REPORT TO:		BILL TO:		LAB Number		COLLECTION		SAMPLER (Signature)		PWS ID #		STATE (sample origin)		PROJECT NAME		PO#		OF CONTAINERS		MATRIX CODE		TURNAROUND TIME	
Mike O'Malley		Mike O'Malley		Mike O'Malley		DATE		TIME		AM		PM		Yes		No		S05106		SW		SW	
1		4/20/20		325		04/20/20		10:00		x				RP2		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
2		4/20/20		326		04/20/20		7:00		x				RP3		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
3		4/20/20		327		04/20/20		10:00		x				RP4		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
4		4/20/20		328		04/20/20		5:30		x				RP5		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
5		4/20/20		329		04/20/20		9:21		x				RP6		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
6		4/20/20		330		04/20/20		9:00		x				RP7		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
7		4/20/20		331		04/20/20		8:00		x				RP9		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
8		4/20/20		332		04/20/20		12:00		x				RP11		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
9		4/20/20		333		04/20/20		8:00		x				RP13		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
10		4/20/20		334		04/20/20		8:17		x				RP14		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
11		4/20/20		335		04/20/20		6:00		x				RP15		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
12		4/20/20		336		04/20/20		5:00		x				RP16		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
13		4/20/20		337		04/20/20		11:38		x				RP17		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	
14		4/20/20		338		04/20/20		9:36		x				RP19		1st Draw and 5th Draw Samples		2 lead and copper tests each site 1st Draw; 5th Draw		each site 2 sample		x	

RELINQUISHED BY: (Signature)		DATE		TIME		RECEIVED BY: (Signature)		DATE		TIME		LAB COMMENTS	
[Signature]		5/14		7:00		[Signature]		5/14		2:45		* Both barrels are marked (5) 05042020	
RELINQUISHED BY: (Signature)		DATE		TIME		RECEIVED BY: (Signature)		DATE		TIME		LAB COMMENTS	
[Signature]		5/14		2:45		[Signature]		5-14-2020		14:45		* Both barrels are marked (5) 05042020	
RELINQUISHED BY: (Signature)		DATE		TIME		RECEIVED FOR LABORATORY BY:		DATE		TIME		LAB COMMENTS	
[Signature]		5/14		2:45		[Signature]		5-14-2020		14:45		* Both barrels are marked (5) 05042020	

MATRIX CODES:		TURN-AROUND TIME (TAT) - SURCHARGES		CONDITIONS UPON RECEIPT (check one):		°C Upon Receipt	
DW-DRINKING WATER		SW = Standard Written: (15 working days) 0%		IV* = Immediate Verbal: (3 working days) 100%		Iced: Wet/Blue	
RW-REAGENT WATER		RV* = Rush Verbal: (5 working days) 50%		IW* = Immediate Written: (3 working days) 125%		Ambient	
GW-GROUND WATER		RW* = Rush Written: (5 working days) 75%		SP* = Weekend, Holiday		N/A	
EW-EXPOSURE WATER				STAT* = Less than 48 hours			
SW-SURFACE WATER							
PW-POOL WATER							
WW-WASTE WATER							







PURCHASE REQUISITION

TO BE FILLED IN BY  
PURCHASING AGENT

PURCHASE ORDER# \_\_\_\_\_

20 \_\_\_\_\_

REQUISITION #: **S05106**

DATE: 5/1/20

Water Dist Sampling Lead/Copper

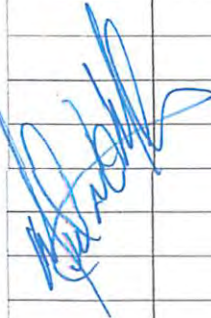
591.571. ~~940~~ 740 DEPARTMENT

PURCHASING AGENT: \_\_\_\_\_

VENDOR: Euroking Environmental Analytical  
110 S. Hill St, South Bend IN 46617

CONTACT NAME: Pat Muff

(800) 332-4341

ACCOUNT	WHERE USED	QUANTITY	DESCRIPTION	UNIT PRICE		EXTENSION	TRADE DISCOUNT	NET PRICE
				ESTIMATE	QUOTED			
			<u>18 Sample sites 2 each</u>					
		<u>36</u>	<u>Lead &amp; Copper testing</u>					

TERM: \_\_\_\_\_

APPROVAL SIGNATURE: \_\_\_\_\_

Printed & Printed by  
Barren County Printing

## LABORATORY REPORT

## LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
<b>LABORATORY REPORT</b>	40700	Missouri	880
Alabama	IN00035	Montana	CERT0026
Alaska	AZ0432	Nebraska	NE-OS-05-04
Arizona	IN00035	Nevada	IN00035
Arkansas	2920	New Hampshire*	2124
California	IN00035	New Jersey*	IN598
Colorado	IN00035	New Mexico	IN00035
Colorado Radiochemistry	PH-0132	New York*	11398
Connecticut	IN035	North Carolina	18700
Delaware	E87775	North Dakota	R-035
Florida*	929	Ohio	87775
Georgia	IN035	Oklahoma	D9508
Hawaii	IN00035	Oregon (Primary AB)*	4074
Idaho	200001	Pennsylvania*	68-00466
Illinois*	17767	Puerto Rico	IN00035
Illinois Microbiology	IN00035	Rhode Island	LAO00343
Illinois Radiochemistry	0-71-01	South Carolina	95005
Indiana Chemistry	M-76-07	South Dakota	IN00035
Indiana Microbiology	098	Tennessee	TN02973
Iowa	E-10233	Texas*	T104704187-18-12
Kansas*	00056	Texas/TCEQ	TX207
Kentucky	LA014	Utah*	IN00035
Louisiana*	IN00035	Vermont	VT-8775
Maine	209	Virginia*	460275
Maryland	M-IN035	Washington	C837
Massachusetts	9926	West Virginia	9927 C
Michigan	018-999-338	Wisconsin	999766900
Minnesota*	IN035	Wyoming	IN035
Mississippi	IN00035		
EPA			

\*NELAP/TNI Recognized Accreditation Bodies

Page 1 of 7

110 South Hill Street  
 South Bend, IN 46617  
 Tel: (574) 233-4777  
 Fax: (574) 233-8207  
 1 800 332 4345

## Laboratory Report

Client: Benton Harbor, City of  
**LABORATORY REPORT**  
 Attn: Michael O'Malley  
 200 East Wall Street  
 Benton Harbor, MI 49002

Report: 491312  
 Priority: Standard Written  
 Status: Final  
 PWS ID: Not Supplied

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4672024	Sample #1	200.8	07/08/20 00:00	Client	07/14/20 11:45
4672025	Sample #5	200.8	07/08/20 00:00	Client	07/14/20 11:45

Report Summary					
----------------	--	--	--	--	--

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis. If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777. We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

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Page 1 of 7

		07/21/2020
Authorized Signature	Title	Date
Client Name: Benton Harbor, City of		
Report #: 491312		



Sampling Point: Sample #1

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	11	ug/L	---	07/20/20 12:45	4672024
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	07/20/20 12:45	4672024

**LABORATORY REPORT**

Sampling Point: Sample #5

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.7	ug/L	---	07/20/20 12:47	4672025
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	07/20/20 12:47	4672025

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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Dec 3 2020

EGLE-DWEHD-CWSS-LCU

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

## LABORATORY REPORT

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

If you have any questions concerning this report, please do not hesitate to call us at

(800) 332-4345 or (574) 233-5177

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

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**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Eaton Analytical

110 S. Hill Street  
South Bend, IN 46617  
T: 1.800.332.4345  
F: 1.574.233.8207

Order #  
Batch #

402906  
491312

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### CHAIN OF CUSTODY RECORD

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Page \_\_\_\_ of \_\_\_\_

REPORT TO:	Benton Harbor		SAMPLER (Signature)		PWS ID #		STATE (sample origin)	PROJECT NAME	PO#	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
BILL TO:			COMPLIANCE MONITORING		Yes		No	POPULATION SERVED	SOURCE WATER	Preservative Checks		
LAB Number	DATE	TIME	AM	PM	SAMPLING SITE		TEST NAME	pH	Residual Chlorine (P/A)	CHLORINATED	YES	NO
4070024	7/14/2020	0:00			Sample #1 3 per valves		ph/cu					
26	7/14/2020	0:00			Sample #5		"					
EGLE-DWEHD-CWSS-LCU												
Dec 3 2020												
RELINQUISHED BY: (Signature)	TIME	RECEIVED BY: (Signature)	TIME	DATE	TIME	LAB COMMENTS						
	AM	PM	AM	PM	DATE	Fresh draw						
RELINQUISHED BY: (Signature)	TIME	RECEIVED BY: (Signature)	TIME	DATE	TIME	CO-CONDITIONS UPON RECEIPT (check one):						
	AM	PM	AM	PM	DATE	100% Verbal: (3 working days) 100% Verbal: (3 working days) 100% Verbal: (3 working days) 100% Verbal: (3 working days)						
RELINQUISHED BY: (Signature)	TIME	RECEIVED FOR LABORATORY BY:	TIME	DATE	TIME	100% Verbal: (3 working days) 100% Verbal: (3 working days) 100% Verbal: (3 working days) 100% Verbal: (3 working days)						
	AM	PM	AM	PM	DATE	100% Verbal: (3 working days) 100% Verbal: (3 working days) 100% Verbal: (3 working days) 100% Verbal: (3 working days)						
TURNAROUND TIME (TAT) - SURCHARGES												
SW - Standard Written: (15 working days) 0% RV - Rush Verbal: (5 working days) 75% Verbal: (3 working days) 100% Verbal: (3 working days) 100% Verbal: (3 working days)												
* Please call, expedited service not available for all testing												
MATRIX CODES:												
DW-DRINKING WATER RW-REAGENT WATER GW- GROUND WATER EW-EXPOSURE WATER SW- SURFACE WATER PW-POOL WATER WW-WASTE WATER												
Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges. 06-LO-F0435 Issue 8.0 Effective Date: 2020-06-15												

Eaton Analytical

sample analysis will be provided according to the standard EEA Water Services Terms, which are available upon request. Any other terms proposed by customer are deemed material alterations and are rejected unless expressly agreed to in writing by EA.

You have any questions concerning this report, please do not hesitate to call us at (574) 233-4771 or (574) 332-4345. This report may not be reproduced, except in full, without written approval from EEA.

## LABORATORY REPORT

## LABORATORY REPORT

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
<b>LABORATORY REPORT</b>	40700	Missouri	880
Alabama	IN00035	Montana	CERT0026
Alaska	AZ0432	Nebraska	NE-OS-05-04
Arizona	IN00035	Nevada	IN00035
Arkansas	2920	New Hampshire*	2124
California	IN00035	New Jersey*	IN598
Colorado	IN00035	New Mexico	IN00035
Colorado Radiochemistry	PH-0132	New York*	11398
Connecticut	IN035	North Carolina	18700
Delaware	E87775	North Dakota	R-035
Florida(Primary AB)*	929	Ohio	87775
Georgia	IN035	Oklahoma	D9508
Hawaii	IN00035	Oregon*	4156
Idaho	200001	Pennsylvania*	68-00466
Illinois*	17767	Puerto Rico	IN00035
Illinois Microbiology	IN00035	Rhode Island	LAO00343
Illinois Radiochemistry	0-71-01	South Carolina	95005
Indiana Chemistry	M-76-07	South Dakota	IN00035
Indiana Microbiology	098	Tennessee	TN02973
Iowa	E-10233	Texas*	T104704187
Kansas*	00056	Texas/TCEQ	TX207
Kentucky	LA014	Utah*	IN00035
Louisiana*	IN00035	Vermont	VT-8775
Maine	209	Virginia*	460275
Maryland	M-IN035	Washington	C837
Massachusetts	9926	West Virginia	9927 C
Michigan	018-999-338	Wisconsin	999766900
Minnesota*	IN035	Wyoming	IN035
Mississippi	IN00035		
EPA			

\*NELAP/TNI Recognized Accreditation Bodies



110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor  
**LABORATORY REPORT**  
Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 500948  
Priority: Standard Written  
Status: Final  
PWS ID: MI600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4749586	RP10 BHFree 102 1st Draw	200.8	10/07/20 08:00	Client	10/14/20 10:25
4749587	RP10 BHFree 102 5th Draw	200.8	10/07/20 08:00	Client	10/14/20 10:25
4749588	RP10 BHFEA 41 1st Draw	200.8	10/07/20 07:00	Client	10/14/20 10:25
4749589	RP10 BHFEA 41 5th Draw	200.8	10/07/20 07:00	Client	10/14/20 10:25
4749590	RP10 BHFEA 52 1st Draw	200.8	10/07/20 07:00	Client	10/14/20 10:25
4749591	RP10 BHFEA 52 5th Draw	200.8	10/07/20 07:00	Client	10/14/20 10:25
4749592	RP10 BHFEA 7 1st Draw	200.8	10/07/20 08:00	Client	10/14/20 10:25
4749593	RP10 BHFEA 7 5th Draw	200.8	10/07/20 08:00	Client	10/14/20 10:25
4749594	RP10 BHFree 99 1st Draw	200.8	10/07/20 07:30	Client	10/14/20 10:25
4749595	RP10 BHFree 99 5th Draw	200.8	10/07/20 07:30	Client	10/14/20 10:25
4749596	RP10 BHFEA 20 1st Draw	200.8	10/07/20 08:00	Client	10/14/20 10:25
4749597	RP10 BHFEA 20 5th Draw	200.8	10/07/20 08:00	Client	10/14/20 10:25
4749598	RP10 BHFree 23 1st Draw	200.8	10/07/20 04:00	Client	10/14/20 10:25
4749599	RP10 BHFree 23 5th Draw	200.8	10/07/20 04:00	Client	10/14/20 10:25
4749600	RP10 BHFEA 45 1st Draw	200.8	10/07/20 08:00	Client	10/14/20 10:25
4749601	RP10 BHFEA 45 5th Draw	200.8	10/07/20 08:00	Client	10/14/20 10:25
4749602	RP10 BHFEA 6 1st Draw	200.8	10/07/20 06:00	Client	10/14/20 10:25
4749603	RP10 BHFEA 6 5th Draw	200.8	10/07/20 06:00	Client	10/14/20 10:25
4749604	RP10 BHFree 41 1st Draw	200.8	10/06/20 23:00	Client	10/14/20 10:25
4749605	RP10 BHFree 41 5th Draw	200.8	10/06/20 23:00	Client	10/14/20 10:25

Page 1 of 7

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

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Dec 3 2020

EGLE-DWEHD-CWSS-LCU

Report #: 500948

## LABORATORY REPORT

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Authorized Signature

ASM

Title

10/21/2020

Date

Client Name: City of Benton Harbor

Report #: 500948

Page 2 of 7

Page 4 of 12

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EGLE-DWEHD-CWSS-LCU

Report #: 500948

Sampling Point: RP10 BHFree 102 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	7.3	ug/L	---	10/20/20 11:30	4749586
7439-92-1	Lead	200.8	15 !	1.0	9.8	ug/L	---	10/20/20 11:30	4749586

**LABORATORY REPORT**

Sampling Point: RP10 BHFree 102 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	16	ug/L	---	10/20/20 11:38	4749587
7439-92-1	Lead	200.8	15 !	1.0	28	ug/L	---	10/20/20 11:38	4749587

Sampling Point: RP10 BHFEA 41 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	13	ug/L	---	10/20/20 11:40	4749588
7439-92-1	Lead	200.8	15 !	1.0	29	ug/L	---	10/20/20 11:40	4749588

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Sampling Point: RP10 BHFEA 41 5th Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	6.3	ug/L	---	10/20/20 11:43	4749589
7439-92-1	Lead	200.8	15 !	1.0	62	ug/L	---	10/20/20 11:43	4749589

Sampling Point: RP10 BHFEA 52 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.0	ug/L	---	10/20/20 11:46	4749590
7439-92-1	Lead	200.8	15 !	1.0	17	ug/L	---	10/20/20 11:46	4749590

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EGLE-DWEHD-CWSS-LCU

Report #: 500948

Sampling Point: RP10 BHFEA 52 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.3	ug/L	---	10/20/20 11:48	4749591
7439-92-1	Lead	200.8	15 !	1.0	20	ug/L	---	10/20/20 11:48	4749591

**LABORATORY REPORT**

Sampling Point: RP10 BHFEA 7 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.0	ug/L	---	10/20/20 11:51	4749592
7439-92-1	Lead	200.8	15 !	1.0	4.6	ug/L	---	10/20/20 11:51	4749592

Sampling Point: RP10 BHFEA 7 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.8	ug/L	---	10/20/20 11:53	4749593
7439-92-1	Lead	200.8	15 !	1.0	9.2	ug/L	---	10/20/20 11:53	4749593

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

Sampling Point: RP10 BHFree 99 1st Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.7	ug/L	---	10/20/20 11:56	4749594
7439-92-1	Lead	200.8	15 !	1.0	31	ug/L	---	10/20/20 11:56	4749594

Sampling Point: RP10 BHFree 99 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	14	ug/L	---	10/20/20 11:58	4749595
7439-92-1	Lead	200.8	15 !	1.0	20	ug/L	---	10/20/20 11:58	4749595

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Report #: 500948

Sampling Point: RP10 BHFEA 20 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	10/20/20 12:06	4749596
7439-92-1	Lead	200.8	15 !	1.0	21	ug/L	---	10/20/20 12:06	4749596

**LABORATORY REPORT**

Sampling Point: RP10 BHFEA 20 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	10/20/20 12:13	4749597
7439-92-1	Lead	200.8	15 !	1.0	24	ug/L	---	10/20/20 12:13	4749597

Sampling Point: RP10 BHFree 23 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.1	ug/L	---	10/20/20 12:16	4749598
7439-92-1	Lead	200.8	15 !	1.0	12	ug/L	---	10/20/20 12:16	4749598

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Sampling Point: RP10 BHFree 23 5th Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.0	ug/L	---	10/20/20 12:18	4749599
7439-92-1	Lead	200.8	15 !	1.0	13	ug/L	---	10/20/20 12:18	4749599

Sampling Point: RP10 BHFEA 45 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.6	ug/L	---	10/20/20 12:21	4749600
7439-92-1	Lead	200.8	15 !	1.0	18	ug/L	---	10/20/20 12:21	4749600



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Report #: 500948

Sampling Point: RP10 BHFEA 45 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.9	ug/L	---	10/20/20 12:23	4749601
7439-92-1	Lead	200.8	15 !	1.0	19	ug/L	---	10/20/20 12:23	4749601

**LABORATORY REPORT**

Sampling Point: RP10 BHFEA 6 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.1	ug/L	---	10/20/20 12:26	4749602
7439-92-1	Lead	200.8	15 !	1.0	3.4	ug/L	---	10/20/20 12:26	4749602

Sampling Point: RP10 BHFEA 6 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.2	ug/L	---	10/20/20 12:28	4749603
7439-92-1	Lead	200.8	15 !	1.0	4.4	ug/L	---	10/20/20 12:28	4749603

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

Sampling Point: RP10 BHFree 41 1st Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.4	ug/L	---	10/20/20 12:31	4749604
7439-92-1	Lead	200.8	15 !	1.0	27	ug/L	---	10/20/20 12:31	4749604

Sampling Point: RP10 BHFree 41 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.7	ug/L	---	10/20/20 12:33	4749605
7439-92-1	Lead	200.8	15 !	1.0	40	ug/L	---	10/20/20 12:33	4749605

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

## LABORATORY REPORT

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

If you have any questions concerning this report, please do not hesitate to call us at

(500) 332-4345 or (574) 293-5177

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

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**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.









Eaton Analytical

BENTON HARBOR  
Port of Opportunities

## PURCHASE REQUISITION

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Dec 3 2020

EGLE-DWEHD-CWSS-LCU

PUR

20

REQUISITION #: S05230

DATE:

10/14/20

Water Dist Testing

591.570.740

DEPARTMENT

PURCHASING AGENT:

VENDOR:

Eurofins Eaton Analytical

CONTACT NAME:

110 S. Hill St, South Bend IN 46617

ACCOUNT	WHERE USED	QUANTITY	DESCRIPTION	UNIT PRICE		EXTENSION	TRADE DISCOUNT	NET PRICE
				ESTIMATE	QUOTED			
			<b>LABORATORY REPORT</b>					
		20	Lead & Copper tests					
			R.D. 10/6 & 10/7 2020					
			2 each					
		20	Lead & Copper tests					

TERM:

APPROVAL SIGNATURE:

Printed & Bound by  
Serbian County Printing

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## LABORATORY REPORT

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
<b>LABORATORY REPORT</b>	40700	Missouri	880
Alabama	IN00035	Montana	CERT0026
Alaska	AZ0432	Nebraska	NE-OS-05-04
Arizona	IN00035	Nevada	IN00035
Arkansas	2920	New Hampshire*	2124
California	IN00035	New Jersey*	IN598
Colorado	IN00035	New Mexico	IN00035
Colorado Radiochemistry	PH-0132	New York*	11398
Connecticut	IN035	North Carolina	18700
Delaware	E87775	North Dakota	R-035
Florida(Primary AB)*	929	Ohio	87775
Georgia	IN035	Oklahoma	D9508
Hawaii	IN00035	Oregon*	4156
Idaho	200001	Pennsylvania*	68-00466
Illinois*	17767	Puerto Rico	IN00035
Illinois Microbiology	IN00035	Rhode Island	LAO00343
Illinois Radiochemistry	0-71-01	South Carolina	95005
Indiana Chemistry	M-76-07	South Dakota	IN00035
Indiana Microbiology	098	Tennessee	TN02973
Iowa	E-10233	Texas*	T104704187
Kansas*	00056	Texas/TCEQ	TX207
Kentucky	LA014	Utah*	IN00035
Louisiana*	IN00035	Vermont	VT-8775
Maine	209	Virginia*	460275
Maryland	M-IN035	Washington	C837
Massachusetts	9926	West Virginia	9927 C
Michigan	018-999-338	Wisconsin	999766900
Minnesota*	IN035	Wyoming	IN035
Mississippi	IN00035		
EPA			

\*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor  
**LABORATORY REPORT**  
Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 501568  
Priority: Standard Written  
Status: Final  
PWS ID: MI600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4755145	RP10a BHFEA 130 1st Draw	200.8	10/14/20 06:00	Client	10/16/20 15:38
4755146	RP10a BHFEA 130 5th Draw	200.8	10/14/20 06:00	Client	10/16/20 15:38
4755147	RP10a BHFEA 16 1st Draw	200.8	10/14/20 08:30	Client	10/16/20 15:38
4755148	RP10a BHFEA 16 5th Draw	200.8	10/14/20 08:30	Client	10/16/20 15:38
4755149	RP10a BHFree 4 1st Draw	200.8	10/14/20 08:20	Client	10/16/20 15:38
4755150	RP10a BHFree 4 5th Draw	200.8	10/14/20 08:20	Client	10/16/20 15:38
4755151	RP10a BHFEA 18 1st Draw	200.8	10/14/20 07:23	Client	10/16/20 15:38
4755152	RP10a BHFEA 18 5th Draw	200.8	10/14/20 07:23	Client	10/16/20 15:38
4755153	RP10a BHFree 84 1st Draw	200.8	10/14/20 07:00	Client	10/16/20 15:38
4755154	RP10a BHFree 84 5th Draw	200.8	10/14/20 07:00	Client	10/16/20 15:38
4755155	RP10a BHFree 22 1st Draw	200.8	10/14/20 08:00	Client	10/16/20 15:38
4755156	RP10a BHFree 22 5th Draw	200.8	10/14/20 08:00	Client	10/16/20 15:38
4755157	RP10a BHFEA 50 1st Draw	200.8	10/14/20 08:00	Client	10/16/20 15:38
4755158	RP10a BHFEA 50 5th Draw	200.8	10/14/20 08:00	Client	10/16/20 15:38
4755159	RP10a BHFree 33 1st Draw	200.8	10/14/20 08:30	Client	10/16/20 15:38
4755160	RP10a BHFree 33 5th Draw	200.8	10/14/20 08:30	Client	10/16/20 15:38
4755161	RP10a BHFEA 22 1st Draw	200.8	10/14/20 06:10	Client	10/16/20 15:38
4755162	RP10a BHFEA 22 5th Draw	200.8	10/14/20 06:10	Client	10/16/20 15:38
4755163	RP10a BHFEA 37 1st Draw	200.8	10/14/20 05:10	Client	10/16/20 15:38
4755164	RP10a BHFEA 37 5th Draw	200.8	10/14/20 05:10	Client	10/16/20 15:38

Page 1 of 7

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

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		10/29/2020
Authorized Signature	Title	Date
Client Name: City of Benton Harbor		
Report #: 501568		

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Dec 3 2020

EGLE-DWEHD-CWSS-LCU

Report #: 501568

Sampling Point: RP10a BHFEA 130 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.9	ug/L	---	10/26/20 12:01	4755145
7439-92-1	Lead	200.8	15 !	1.0	100	ug/L	---	10/26/20 12:01	4755145

**LABORATORY REPORT**

Sampling Point: RP10a BHFEA 130 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	10/26/20 12:10	4755146
7439-92-1	Lead	200.8	15 !	1.0	1.6	ug/L	---	10/26/20 12:10	4755146

Sampling Point: RP10a BHFEA 16 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.9	ug/L	---	10/26/20 12:13	4755147
7439-92-1	Lead	200.8	15 !	1.0	20	ug/L	---	10/26/20 12:13	4755147

you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

Sampling Point: RP10a BHFEA 16 5th Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.6	ug/L	---	10/26/20 12:15	4755148
7439-92-1	Lead	200.8	15 !	1.0	1.1	ug/L	---	10/26/20 12:15	4755148

Sampling Point: RP10a BHFree 4 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	37	ug/L	---	10/26/20 12:18	4755149
7439-92-1	Lead	200.8	15 !	1.0	5.2	ug/L	---	10/26/20 12:18	4755149



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Report #: 501568

Sampling Point: RP10a BHFree 4 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.1	ug/L	---	10/26/20 12:21	4755150
7439-92-1	Lead	200.8	15 !	1.0	3.0	ug/L	---	10/26/20 12:21	4755150

**LABORATORY REPORT**

Sampling Point: RP10a BHFEA 18 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.6	ug/L	---	10/26/20 12:24	4755151
7439-92-1	Lead	200.8	15 !	1.0	6.1	ug/L	---	10/26/20 12:24	4755151

Sampling Point: RP10a BHFEA 18 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	10/26/20 12:27	4755152
7439-92-1	Lead	200.8	15 !	1.0	5.1	ug/L	---	10/26/20 12:27	4755152

you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

Sampling Point: RP10a BHFree 84 1st Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.2	ug/L	---	10/26/20 12:29	4755153
7439-92-1	Lead	200.8	15 !	1.0	6.3	ug/L	---	10/26/20 12:29	4755153

Sampling Point: RP10a BHFree 84 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	10/26/20 12:32	4755154
7439-92-1	Lead	200.8	15 !	1.0	5.1	ug/L	---	10/26/20 12:32	4755154

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Report #: 501568

Sampling Point: RP10a BHFree 22 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	8.4	ug/L	---	10/26/20 12:41	4755155
7439-92-1	Lead	200.8	15 !	1.0	8.6	ug/L	---	10/26/20 12:41	4755155

**LABORATORY REPORT**

Sampling Point: RP10a BHFree 22 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	11	ug/L	---	10/26/20 12:49	4755156
7439-92-1	Lead	200.8	15 !	1.0	3.9	ug/L	---	10/26/20 12:49	4755156

Sampling Point: RP10a BHFEA 50 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	10/26/20 12:52	4755157
7439-92-1	Lead	200.8	15 !	1.0	2.9	ug/L	---	10/26/20 12:52	4755157

you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

Sampling Point: RP10a BHFEA 50 5th Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	10/26/20 12:55	4755158
7439-92-1	Lead	200.8	15 !	1.0	2.9	ug/L	---	10/26/20 12:55	4755158

Sampling Point: RP10a BHFree 33 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.8	ug/L	---	10/26/20 12:57	4755159
7439-92-1	Lead	200.8	15 !	1.0	4.1	ug/L	---	10/26/20 12:57	4755159

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Report #: 501568

Sampling Point: RP10a BHFree 33 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	6.6	ug/L	---	10/26/20 13:00	4755160
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	10/26/20 13:00	4755160

**LABORATORY REPORT**

Sampling Point: RP10a BHFEA 22 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.9	ug/L	---	10/26/20 13:03	4755161
7439-92-1	Lead	200.8	15 !	1.0	3.8	ug/L	---	10/26/20 13:03	4755161

Sampling Point: RP10a BHFEA 22 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.0	ug/L	---	10/26/20 13:06	4755162
7439-92-1	Lead	200.8	15 !	1.0	3.2	ug/L	---	10/26/20 13:06	4755162

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

Sampling Point: RP10a BHFEA 37 1st Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	10/26/20 13:09	4755163
7439-92-1	Lead	200.8	15 !	1.0	1.3	ug/L	---	10/26/20 13:09	4755163

Sampling Point: RP10a BHFEA 37 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	10/26/20 13:11	4755164
7439-92-1	Lead	200.8	15 !	1.0	1.1	ug/L	---	10/26/20 13:11	4755164

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

## LABORATORY REPORT

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

If you have any questions concerning this report, please do not hesitate to call us at

(500) 332-4345 or (570) 293-9177

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

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**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.





Dec 3 2020

EGLE-DWEHD-CWSS-LCU

Eaton Analytical

www.EurofinsUS.com/Eaton

Shaded area for EEA use only

REPORT TO:

Mike O'Malley, momalley@cityofbentontnharbormi.gov  
BILL TO:LABORATORY REPORT  
COLLECTION

LAB Number

	DATE	TIME	AM	PM
1	10/14/20	6:00	X	
2	10/14/20	6:00	X	
3	10/14/20	8:30	X	
4	10/14/20	8:30	X	
5	10/14/20	8:20	X	
6	10/14/20	8:20	X	
7	10/14/20	7:23	X	
8	10/14/20	7:23	X	
9	10/14/20	7:00	X	
10	10/14/20	7:00	X	
11	10/14/20	8:00	X	
12	10/14/20	8:00	X	
13				
14				

## CHAIN OF CUSTODY RECORD

Page 1 of 2

REPORT TO:	SAMPLER (Signature)	PWS ID #	STATE (sample origin)	PROJECT NAME	PO#	MATRIX CODE
Mike O'Malley, momalley@cityofbentontnharbormi.gov	Mike O'Malley	600	MI	Lead and copper 2nd half of 2020 2nd round of 10 samples	S05231	
BILL TO:	COMPLIANCE MONITORING	Yes	No	POPULATION SERVED	SOURCE WATER	
		X		9,639	Lake Michigan	
LAB Number	SAMPLING SITE	Print copy is right digital copy lost	TEST NAME	SAMPLE REMARKS	CHLORINATED	TURNAROUND TIME
4755145	RP10a BHFEA 130		Lead & Copper	1st draw	YES	SW
146	RP10a BHFEA 130		Lead & Copper	5th draw	NO	SW
147	RP10a BHFEA 16		Lead & Copper	1st draw		SW
148	RP10a BHFEA 16		Lead & Copper	5th draw		SW
149	RP10a BHFEA 4		Lead & Copper	1st draw		SW
150	RP10a BHFEA 4		Lead & Copper	5th draw		SW
151	RP10a BHFEA 18		Lead & Copper	1st draw		SW
152	RP10a BHFEA 18		Lead & Copper	5th draw		SW
153	RP10a BHFEA 84		Lead & Copper	1st draw		SW
154	RP10a BHFEA 84		Lead & Copper	5th draw		SW
155	RP10a BHFEA 22		Lead & Copper	1st draw		SW
156	RP10a BHFEA 22		Lead & Copper	5th draw		SW

you have any questions concerning this report, please do not hesitate to call us at (574) 233-4777.

RELINQUISHED BY: (Signature)

DATE

TIME

LAB COMMENTS

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

RELINQUISHED BY: (Signature)

DATE

TIME

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RELINQUISHED BY: (Signature)

DATE

TIME

LAB COMMENTS

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

\* Please call, expedited service not available for all testing

08-LO-F0435 Issue 6.0 Effective Date: 2016-09-20

Sample analysis will be provided according to the standard EEA Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agreed to in writing by EEA.





## LABORATORY REPORT

## LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
<b>LABORATORY REPORT</b>	40700	Missouri	880
Alabama	IN00035	Montana	CERT0026
Alaska	AZ0432	Nebraska	NE-OS-05-04
Arizona	IN00035	Nevada	IN00035
Arkansas	2920	New Hampshire*	2124
California	IN00035	New Jersey*	IN598
Colorado	IN00035	New Mexico	IN00035
Colorado Radiochemistry	PH-0132	New York*	11398
Connecticut	IN035	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida(Primary AB)*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon*	4156
Idaho	IN00035	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	17767	Rhode Island	LAO00343
Illinois Radiochemistry	IN00035	South Carolina	95005
Indiana Chemistry	0-71-01	South Dakota	IN00035
Indiana Microbiology	M-76-07	Tennessee	TN02973
Iowa	098	Texas*	T104704187
Kansas*	E-10233	Texas/TCEQ	TX207
Kentucky	00056	Utah*	IN00035
Louisiana*	LA014	Vermont	VT-8775
Maine	IN00035	Virginia*	460275
Maryland	209	Washington	C837
Massachusetts	M-IN035	West Virginia	9927 C
Michigan	9926	Wisconsin	999766900
Minnesota*	018-999-338	Wyoming	IN035
Mississippi	IN035		
EPA	IN00035		

\*NELAP/TNI Recognized Accreditation Bodies



110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor  
**LABORATORY REPORT**  
Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 502100  
Priority: Standard Written  
Status: Final  
PWS ID: MI600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4759899	RP10bBHFEA 48 1st Draw	200.8	10/21/20 08:30	Client	10/26/20 11:00
4759900	RP10bBHFEA 48 5th Draw	200.8	10/21/20 08:30	Client	10/26/20 11:00
4759901	RP10bBHFree 29 1st Draw	200.8	10/21/20 03:00	Client	10/26/20 11:00
4759902	RP10bBHFree 29 5th Draw	200.8	10/21/20 03:00	Client	10/26/20 11:00
4759903	RP10bBHFree 69 1st Draw	200.8	10/20/20 17:00	Client	10/26/20 11:00
4759904	RP10bBHFree 69 5th Draw	200.8	10/20/20 17:00	Client	10/26/20 11:00
4759905	RP10bBHFree 1 1st Draw	200.8	10/21/20 07:00	Client	10/26/20 11:00
4759906	RP10bBHFree 1 5th Draw	200.8	10/21/20 07:00	Client	10/26/20 11:00
4759907	RP10bBHFree 53 1st Draw	200.8	10/21/20 10:00	Client	10/26/20 11:00
4759908	RP10bBHFree 53 5th Draw	200.8	10/21/20 10:00	Client	10/26/20 11:00
4759909	RP10bBHFEA 12 1st Draw	200.8	10/21/20 06:00	Client	10/26/20 11:00
4759910	RP10bBHFEA 12 5th Draw	200.8	10/21/20 06:00	Client	10/26/20 11:00
4759911	RP10bBHFree 67 1st Draw	200.8	10/21/20 08:00	Client	10/26/20 11:00
4759912	RP10bBHFree 67 5th Draw	200.8	10/21/20 08:00	Client	10/26/20 11:00
4759913	RP10bBHFree 56 1st Draw	200.8	10/20/20 23:00	Client	10/26/20 11:00
4759914	RP10bBHFree 56 5th Draw	200.8	10/20/20 23:00	Client	10/26/20 11:00

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

Page 1 of 7

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

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Authorized Signature

Title

11/02/2020

Date

Client Name: City of Benton Harbor

Report #: 502100

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Report #: 502100

Sampling Point: RP10bBHFEA 48 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	6.5	ug/L	---	10/28/20 19:42	4759899
7439-92-1	Lead	200.8	15 !	1.0	2.1	ug/L	---	10/28/20 19:42	4759899

**LABORATORY REPORT**

Sampling Point: RP10bBHFEA 48 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.4	ug/L	---	10/28/20 19:45	4759900
7439-92-1	Lead	200.8	15 !	1.0	1.8	ug/L	---	10/28/20 19:45	4759900

Sampling Point: RP10bBHFree 29 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	36	ug/L	---	10/29/20 17:33	4759901
7439-92-1	Lead	200.8	15 !	1.0	240	ug/L	---	10/29/20 17:33	4759901

you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

Sampling Point: RP10bBHFree 29 5th Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.5	ug/L	---	10/29/20 17:36	4759902
7439-92-1	Lead	200.8	15 !	1.0	50	ug/L	---	10/29/20 17:36	4759902

Sampling Point: RP10bBHFree 69 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.1	ug/L	---	10/29/20 17:38	4759903
7439-92-1	Lead	200.8	15 !	1.0	5.2	ug/L	---	10/29/20 17:38	4759903



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Report #: 502100

Sampling Point: RP10bBHFree 69 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.8	ug/L	---	10/29/20 17:41	4759904
7439-92-1	Lead	200.8	15 !	1.0	3.6	ug/L	---	10/29/20 17:41	4759904

**LABORATORY REPORT**

Sampling Point: RP10bBHFree 1 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	36	ug/L	---	10/29/20 17:44	4759905
7439-92-1	Lead	200.8	15 !	1.0	2.6	ug/L	---	10/29/20 17:44	4759905

Sampling Point: RP10bBHFree 1 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	42	ug/L	---	10/29/20 17:47	4759906
7439-92-1	Lead	200.8	15 !	1.0	5.1	ug/L	---	10/29/20 17:47	4759906

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

Sampling Point: RP10bBHFree 53 1st Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	52	ug/L	---	10/29/20 17:50	4759907
7439-92-1	Lead	200.8	15 !	1.0	6.9	ug/L	---	10/29/20 17:50	4759907

Sampling Point: RP10bBHFree 53 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	44	ug/L	---	10/29/20 17:58	4759908
7439-92-1	Lead	200.8	15 !	1.0	7.1	ug/L	---	10/29/20 17:58	4759908

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Report #: 502100

Sampling Point: RP10bBHFEA 12 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.2	ug/L	---	10/29/20 18:01	4759909
7439-92-1	Lead	200.8	15 !	1.0	25	ug/L	---	10/29/20 18:01	4759909

**LABORATORY REPORT**

Sampling Point: RP10bBHFEA 12 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.7	ug/L	---	10/29/20 18:04	4759910
7439-92-1	Lead	200.8	15 !	1.0	25	ug/L	---	10/29/20 18:04	4759910

Sampling Point: RP10bBHFree 67 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.1	ug/L	---	10/29/20 18:12	4759911
7439-92-1	Lead	200.8	15 !	1.0	8.7	ug/L	---	10/29/20 18:12	4759911

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

Sampling Point: RP10bBHFree 67 5th Draw

PWS ID: MI600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	10/29/20 18:15	4759912
7439-92-1	Lead	200.8	15 !	1.0	4.2	ug/L	---	10/29/20 18:15	4759912

Sampling Point: RP10bBHFree 56 1st Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.9	ug/L	---	10/29/20 18:17	4759913
7439-92-1	Lead	200.8	15 !	1.0	7.0	ug/L	---	10/29/20 18:17	4759913

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Report #: 502100

Sampling Point: RP10bBHFree 56 5th Draw

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.0	ug/L	---	10/29/20 18:20	4759914
7439-92-1	Lead	200.8	15 !	1.0	8.3	ug/L	---	10/29/20 18:20	4759914

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type	Reg Limit	SMCL	AL
Symbol:	*	^	!

## LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

## LABORATORY REPORT

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

If you have any questions concerning this report, please do not hesitate to call us at

(00) 332-4345 or (574) 233-5177

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

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**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.









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## PURCHASE REQUISITION

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PURCHASE ORDER

20

**REQUISITION #: S05233**

DATE: \_\_\_\_\_

10/26/20

PURCHASING AGENT:

590.591.80

DEPARTMENT

VEENDOR:

Eratosthenes Earth Analytical

CONTACT NAME:

Lead/copper sampling

110 S. H. 11 St. South Bend, IN 46617

[illegible]

TERM: \_\_\_\_\_

APPROVAL SIGNATURE: \_\_\_\_\_

Designed & Printed by  
**Barrien County Printers**

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## LABORATORY REPORT

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
<b>LABORATORY REPORT</b>	40700	Missouri	880
Alabama	IN00035	Montana	CERT0026
Alaska	AZ0432	Nebraska	NE-OS-05-04
Arizona	IN00035	Nevada	IN00035
Arkansas	2920	New Hampshire*	2124
California	IN00035	New Jersey*	IN598
Colorado	IN00035	New Mexico	IN00035
Colorado Radiochemistry	PH-0132	New York*	11398
Connecticut	IN035	North Carolina	18700
Delaware	E87775	North Dakota	R-035
Florida(Primary AB)*	929	Ohio	87775
Georgia	IN035	Oklahoma	D9508
Hawaii	IN00035	Oregon*	4156
Idaho	200001	Pennsylvania*	68-00466
Illinois*	17767	Puerto Rico	IN00035
Illinois Microbiology	IN00035	Rhode Island	LAO00343
Illinois Radiochemistry	0-71-01	South Carolina	95005
Indiana Chemistry	M-76-07	South Dakota	IN00035
Indiana Microbiology	098	Tennessee	TN02973
Iowa	E-10233	Texas*	T104704187
Kansas*	00056	Texas/TCEQ	TX207
Kentucky	LA014	Utah*	IN00035
Louisiana*	IN00035	Vermont	VT-8775
Maine	209	Virginia*	460275
Maryland	M-IN035	Washington	C837
Massachusetts	9926	West Virginia	9927 C
Michigan	018-999-338	Wisconsin	999766900
Minnesota*	IN035	Wyoming	IN035
Mississippi	IN00035		
EPA			

\*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor  
**LABORATORY REPORT**  
Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 502626  
Priority: Standard Written  
Status: Final  
PWS ID: MI0000600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4764970	RP10c BH Free 86 1st	200.8	10/29/20 07:00	Client	11/02/20 11:10
4764971	RP10c BH Free 86 5th	200.8	10/29/20 07:00	Client	11/02/20 11:10
4764972	RP10c BH FEA 38 1st	200.8	10/29/20 06:00	Client	11/02/20 11:10
4764973	RP10c BH FEA 38 5th	200.8	10/29/20 06:00	Client	11/02/20 11:10
4764974	RP10c BH Free 104 1st	200.8	10/29/20 08:30	Client	11/02/20 11:10
4764975	RP10c BH FEA 11 1st	200.8	10/29/20 08:00	Client	11/02/20 11:10
4764976	RP10c BH FEA 11 5th	200.8	10/29/20 08:00	Client	11/02/20 11:10
4764977	RP10c BH FEA 40 1st	200.8	10/29/20 07:30	Client	11/02/20 11:10
4764978	RP10c BH FEA 40 5th	200.8	10/29/20 07:30	Client	11/02/20 11:10

### Report Summary

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Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

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Authorized Signature

Title

11/11/2020

Date

Client Name: City of Benton Harbor

Report #: 502626

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EGLE-DWEHD-CWSS-LCU

Report #: 502626

Sampling Point: RP10c BH Free 86 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	11/09/20 16:10	4764970
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/09/20 16:10	4764970

**LABORATORY REPORT**

Sampling Point: RP10c BH Free 86 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	11/09/20 16:12	4764971
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/09/20 16:12	4764971

Sampling Point: RP10c BH FEA 38 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.5	ug/L	---	11/09/20 16:15	4764972
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/09/20 16:15	4764972

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Sampling Point: RP10c BH FEA 38 5th

PWS ID: MI0000600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.0	ug/L	---	11/09/20 16:22	4764973
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/09/20 16:22	4764973

Sampling Point: RP10c BH Free 104 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.7	ug/L	11/04/20 10:10	11/05/20 13:17	4764974
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	11/04/20 10:10	11/05/20 13:17	4764974



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Report #: 502626

Sampling Point: RP10c BH FEA 11 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	11/09/20 16:24	4764975
7439-92-1	Lead	200.8	15 !	1.0	7.0	ug/L	---	11/09/20 16:24	4764975

**LABORATORY REPORT**

Sampling Point: RP10c BH FEA 11 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	11/09/20 16:27	4764976
7439-92-1	Lead	200.8	15 !	1.0	11	ug/L	---	11/09/20 16:27	4764976

Sampling Point: RP10c BH FEA 40 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.5	ug/L	---	11/09/20 16:29	4764977
7439-92-1	Lead	200.8	15 !	1.0	1.8	ug/L	---	11/09/20 16:29	4764977

you have any questions concerning this report, please do not hesitate to call us at (574) 332-4345 or (574) 233-4777.

Sampling Point: RP10c BH FEA 40 5th

PWS ID: MI0000600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.2	ug/L	---	11/09/20 16:32	4764978
7439-92-1	Lead	200.8	15 !	1.0	1.9	ug/L	---	11/09/20 16:32	4764978

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Dec 3 2020

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**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

## LABORATORY REPORT

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

If you have any questions concerning this report, please do not hesitate to call us at

(500) 332-4345 or (570) 293-9177

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

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**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.







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## PURCHASE REQUISITION

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EGLE-DWEHD-CWSS-LCU

PL. \_\_\_\_\_

\_\_\_\_\_ 20 \_\_\_\_\_

**REQUISITION #: S05243**

DATE: \_\_\_\_\_

water dist sampling

591.571.801

DEPARTMENT

PURCHASING AGENT: \_\_\_\_\_

VENDOR: Eurofins Eaton Analytical

110 S. Hill St. South Bend, IN 46617

CONTACT NAME: 2<sup>nd</sup> half 2020 4<sup>th</sup> quarter

[illegible]

TERM: \_\_\_\_\_

APPROVAL SIGNATURE: \_\_\_\_\_

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## LABORATORY REPORT

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
<b>LABORATORY REPORT</b>	40700	Missouri	880
Alabama	IN00035	Montana	CERT0026
Alaska	AZ0432	Nebraska	NE-OS-05-04
Arizona	IN00035	Nevada	IN00035
Arkansas	2920	New Hampshire*	2124
California	IN00035	New Jersey*	IN598
Colorado	IN00035	New Mexico	IN00035
Colorado Radiochemistry	PH-0132	New York*	11398
Connecticut	IN035	North Carolina	18700
Delaware	E87775	North Dakota	R-035
Florida(Primary AB)*	929	Ohio	87775
Georgia	IN035	Oklahoma	D9508
Hawaii	IN00035	Oregon*	4156
Idaho	200001	Pennsylvania*	68-00466
Illinois*	17767	Puerto Rico	IN00035
Illinois Microbiology	IN00035	Rhode Island	LAO00343
Illinois Radiochemistry	0-71-01	South Carolina	95005
Indiana Chemistry	M-76-07	South Dakota	IN00035
Indiana Microbiology	098	Tennessee	TN02973
Iowa	E-10233	Texas*	T104704187
Kansas*	00056	Texas/TCEQ	TX207
Kentucky	LA014	Utah*	IN00035
Louisiana*	IN00035	Vermont	VT-8775
Maine	209	Virginia*	460275
Maryland	M-IN035	Washington	C837
Massachusetts	9926	West Virginia	9927 C
Michigan	018-999-338	Wisconsin	999766900
Minnesota*	IN035	Wyoming	IN035
Mississippi	IN00035		
EPA			

\*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor  
**LABORATORY REPORT**  
Attn: Rob Jones  
27725 Stansbury Blvd  
Suite 195  
Farmington Hills, MI 48334

Report: 503861  
Priority: Standard Written  
Status: Final  
PWS ID: MI0000600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4775351	1248 Broadway 1st	200.8	11/09/20 18:00	Client	11/13/20 12:45
4775352	1248 Broadway 5th	200.8	11/09/20 18:00	Client	11/13/20 12:45
4775353	885 Mineral 1st	200.8	11/09/20 20:00	Client	11/13/20 12:45
4775354	885 Mineral 5th	200.8	11/09/20 20:00	Client	11/13/20 12:45
4775355	578 Edwards 1st	200.8	11/09/20 20:45	Client	11/13/20 12:45
4775356	578 Edwards 5th	200.8	11/09/20 20:45	Client	11/13/20 12:45
4775357	1191 Pavone 1st	200.8	11/10/20 08:30	Client	11/13/20 12:45
4775358	1191 Pavone 5th	200.8	11/10/20 08:30	Client	11/13/20 12:45
4775359	285 Hasting 1st	200.8	11/10/20 06:30	Client	11/13/20 12:45
4775360	285 Hasting 5th	200.8	11/10/20 06:30	Client	11/13/20 12:45
4775361	768 Broadway 1st	200.8	11/10/20 09:00	Client	11/13/20 12:45
4775362	768 Broadway 5th	200.8	11/10/20 09:00	Client	11/13/20 12:45
4775363	1225 Colfax 1st	200.8	11/09/20 18:00	Client	11/13/20 12:45
4775364	1225 Colfax 5th	200.8	11/09/20 18:00	Client	11/13/20 12:45
4775365	1115 Superior 1st	200.8	11/05/20 06:00	Client	11/13/20 12:45
4775366	1115 Superior 5th	200.8	11/05/20 06:00	Client	11/13/20 12:45
4775367	1026 Bishop 1st	200.8	11/09/20 21:30	Client	11/13/20 12:45
4775368	1026 Bishop 5th	200.8	11/09/20 21:30	Client	11/13/20 12:45
4775369	141 Winah 1st	200.8	11/09/20 07:50	Client	11/13/20 12:45
4775370	141 Winah 5th	200.8	11/09/20 07:50	Client	11/13/20 12:45
4775371	1112 Agard 1st	200.8	11/10/20 07:00	Client	11/13/20 12:45
4775372	1112 Agard 5th	200.8	11/10/20 07:00	Client	11/13/20 12:45
4775373	1069 Hurd 1st	200.8	11/10/20 08:00	Client	11/13/20 12:45
4775374	1069 Hurd 5th	200.8	11/10/20 08:00	Client	11/13/20 12:45
4775375	819 Vineyard 1st	200.8	11/10/20 06:00	Client	11/13/20 12:45
4775376	819 Vineyard 5th	200.8	11/10/20 06:00	Client	11/13/20 12:45
4775377	1020 Bishop 1st	200.8	11/10/20 09:00	Client	11/13/20 12:45
4775378	1020 Bishop 5th	200.8	11/10/20 09:00	Client	11/13/20 12:45

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.



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		11/19/2020
Authorized Signature	Title	Date
Client Name: City of Benton Harbor		
Report #: 503861		

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EGLE-DWEHD-CWSS-LCU

Report #: 503861

Sampling Point: 1248 Broadway 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	11/18/20 14:02	4775351
7439-92-1	Lead	200.8	15 !	1.0	4.1	ug/L	---	11/18/20 14:02	4775351

**LABORATORY REPORT**

Sampling Point: 1248 Broadway 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	11/18/20 14:05	4775352
7439-92-1	Lead	200.8	15 !	1.0	2.0	ug/L	---	11/18/20 14:05	4775352

Sampling Point: 885 Mineral 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.2	ug/L	---	11/18/20 14:07	4775353
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/18/20 14:07	4775353

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Sampling Point: 885 Mineral 5th

PWS ID: MI0000600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.5	ug/L	---	11/18/20 14:15	4775354
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/18/20 14:15	4775354

Sampling Point: 578 Edwards 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	19	ug/L	---	11/18/20 14:17	4775355
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/18/20 14:17	4775355

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Report #: 503861

Sampling Point: 578 Edwards 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	150	ug/L	---	11/18/20 14:19	4775356
7439-92-1	Lead	200.8	15 !	1.0	6.6	ug/L	---	11/18/20 14:19	4775356

## LABORATORY REPORT

Sampling Point: 1191 Pavone 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.2	ug/L	---	11/18/20 14:22	4775357
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/18/20 14:22	4775357

Sampling Point: 1191 Pavone 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.1	ug/L	---	11/18/20 14:24	4775358
7439-92-1	Lead	200.8	15 !	1.0	1.6	ug/L	---	11/18/20 14:24	4775358

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

Sampling Point: 285 Hasting 1st

PWS ID: MI0000600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	7.2	ug/L	---	11/18/20 14:27	4775359
7439-92-1	Lead	200.8	15 !	1.0	1.6	ug/L	---	11/18/20 14:27	4775359

Sampling Point: 285 Hasting 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.6	ug/L	---	11/18/20 14:29	4775360
7439-92-1	Lead	200.8	15 !	1.0	1.3	ug/L	---	11/18/20 14:29	4775360



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Report #: 503861

Sampling Point: 768 Broadway 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.2	ug/L	---	11/18/20 14:37	4775361
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/18/20 14:37	4775361

**LABORATORY REPORT**

Sampling Point: 768 Broadway 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.1	ug/L	---	11/18/20 14:39	4775362
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/18/20 14:39	4775362

Sampling Point: 1225 Colfax 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.9	ug/L	---	11/18/20 14:41	4775363
7439-92-1	Lead	200.8	15 !	1.0	4.5	ug/L	---	11/18/20 14:41	4775363

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Sampling Point: 1225 Colfax 5th

PWS ID: MI0000600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	11/18/20 14:49	4775364
7439-92-1	Lead	200.8	15 !	1.0	3.2	ug/L	---	11/18/20 14:49	4775364

Sampling Point: 1115 Superior 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	51	ug/L	---	11/18/20 14:51	4775365
7439-92-1	Lead	200.8	15 !	1.0	3.6	ug/L	---	11/18/20 14:51	4775365

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Sampling Point: 1115 Superior 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	54	ug/L	---	11/18/20 14:54	4775366
7439-92-1	Lead	200.8	15 !	1.0	3.9	ug/L	---	11/18/20 14:54	4775366

**LABORATORY REPORT**

Sampling Point: 1026 Bishop 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	45	ug/L	---	11/18/20 14:56	4775367
7439-92-1	Lead	200.8	15 !	1.0	5.5	ug/L	---	11/18/20 14:56	4775367

Sampling Point: 1026 Bishop 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.7	ug/L	---	11/18/20 14:59	4775368
7439-92-1	Lead	200.8	15 !	1.0	4.4	ug/L	---	11/18/20 14:59	4775368

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Sampling Point: 141 Winah 1st

PWS ID: MI0000600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.4	ug/L	---	11/18/20 15:01	4775369
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/18/20 15:01	4775369

Sampling Point: 141 Winah 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.5	ug/L	---	11/18/20 15:03	4775370
7439-92-1	Lead	200.8	15 !	1.0	1.3	ug/L	---	11/18/20 15:03	4775370

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Sampling Point: 1112 Agard 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	8.2	ug/L	---	11/18/20 15:16	4775371
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/18/20 15:16	4775371

**LABORATORY REPORT**

Sampling Point: 1112 Agard 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.6	ug/L	---	11/18/20 15:18	4775372
7439-92-1	Lead	200.8	15 !	1.0	1.1	ug/L	---	11/18/20 15:18	4775372

Sampling Point: 1069 Hurd 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	25	ug/L	---	11/18/20 15:21	4775373
7439-92-1	Lead	200.8	15 !	1.0	2.9	ug/L	---	11/18/20 15:21	4775373

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Sampling Point: 1069 Hurd 5th

PWS ID: MI0000600

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Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.5	ug/L	---	11/18/20 15:28	4775374
7439-92-1	Lead	200.8	15 !	1.0	3.7	ug/L	---	11/18/20 15:28	4775374

Sampling Point: 819 Vineyard 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.8	ug/L	---	11/18/20 15:30	4775375
7439-92-1	Lead	200.8	15 !	1.0	1.2	ug/L	---	11/18/20 15:30	4775375

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Report #: 503861

Sampling Point: 819 Vineyard 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.4	ug/L	---	11/18/20 15:33	4775376
7439-92-1	Lead	200.8	15 !	1.0	2.4	ug/L	---	11/18/20 15:33	4775376

**LABORATORY REPORT**

Sampling Point: 1020 Bishop 1st

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	14	ug/L	---	11/18/20 15:35	4775377
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/18/20 15:35	4775377

Sampling Point: 1020 Bishop 5th

PWS ID: MI0000600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.8	ug/L	---	11/18/20 15:38	4775378
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	11/18/20 15:38	4775378

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices. If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 263-4777.

Reg (MCL) Type:	MCL	SMCL	AL
Symbol:	*	^	!

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EGLE-DWEHD-CWSS-LCU

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

## LABORATORY REPORT

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

If you have any questions concerning this report, please do not hesitate to call us at

(500) 332-4345 or (570) 293-9177

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

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**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.





Eaton Analytical

110 S. Hill Street  
South Bend, IN 46617  
T: 1.800.332.4345  
F: 1.574.233.8207

Order #

Batch #

pm 11/13/2020 411514  
399910  
503861

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# CHAIN OF CUSTODY RECORD

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Page \_\_\_\_ of \_\_\_\_

REPORT TO: Rob Jones F+V		SAMPLER (Signature) Resident		PWS ID # 0600	STATE (sample origin) MI	PROJECT NAME		PO#	
BILL TO: R.Jones@FV-operations.com Beuten Harbor		COMPLIANCE MONITORING Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		POPULATION SERVED 9160	SOURCE WATER LAKE michigan	Preservative Checks			
LAB Number	COLLECTION	SAMPLING SITE		TEST NAME		pH acceptable? <input checked="" type="checkbox"/>	Residual Chlorine (P/A)	CHLORINATED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	# OF CONTAINERS
DATE	TIME	AM	PM						
1 4775351	11/9/20	6:00	X	1248 Broadway		1st liter	Lead/copper	<input checked="" type="checkbox"/>	
2 352	11/9/20	6:00	X	1248 Broadway		5th liter	Lead/copper	<input checked="" type="checkbox"/>	
353	11/9/20	8:00	X	885 Mineral		1st liter	Lead/copper	<input checked="" type="checkbox"/>	
354	11/9/20	8:00	X	885 Mineral		5th liter	Lead/copper	<input checked="" type="checkbox"/>	
355	11/9/20	8:45	X	578 Edwards		1st liter	Lead/copper	<input checked="" type="checkbox"/>	
356	11/9/20	8:45	X	578 Edwards		5th liter	Lead/copper	<input checked="" type="checkbox"/>	
357	11/10/20	8:30	X	1191 Pavone		1st liter	Lead/copper	<input checked="" type="checkbox"/>	
358	11/10/20	8:30	X	1191 Pavone		5th liter	Lead/copper	<input checked="" type="checkbox"/>	
359	11/10/20	6:30	X	285 Hastings		1st liter	Lead/copper	<input checked="" type="checkbox"/>	
360	11/10/20	6:30	X	285 Hastings		5th liter	Lead/copper	<input checked="" type="checkbox"/>	
361	11/10/20	9:00	X	768 Broadway		1st liter	Lead/copper	<input checked="" type="checkbox"/>	
362	11/10/20	9:00	X	768 Broadway		5th liter	Lead/copper	<input checked="" type="checkbox"/>	
363	11/9/20	6:00	X	1225 Colfax		1st liter	Lead/copper	<input checked="" type="checkbox"/>	
364	11/9/20	6:00	X	1225 Colfax		5th liter	Lead/copper	<input checked="" type="checkbox"/>	
RELINQUISHED BY: (Signature)		DATE	TIME	RECEIVED BY: (Signature)		DATE	TIME	LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT	
RELINQUISHED BY: (Signature)		DATE	TIME	RECEIVED BY: (Signature)		DATE	TIME	LAB COMMENTS	
RELINQUISHED BY: (Signature)		DATE	TIME	RECEIVED FOR LABORATORY BY:		DATE	TIME	CONDITIONS UPON RECEIPT (check one): Wet/Blue <input checked="" type="checkbox"/> Ambient <input type="checkbox"/>	
MATRIX CODES: DW-DRINKING WATER RW-REAGENT WATER GW- GROUND WATER EW-EXPOSURE WATER SW- SURFACE WATER PW-POOL WATER WW-WASTE WATER		TURN AROUND TIME (TAT) - SURCHARGES SW = Standard Written: (15 working days) 0% RV* = Rush Verbal: (5 working days) 50% RV* = Rush Written: (5 working days) 75% * Please call, expedited service not available for all testing		STAT* = Less than 2 hours		100% 125% CALL CALL		Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges. 06-LO-F0435 Issue 8.0 Effective Date: 2020-05-15	

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LABORATORY REPORT

Eaton Analytical

Analysis will be provided according to the standard EEA Water Services Terms, which are available upon request. Any other terms proposed by customer are deemed material alterations and are rejected unless expressly agreed to in writing by

you have any questions concerning this report, please do not hesitate to call us at (574) 233-4777  
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Eaton Analytical

110 S. Hill Street  
South Bend, IN 46617  
T: 1.800.332.4345  
F: 1.574.233.8207

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Batch #

pm 11/13/2020  
3999110  
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# CHAIN OF CUSTODY RECORD

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Page \_\_\_\_ of \_\_\_\_

REPORT TO:		SAMPLER (Signature)		PWS ID #	STATE (sample origin)	PROJECT NAME	PO#
BILL TO:		COMPLIANCE MONITORING		Yes	No	POPULATION SERVED	SOURCE WATER
LAB Number		COLLECTION		SAMPLING SITE		TEST NAME	
DATE		TIME		AM		PM	
1		4775365		11/15/20		6:00 X	
2		366		11/15/20		6:00 X	
3		367		11/19/20		930 X	
4		368		11/19/20		930 X	
5		369		11/19/20		750 X	
6		370		11/19/20		750 X	
7		371		11/10/20		700 X	
8		372		11/10/20		700 X	
9		373		11/10/20		800 X	
10		374		11/10/20		800 X	
11		375		11/10/20		600 X	
12		376		11/10/20		600 X	
13		377		11/10/20		900 X	
14		378		11/10/20		900 X	
RELINQUISHED BY: (Signature)		DATE		TIME		RECEIVED BY: (Signature)	
RELINQUISHED BY: (Signature)		DATE		TIME		RECEIVED BY: (Signature)	
RELINQUISHED BY: (Signature)		DATE		TIME		RECEIVED FOR LABORATORY BY:	
MATRIX CODES:		TURNDOWN TIME (TAT) - SURCHARGES		DATE		TIME	
DW-DRINKING WATER RW-REAGENT WATER GW- GROUND WATER EW-EXPOSURE WATER SW- SURFACE WATER PW-POOL WATER WW-WASTE WATER		SW = Standard Written: (15 working days) 0% RV* = Rush Verbal: (5 working days) 50% RV* = Rush Written: (5 working days) 75% * Please call, expedited service not available for all testing		11-1-2020		1245	
Eaton Analytical		Eaton Analytical		Eaton Analytical		Eaton Analytical	

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LABORATORY REPORT

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Page 1 of 7



MI 0600 Benton Harbor Lead & Copper June 2020

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION

Revised



**LEAD AND COPPER REPORT AND  
CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY  
FORM A – SUPPLIES WITH LEAD SERVICE LINES**

Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399,  
as amended (Act 399), MCL 325.1001 et seq., and the Administrative Rules.

Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within ten days after the end of the monitoring period. This form may be used to meet this requirement. Form instructions are available on pages 8 - 10. Submit the information to the appropriate Michigan Department of Environment, Great Lakes, and Energy (EGLE) district office.

1. Supply Name: Benton Harbor  
2. County: Berrien 3. WSSN: 0600  
4. Population: 9670 5. Monitoring Period: From: 1/1/2020 To: 6/30/2020  
6. Minimum # of Samples Required: 60 7. # of Samples Taken: 63  
8. Name of Certified Laboratory: Eurofins Eaton Analytical, South Bend IN.

9. SAMPLE CRITERIA:

This form is for water supplies collecting <u>some</u> or <u>all</u> lead and copper samples from sites WITH LEAD SERVICE LINES. All other supplies should use Form B.	
Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are some or all samples from sites WITH lead service lines? If no sites served by a lead service line, STOP and use Form B.	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you prioritize sample collection according to the following: <ul style="list-style-type: none"><li>• Tier 1 sites must be used unless insufficient Tier 1 sites available.</li><li>• If insufficient Tier 1 sites available, then Tier 2 sites must be used.</li><li>• If insufficient Tier 2 sites, then Tier 3 sites must be used.</li><li>• If no Tier 1, 2, or 3 sites are available, sites must be representative of plumbing materials typically found throughout the water system.</li></ul>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were the same sampling sites used as in the previous monitoring period? If no, explain (attach additional pages if needed): <u>I said yes &amp; no because some were &amp; some were not</u>	
Comments: There were some sampling locations that were sampled in previous years. Most were likely new locations. <u>This preformatted EGLE version in word document is very hard to use. Try it once &amp; see what I mean</u>	

10. SIGNATURE:

Name: Mike O'Malley Signature: [Signature]  
Title: Water Operator in Charge Phone: (269) 363-0575 Date: 7/2/20



NI 0600 Benton Harbor Lead-Copper 1/1/20 to 6/30/20 Revised

11. TAP SAMPLING DATA

Sheet 1 of 3

*Revised*

*[Signature]*

Sample Location	Sample Date	Tier	Category	Building	Service Line Very Likely = known Likely = lead nearby Unknown = Lead in area	Tap Type	1 <sup>st</sup> Liter Sample			5 <sup>th</sup> Liter Sample		
							Lead	Copper	Lab	Lead	Copper	Lab
							ug/L	ug/L	Sample Number	ug/L	mg/L	Sample Number
RP2	4/30/2020	1	A	Unknown	Likely	Kitchen	0	1.4	4621306	0	1.1	4621325
RP3	4/28/2020	1	A	Unknown	Very Likely	Kitchen	1.2	0	4621307	1.6	0	4621326
RP4	4/28/2020	1	A	Unknown	Likely	Kitchen	0	2.5	4621308	0	1.5	4621327
RP5	4/29/2020	1	A	Unknown	PLSLR	Kitchen	0	9	4621309	0	6.1	4621328
RP6	4/29/2020	1	A	Unknown	Likely	Kitchen	0	2.5	4621310	0	1.4	4621329
RP7	4/28/2020	1	A	Unknown	very Likely	Kitchen	5.2	150	4621311	5.1	28	4621330
RP9	4/29/2020	1	A	Unknown	Possible	Kitchen	0	2.1	4621312	0	2.6	4621331
RP10	4/29/2020	1	A	Unknown	very Likely	Kitchen	3	1.3	4621313	9.2	1.9	4621332
RP11	4/29/2020	1	A	Unknown	Possible	Kitchen	0	5.7	4621314	0	4	4621333
RP13	4/29/2020	1	A	Unknown	Possible	Kitchen	1.3	3	4621315	0	0	4621334
RP14	4/29/2020	1	A	Unknown	Likely	Kitchen	7.2	3	4621316	10	1.6	4621335
RP15	4/29/2020	1	A	Unknown	very Likely	Kitchen	1.7	0	4621317	0	0	4621336
RP16	4/29/2020	1	A	Unknown	Possible	Kitchen	440	130	4621318	1	2.7	4621337
RP17	4/28/2020	1	A	Unknown	Possible	Kitchen	3.5	17	4621319	5.1	8.6	4621338
RP19	4/28/2020	1	A	Unknown	very Likely	Kitchen	0	8.9	4621320	0	7.2	4621339
RP21	4/29/2020	1	A	Unknown	very Likely	Kitchen	0	2.3	4621321	0	1.7	4621340
RP23	4/30/2020	1	A	Unknown	very Likely	Kitchen	0	17	4621322	0	4.2	4621341
RP24	4/28/2020	1	A	Unknown	very Likely	Kitchen	0	2.3	4621323	0	2.4	4621342
RP25	4/29/2020	1	A	Unknown	Likely	Kitchen	3.8	6.8	4621324	5.1	1.3	4621343
RPb1	5/6/2020	1	A	Unknown	Possible	Kitchen	1.1	9.4	4624126	0	2.5	4624146
RPb2	5/6/2020	1	A	Unknown	very Likely	Kitchen	1.1	0	4624127	2	0	4624147
RPb3	5/7/2020	1	A	Unknown	very Likely	Kitchen	0.0	37.0	4624128	0.0	9.6	4624148
RPb4	5/6/2020	1	A	Unknown	Possible	Kitchen	1.8	13.0	4624129	3.4	2.6	4624149
RPb5	5/6/2020	1	A	Unknown	Possible	Kitchen	0.0	8.7	4624130	0.0	8.3	4624150

If you tried to fill in page 1 of the report trying to do this page for Eber & there's



11. TAP SAMPLING DATA  
 Sheet 2 of 3

Sample Location	Sample Date	Tier	Category	Building	Service Line	Tap Type	1 <sup>st</sup> Liter Sample				5 <sup>th</sup> Liter Sample			
							Lead ug/L	Copper ug/L	Lab Sample Number	Lead ug/L	Copper mg/L	Lab Sample Number	Lead ug/L	Copper mg/L
rbp6	5/8/2020	1	A	Unknown	very Likely	Kitchen	2.4	1.7	4624131	1.3	1.2	4624151		
rbp7	5/7/2020	1	A	Unknown	very Likely	Kitchen	0.0	3.2	4624132	0.0	1.1	4624152		
rbp8	5/7/2020	1	A	Unknown	very Likely	Kitchen	21.0	4.4	4624133	4.2	1.5	4624153		
rbp9	5/7/2020	1	A	Unknown	very Likely	Kitchen	3.6	1.1	4624134	7.9	4.4	4624154		
rbp10	5/7/2020	1	A	Unknown	likely	Kitchen	5.7	2.3	4624135	14.0	2.0	4624155		
rbp11	5/7/2020	1	A	Unknown	very Likely	Kitchen	9.2	2.0	4624136	23.0	2.6	4624156		
rbp12	5/7/2020	1	A	Unknown	very Likely	Kitchen	8.5	6.4	4624137	5.3	1.4	4624157		
rbp13	5/7/2020	1	A	Unknown	very Likely	Kitchen	0.0	4.1	4624138	0.0	1.7	4624158		
rbp15	5/7/2020	1	A	Unknown	very Likely	Kitchen	6.2	48.0	4624139	4.3	50.0	4624159		
rbp16	5/7/2020	1	A	Unknown	very Likely	Kitchen	2.4	1.7	4624140	1.3	1.1	4624160		
rbp17	5/7/2020	1	A	Unknown	very Likely	Kitchen	0.0	1.4	4624141	0.0	5.1	4624161		
rbp18	5/7/2020	1	A	Unknown	very Likely	Kitchen	0.0	1.2	4624142	0.0	1.8	4624162		
rbp19	5/5/2020	1	A	Unknown	very Likely	Kitchen	100.0	5.4	4624144	5.3	1.0	4624164		
rbp20	5/7/2020	1	A	Unknown	very Likely	Kitchen	3.5	230.0	4624145	1.4	20.0	4624165		
rbp21	5/8/2020	1	A	Unknown	very Likely	Kitchen	0	10	4629473	0	2	4629490		
RPC 1	5/13/2020	1	A	Unknown	very Likely	Kitchen	2.4	2.1	4629474	2	1.6	4629491		
RPC 2	5/13/2020	1	A	Unknown	very Likely	Kitchen	1.5	2.6	4629475	1.5	0	4629492		
RPC 3	5/13/2020	1	A	Unknown	very Likely	Kitchen	29	4.4	4629476	11	1.6	4629493		
RPC 4	5/12/2020	1	A	Unknown	very Likely	Kitchen	0	3.2	4629477	0	2.9	4629494		
RPC 5	5/12/2020	1	A	Unknown	very Likely	Kitchen	0	18	4629478	0	14	4629495		
RPC 6	5/13/2020	1	A	Unknown	likely	Kitchen	0	2.5	4629479	0	2.8	4629496		
RPC 7	5/13/2020	1	A	Unknown	very Likely	Kitchen	1.5	9.1	4629480	0	2	4629497		
RPC 8	5/13/2020	1	A	Unknown	very Likely	Kitchen	22	7.3	4629481	18	7.5	4629498		
RPC 9	5/13/2020	1	A	Unknown	very Likely	Kitchen	0	0	4629482	0	0	4629499		
RPC 10	5/13/2020	1	A	Unknown	very Likely	Kitchen	0	7.8	4629483	0	1.4	4629500		
RPC 11	5/13/2020	1	A	Unknown	very Likely	Kitchen								



11. TAP SAMPLING DATA

Sheet 3 of 3

*Revised*

Sample Location	Sample Date	Tier	Category	Building	Service Line	Tap Type	1 <sup>st</sup> Liter Sample			5 <sup>th</sup> Liter Sample		
							Lead ug/L	Copper ug/L	Lab Sample Number	Lead ug/L	Copper mg/L	Lab Sample Number
RPC 12	5/13/2020	1	A	Unknown	Very Likely = known	Kitchen	2.2	5	4629484	2.4	2.7	4629501
RPC 13	5/12/2020	1	A	Unknown	Likely = lead nearby	Kitchen	0	1.1	4629485	0	0	4629502
RPC 14	5/13/2020	1	A	Unknown	Unknown = lead in area	Kitchen	0	0	4629486	8.3	2	4629503
RPC 15	5/13/2020	1	A	Unknown		Kitchen	1.4	36	4629487	1.3	2.9	4629504
RPC 16	5/13/2020	1	A	Unknown		Kitchen	44	3.7	4629488	81	1.8	4629505
RPC 17	5/13/2020	1	A	Unknown		Kitchen	6.4	2.9	4629489	4.3	1.5	4629506
RPd 1	6/9/2020	1	A	Unknown		Kitchen	23	1.8	4651648	2.4	1.3	4651655
RPd 2	6/10/2020	1	A	Unknown		Kitchen	3.4	33	4651649	2.9	2.6	4651656
RPd 3	6/10/2020	1	A	Unknown		Kitchen	11	45	4651650	3.9	28	4651657
RPd 4	6/10/2020	1	A	Unknown		Kitchen	4.4	5.6	4651651	6.6	7.5	4651658
RPd 5	6/10/2020	1	A	Unknown		Kitchen	1.4	3.9	4651652	1.6	1.2	4651659
RPd 6	6/10/2020	1	A	Unknown		Kitchen	0	2.2	4651653	0	2.1	4651660
RPd 7	6/10/2020	1	A	Unknown		Kitchen	17	28	4651654	23	26	4651661

# WSSN 0600 City of Benton Harbor 2nd Half 2020

## Lead and Copper Report and Consumer Notice for Community Water Supply Form A -Supplies

### Lead and Copper Report and Consumer Notice for Community Water Supply Form A -Supplies

Sample Location	Sample Date	Tier (1,2,3)	Category	Building Plumbing	Service Line (L, C, G, P)	Tap Type (K, B)	Lead ppb 1st Draw	Copper ppb 1st Draw	Lead ppb 5th Draw	Copper ppb 5th Draw	
1292 Bishop	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	1.8	1.5	1.9	1.2	
931 Monroe	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	4.5	2	9.2	1.8	
1129 Jennings	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	1.8	1.5	2	1.2	
1354 Bishop	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	4.6	2	9.2	1.8	0
948 Ogden	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	6.9	2.2	20	7.1	44
1133 Jennings	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	1.25	0.2	1.1	25	2.7
1248 Broadway	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	6.4	52	7.1	2	44
1026 Bishop	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	25.5	4.2	25	4.4	2.7
1271 Parkway	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	48.5	0.4	3.9	0	11
1259 Bishop	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	5.5	4.2	4.4	5.1	0
285 Hastings	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	8.6	8.4	3.9	1.3	1.6
1086 Superior	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	6.3	4.2	0	5.1	0
174 Hastings	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	1.6	7.2	1.3	1.6	1.2
649 Pipestone	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	3.4	0	11	4.4	0
1112 Agard	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	3.4	1.7	4.4	20	1.2
1053 Jennings	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	31	5.2	20	1.1	1.6
1020 Bishop	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	4.1	8.2	1.1	0	6.6
1251 Columbus	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	4.1	5.8	0	6.6	5.8
142 Cross St.	10/20/20	Tier 1	A	Unk	Lead	KITCHEN	2.6	36	9	5.1	8.3
885 Mineral	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	70	1.9	2	8.3	0
1110 Ogden	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	0.8	4.2	16	0	29
781 Buss	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	480	16	9	29	1.6
610 Superior	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	100	3.9	8.7	1.6	3
1124 Colfax	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	5.2	3.9	3	3.2	3.1
1016 LaVette	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	3.8	4.9	3.2	5	5
1197 Agard	10/15/20	Tier 1	A	Unk	Lead	KITCHEN	6.1	1.6	5.1	0	0
999 Pearl St	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	2.9	0	2.9	0	0

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Feb 3 2021

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1178 Broadway	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	18	1.6	19	1.9
857 Ogden	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	21	0	24	0
141 Winan	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	2.4	1.3	4.5
768 Broadway	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.2	0	1.1
812 Lavette	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	240	36	50	2.5
1264 Pavone	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
166 Seafles	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	12	2.1	13	2
819 Vineyard	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	1.7	4.8	2.4	2.4
1237 Co										3.7
1115 Superior	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	3.6	51	3.9	54
578 Edwards	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.9	5.6	150
341 Brunson	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.5	0	2
1011 Pearl St	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	2.1	6.5	1.8	2.4
1191 Pavone	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	1.8	1.5	1.9	1.6
1069 Hubbard	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	42	2.5	9.2	3.7
1225 Colfax	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	17.5	2.9	20	3.2
1289 Bishop	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	18.7	0.1	1.1	4.2
1291 Superior St	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	6.9	52	7.1	2
1244 Jennings	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	25	4.2	0	25
185 Parker Ave	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	4.1	0	2	5
1161 Union St	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	5.5	45	4.4	5
504 Terminal Rd	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	8.6	8.4	3.9	5
552 Buena Vista	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	1.6	7.2	1.3	2
1143 Union	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	7.5	0	11	4
854 LaSalle	12/3/2020	Tier 1	A	Unk	Lead	KITCHEN	3.4	1.1	4.4	1
232 Hastings Ave	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	31	5.7	20	0
201 Garfield	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	8.2	1.1	1
400 John St	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	4.1	5.8	0	1
204 Garfield	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	14	0	0
1043 Agard	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2.6	36	5.1	42
1037 Pearl	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	7	1.9	8.3	2
582 Niles	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	4.2	0	0
660 McGowan	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	100	3.9	1.6	0
1167 Broadway	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	5.2	37	3	0
1066 Monroe	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	3.8	4.9	3.2	0
855 Lavette	12/3/2020	Tier 1	A	Unk	Lead	KITCHEN	6.1	1.6	5.1	0
565 Clay	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2.9	0	2.9	0
999 Pearl St	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	9.8	7.3	28	16

# WSSN 0600 City of Benton Harbor 2nd Half 2020

## Lead and Copper Report and Consumer Notice for Community Water Supply Form A -Supplies

RECEIVED

Feb 3 2021

EGLE-DWEHD-CWSS-LCU

# Lead and Copper Tap Sample Exclusion Form

The Michigan Safe Drinking Water Act, 1976 PA 399, as amended, specifies required lead/copper tap sampling methodology (R 325.10710a). Samples not meeting compliance sampling requirements cannot be included in the 90<sup>th</sup> percentile calculation.

WSSN: 00600

Water Supply Name: Benton Harbor

## Sample Invalidated:

Lab ID or Sample Number:	Collection Date:	Sample Site Address:
<b>4672024</b>		<b>Unknown 1<sup>st</sup> liter</b>
<b>4672025</b>		<b>Unknown 5<sup>th</sup> liter</b>

## Reason Sample Excluded from 90<sup>th</sup> Percentile Calculation:

### IMPROPER SAMPLE COLLECTION

325.10710a(2)

- ☐ Not first draw 325.10710a(2)(a)(i) or 325.10710a(2)(b)(i)
- ☐ Not 5th liter (LSL only) 325.10710a(2)(b)(i)
- ☐ Systematic flushing 325.10710a(2)(a)(i) or 325.10710a(2)(b)(i)(A)
- ☐ Aerator cleaning/removed 325.10710a(2)(a)(i) or 325.10710a(2)(b)(i)(A)
- ☐ Not motionless at least 6 hours 325.10710a(2)(a)(ii) or 325.10710a(2)(b)(i)(B)
- ☐ Not kitchen or bath sink tap 325.10710a(2)(a)(ii) or 325.10710a(2)(b)(i)(A)
- ☐ Not 1-Liter volume 325.10710a(2)(a)(ii) or 325.10710a(2)(b)(i)(B)/(C)
- ☐ Not wide-mouth bottle 325.10710a(2)(a)(ii) or 325.10710a(2)(b)(i)(B)/(C)
- ☐ Not acidified within 14 days 325.10710a(2)(a)(ii) or 325.10710a(2)(b)(ii)
- ☐ Other (explain in comments)

### INVALID SAMPLE

325.10710a(6)(a)

- ☐ Lab established improper analysis caused errors 325.10710a(6)(a)(i)
- ☒ The sample did not meet the site selection criteria 325.10710a(6)(a)(ii)
  - ☒ Not a properly tiered site 325.10710a(1)
  - ☐ Treatment designed to remove inorganics 325.10710a(1)(a)
- ☐ The sample container was damaged in transit 325.10710a(6)(a)(iii)
- ☐ Reason to believe sample subject to tampering 325.10710a(6)(a)(iv)

### SITE SAMPLED MORE THAN ONCE

325.10604f(c)(i)

- ☐ Not highest result at site. Only highest result used to calculate 90<sup>th</sup> percentile. 325.10604f(c)(i)

**Comments:** Samples were collected under a previous operator. No records exist to determine the address of this sample location and tiering criteria for this site.



Lead and Copper Rule Analyst/Specialist

02 / 18 / 2021

Date



Lead and Copper Unit Supervisor

2 / 19 / 2021

Date



Community Water Supply Section Manager

2 / 19 / 2021

Date



WSSN 0600

The City of Benton Harbor and F&V Operations and Resource Management are submitting the following report(s) to Michigan Department of Environment, Great Lakes and Energy:

Lead and Copper Report 2<sup>nd</sup> half 2020 \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system or those persons directly responsible for gathering such information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

Benton Harbor Representative: Ellis Mitchell

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

F&V Operations Representative: N/A

Signature: N/A \_\_\_\_\_

Date: N/A \_\_\_\_\_





MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION  
**LEAD AND COPPER REPORT AND  
CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY  
FORM A – SUPPLIES WITH LEAD SERVICE LINES**

*Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399,  
as amended (Act 399), MCL 325.1001 et seq., and the Administrative Rules.*

*Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.*

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within ten days after the end of the monitoring period. This form may be used to meet this requirement. Form instructions are available on pages 8 - 10. Submit the information to the appropriate Michigan Department of Environment, Great Lakes, and Energy (EGLE) district office.

1. Supply Name: Benton Harbor  
2. County: Berrien 3. WSSN: 0600  
4. Population: 9826 5. Monitoring Period: From: 07/01/2020 To: 12/31/2020  
6. Minimum # of Samples Required: 60 7. # of Samples Taken: 64  
8. Name of Certified Laboratory: State of Michigan and Eurofins Eaton Analytical

9. SAMPLE CRITERIA:

This form is for water supplies collecting <u>some</u> or <u>all</u> lead and copper samples from sites WITH LEAD SERVICE LINES. All other supplies should use Form B.		
Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are some or all samples from sites WITH lead service lines? If no sites served by a lead service line, STOP and use Form B.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Did you prioritize sample collection according to the following: <ul style="list-style-type: none"> <li>• Tier 1 sites must be used unless insufficient Tier 1 sites available.</li> <li>• If insufficient Tier 1 sites available, then Tier 2 sites must be used.</li> <li>• If insufficient Tier 2 sites, then Tier 3 sites must be used.</li> <li>• If no Tier 1, 2, or 3 sites are available, sites must be representative of plumbing materials typically found throughout the water system.</li> </ul>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Were the same sampling sites used as in the previous monitoring period? If no, explain (attach additional pages if needed): Not all previous sites were willing to participate.
Comments: Sampling and notification data prior to 11/09/2020 was conducted by former operator in charge. Service line material data is based on available records provided by previous operator in charge.		

10. SIGNATURE:

Name: \_\_\_\_\_ Signature: \_\_\_\_\_  
Title: \_\_\_\_\_ Phone: \_\_\_\_\_ Date: \_\_\_\_\_

**Water Supply Name:**

WSSN:

1 Tier	2 Category	Description	1 Tier	2 Category	Description	3 Material	4 Tap Type
Tier 1	A*	Single Family w/ lead service line	Tier 2	D*	Multi Family or building w/ lead service line	L* = Lead	K = Kitchen Sink
	B	Single Family w/ interior lead plumbing			Multi Family or building w/ interior lead plumbing	C = Copper	B = Bathroom Sink
	C	Multi Family Residence (MFR) w/ a LSL* or lead interior plumbing, if MFRs comprise at least 20% of total service connections.	Tier 3	F	Single Family w/ copper plumbing with lead solder installed before 1988	CLS = Copper with lead solder	O = Other (not an option for residential sites)
						G = Galvanized	P = Plastic
		* Use Form A if any samples collected from sites with LSLs to allow reporting of 1 <sup>st</sup> and 5 <sup>th</sup> tier results.	Other	OT	if no Tier 1, 2, 3 sites, use sites representative of plumbing commonly found throughout the supply	* Use Form A if any samples collected from sites with lead service lines to report 1 <sup>st</sup> and 5 <sup>th</sup> tier results	

## Bolt, Jennifer (EGLE)

---

**From:** Robert Jones <rjones@fv-operations.com>  
**Sent:** Wednesday, February 3, 2021 11:19 AM  
**To:** Bolt, Jennifer (EGLE)  
**Subject:** Lead Copper Report  
**Attachments:** Benton Harbor LCR Report H2 2020 Revised 02 01 2021.xlsx

**CAUTION: This is an External email. Please send suspicious emails to [abuse@michigan.gov](mailto:abuse@michigan.gov)**

### Robert Jones

**F&V OPERATIONS AND RESOURCE MANAGEMENT, INC.**  
2960 Lucerne Drive SE, Suite 100 | Grand Rapids | MI | 49546  
O: 616.588.2900 | C: 810.220.9441 | F: 616.977.1005  
[www.fv-operations.com](http://www.fv-operations.com)

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# WSSN 0600 City of Benton Harbor 2nd Half 2020

## Lead and Copper Report and Consumer Notice for Community Water Supply Form A -Supplies

Sample Location	Sample Date	Tier (1,2, 3, OT)	Category	Building Plumbing	Service Line (L, C, G, P)	Tap Type (K, B)	1st Draw		5th Draw	
							Lead ppb	Copper ppb	Lead ppb	Copper ppb
1292 Bishop	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	1.8	1.5	1.9	1.2
931 Monroe	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	4.6	2	9.2	1.8
1129 Jennings	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	17	2	20	1.3
1354 Bishop	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	1.3	0	1.1	0
948 Ogden	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	6.9	52	7.1	44
1133 Jennings	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	25	4.2	25	2.7
1248 Broadway	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	4.1	0	2	0
1026 Bishop	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	5.5	45	4.4	2.7
1271 Pavone	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	8.6	8.4	3.9	11
1259 Bishop	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	6.3	4.2	5.1	0
285 Hastings	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	1.6	7.2	1.3	1.6
1086 Superior	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	7	0	11	0
174 Hastings	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	3.4	1.1	4.4	1.2
649 Pipestone	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	31	5.7	20	14
1112 Agard	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	8.2	1.1	1.6
1053 Jennings	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	4.1	5.8	0	6.6
1020 Bishop	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	14	0	5.8
1251 Columbus	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	2.6	36	5.1	42
142 Cross St.	10/20/20	Tier 1	A	Unk	Lead	KITCHEN	7	1.9	8.3	1
885 Mineral	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	0	4.2	0	5.5
1110 Ogden	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	28	16	29	13
781 Buss	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	100	3.9	1.6	0
610 Superior	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	5.2	37	3	3.1
1124 Colfax	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	3.8	4.9	3.2	5
1016 LaVette	10/14/20	Tier 1	A	Unk	Lead	KITCHEN	6.1	1.6	5.1	0
1197 Agard	10/15/20	Tier 1	A	Unk	Lead	KITCHEN	2.9	0	2.9	0
999 Pearl St	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	9.8	7.3	28	16

1178 Broadway	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	18	1.6	19	1.9
857 Ogden	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	21	0	24	0
141 Winan	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	2.4	1.3	4.5
768 Broadway	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.2	0	1.1
812 Lavette	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	240	36	50	2.5
1264 Pavone	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
166 Searles	10/07/20	Tier 1	A	Unk	Lead	KITCHEN	12	2.1	13	2
819 Vineyard	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	1.2	4.8	2.4	2.4
1237 Columbus	10/06/20	Tier 1	A	Unk	Lead	KITCHEN	27	3.4	40	3.7
1115 Superior	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	3.6	51	3.9	54
578 Edwards	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	0	19	6.6	150
341 Brunson	10/29/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.5	0	2
1011 Pearl St	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	2.1	6.5	1.8	2.4
1191 Pavone	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	0	1.2	1.6	2.1
1069 Hurd	11/10/20	Tier 1	A	Unk	Lead	KITCHEN	2.9	25	3.7	1.5
1225 Colfax	11/09/20	Tier 1	A	Unk	Lead	KITCHEN	4.5	2.9	3.2	0
1289 Bishop	10/21/20	Tier 1	A	Unk	Lead	KITCHEN	8.7	1.1	4.2	0
1291 Superior St	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2	0	2	0
1244 Jennings	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	1	0
185 Parker Ave	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	5	0
1161 Union St	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	3	0	5	0
504 Territorial Rd	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
552 Buena Vista	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2	0	2	0
1143 Union	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	5	0	4	0
854 LaSalle St	12/3/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	1	0
232 Hastings Ave	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
201 Garfield	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	1	0	1	0
400 John Street	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	1	0
204 Garfield	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
1043 Agard	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	4	0	2	0
1037 Pearl	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
582 Niles	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	2	0
660 McGuigan	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
1167 Broadway	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
1066 Monroe	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
855 Lavette	12/3/2020	Tier 1	A	Unk	Lead	KITCHEN	0	0	0	0
565 Clay (stagnation)	12/4/2020	Tier 1	A	Unk	Lead	KITCHEN	2	0	2	0



1212 Pearl St	14-Oct-20	Tier 1	A	Unk	Lead	Kitchen	20	2.9	1.1	1.6
161 Kline	29-Oct-20	Tier 1	A	Unk	Lead	Kitchen	0	4.7		
538 Columbus	20-Oct-20	Tier 1	A	Unk	Lead	Kitchen	5.2	3.1	3.6	1.8
Sample #1	08-Jul-20	Unk	Unk	Unk	Unk	Unk	0	11		
Sample #5	08-Jul-20	Unk	Unk	Unk	Unk	Unk			0	2.7

## LABORATORY REPORT

## LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
<b>LABORATORY REPORT</b>	40700	Missouri	880
Alabama	IN00035	Montana	CERT0026
Alaska	AZ0432	Nebraska	NE-OS-05-04
Arizona	IN00035	Nevada	IN00035
Arkansas	2920	New Hampshire*	2124
California	IN00035	New Jersey*	IN598
Colorado	IN00035	New Mexico	IN00035
Colorado Radiochemistry	PH-0132	New York*	11398
Connecticut	IN035	North Carolina	18700
Delaware	E87775	North Dakota	R-035
Florida*	929	Ohio	87775
Georgia	IN035	Oklahoma	D9508
Hawaii	IN00035	Oregon (Primary AB)*	4074
Idaho	200001	Pennsylvania*	68-00466
Illinois*	17767	Puerto Rico	IN00035
Illinois Microbiology	IN00035	Rhode Island	LAO00343
Illinois Radiochemistry	0-71-01	South Carolina	95005
Indiana Chemistry	M-76-07	South Dakota	IN00035
Indiana Microbiology	098	Tennessee	TN02973
Iowa	E-10233	Texas*	T104704187-18-12
Kansas*	00056	Texas/TCEQ	TX207
Kentucky	LA014	Utah*	IN00035
Louisiana*	IN00035	Vermont	VT-8775
Maine	209	Virginia*	460275
Maryland	M-IN035	Washington	C837
Massachusetts	9926	West Virginia	9927 C
Michigan	018-999-338	Wisconsin	999766900
Minnesota*	IN035	Wyoming	IN035
Mississippi	IN00035		
EPA			

\*NELAP/TNI Recognized Accreditation Bodies

Page 1 of 7

110 South Hill Street  
 South Bend, IN 46617  
 Tel: (574) 233-4777  
 Fax: (574) 233-8207  
 1 800 332 4345

## Laboratory Report

Client: Benton Harbor, City of  
**LABORATORY REPORT**  
 Attn: Michael O'Malley  
 200 East Wall Street  
 Benton Harbor, MI 49002

Report: 491312  
 Priority: Standard Written  
 Status: Final  
 PWS ID: Not Supplied

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4672024	Sample #1	200.8	07/08/20 00:00	Client	07/14/20 11:45
4672025	Sample #5	200.8	07/08/20 00:00	Client	07/14/20 11:45

Report Summary					
----------------	--	--	--	--	--

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis. If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777. We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

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Page 1 of 7

		07/21/2020
Authorized Signature	Title	Date
Client Name: Benton Harbor, City of		
Report #: 491312		

Sampling Point: Sample #1

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	11	ug/L	---	07/20/20 12:45	4672024
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	07/20/20 12:45	4672024

**LABORATORY REPORT**

Sampling Point: Sample #5

PWS ID: Not Supplied

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.7	ug/L	---	07/20/20 12:47	4672025
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	07/20/20 12:47	4672025

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

If you have any questions concerning this report, please do not hesitate to call us at (269) 332-4345 or (574) 233-4777.

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Dec 3 2020

EGLE-DWEHD-CWSS-LCU

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

## LABORATORY REPORT

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows:  $(\text{MS or MSD value} - \text{Sample value}) \times 100 / \text{spike target} / \text{dilution factor} = \text{Recovery \%}$

If you have any questions concerning this report, please do not hesitate to call us at

(800) 332-4345 or (574) 293-5177

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

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**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Eaton Analytical

110 S. Hill Street  
South Bend, IN 46617  
T: 1.800.332.4345  
F: 1.574.233.8207

Order #  
Batch #

402906  
491312

www.EurofinsUS.com/Eaton

# CHAIN OF CUSTODY RECORD

Shaded area for EEA use only

Page \_\_\_\_ of \_\_\_\_

REPORT TO:	Benton Harbor		SAMPLER (Signature)		PWS ID #		STATE (sample origin)	PROJECT NAME	PO#	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME	
BILL TO:	Benton Harbor		COMPLIANCE MONITORING		Yes		No	POPULATION SERVED	SOURCE WATER	Preservative Checks			
LAB Number	DATE	TIME	AM	PM	SAMPLING SITE		TEST NAME		pH	Residual Chlorine (P/A)	CHLORINATED	YES	NO
4070024	7/14/2020	0:00			Sample #1 3 per valves		ph/cu						
26	7/14/2020	0:00			Sample #5		"						
EGLE-DWEHD-CWSS-LCU													
Dec 3 2020													
RELINQUISHED BY: (Signature)	TIME	AM	PM	RECEIVED BY: (Signature)	DATE	TIME	AM	PM	LAB COMMENTS				
RELINQUISHED BY: (Signature)	TIME	AM	PM	RECEIVED BY: (Signature)	DATE	TIME	AM	PM	Fresh draw				
RELINQUISHED BY: (Signature)	TIME	AM	PM	RECEIVED FOR LABORATORY BY:	DATE	TIME	AM	PM	CONDITIONS UPON RECEIPT (check one): Inlet: WaterBlue _____ Ambient _____ °C Upon Receipt _____ N/A				
TURNAROUND TIME (TAT) - SURCHARGES													
SW - Standard Written: (15 working days) 0% RV - Rush Verbal: (5 working days) 75% 90% RV - Rush Written: (5 working days) 75% • Please call, expedited service not available for all testing													
MATRIX CODES:													
DW-DRINKING WATER RW-REAGENT WATER GW- GROUND WATER EW-EXPOSURE WATER SW- SURFACE WATER PW-POOL WATER WW-WASTE WATER													
100% Verbal: (3 working days) IV* 125% Immediate Verbal: (3 working days) IV* CALL Weekend/nightly STAT* = less than 48 hours													
Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges. 06-LO-F0435 Issue 8.0 Effective Date: 2020-06-15													

Eaton Analytical

sample analysis will be provided according to the standard EEA Water Services Terms, which are available upon request. Any other terms proposed by customer are deemed material alterations and are rejected unless expressly agreed to in writing by EA.

You have any questions concerning this report, please do not hesitate to call us at (574) 233-4771 or (574) 332-4345. This report may not be reproduced, except in full, without written approval from EEA.



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



C. HEIDI GRETHUR  
DIRECTOR

October 22, 2018

VIA E-MAIL and U.S. MAIL

Mr. Darwin Watson  
City of Benton Harbor  
200 Wall Street  
Benton Harbor, Michigan 49022

WSSN: 0600  
Supply: Benton Harbor  
County: Berrien

Dear Mr. Watson:

SUBJECT: Lead and Copper Monitoring - Action Level (AL) Exceedance

The city of Benton Harbor community water supply's ninetieth percentile exceeded the AL for lead during the most recent round of lead and copper monitoring of drinking water taps from June 1, 2018, through September 30, 2018, as summarized below.

Contaminant	AL	MCLG*	90 <sup>th</sup> Percentile Value	Number of Samples Above AL	Range of Sample Results	Typical Source of Contaminant
Lead	15 parts per billion (ppb)	0	22	8	0 ppb - 60 ppb	Corrosion of household plumbing systems; Service lines that may contain lead; Erosion of natural deposits
Copper	1.3 parts per million (ppm)	1.3	0.1	0	0 ppm - 0.1 ppm	Corrosion of household plumbing systems; Erosion of natural deposits

\*MCLG: Maximum contaminant level goal means the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

An AL exceedance is not a violation, but it triggers other requirements under the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Requirements include water quality parameter (WQP) monitoring, source water monitoring, corrosion control treatment, and public education (PE). Please refer to the "Timetable of Upcoming Requirements" for your specific deadline for each of the following requirements.

**Issue a Public Advisory**

An amendment to Act 399 on March 29, 2017, requires a public water supply to issue a Public Advisory (PA) within three business days to inform all persons served about the lead AL exceedance. It is the intent of the Department of Environmental Quality (DEQ) to work with you to develop the PA materials to ensure it complies with the requirements set forth in Act 399. Enclosed with this letter is a checklist to document the PA

Mr. Darwin Watson  
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October 22, 2018

distribution activities. Please contact the DEQ if you plan to use broadcast media as your delivery method.

### **Deliver Consumer Notice of Lead and Copper Results**

Within 30 days of learning the results, you must provide individual lead and copper tap results to the people who receive water from sites that were sampled, even if lead and copper were not detected. You must also send us certification that you met all delivery requirements along with a sample copy of your consumer notice 90 days after the end of the monitoring period. To download the *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate* in Microsoft Word or PDF format, visit <http://michigan.gov/deq>. Click on Water, Drinking Water, Community Water Supply, and Reporting Forms.

### **Distribute PE**

Sixty days after the end of the monitoring period that exceeded the AL, deliver PE materials to all consumers. Repeat each year until the lead AL is no longer exceeded. This material is intended to educate consumers about lead health effects, sources, and steps to minimize exposure. Enclosed is a template you may use to meet the requirement. Note that the PE material must include information about the exceedance in your water supply, information about what you are doing to reduce lead levels, information about lead service lines in your distribution system, and information about the history of lead levels in your water supply.

Also attached is a checklist of PE activity requirements with a certification form to return to us, no later than ten days after the PE is due, along with a sample copy of the PE material.

### **Conduct WQP Monitoring**

Six months after the start of the monitoring period that exceeded the AL, collect two sets of Water Quality Parameter (WQP) samples, at least 24 hours apart, from your entry point to the distribution system, TP001 (Treatment Plant Tap), and from ten locations in the distribution system. Essentially, WQP sampling must be done twice from each location (entry point and distribution system locations) within a six-month period but cannot be at the same site on the same day. The WQP samples shall be analyzed for pH, alkalinity, calcium, conductivity, chloride, sulfate and temperature. Temperature and pH are field tests and should be completed at the time of sample collection.

If you use the DEQ laboratory, order bottles by calling 517-335-8184 or by downloading the form EQP 2301 *Bottle Order Form* from <http://michigan.gov/deqlab>. Click on Drinking Water. The tests are analyzed from one sample bottle per location. Request the analyses using the following test codes:

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Test Code	Cost	Bottle Number	Test Description
CORR	\$51.00	33	Conductivity, Alkalinity, Phosphate, and Calcium
CPH	\$13.00	33	pH Determination
R	\$18.00	32,33	Chloride, Sulfate

### **Conduct Source Water Monitoring**

By November 30, 2018, collect one set of WQP samples from a source water tap that is representative of raw water before treatment. If you need assistance determining the appropriate sampling point, please contact your District Engineer. The samples should be analyzed for all of the parameters above.

Six months after the end of the monitoring period that exceeded the AL, collect one sample for lead and copper at your entry point to the distribution system. Repeat every third year until both lead and copper ALs are met during the entire three-year period.

### **Correct the Problem**

Minimize lead and copper in drinking water by reducing corrosion of water pipes and household plumbing that contain lead and copper. To accomplish this, you must propose a corrosion control treatment plan or propose to perform a corrosion control study by six months after the end of the monitoring period that exceeded the AL. If treatment is found to be necessary, it must be installed and samples collected to ensure the lead and copper ALs are consistently met. Contact us for guidance on corrosion control options.

### **Lead and Copper Monitoring**

To show the ALs can be met, collect lead and copper samples from 60 sites between January 1 and June 30, 2019, and again between July 1 and December 31, 2019.

You may discontinue the corrosion control study and installation of corrosion control treatment if the action levels are met during future rounds of monitoring.

When selecting new sites, choose the highest Tier criteria available within the distribution system, giving Tier 1 sites first priority. Please see the enclosed tiering criteria to help inform your site selection process. Within 30 days of learning of results, provide individual lead tap results to people who receive water from sites that were sampled. If you have Tier 1, or Tier 2 sites, i.e., sites with a lead service line, compliance sampling will require that you collect a 1<sup>st</sup> liter and 5<sup>th</sup> liter sample from each sampling location. Specific instructions regarding the 1<sup>st</sup> and 5<sup>th</sup> liter sample collection procedures are currently being developed and will be provided before January 1, 2019. Within 30 days of learning of results from the 1<sup>st</sup> and 5<sup>th</sup> liter samples, provide individual lead tap results to people who receive water from sites that were sampled. Even if lead



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was not detected, all monitoring, reporting, consumer notification, and DEQ certification requirements remain in effect.

### Consumer Confidence Report (CCR)

Include this AL exceedance in your CCR, which is due to our office, your customers, and the local health department by July 1, 2019. You may use the table format from the first page of this letter.

Also, because the lead AL was exceeded, include the following health effects language:

*Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.*

### What Happens Next?

If you can show that both lead and copper ALs are met in two consecutive six-month periods, then many of the requirements outlined in this letter will no longer apply.

However, in the meantime, you must propose a corrosion control treatment plan or propose to perform a corrosion control study. If treatment is found to be necessary, it must be installed. We will work with you to complete these corrosion control steps to optimize your corrosion control treatment.

### Timetable of Upcoming Requirements

Complete By	Requirement	Comments
Within three business days	Distribute a Public Advisory	Distribute a Public Advisory to inform all persons served by the water supply of the lead AL exceedance. Distribution of the notice must be in a form and manner designed to fit the specific situation and must be reasonably calculated to reach all persons served by the public water supply.
Right away	Deliver <i>Consumer Notice of Lead and Copper Results</i> to persons served at each site tested within 30 days of knowing the result.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Microsoft Word or PDF format from <a href="http://michigan.gov/deqleadcopper">http://michigan.gov/deqleadcopper</a> .
November 29, 2018	Perform PE activities including delivering PE materials to all consumers.	PE required activities are listed in enclosed template and checklist. Repeat every year until the lead AL is met in the most recent round of sampling.
November 30, 2018	Collect WQP raw water samples.	Collect one set of WQP samples that are representative of raw water before treatment.
November 30, 2018	Collect WQP samples.	Collect two sets of WQP samples from your <u>entry point</u> to the distribution system. Collect two sets of WQP samples at least 24 hours apart from ten locations in the distribution system. Repeat each lead and copper monitoring period until both ALs are met.

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October 22, 2018

Complete By	Requirement	Comments
December 9, 2018	Send us certification of PE compliance along with a sample copy of the materials delivered.	Sample certification enclosed. Required within ten days of PE distribution.
December 29, 2018	For the Jun-Sep 2018 monitoring, send us certification of consumer notice of lead and copper results compliance along with a sample copy of the notice delivered.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Microsoft Word or PDF format from <a href="http://michigan.gov/deqleadcopper">http://michigan.gov/deqleadcopper</a> .
Between January 1 and June 30, 2019	Collect 60 samples from the distribution system and have them analyzed for lead and copper.	Report the results to the DEQ and deliver the consumer notice of individual lead and copper results using the downloadable <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> . <b>Report due July 10, 2019.</b>
Between January 1 and June 30, 2019	Collect WQP samples.	Collect two sets of WQP samples from your <u>entry point</u> to the distribution system. Collect two sets of WQP samples at least 24 hours apart from ten locations in the distribution system. Repeat each lead and copper monitoring period until both ALs are met.
March 31, 2019	Collect one lead and copper sample from your entry point to the distribution system.	Repeat every third year until both ALs are met for the whole three-year period.
March 31, 2019	Submit a proposal for optimal corrosion control treatment or a corrosion control study.	Contact us for guidance on corrosion control options. Corrosion control study and treatment installation may cease if both ALs are met during two consecutive six-month monitoring periods.
July 1, 2019	Report the 2018 AL exceedance in the Consumer Confidence Report.	Specific lead health effects language must be included.
Between July 1 and December 31, 2019	Collect 60 samples from the distribution system and have them analyzed for lead and copper.	Report the results to the DEQ and deliver the consumer notice of individual lead and copper results using the downloadable <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> . <b>Report due January 10, 2020.</b>
Between July 1 and December 31, 2019	Collect WQP samples.	Collect two sets of WQP samples from your <u>entry point</u> to the distribution system. Collect two sets of WQP samples at least 24 hours apart from ten locations in the distribution system. Repeat each lead and copper monitoring period until both ALs are met.
September 28, 2019	For the Jan-June 2019 monitoring, send us certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Word or PDF format from <a href="http://michigan.gov/deqleadcopper">http://michigan.gov/deqleadcopper</a> .
March 31, 2020	For the July-Dec 2019 monitoring, send us certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Word or PDF format from <a href="http://michigan.gov/deqleadcopper">http://michigan.gov/deqleadcopper</a> .
March 31, 2022	Collect one lead and copper sample from your entry point to the distribution system.	Repeat every third year until both ALs are met for the whole three-year period.

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October 22, 2018

We recognize that the Lead and Copper Rule is complex and may be confusing. We will continue to offer assistance in implementing these regulations. If you have any questions, please contact us at [boltj@michigan.gov](mailto:boltj@michigan.gov); [onanb@michigan.gov](mailto:onanb@michigan.gov); or at the phone numbers provided below.

Sincerely,



Jeni Bolt  
Environmental Quality Specialist  
Technical Support Unit  
Drinking Water and Municipal  
Assistance Division  
517-331-5161



Brandon Onan  
Corrosion Control Engineer  
Engineering Unit  
Drinking Water and Municipal  
Assistance Division  
616-307-6736

Enclosures (Public Advisory Checklist, Public Education Material Template and Sample Certificate, WQP report form, Tier Criteria)

cc/enc: Mr. Mike O'Malley, City of Benton Harbor  
Mr. Ernie Sarkipato, Surface Water Specialist, DEQ  
Mr. Jeremy Klein, District Analyst, DEQ





MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
DRINKING WATER AND MUNICIPAL ASSISTANCE DIVISION

**LEAD AND COPPER REPORT AND  
CONSUMER NOTICE OF LEAD AND COPPER RESULTS  
CERTIFICATE FOR COMMUNITY WATER SUPPLY**

*Issued under authority of 1976 PA 399, MCL 325.1001 et seq., and Administrative Rules, as amended.*  
Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within 10 days after the end of the monitoring period. This form may be used to meet this requirement. Form instructions available on pages 5 and 6. Submit the information to the appropriate Department of Environmental Quality (DEQ) district office.

1. Supply Name: City of Benton Harbor MI.  
2. County: Berrien 3. WSSN: 0600  
4. Population: 8800 5. Monitoring Period: From: 6/1/2018 To: 9/30/2018  
6. Minimum # of Samples Required: 30 7. # of Samples Taken: 30  
8. Name of Certified Laboratory: Eurofins Eaton Analytical, 210 Hill St, South Bend IN.

9. SAMPLE CRITERIA:

Yes	No	NA	
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Are all samples from Tier 1 sites? Yes to our knowledge
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Did you prioritize sample collection according to the following: <ul style="list-style-type: none"><li>• Tier 1 sites must be used unless insufficient Tier 1 sites available.</li><li>• If insufficient Tier 1 sites available, then Tier 2 sites must be used.</li><li>• If insufficient Tier 2 sites, then Tier 3 sites must be used.</li><li>• If no Tier 1, 2, or 3 sites are available, sites must be representative of plumbing materials typically found throughout the water system.</li></ul>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Tier 1 or 2 sites used, were at least 50% of samples from sites with lead service lines? <b>If no, explain</b> (attach additional pages if needed): To the best of our knowledge these sites had lead service lines, even if City Service Lines only.
<input type="checkbox"/>	<input checked="" type="checkbox"/>		Were the same sampling sites used as in the previous monitoring period? <b>If no, explain</b> (attach additional pages if needed): Many of the homes in the original sampling pool were gone, vacant or refused to participate.

Additional comments: There were 26 sites used from the 2015 sampling period. 2 of those sites were removed from the sample list since their service lines had been replaced with copper, leaving 24 available from 2015. Many former participants chose not to help us (mostly by not leaving a sample for us to pick up). 6 additional sites were added to the list to make up the required 30.

For more information see Instructions item 11 "Tier and Sample Category" on pages 5-6.

10. SIGNATURE:

Name: Michael O'Malley Signature: [Signature]  
Title: Benton Harbor Water Supt Phone: (269) 363-0575 Date: 10/7/18



11. TAP SAMPLING DATA: (Use additional sheets as needed)

Water Supply Name: City of Benton Harbor

WSSN: 0600

Sample Location	Sample Date	Tier (1,2,3,O) <sup>1</sup>	Category (see below) <sup>2</sup>	Service Line (L,C,G,P) <sup>3</sup>	Building Plumbing (L,C,G,P) <sup>3</sup>	Tap Type (K,B) <sup>4</sup>	Lead <input type="checkbox"/> mg/L <input checked="" type="checkbox"/> ug/L	Copper <input type="checkbox"/> mg/L <input checked="" type="checkbox"/> ug/L	Lab Sample Number
BH2	9/18/18	1	H	L *	NA	B	0	2.3	4064980
BH10	9/18/18	1	H	L *	NA	B	0	61	4067554
BH15	9/18/18	1	H	L *	NA	B	0	2.3	4064969
BH21	9/18/18	1	H	L *	NA	B	0	16	4064967
BHP3	9/24/18	1	H	L *	NA	B	0	60	4067562
BH24	9/18/18	1	H	L *	NA	B	2	22	4064978
BH20	9/18/18	1	H	L *	NA	B	2.4	72	4064977
BH17	9/18/18	1	H	L *	NA	B	2.5	4.1	4067553
BH11	9/18/18	1	H	L *	NA	B	2.7	9.3	4064973
BH3	9/18/18	1	H	L *	NA	B	4.1	4.4	4064975
BH8	9/18/18	1	H	L *	NA	B	4.4	4.2	4064970
BH33	9/18/18	1	H	L *	NA	B	4.4	18	4064981
BH29	9/18/18	1	H	L *	NA	B	4.7	14	4067552
BH12	9/18/18	1	H	L *	NA	B	4.9	2.5	4064968
BH14	9/18/18	1	H	L *	NA	B	5.5	4.1	4064972
BHM1	9/24/18	1	H	L *	NA	B	5.8	3.3	4067568
BHP2	9/23/18	1	H	L *	NA	B	10	15	4067561
BH32	9/19/18	1	H	L *	NA	B	11	62	4064964
BH25	9/19/18	1	H	L *	NA	B	13	47	4067556
BH28	9/18/18	1	H	L *	NA	B	14	7	4064976
BH30	9/18/18	1	H	L *	NA	B	14	2	4064971
BH6	9/18/18	1	H	L *	NA	B	16	8.4	4064974
BH5	9/18/18	1	H	L *	NA	B	17	14	4064979
BH1	9/19/18	1	H	C/G	NA	B	19	6.4	4064965

BH31	9/18/18	1	H	L *	NA	B	19	2.1	4064966
BH16	9/18/18	1	H	L *	NA	B	21	86	4064982
BHP1	9/24/18	1	H	L *	NA	B	22	6.2	4067560
BHD1	9/24/18	1	H	L *	NA	B	29	48	4067559
BH23	9/18/18	1	H	L *	NA	B	40	11	4067557
BH19	9/18/18	1	H	L *	NA	B	60	1.5	4067555

**Notes: BH**

There were not enough data lines. I had to add enough for 30 samples. And nowhere was a question regarding 90<sup>th</sup> percentile. The 90<sup>th</sup> Sample for Lead is #27. at 48 ppt. at Site BHD1

L\* means presumed lead service line, but unknown. A great number of the known and unknown of Benton Harbor's water services are:

Tapped with Brass; Lead to Brass Curb Stop and Galvanized beyond.

Or for newer construction: Tapped with brass; Copper to Brass Curb Stop and unknown beyond and into house.

NA means that we did not enter the household; and that material records in the homes were not accessed; or available.

C/G means the one site we know to have a new lead service lead replaced with copper and connected to a galvanized pipe beyond the Curb Stop Valve.

You may notice that the sites and lab numbers vary as the entire data pool above is sorted on Lead (lowest to highest). And finally, the lab numbers vary in 2 separate sequences, since there were 2 deliveries to the lab.

10/7/18



Eaton Analytical

110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

Benton Harbor MI 0600  
Lead & Copper Results  
Pool 1 to Eurofins  
in South Bend IN  
delivered 9/19/18

## Laboratory Report

Client: City of Benton Harbor  
Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 430599  
Priority: Standard Written  
Status: Final  
PWS ID: MI0600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4064964	BH 32	200.8	09/19/18 13:15	Client	09/21/18 08:45
4064965	BH 1	200.8	09/19/18 07:30	Client	09/21/18 08:45
4064966	BH 31	200.8	09/18/18 06:25	Client	09/21/18 08:45
4064967	BH 21	200.8	09/18/18 07:05	Client	09/21/18 08:45
4064968	BH 12	200.8	09/19/18 04:09	Client	09/21/18 08:45
4064969	BH 15	200.8	09/18/18 05:00	Client	09/21/18 08:45
4064970	BH 8	200.8	09/18/18 07:30	Client	09/21/18 08:45
4064971	BH 30	200.8	09/18/18 10:24	Client	09/21/18 08:45
4064972	BH 14	200.8	09/19/18 06:05	Client	09/21/18 08:45
4064973	BH 11	200.8	09/18/18 07:56	Client	09/21/18 08:45
4064974	BH 6	200.8	09/18/18 05:00	Client	09/21/18 08:45
4064975	BH 3	200.8	09/18/18 08:00	Client	09/21/18 08:45
4064976	BH 28	200.8	09/18/18 06:47	Client	09/21/18 08:45
4064977	BH 20	200.8	09/18/18 06:42	Client	09/21/18 08:45
4064978	BH 24	200.8	09/18/18 07:00	Client	09/21/18 08:45
4064979	BH 5	200.8	09/18/18 08:00	Client	09/21/18 08:45
4064980	BH 2	200.8	09/18/18 05:30	Client	09/21/18 08:45
4064981	BH 33	200.8	09/19/18 05:15	Client	09/21/18 08:45
4064982	BH 16	200.8	09/17/18 04:00	Client	09/21/18 08:45

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Nathan Trowbridge at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Note: I did not ask for written Approval

BH did not use

Page 1 of 7

the M02Q Lab, the Lab says, would not have been done in time!

Page 3 of 11

Client Name: City of Benton Harbor

Report #: 430599

201 10/2

Authorized Signature

Title

10/04/2018

Date

Client Name: City of Benton Harbor

Report #: 430599

Client Name: City of Benton Harbor

90113  
Report #: 430599

Sampling Point: BH 32

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	62	ug/L	---	09/29/18 18:11	4064964
7439-92-1	Lead	200.8	15 !	1.0	11	ug/L	---	09/29/18 18:11	4064964

Sampling Point: BH 1

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	6.4	ug/L	---	09/29/18 18:13	4064965
7439-92-1	Lead	200.8	15 !	1.0	19	ug/L	---	09/29/18 18:13	4064965

Sampling Point: BH 31

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.1	ug/L	---	09/29/18 18:16	4064966
7439-92-1	Lead	200.8	15 !	1.0	4.9	ug/L	---	09/29/18 18:16	4064966

Sampling Point: BH 21

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	16	ug/L	---	09/29/18 18:18	4064967
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	09/29/18 18:18	4064967

Sampling Point: BH 12

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.5	ug/L	---	09/29/18 18:20	4064968
7439-92-1	Lead	200.8	15 !	1.0	4.9	ug/L	---	09/29/18 18:20	4064968



Client Name: City of Benton Harbor

Pool 1, 4

Report #: 430599

Sampling Point: BH 15

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.3	ug/L	---	09/29/18 18:23	4064969
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	09/29/18 18:23	4064969

Sampling Point: BH 8

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.2	ug/L	---	09/29/18 18:25	4064970
7439-92-1	Lead	200.8	15 !	1.0	4.4	ug/L	---	09/29/18 18:25	4064970

Sampling Point: BH 30

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.0	ug/L	---	09/29/18 18:38	4064971
7439-92-1	Lead	200.8	15 !	1.0	14	ug/L	---	09/29/18 18:38	4064971

Sampling Point: BH 14

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.1	ug/L	---	09/29/18 18:45	4064972
7439-92-1	Lead	200.8	15 !	1.0	5.5	ug/L	---	09/29/18 18:45	4064972

Sampling Point: BH 11

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	9.3	ug/L	---	09/29/18 18:47	4064973
7439-92-1	Lead	200.8	15 !	1.0	2.7	ug/L	---	09/29/18 18:47	4064973

Client Name: City of Benton Harbor

Report #: 430599

Pool 1, 5

Sampling Point: BH 6

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	8.4	ug/L	---	09/29/18 18:50	4064974
7439-92-1	Lead	200.8	15 !	1.0	16	ug/L	---	09/29/18 18:50	4064974

Sampling Point: BH 3

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	44	ug/L	---	09/29/18 18:52	4064975
7439-92-1	Lead	200.8	15 !	1.0	4.1	ug/L	---	09/29/18 18:52	4064975

Sampling Point: BH 28

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	7.0	ug/L	---	09/29/18 18:55	4064976
7439-92-1	Lead	200.8	15 !	1.0	14	ug/L	---	09/29/18 18:55	4064976

Sampling Point: BH 20

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	72	ug/L	---	09/29/18 18:57	4064977
7439-92-1	Lead	200.8	15 !	1.0	2.4	ug/L	---	09/29/18 18:57	4064977

Sampling Point: BH 24

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	22	ug/L	---	09/29/18 19:00	4064978
7439-92-1	Lead	200.8	15 !	1.0	2.0	ug/L	---	09/29/18 19:00	4064978

Client Name: City of Benton Harbor

Pool 1,6

Report #: 430599

Sampling Point: BH 5

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	14	ug/L	---	09/29/18 19:02	4064979
7439-92-1	Lead	200.8	15 !	1.0	17	ug/L	---	09/29/18 19:02	4064979

Sampling Point: BH 2

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.3	ug/L	---	09/29/18 19:05	4064980
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	09/29/18 19:05	4064980

Sampling Point: BH 33

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	18	ug/L	---	09/29/18 19:12	4064981
7439-92-1	Lead	200.8	15 !	1.0	4.4	ug/L	---	09/29/18 19:12	4064981

Sampling Point: BH 16

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	86	ug/L	---	09/29/18 19:19	4064982
7439-92-1	Lead	200.8	15 !	1.0	21	ug/L	---	09/29/18 19:19	4064982

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!



Eaton Analytical

110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

3rd Water  
Lead & Copper Test  
Pool 2

Deliver to Lab

9/24/18

## Laboratory Report

Client: City of Benton Harbor  
Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 430776  
Priority: Standard Written  
Status: Final  
PWS ID: MI0600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4067552	BH29	200.8	09/18/18 03:15	Client	09/25/18 14:20
4067553	BH17	200.8	09/18/18 07:00	Client	09/25/18 14:20
4067554	BH10	200.8	09/18/18 07:00	Client	09/25/18 14:20
4067555	BH19	200.8	09/18/18 07:15	Client	09/25/18 14:20
4067556	BH25	200.8	09/19/18 07:15	Client	09/25/18 14:20
4067557	BH23	200.8	09/18/18 16:20	Client	09/25/18 14:20
4067558	BHM1	200.8	09/24/18 04:30	Client	09/25/18 14:20
4067559	BHD1	200.8	09/24/18 15:00	Client	09/25/18 14:20
4067560	BHP1	200.8	09/24/18 08:30	Client	09/25/18 14:20
4067561	BHP2	200.8	09/23/18 06:00	Client	09/25/18 14:20
4067562	BHP3	200.8	09/24/18 07:00	Client	09/25/18 14:20

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Nathan Trowbridge at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Notice: I did not ask for written approval

10/4/18

Authorized Signature

Title

10/04/2018

Date

Client Name: City of Benton Harbor  
Report #: 430776

Client Name: City of Benton Harbor

Pool 2, 1

Report #: 430776

Sampling Point: BH29

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	14	ug/L	---	10/01/18 21:49	4067552
7439-92-1	Lead	200.8	15 !	1.0	4.7	ug/L	---	10/01/18 21:49	4067552

Sampling Point: BH17

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	4.1	ug/L	---	10/01/18 21:58	4067553
7439-92-1	Lead	200.8	15 !	1.0	2.5	ug/L	---	10/01/18 21:58	4067553

Sampling Point: BH10

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	61	ug/L	---	10/01/18 22:01	4067554
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	10/01/18 22:01	4067554

Sampling Point: BH19

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.5	ug/L	---	10/01/18 22:04	4067555
7439-92-1	Lead	200.8	15 !	1.0	60	ug/L	---	10/01/18 22:04	4067555

Sampling Point: BH25

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	47	ug/L	---	10/01/18 22:07	4067556
7439-92-1	Lead	200.8	15 !	1.0	13	ug/L	---	10/01/18 22:07	4067556



Client Name: City of Benton Harbor

Pool 2, 2

Report #: 430776

Sampling Point: BH23

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	11	ug/L	---	10/01/18 22:10	4067557
7439-92-1	Lead	200.8	15 !	1.0	40	ug/L	---	10/01/18 22:10	4067557

Sampling Point: BHM1

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	3.3	ug/L	---	10/01/18 22:13	4067558
7439-92-1	Lead	200.8	15 !	1.0	5.8	ug/L	---	10/01/18 22:13	4067558

Sampling Point: BHD1

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	48	ug/L	---	10/01/18 22:16	4067559
7439-92-1	Lead	200.8	15 !	1.0	29	ug/L	---	10/01/18 22:16	4067559

Sampling Point: BHP1

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	6.2	ug/L	---	10/01/18 22:19	4067560
7439-92-1	Lead	200.8	15 !	1.0	22	ug/L	---	10/01/18 22:19	4067560

Sampling Point: BHP2

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	15	ug/L	---	10/01/18 22:22	4067561
7439-92-1	Lead	200.8	15 !	1.0	10	ug/L	---	10/01/18 22:22	4067561

Client Name: City of Benton Harbor

7001213

Report #: 430776

Sampling Point: BHP3

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 I	1.0	6.0	ug/L	---	10/01/18 22:30	4067562
7439-92-1	Lead	200.8	15 I	1.0	< 1.0	ug/L	---	10/01/18 22:30	4067562

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	I



# Consumer Notice of Lead and Copper Results in Drinking Water

Water Supply Name: Benton Harbor

County: Berrien

WSSN: 0600

Sample Location: Various (30) homes

Date Sampled: Sept - 2018

Thank you for participating in the lead and copper monitoring of drinking water. The levels of lead and copper found at your location are in the table below.

Key to Table	Contaminant	AL	MCLG	Your Result
<b>Action Level (AL):</b> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow. <b>Maximum Contaminant Level Goal (MCLG):</b> The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. <b>ppb:</b> parts per billion or micrograms per liter <b>ND:</b> not detected	Lead (ppb)	Result 15 22 ppb	0	<del>0.20</del> 0 to 60 ppb
	Copper (ppb)	Result 1300 61 ppb	1300	<del>0.5</del> 1.5 to 36 ppb

**Lead** can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and it can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

**Copper** is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

To reduce exposure to lead and copper in drinking water:

- Run the water until it becomes cold, approximately 30 seconds to 2 minutes.
- Use cold water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; lead and copper dissolves more easily in hot water.
- Do not boil water to remove lead and copper. Boiling water will not reduce lead and copper levels.
- Look for alternative sources or treatment of water. If your lead result is above 15 ppb, you may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010, or [www.nsf.org](http://www.nsf.org) for information on performance standards for water filters.
- Faucets, fittings, and valves purchased before 2014 may contain up to 8 percent lead. Faucets, fittings, and valves purchased after 2014 may contain up to 0.25 percent lead, including those advertised or labeled as "lead-free". These items may be contributing to the lead found in your drinking water.

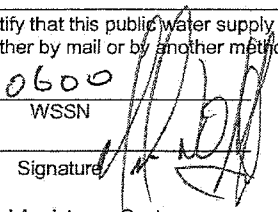
Although the primary sources of lead exposure for most children are from deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated soil, the U.S. EPA estimates that 20 percent or more of human exposure to lead may come from drinking water.

For more information on reducing lead exposure around your home and the health effects of lead, visit the U.S. EPA's Web site at [www.epa.gov/lead](http://www.epa.gov/lead), call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

For more information on copper, visit the U.S. CDC's website at [www.atsdr.cdc.gov/index.html](http://www.atsdr.cdc.gov/index.html), or contact your health provider.

For more information regarding your water supply, contact us at: www.bhcity.us

Certification: I certify that this public water supply has provided the consumer notice of lead and copper results to persons served at each of the taps that was tested, either by mail or by another method approved by the DEQ. The Notice includes required content.

<u>0600</u> WSSN	<u>10/3/18</u> Date Sample Results Received	<u>10/10/18</u> Date Sent to Consumer
 Signature	<u>Benton Harbor Water</u> Title	<u>12/4/18</u> Date







GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
LANSING



LIESL EICHLER CLARK  
DIRECTOR

July 24, 2019

VIA E-MAIL AND U.S. MAIL

Mr. Darwin Watson  
City of Benton Harbor  
200 Wall Street  
Benton Harbor, Michigan 49022

WSSN: 00600  
County: Berrien  
Supply: Benton Harbor

Dear Mr. Watson:

**SUBJECT: Lead and Copper Monitoring - Action Level (AL) Exceedance**

During the most recent round of lead and copper monitoring of drinking water taps, from January 1, 2019, through June 30, 2019, Benton Harbor community water supply's ninetieth percentile value exceeded the AL for lead as summarized below.

Contaminant	AL	MCLG*	90 <sup>th</sup> Percentile Value	Number of Sites Above AL	Range of Sample Results	Typical Source of Contaminant
Lead	15 parts per billion (ppb)	0	27 ppb	12	0 ppb – 59 ppb	Corrosion of household plumbing systems; Service lines that may contain lead; Erosion of natural deposits
Copper	1.3 parts per million (ppm)	1.3	0 ppm	0	0 ppm – 0.1 ppm	Corrosion of household plumbing systems; Erosion of natural deposits

\*MCLG: Maximum contaminant level goal means the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

An AL exceedance is not a violation, but it triggers other requirements under the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Requirements include water quality parameter (WQP) monitoring, source water monitoring, corrosion control treatment, and public education (PE). Please refer to the "Timetable of Upcoming Requirements" for your specific deadline for each of the following requirements.

**Issue a Public Advisory (PA)**

An amendment to Act 399 on March 29, 2017, requires a public water supply to issue a PA within three business days from the date of this letter to inform all persons served by the water system about the lead AL exceedance. It is the intent of the Department of Environment, Great Lakes, and Energy (EGLE) to work with you to develop the PE materials to distribute to your customers to fulfill both the PA and PE requirements simultaneously. A template has already been provided to you. If you plan to use broadcast media as your delivery method, please contact EGLE.

### Timetable of Upcoming Requirements

Complete By	Requirement	Comments
Within three business days	Distribute a PA.	Distribute a PA to inform all persons served by the water supply of the lead AL exceedance. Distribution of the notice must be in a form and manner designed to fit the specific situation and must be reasonably calculated to reach all persons served by the public water supply.
Right away	Deliver <i>Consumer Notice of Lead and Copper Results</i> to persons served at each site tested within 30 days of knowing the result.	Download the <i>Lead and Copper Report and Consumer Notice for Community Water Supply</i> in Microsoft Word or PDF format from Michigan.gov/LCR.
Every two weeks (Starting July 1 <sup>st</sup> )	Collect WQP samples. (Entry Point)	Collect one set of WQP samples every two weeks from the entry point to the distribution system, TP001 (Treatment Plant Tap).
August 29, 2019	Perform PE activities including delivering PE materials to all consumers.	PE required activities are listed in enclosed template and checklist. Repeat every year until the lead AL is met in the most recent round of sampling.
September 8, 2019	Send us certification of PE compliance along with a sample copy of the materials delivered.	Sample certification enclosed. Required within ten days of PE distribution.
Between July 1 and December 31, 2019	Collect 60 samples from the distribution system and have them analyzed for lead and copper.	Report the results to EGLE and deliver the consumer notice of individual lead and copper results using the downloadable <i>Lead and Copper Report and Consumer Notice for Community Water Supply</i> (download form at Michigan.gov/LCR). <b>Report due January 10, 2020.</b>
Between July 1 and December 31, 2019	Collect WQP samples. (Distribution system)	Collect one set of WQP samples from ten locations in the distribution system quarterly.
September 28, 2019	For the January through June 2019 monitoring, send us certification of consumer notice of lead and copper results compliance along with a sample copy of the notice delivered.	Download the <i>Lead and Copper Report and Consumer Notice for Community Water Supply</i> in Microsoft Word or PDF format from Michigan.gov/LCR.
Between January 1 and June 30, 2020	Collect 60 samples from the distribution system and have them analyzed for lead and copper.	Report the results to EGLE and deliver the consumer notice of individual lead and copper results using the downloadable <i>Lead and Copper Report and Consumer Notice for Community Water Supply</i> (download form at Michigan.gov/LCR). <b>Report due July 10, 2020.</b>
Between January 1 and June 30, 2020	Collect WQP samples. (Distribution system)	Collect one set of WQP samples from ten locations in the distribution system quarterly.
July 1, 2020	Report the 2019 AL exceedance in the CCR.	Specific lead health effects language must be included.
March 31, 2020	For the July through December 2019 monitoring, send us certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download the <i>Lead and Copper Report and Consumer Notice for Community Water Supply</i> in Word or PDF format from Michigan.gov/LCR.
September 29, 2020	For the January through June 2020 monitoring, send us certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download the <i>Lead and Copper Report and Consumer Notice for Community Water Supply</i> in Word or PDF format from Michigan.gov/LCR.
March 31, 2022	Collect one lead and copper sample from your entry point to the distribution system.	Repeat every third year until both ALs are met for the whole three-year period.

Mr. Darwin Watson  
Page 5  
July 24, 2019

We recognize that the Lead and Copper Rule is complex and may be confusing. We will continue to offer assistance in implementing these regulations. If you have any questions, please contact us at BoltJ@Michigan.gov; OnanB@Michigan.gov; or at the phone numbers provided below.

Sincerely,



Jeni Bolt  
Environmental Quality Specialist  
Technical Support Unit  
Drinking Water and Environmental  
Health Division  
517-331-5161



Brandon Onan  
Corrosion Control Engineer  
Engineering Unit  
Drinking Water and Environmental  
Health Division  
616-307-6736

Enclosures (PA Checklist, PE Checklist, WQP Report Form, Tier Criteria)

cc: Ms. Nicki Britten, Berrien County Health Department  
Mr. Nick Margaritis, Berrien County Health Department  
Mr. Steve Crider, Michigan Department of Health and Human Services  
Mr. Mike Bolf, Engineering Unit Supervisor, EGLE  
Mr. Ernie Sarkipato, Surface Water Specialist, EGLE  
Mr. Jeremy Klein, District Analyst, EGLE  
cc/enc: Mr. Mike O'Malley, City of Benton Harbor



Sent to Env 7/10/19 5:28 pm



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION  
**LEAD AND COPPER REPORT AND  
CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY  
FORM A – SUPPLIES WITH LEAD SERVICE LINES**

Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399,  
as amended (Act 399), MCL 325.1001 et seq., and the Administrative Rules.

Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within ten days after the end of the monitoring period. This form may be used to meet this requirement. Form instructions are available on pages 8 - 10. Submit the information to the appropriate Michigan Department of Environment, Great Lakes, and Energy (EGLE) district office.

1. Supply Name: City of Benton Harbor, MI.  
2. County: Barrien 3. WSSN: 0600  
4. Population: 9,670\* 5. Monitoring Period: From: 1/1/19 To: 6/30/19  
6. Minimum # of Samples Required: 60 (Should be 40) 7. # of Samples Taken: 47  
8. Name of Certified Laboratory: MDEQ Laboratory, Lansing, MI.

9. SAMPLE CRITERIA:

This form is for water supplies collecting <u>some</u> or <u>all</u> lead and copper samples from sites WITH LEAD SERVICE LINES. All other supplies should use Form B.		
Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are some or all samples from sites WITH lead service lines? <u>All Tiers</u> If no sites served by a lead service line, STOP and use Form B.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Did you prioritize sample collection according to the following: • Tier 1 sites must be used unless insufficient Tier 1 sites available. <u>All</u> • If insufficient Tier 1 sites available, then Tier 2 sites must be used. <u>Tier 2</u> • If insufficient Tier 2 sites, then Tier 3 sites must be used. • If no Tier 1, 2, or 3 sites are available, sites must be representative of plumbing materials typically found throughout the water system.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Were the same sampling sites used as in the previous monitoring period? If no, explain (attach additional pages if needed): <u>Yes Most No Mostly - only a couple of sites from 2018 met the new sample criteria Tier 1</u>

Comments:

\* You can see by the 2015 water Population = 9,670 people  
It was revised to 2019 to 9,960. MDEQ Forced 60 sites.  
Both are under 10,000 so renewed Sampling by rule required only 40

10. SIGNATURE:

Name:

Michael D'Malley

Signature:

[Signature]

Title:

Benton Harbor Water Supt.

Phone:

(269) 363-0575

Date:

7/10/19



City of Benton Harbor

WSSN

600 Lead and Copper Report

7/10/2019							1st Liter Sample			5th Liter Sample		
Sample Location Code	Sample Date	Tier	Category	Building Plumbing	Service Line	Tap Type	Lead Result mg/L	Copper Result mg/L	Lab Sample Number	Lead Result mg/L	Copper Result mg/L	Lab Sample Number
JPb46	6/25/2019		1 A	N/A	L	K	0.012	0.100	LI48039	0.012	0.000	LI48040
JPb41	6/26/2019		1 A	N/A	L	K	0.003	0.000	LI48038	0.003	0.000	LI48035
JPb30	6/26/2019		1 A	N/A	L	K	0.006	0.000	LI48035	0.003	0.000	LI48036
JPb13	6/27/2019		1 A	N/A	L	K	0.008	0.000	LI48034	0.005	0.000	LI48033
JPb4	6/27/2019		1 A	N/A	L	K	0.014	0.000	LI48031	0.012	0.000	LI48032
JPb27	6/27/2013		1 A	N/A	L	K	0.029	0.000	LI48030	0.059	0.000	LI48029
JPb37	6/25/2019		1 A	N/A	L	K	0.000	0.000	LI48027	0.000	0.000	LI48028
JPb16	6/25/2019		1 A	N/A	L	K	0.005	0.000	LI48026	0.005	0.000	LI48025
JPb19	6/25/2019		1 A	N/A	L	K	0.000	0.000	LI48022	0.000	0.000	LI48021
JPb18	6/25/2019		1 A	N/A	L	K	0.000	0.000	LI48023	0.000	0.000	LI48024
JPb36	6/26/2019		1 A	N/A	L	K	0.013	0.000	LI48019	0.005	0.000	LI48020
JPb39	6/26/2019		1 A	N/A	L	K	0.023	0.000	LI48017	0.008	0.000	LI48017
JPb7	6/25/2019		1 A	N/A	L	K	0.035	0.000	LI48016	0.022	0.000	LI48015

City of Benton Harbor

WSSN

600 Lead and Copper Report

7/10/2019

7/10/2019												
Sample Location Code	Sample Date	Tier	Category	Building Plumbing	Service Line	Tap Type	1st Liter Sample		5th Liter Sample		Lab Sample Number	
							Lead Result mg/L	Copper Result mg/L	Lead Result mg/L	Copper Result mg/L		
JPb11	6/27/2019		1 A	N/A	L	K	0.008	0.000	LI48014	0.031	0.000	LI48013
JPb32	6/25/2019		1 A	N/A	L	K	0.021	0.000	LI48012	0.013	0.000	LI48011
JPb5	6/26/2019		1 A	N/A	L	K	0.003	0.000	LI48009	0.002	0.000	LI48010
JPb9	6/25/2019		1 A	N/A	L	K	0.005	0.000	LI48008	0.003	0.000	LI48007
JPb58	6/26/2019		1 A	N/A	L	K	0.004	0.000	LI48005	0.000	0.000	LI48006
JPb54	6/26/2019		1 A	N/A	L	K	0.004	0.000	LI48004	0.011	0.000	LI48003
JPb52	6/25/2019		1 A	N/A	L	K	0.000	0.000	LI48002	0.000	0.000	LI48001
JPb40	6/28/2019		1 A	N/A	L	K	0.007	0.000	LI47999	0.007	0.000	LI48000
JPb23	6/26/2019		1 A	N/A	L	K	0.001	0.000	LI47997	0.000	0.000	LI47998
JPb8	6/27/2019		1 A	N/A	L	K	0.022	0.000	LI47995	0.024	0.000	LI47996
JPb20	6/25/2019		1 A	N/A	L	K	0.005	0.000	LI47994	0.012	0.000	LI47993
JPb38	6/24/2019		1 A	N/A	L	K	0.007	0.000	LI47991	0.005	0.000	LI47992
JPb43	6/25/2019		1 A	N/A	L	K	0.000	0.000	LI47990	0.000	0.000	LI47989

RECEIVED

JUL 10 2019

MDEQ-DWMAD-CWSS-TSU

7/10/2019												
Sample Location Code	Sample Date	Tier	Category	Building Plumbing	Service Line	Tap Type	1st Liter Sample			5th Liter Sample		
							Lead Result mg/L	Copper Result mg/L	Lab Sample Number	Lead Result mg/L	Copper Result mg/L	Lab Sample Number
JPb48	6/27/2019		1 A	N/A	L	K	0.004	0.000	L147988	0.005	0.000	L147987
JPb44	6/25/2019		1 A	N/A	L	K	0.003	0.000	L147985	0.003	0.000	L147986
JPb42	6/26/2019		1 A	N/A	L	K	0.000	0.000	L147983	0.000	0.000	L147984
JPb51	6/24/2019		1 A	N/A	L	K	0.012	0.000	L147981	0.017	0.000	L147982
JPb60	6/27/2019		1 A	N/A	L	K	0.004	0.000	L147979	0.021	0.000	L147980
JPb22	6/25/2019		1 A	N/A	L	K	0.003	0.000	L147977	0.002	0.000	L147978
JPb33	6/25/2019		1 A	N/A	L	K	0.015	0.000	L147975	0.006	0.000	L147976
JPb26	6/25/2019		1 A	N/A	L	K	0.004	0.050	L147973	0.002	0.060	L147974
JPb49	6/24/2019		1 A	N/A	L	K	0.011	0.000	L147971	0.019	0.000	L147972
JPb28	6/27/2019		1 A	N/A	L	K	0.002	0.000	L147969	0.002	0.000	L147970
JPb34	6/29/2019		1 A	N/A	L	K	0.001	0.000	L147967	0.001	0.000	L147968
JPb50	6/26/2019		1 A	N/A	L	K	0.010	0.000	L147965	0.036	0.000	L147966
JPb1	6/25/2019		1 A	N/A	L	K	0.000	0.000	L147963	0.000	0.000	L147964

City of Benton Harbor

WSSN

600 Lead and Copper Report

7/10/2019

Sample Location Code	Sample Date	Tier	Category	Building Plumbing	Service Line	Tap Type	1st Liter Sample		Lab Sample Number	5th Liter Sample		Lab Sample Number
							Lead Result mg/L	Copper Result mg/L		Lead Result mg/L	Copper Result mg/L	
JPb47	6/24/2019	1 A		N/A	L	K	0.044	0.000	LI47961	0.023	0.000	LI47962
JPb17	6/27/2019	1 A		N/A	L	K	0.000	0.000	LI47959	0.000	0.000	LI47960
JPb24	6/26/2019	1 A		N/A	L	K	0.002	0.000	LI47958	0.003	0.000	LI47957
JPb14	6/26/2019	1 A		N/A	L	K	0.006	0.000	LI47955	0.007	0.000	LI47956
JPb55	6/26/2019	1 A		N/A	L	K	0.000	0.000	LI47951	0.000	0.000	LI47952
JPb60	6/27/2019	1 A		N/A	L	K	0.002	0.000	LI47953	0.003	0.000	LI47954
JPb15	6/25/2019	1 A		N/A	L	K	0.009	0.000	LI47949	0.008	0.000	LI47950
JPb29	6/25/2019	1 A		N/A	L	K	0.014	0.000	LI47947	0.018	0.000	LI47948

JUL 10 2019

MDEQ-DWMAD-CWSS-TSU





MI 0600 Benton Harbor

sent 12/6/19

PS 1 of 3

EGLE

LEAD AND COPPER REPORT AND CONSUMER NOTICE - FORM A  
EQP5942a

### CONSUMER NOTICE OF LEAD AND COPPER RESULTS REQUIREMENTS AND CERTIFICATION

Each community water supply must deliver a Consumer Notice of Lead and Copper Results (Consumer Notice) to the occupants at each location sampled within 30 days of learning the sample results as required under R 325.10410(5) of the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended. Failure to deliver the Consumer Notice to each location on time will result in a reporting violation.

#### Instructions:

- Use the Consumer Notice Form A template for sites with lead service lines or Consumer Notice Form B template for sites without lead service lines. See the examples on Page 10 to document results from both sites with a lead service line and without a lead service line.
- Complete one Consumer Notice for each home or building that was sampled. **MAKE SURE UNITS ARE CORRECT BEFORE DISTRIBUTING TO CONSUMERS.**  
Note: 1 mg/L = 1 ppm = 1,000 ppb      Example: 0.002 mg/L = 0.002 ppm = 2 ppb
- Mail or hand deliver each Consumer Notice to the corresponding home or building sampled.
- Water supplies have 90 days after the end of the monitoring period to submit a sample copy of the Consumer Notice along with a signed certification that notices have been distributed as required under R 325.10710d(f)(3) to the appropriate EGLE district office. When possible, EGLE encourages water supplies to send the sample Consumer Notice and certification (page 4 of this document) along with the Lead and Copper Report (pages 1 and 2 of this document), which is due within ten days after the end of the monitoring period. Please **COMPLETE** all forms accurately to avoid resubmittal.

#### Certification:

I hereby certify that the Consumer Notice of Lead and Copper Results (Consumer Notice) has been provided to persons served at each of the taps that were tested, including all the following information:

- Delivery was by mail, hand delivery, or another method approved by EGLE.
- Delivery was within 30 days of knowing the result.
- Consumer Notice includes required content:
  - The results of lead and copper tap monitoring for the site that was sampled.
  - An explanation of the health effects of lead and copper.
  - Steps consumers can take to reduce exposure to lead in drinking water.
  - Contact information for the public water supply.
  - The maximum contaminant level goal and the action level for lead and copper with the definitions explaining each.

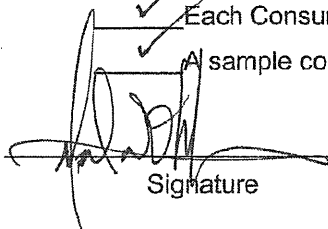
I took  
until 7/19/19  
to correct the  
analysis forms.  
9 of them

Please initial each line verifying that each requirement was completed:

- ☒ A Consumer Notice was sent to persons served at each of the taps that were tested.
- ☒ Delivery was by mail, hand delivery, or another method approved by EGLE.
- ☒ Each Consumer Notice was delivered to the resident within 30 days of knowing the results.
- ☒ Each Consumer Notice included the required content as stated above.

A sample copy of a Consumer Notice sent to a resident is attached.

1st of 47 letters

  
Signature

Benton Harbor Operator in Charge

Title

12/6/2019  
Date

Mail Merge, and Mailed 47 of 7/12/19  
Sent the letter anyway,  
I knew what the results were

Page 2 of 3  
[Signature]

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A

**EGL**

EQP5942a

**CONSUMER NOTICE OF LEAD AND COPPER RESULTS IN DRINKING WATER at a SITE  
WITH A LEAD SERVICE LINE OR A PORTION OF OR REPLACED BY A COPPER LINE**

Thank you for helping Benton Harbor get the Lead Out. The City Water Department exceeded the Lead Action Level in September, 2018. Many things had to happen, specifically, The City was required to go back to the Original Sampling Date (1991) and collect 2 sets of 60 samples in 2019. This June was our 1<sup>st</sup> set and these are your testing results.

We propose to sample the 2<sup>nd</sup> set in September.

If you would like to participate in September, please call Toni at the Water Plant (269) 447-1945, please be patient with our new phones. If you do not get an answer, please leave a message.

If you have sampled before and the results look different, that is likely due to the new 5-bottle procedure. It could also be a result of the new Lead Corrosion Treatment we started using March 26, 2019. This treatment is specifically designed to remove Lead and other metals from the tap water in order to eliminate those heavy metal contaminants from your home's drinking water.

This corrosion treatment will likely do an even better job of it by the September sampling, as we put more in every day for as long as it takes to physically remove All Lead in the System. Removal will be expensive and will take a long time to raise all the money needed.

Water Supply Name: Benton Harbor Water WSSN#: MI0600; Berrien County, MI.

Name: [REDACTED]

Address: 140 [REDACTED]

Your Home's Code: JPB1

Thank you for participating in the lead and copper monitoring of drinking water. The levels of lead and copper found at your location are in the table below. Your home is served by a known lead service line, a presumed Lead Service line or was served at 1 time by lead; but replaced with Copper. This means that the pipe that brings water to your home contains lead. The first liter sample represents the water you are likely to drink when turning on the tap, and the fifth liter sample likely represents the water in the service line.

Contaminant	Action Level	Maximum Contaminant Level Goal	1 <sup>st</sup> Liter Result	5 <sup>th</sup> Liter Result
Lead (ppb)	15	0	0	0
Copper (ppb)	1300	1300	0	0

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**ppb:** Parts per billion or micrograms per liter.

**ND:** Not detected.

To reduce exposure to lead and copper in drinking water:

- **Run your water before drinking.** The more time water has been sitting in your home's pipes, the more lead it may contain. Therefore, if your water has not been used for several hours, run the water before using it for drinking or cooking. This flushes lead-containing water from the pipes. Additional flushing may be required for homes that have been vacant or have a longer service line.

- If you **do not** have a lead service line, run the water for 30 seconds to two minutes, or until it becomes cold or reaches a steady temperature.

p. 3 of 3

- If you **do** have a lead service line, run the water for at least five minutes to flush water from both the interior building plumbing and the lead service line.

- **Use cold water for cooking and preparing baby formula.** Do not cook with or drink water from the hot water tap. Lead and copper dissolves more easily in hot water.
- **Do not boil water to remove lead and copper.** Boiling water will not reduce lead and copper levels.
  - **Consider using a filter to reduce lead in drinking water.** Read the package to be sure the filter is NSF 53 certified to reduce lead or contact NSF International at 800-NSF-8010, or [www.nsf.org](http://www.nsf.org) for more information.
- **Consider purchasing bottled water.** The bottled water standard for lead is 5 ppb.
- **Identify older plumbing fixtures that likely contain lead.** Older faucets, fittings, and valves sold before 2014 may contain higher levels of lead, even if marked "lead-free." Faucets, fittings, and valves sold after January 2014 are required to meet a more restrictive "lead-free" definition but may still contain up to 0.25 percent lead.
  - **Clean your aerator.** As part of routine maintenance, the aerator should be removed at least every six months to rinse out any debris that may include particulate lead.
  - **Get your child tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.

**Lead** can cause serious health and developmental problems. It can cause damage to the brain and kidneys, and it can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Although other sources of lead exposure exist, such as lead paint, and lead contaminated dust, your water supply is contacting you to reduce your risk of exposure to lead in drinking water. If you have questions about other sources of lead exposure, please contact your local health department.

**Copper** is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Although the primary sources of lead exposure for most children are from deteriorating lead-based paint, lead- contaminated dust, and lead-contaminated soil, the United States Environmental Protection Agency (U.S. EPA) estimates that 20 percent or more of human exposure to lead may come from drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water.

For more information on reducing lead exposure around your home and the health effects of lead, visit the U.S. EPA's website at [www.epa.gov/lead](http://www.epa.gov/lead), call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

For more information on copper, visit the United States Center for Disease Control website at [www.atsdr.cdc.gov/index.html](http://www.atsdr.cdc.gov/index.html), or contact your health provider.

For more information regarding your water supply, contact us at: Mike (269) 363-0575

APR 06 2019



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48031**  
**Work Order: 90700565\_01**

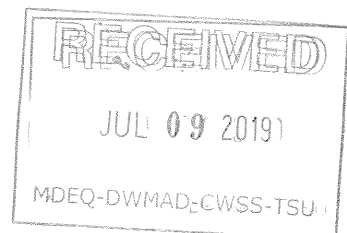
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB4B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 12:30
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.014	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48032  
Work Order: 90700565\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB4B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:40
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.012	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

7/23/19 from Mike O'Malley  
Concerns about  
Date & Time difference  
JPB4

PORT OF OPPORTUNITIES  
City of Benton Harbor  
200 East Wall Street  
Benton Harbor, Michigan 49022

Bolt Jennifer

From Mike O'Malley, your Benton Harbor Water Guy. Your help is really appreciated. It may not seem like it, but you are providing a valuable service to the Water Department in our quest to get the Lead out of Benton Harbor. Thank you

Dear Resident; [REDACTED] staying at: [REDACTED] thank you for assisting us.

To Help Assure Your Privacy, we have assigned a code to your home. Your Code is: JPB4

Keep track of this code JPB4 you may want to look and see where your home is in relation to the other 59 homes we will be sampling. A table showing all 60 will be available to the community.

Once you have let your water sit for 6 or more hours, you need to begin the testing before anyone uses any water in the house. As you know we call that "The 1<sup>st</sup> Draw" ✓

The 5 bottles in your box need to be filled one after another for the State required testing. This person made Bottle 1 is the 1<sup>st</sup> draw and is used to sample for lead in water in the home. ✓ Sure it was done right.

Bottle 2 is a place holder; Bottle 3 is a place holder; Bottle 4 is the last place holder

Bottle 5 is the sample taken 5 Liters and is used to sample for lead farther out toward the street. ✓

Please fill out this sheet once you are done. We need:

The date and time you turned the water off for the 6-hour holding time: # 1 6/27/12:30  
# 5 6/25/ 6:40

Water Off: Date: 6/25/2019 Time: 12:30 AM

Then the Date and Time you started to collect the 5 sample bottles:

Water Sample at: Date: 6/25/2019 Time: 6:40 AM

Please then sign or initial your name: [REDACTED]

If different please add: We probably filled in the labels

At the residence of [REDACTED] 2 of two with 1) water off  
2) sample taken

Contact Information: [REDACTED] If different please add:

If you would be willing to do this again in August or September this year Check here: ✓

Put everything in the box and leave it outside for us to pick up.

If you could call Toni at the water plant (269) 447-1945 with questions or that you are ready.

You can call Mike at the water plant (269) 204-2733 but I am very hard to reach, leave message.

Names Address & phone are redacted  
to keep ERIE from sharing with State Public Radio

Take Note  
I had 60 homes  
that agreed  
to sample

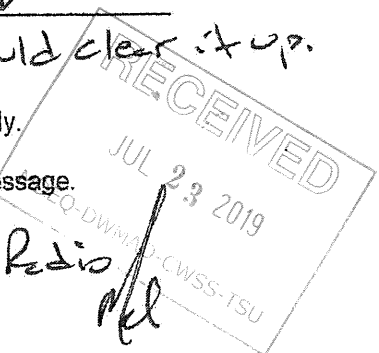
note:

This person made  
Bottle 1 is the 1<sup>st</sup> draw and is used to sample for lead in water in the home. ✓  
Bottle 2 is a place holder; Bottle 3 is a place holder; Bottle 4 is the last place holder  
Bottle 5 is the sample taken 5 Liters and is used to sample for lead farther out toward the street. ✓  
The State Report  
# 1 6/27/12:30  
# 5 6/25/ 6:40  
Mistake was by  
BHW  
State Rep

Almost exactly  
6 hours

I did  
not keep  
a copy  
of 120  
labels

This should clear it up.





Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47952**  
**Work Order: 90700525\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB55B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 08:00
Sample Point:	KITCHEN SINK FIFTH	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

**Sample Comment LI47952** Corrected report. Disregard previous report for this sample number. Sample did not meet collection volume requirements for test code CCUB when received at the lab. Container was not filled to the base of the neck per sample collection instructions.

TESTING INFORMATION

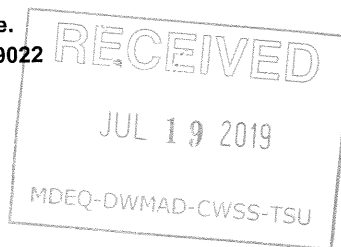
REGULATORY INFORMATION

Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane





Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47952**  
**Work Order: 90700525\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB55B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	07/03/2019 06:26
Sample Point:	KITCHEN SINK FIFTH	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

**Sample Comment**      **LI47952**      Sample did not meet collection volume requirements for test code CCUB when received at the lab. Container was not filled to the base of the neck per sample collection instructions. Result(s) may not be accepted for compliance purposes.

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

**Berrien County**  
**2149 E. Napier Ave.**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Not Detected: Not detected at or above the reporting limit (RL)

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47951  
Work Order: 90700525\_01

System Name/Owner: BENTON HARBOR COMPLIANCE 2019  
Collection Address: 200 EAST WALL ST, BENTON HARBOR  
Collected By: RESIDENT  
Township/Well#/Section: //  
County: Berrien  
Sample Point: KITCHEN SINK FIRST DRAW  
Water System: Public System Surface Water  
WSSN/Pool ID: 600  
Source: TYPE I  
Site Code: JPB55B5  
Collector: Other  
Date Collected: 06/26/2019 08:00  
Date Received: 07/03/2019 13:16  
Purpose: Routine Monitoring

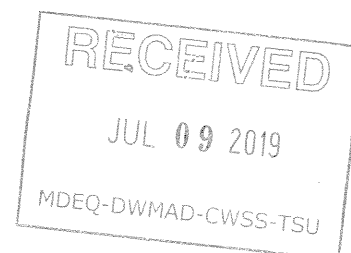
Sample Comment LI47951 Sample did not meet collection volume requirements for test code CCUB when received at the lab. Container was not filled to the base of the neck per sample collection instructions. Result(s) may not be accepted for compliance purposes.

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

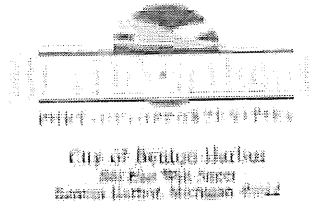
Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



From Mike O'Malley, your Benton Harbor Water Guy. Your help is really appreciated. It may not seem like it, but you are providing a valuable service to the Water Department in our quest to get the Lead out of Benton Harbor. Thank you.

Dear Residents: [redacted] staying at [redacted], thank you for assisting us.

To Help Assure Your Privacy, we have assigned a code to your home. Your Code is: ~~JPB55~~ **JPB55** JP855

Keep track of this code JP855 you may want to look and see where your home is in relation to the other 59 homes we will be sampling. A table showing all 60 will be available to the community.

Once you have let your water sit for 6 or more hours, you need to begin the testing before anyone uses any water in the house. As you know we call that "The 1<sup>st</sup> Draw"

The 5 bottles in your box need to be filled one after another for the State required testing.

Bottle 1 is the 1<sup>st</sup> draw and is used to sample for lead in water in the home.

Bottle 2 is a place holder; Bottle 3 is a place holder; Bottle 4 is the last place holder

Bottle 5 is the sample taken 5 Liters and is used to sample for lead farther out toward the street.

Please fill out this sheet once you are done. We need:

The date and time you turned the water off for the 6-hour holding time:

Water Off: Date: 4/25/19 Time: 11 PM

Then the Date and Time you started to collect the 5 sample bottles:

Water Sample at: Date: 4/26/19 Time: 8 AM

Please then sign or initial your name: [redacted]

If different please add: [redacted]

At the residence of [redacted]

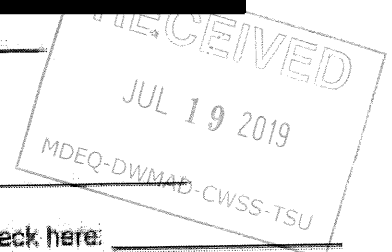
Contact information: If different please add: [redacted]

If you would be willing to do this again in August or September this year Check here: ☐

Put everything in the box and leave it outside for us to pick up.

If you could call Toni at the water plant (269) 447-1945 with questions or that you are ready.

You can call Mike at the water plant (269) 204-2733 but I am very hard to reach. leave message.





Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47961**  
**Work Order: 90700530\_01**

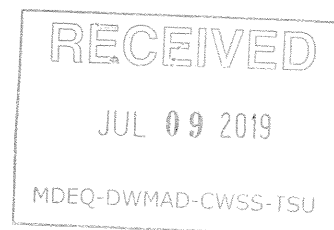
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB47B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/24/2019 23:30
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.044	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane





MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER LABORATORY  
USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47962  
Work Order: 90700530\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB47B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:35
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.023	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

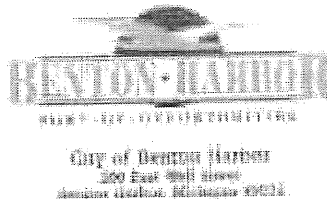
Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Report  
Corrected 7/11/19



From Mike O'Malley, your Benton Harbor Water Guy. Your help is really appreciated. It may not seem like it, but you are providing a valuable service to the Water Department in our quest to get the Lead out of Benton Harbor. Thank you

Dear Resident: [REDACTED] staying at [REDACTED] thank you for assisting us.

To Help Assure Your Privacy, we have assigned a code to your home. Your Code is: JPB47

Keep track of this code JPB47 you may want to look and see where your home is in relation to the other 59 homes we will be sampling. A table showing all 60 will be available to the community.

Once you have let your water sit for 6 or more hours, you need to begin the testing before anyone uses any water in the house. As you know we call that "The 1<sup>st</sup> Draw"

The 5 bottles in your box need to be filled one after another for the State required testing.

Bottle 1 is the 1<sup>st</sup> draw and is used to sample for lead in water in the home.

Bottle 2 is a place holder; Bottle 3 is a place holder; Bottle 4 is the last place holder

Bottle 5 is the sample taken 5 Liters and is used to sample for lead farther out toward the street.

Please fill out this sheet once you are done. We need:

The date and time you turned the water off for the 6-hour holding time:

Water Off: Date: 6-24-19 Time: 11:30 PM

Then the Date and Time you started to collect the 5 sample bottles:

Water Sample at: Date: 6-25-19 Time: 6:35 AM

Please then sign or initial your name: [REDACTED]

If different please add: \_\_\_\_\_

At the residence of [REDACTED]

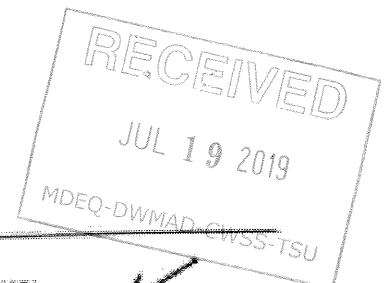
Contact Information [REDACTED] If different please add: \_\_\_\_\_

If you would be willing to do this again in August or September this year Check here: ☒

Put everything in the box and leave it outside for us to pick up.

If you could call Toni at the water plant (269) 447-1945 with questions or that you are ready

You can call Mike at the water plant (269) 204-2733 but I am very hard to reach, leave message





Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47970**  
**Work Order: 90700534\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB28B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 05:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.002	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

**Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47969  
Work Order: 90700534\_01

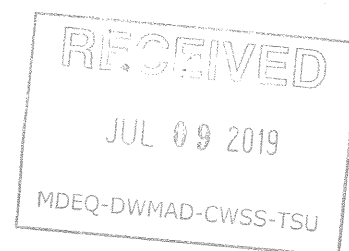
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB28B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 18:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.002	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



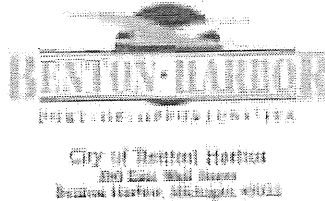
RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Corrected Label  
7/18/19



From Mike O'Malley, your Benton Harbor Water Guy. Your help is really appreciated. It may not seem like it, but you are providing a valuable service to the Water Department in our quest to get the Lead out of Benton Harbor. Thank you

Dear Resident: [REDACTED] staying at [REDACTED] thank you for assisting us.

To Help Assure Your Privacy, we have assigned a code to you home. Your Code is: **JPB28**

Keep track of this code JPB28 you may want to look and see where your home is in relation to the other 59 homes we will be sampling. A table showing all 60 will be available to the community.

Once you have let your water sit for 6 or more hours, you need to begin the testing before anyone uses any water in the house. As you know we call that "The 1<sup>st</sup> Draw"

The 5 bottles in your box need to be filled one after another for the State required testing.

Bottle 1 is the 1<sup>st</sup> draw and is used to sample for lead in water in the home.

Bottle 2 is a place holder; Bottle 3 is a place holder; Bottle 4 is the last place holder

Bottle 5 is the sample taken 5 Liters and is used to sample for lead farther out toward the street.

Please fill out this sheet once you are done. We need:

The date and time you turned the water off for the 6-hour holding time:

Water Off: Date: 6:00 pm Time: 6-26-19 PB 6:26-19

Then the Date and Time you started to collect the 5 sample bottles:

Water Sample at: Date: 6-27-19 Time: 5:00 AM

Please then sign or initial your name: [REDACTED]

If different please add: FB

At the residence of [REDACTED]

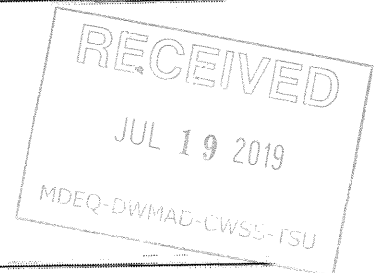
Contact Information: [REDACTED] If different please add: \_\_\_\_\_

If you would be willing to do this again in August of September this year Check here: yes

Put everything in the box and leave it outside for us to pick up

If you could call Toni at the water plant (269) 447-1945 with questions or that you are ready.

You can call Mike at the water plant (269) 204-2733 but I am very hard to reach, leave message.





Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48023**  
**Work Order: 90700561\_01**

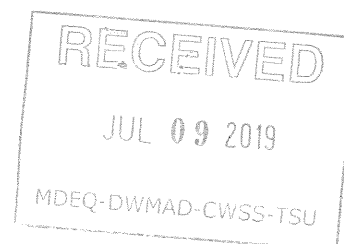
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB18B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 00:01
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

**Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623**



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48024  
Work Order: 90700561\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB18B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit

MCL: Maximum Contaminant Level

AL: Action Level

Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)

ng/L: nanograms / Liter (ppt)

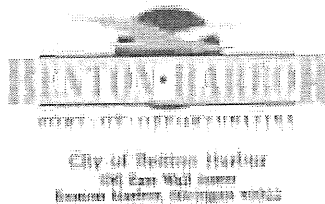
MPN: Most Probable Number

CFU: Colony Forming Unit

CAS: Chemical Abstract Service

Laboratory Contact: Marlene Kane

Requested  
Confirmation  
7/14/19



From Mike O'Malley, your Benton Harbor Water Guy. Your help is really appreciated. It may not seem like it, but you are providing a valuable service to the Water Department in our quest to get the Lead out of Benton Harbor. Thank you

Dear Resident: [REDACTED] saying at: [REDACTED] thank you for assisting us.

To Help Assure Your Privacy, we have assigned a code to your home. Your Code is: **JPB18**

Keep track of this code JPB18 you may want to look and see where your home is in relation to the other 59 homes we will be sampling. A table showing all 60 will be available to the community.

Once you have let your water sit for 6 or more hours, you need to begin the testing before anyone uses any water in the house. As you know we call that "The 1<sup>st</sup> Draw"

The 5 bottles in your box need to be filled one after another for the State required testing.

Bottle 1 is the 1<sup>st</sup> draw and is used to sample for lead in water in the home.

Bottle 2 is a place holder; Bottle 3 is a place holder; Bottle 4 is the last place holder

Bottle 5 is the sample taken 5 liters and is used to sample for lead farther out toward the street.

Please fill out this sheet once you are done. We need:

The date and time you turned the water off for the 6-hour holding time:

Water Off: Date: 7-25-19 Time: 12:00 am

Then the Date and Time you started to collect the 5 sample bottles:

Water Sample at: Date: 7-25-19 Time: 6:00 am

Please then sign or Initial your name: [REDACTED]

If different please add: \_\_\_\_\_

At the residence of [REDACTED]

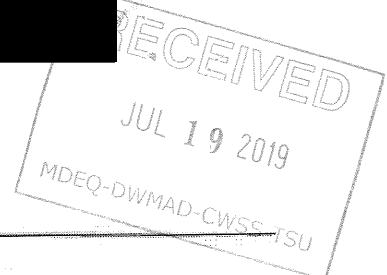
Contact Information: [REDACTED] If different please add: \_\_\_\_\_

If you would be willing to do this again in August or September this year Check here: \_\_\_\_\_

Put everything in the box and leave it outside for us to pick up.

If you could call Toni at the water plant (269) 447-1945 with questions or that you are ready.

You can call Mike at the water plant (269) 204-2733 but I am very hard to reach, leave message.







Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47972**  
**Work Order: 90700535\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB49B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 04:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.019	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

**Berrien County**  
**2149 E. Napier Ave.**  
**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47971  
Work Order: 90700535\_01

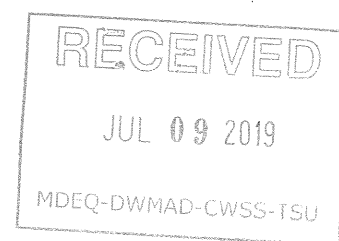
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB49B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/24/2019 22:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.011	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

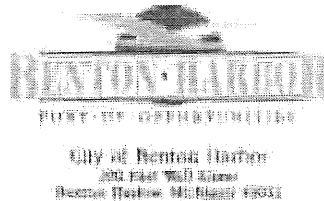
Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



From Mike O'Malley, your Benton Harbor Water Guy. Your help is really appreciated. It may not seem like it, but you are providing a valuable service to the Water Department in our quest to get the Lead out of Benton Harbor. Thank you

Dear Resident: [REDACTED] staying at: [REDACTED] thank you for assisting us.

To Help Assure Your Privacy, we have assigned a code to you home. Your Code is: JPB49

Keep track of this code JPB49 you may want to look and see where your home is in relation to the other 59 homes we will be sampling. A table showing all 60 will be available to the community.

Once you have let your water sit for 6 or more hours, you need to begin the testing before anyone uses any water in the house. As you know we call that "The 1" Draw"

The 5 bottles in your box need to be filled one after another for the State required testing.

Bottle 1 is the 1" draw and is used to sample for lead in water in the home.

Bottle 2 is a place holder; Bottle 3 is a place holder; Bottle 4 is the last place holder

Bottle 5 is the sample taken 5 Liters and is used to sample for lead farther out toward the street.

Please fill out this sheet once you are done. We need:

The date and time you turned the water off for the 6-hour holding time:

Water Off: Date: 6-24-19 Time: 10:00 PM

Then the Date and Time you started to collect the 5 sample bottles:

Water Sample at: Date: 6-25-19 Time: 4:00 AM

Please then sign or initial your name: [REDACTED]

If different please add: [REDACTED]

At the residence of [REDACTED]

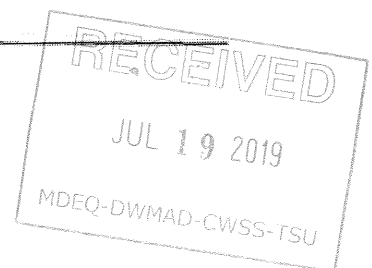
Contact Information: [REDACTED] If different please add: \_\_\_\_\_

If you would be willing to do this again in August of September this year Check here: \_\_\_\_\_

Put everything in the box and leave it outside for us to pick up.

If you could call Toni at the water plant (269) 447-1945 with questions or that you are ready.

You can call Mike at the water plant (269) 204-2733 but I am very hard to reach, leave message.







Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47995**  
**Work Order: 90700547\_01**

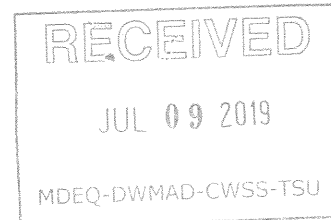
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB8B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 05:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.022	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

**Berrien County**  
**2149 E. Napier Ave.**  
**Benton Harbor, MI 49022**  
**269 927-5623**



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER LABORATORY  
USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47996  
Work Order: 90700547\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB8B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 15:30
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.024	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

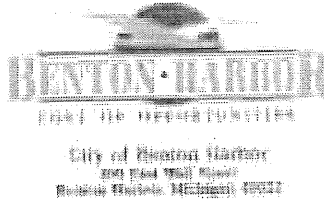
Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



From Mike O'Malley, your Benton Harbor Water Guy. Your help is really appreciated. It may not seem like it, but you are providing a valuable service to the Water Department in our quest to get the Lead out of Benton Harbor. Thank you

Dear Resident: [REDACTED] staying at [REDACTED] thank you for assisting us.

To Help Assure Your Privacy, we have assigned a code to your home. Your Code is: **JPB8**

Keep track of this code JPB8 you may want to look and see where your home is in relation to the other 59 homes we will be sampling. A table showing all 60 will be available to the community.

Once you have let your water sit for 6 or more hours, you need to begin the testing before anyone uses any water in the house. As you know we call that "The 1<sup>st</sup> Draw"

The 5 bottles in your box need to be filled one after another for the State required testing.

Bottle 1 is the 1<sup>st</sup> draw and is used to sample for lead in water in the home.

Bottle 2 is a place holder; Bottle 3 is a place holder; Bottle 4 is the last place holder

Bottle 5 is the sample taken 5 Liters and is used to sample for lead farther out toward the street.

Please fill out this sheet once you are done. We need:

The date and time you turned the water off for the 6-hour holding time:

Water Off: Date: 6/25/19 Time: 5:00 AM

Then the Date and Time you started to collect the 5 sample bottles:

Water Sample at: Date: 6/25/19 Time: 3:30 PM

Please then sign or initial your name: [REDACTED] E

If different please add: \_\_\_\_\_

At the residence of [REDACTED]

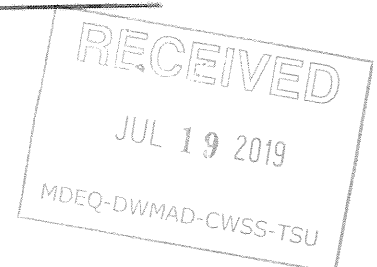
Contact Information: [REDACTED] if different please add: \_\_\_\_\_

If you would be willing to do this again in August or September this year Check here: \_\_\_\_\_

Put everything in the box and leave it outside for us to pick up.

If you could call Toni at the water plant (269) 447-1945 with questions or that you are ready.

You can call Mike at the water plant (269) 204-2733 but I am very hard to reach, leave message.





Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47959**  
**Work Order: 90700529\_01**

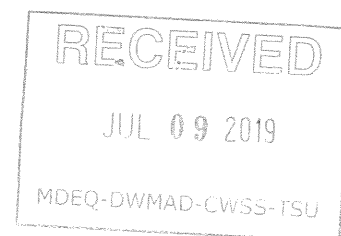
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB17B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 21:30
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

**Berrien County**  
**2149 E. Napier Ave.**  
**Benton Harbor, MI 49022**  
**269 927-5623**



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER LABORATORY  
USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47960  
Work Order: 90700529\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB17B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 04:53
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623

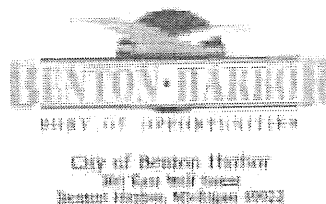
RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Corrected (see)  
7/12/19



From Mike O'Malley, your Benton Harbor Water Guy. Your help is really appreciated. It may not seem like it, but you are providing a valuable service to the Water Department in our quest to get the Lead out of Benton Harbor. Thank you

Dear Resident; [redacted] staying at [redacted] thank you for assisting us.

To Help Assure Your Privacy, we have assigned a code to your home. Your Code is: JPB17

Keep track of this code JPB17 you may want to look and see where your home is in relation to the other 59 homes we will be sampling. A table showing all 60 will be available to the community.

Once you have let your water sit for 6 or more hours, you need to begin the testing before anyone uses any water in the house. As you know we call that "The 1<sup>st</sup> Draw"

The 5 bottles in your box need to be filled one after another for the State required testing.

Bottle 1 is the 1<sup>st</sup> draw and is used to sample for lead in water in the home.

Bottle 2 is a place holder; Bottle 3 is a place holder; Bottle 4 is the last place holder

Bottle 5 is the sample taken 5 Liters and is used to sample for lead farther out toward the street.

Please fill out this sheet once you are done. We need:

The date and time you turned the water off for the 6-hour holding time:

Water Off: Date: June 26 2019 Time: 9:30pm

Then the Date and Time you started to collect the 5 sample bottles:

Water Sample at: Date: June 27, 2019 Time: 4:53 a.m

Please then sign or Initial your name: [redacted] C.B.

If different please add: \_\_\_\_\_

At the residence of [redacted]

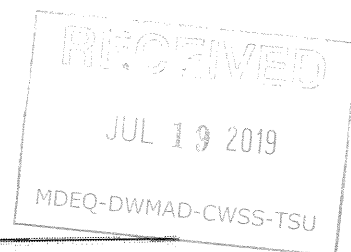
Contact Information: [redacted] If different please add: \_\_\_\_\_

If you would be willing to do this again in August or September this year Check here: /

Put everything in the box and leave it outside for us to pick up.

If you could call Toni at the water plant (269) 447-1945 with questions or that you are ready.

You can call Mike at the water plant (269) 204-2733 but I am very hard to reach, leave message.





Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48034**  
Work Order: 90700566\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB13B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 22:50
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.008	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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**Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48033**  
Work Order: 90700566\_01

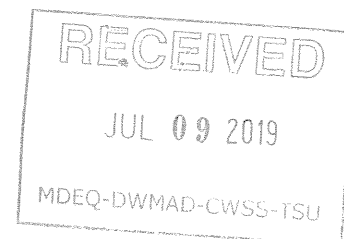
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB13B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 06:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.005	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623

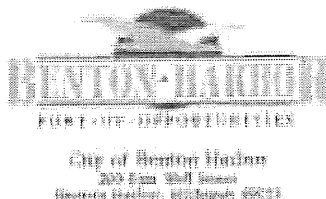


RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Corrected  
label  
7/8/19



From Mike O'Malley, your Benton Harbor Water Guy. Your help is really appreciated. It may not seem like it, but you are providing a valuable service to the Water Department in our quest to get the Lead out of Benton Harbor. Thank you

Dear Resident, [REDACTED] staying [REDACTED] thank you for assisting us.

To Help Assure Your Privacy, we have assigned a code to you home. Your Code is: JPB13

Keep track of this code [REDACTED] you may want to look and see where your home is in relation to the other 59 homes we will be sampling. A table showing all 60 will be available to the community.

Once you have let your water sit for 6 or more hours, you need to begin the testing before anyone uses any water in the house. As you know we call that "The 1<sup>st</sup> Draw"

The 5 bottles in your box need to be filled one after another for the State required testing.

Bottle 1 is the 1<sup>st</sup> draw and is used to sample for lead in water in the home.

Bottle 2 is a place holder; Bottle 3 is a place holder; Bottle 4 is the last place holder

Bottle 5 is the sample taken 5 Liters and is used to sample for lead farther out toward the street

Please fill out this sheet once you are done. We need:

The date and time you turned the water off for the 6-hour holding time:

Water Off: Date: 6/24/19 Time: 10:50 A.M.

Then the Date and Time you started to collect the 5 sample bottles:

Water Sample at: Date: 6/25/19 Time: 6:00 A.M.

Please then sign or initial your name: [REDACTED]

If different please add: \_\_\_\_\_

At the residence of [REDACTED]

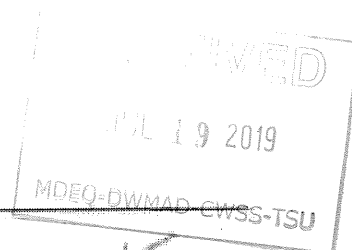
Contact Information: [REDACTED] If different please add: \_\_\_\_\_

If you would be willing to do this again in August or September this year Check here ✓

Put everything in the box and leave it outside for us to pick up.

If you could call Toni at the water plant (269) 447-1945 with questions or that you are ready.

You can call Mike at the water plant (269) 204-2733 but I am very hard to reach, leave message.







Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47947**  
**Work Order: 90700523\_01**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB29B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 05:30
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.014	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623



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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47948  
Work Order: 90700523\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB29B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 05:30
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.018	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit	mg/L: milligrams / Liter (ppm)	CFU: Colony Forming Unit
MCL: Maximum Contaminant Level	ng/L: nanograms / Liter (ppt)	CAS: Chemical Abstract Service
AL: Action Level	MPN: Most Probable Number	Laboratory Contact: Marlene Kane
Not Detected: Not detected at or above the reporting limit (RL)		

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47949**  
**Work Order: 90700524\_01**

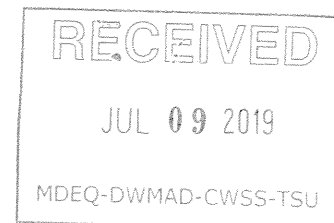
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	MIKE O'MALLEY	Site Code:	JPB15B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.009	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47950**  
**Work Order: 90700524\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB15B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.008	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47954**  
**Work Order: 90700526\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB6B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 16:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47953  
Work Order: 90700526\_01

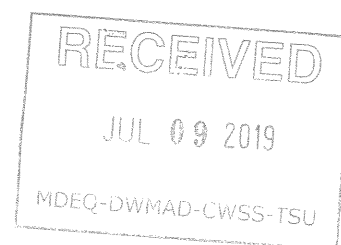
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB6B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 16:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.002	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47955**  
**Work Order: 90700527\_01**

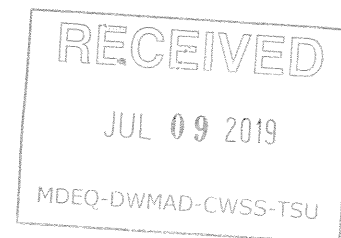
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB14B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 07:45
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.006	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47956**  
**Work Order: 90700527\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB14B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 07:45
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.007	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47958**  
**Work Order: 90700528\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB24B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 07:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.002	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47957**  
Work Order: 90700528\_01

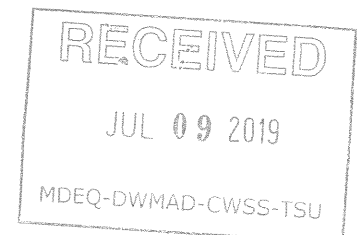
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB24B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 07:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47964**  
**Work Order: 90700531\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB1B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 07:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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**Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47963**  
**Work Order: 90700531\_01**

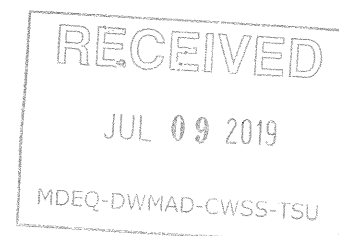
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB1B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 07:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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**Berrien County  
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Benton Harbor, MI 49022  
269 927-5623**



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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47965**  
**Work Order: 90700532\_01**

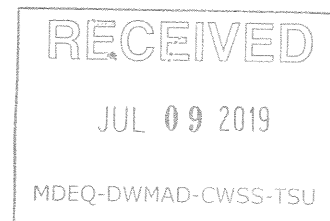
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB50B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 08:30
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.010	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER LABORATORY  
USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47966  
Work Order: 90700532\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB50B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 08:30
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.036	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
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Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47968**  
**Work Order: 90700533\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB34B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/29/2019 08:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.001	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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**Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47967  
Work Order: 90700533\_01

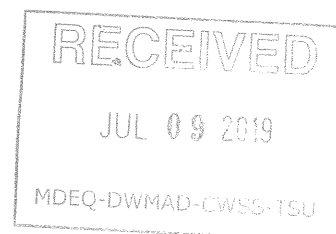
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB34B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/29/2019 08:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.001	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623



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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47973**  
**Work Order: 90700536\_01**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB26B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:15
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	0.05	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.004	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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**Benton Harbor, MI 49022**  
**269 927-5623**



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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47974  
Work Order: 90700536\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB26B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:15
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	0.06	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.002	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623

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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47975**  
**Work Order: 90700537\_01**

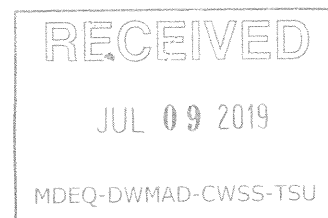
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB33B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 09:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.015	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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**2149 E. Napier Ave.**  
**Benton Harbor, MI 49022**  
**269 927-5623**



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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47976**  
**Work Order: 90700537\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB33B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 09:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.006	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47977  
Work Order: 90700538\_01

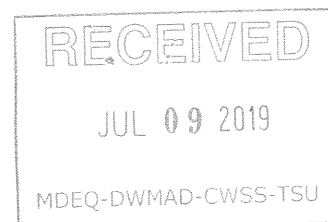
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB22B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 17:30
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623



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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47978  
Work Order: 90700538\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB22B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 17:30
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.002	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
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Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47979  
Work Order: 90700539\_01

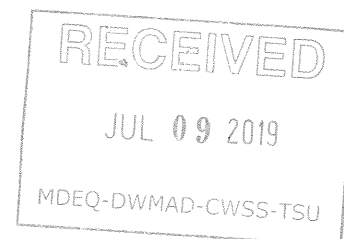
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB60B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 12:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.004	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
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269 927-5623



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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47980  
Work Order: 90700539\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB60B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 12:15
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.021	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47981  
Work Order: 90700540\_01

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB51B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/24/2019 19:10
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.012	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47982**  
**Work Order: 90700540\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB51B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/24/2019 19:10
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:16
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.017	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47983**  
**Work Order: 90700541\_01**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB42B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 12:45
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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**Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623**



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47984**  
**Work Order: 90700541\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST,BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB42B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 12:45
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623

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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47985**  
**Work Order: 90700542\_01**

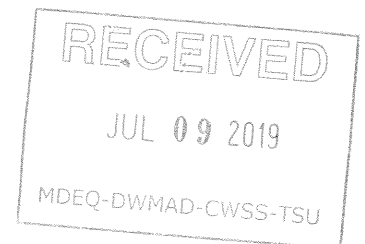
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL STREET, BENTON HARBO	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB44B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
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Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47986  
Work Order: 90700542\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB44B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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269 927-5623

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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47987**  
**Work Order: 90700543\_01**

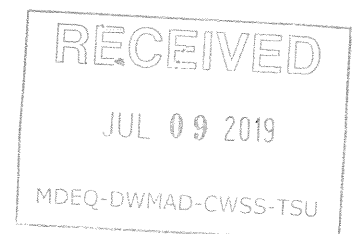
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB48B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 19:07
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.005	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623



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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47988**  
**Work Order: 90700543\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB48B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 19:07
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.004	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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Benton Harbor, MI 49022  
269 927-5623

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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47989  
Work Order: 90700544\_01

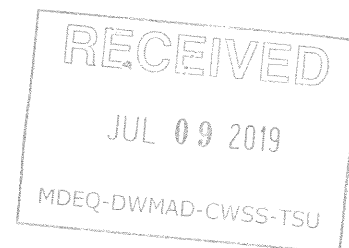
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB43B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 05:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623



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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47990**  
**Work Order: 90700544\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB43B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 05:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47991  
Work Order: 90700545\_01

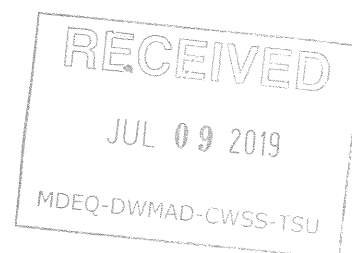
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB38B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/24/2019 23:30
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.007	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47992**  
**Work Order: 90700545\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB38B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/24/2019 23:30
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.005	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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**Berrien County**  
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**Benton Harbor, MI 49022**  
**269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47993**  
**Work Order: 90700546\_01**

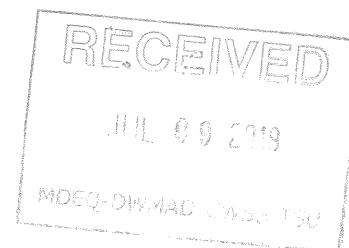
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB20B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 19:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.005	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47994  
Work Order: 90700546\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB20B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 19:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.012	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47997**  
**Work Order: 90700548\_01**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB23B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 07:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.001	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI47998  
Work Order: 90700548\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB23B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 07:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI47999**  
**Work Order: 90700549\_01**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB40B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/28/2019 08:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.007	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48000  
Work Order: 90700549\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB40B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/28/2019 08:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.007	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
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ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48001**  
Work Order: 90700550\_01

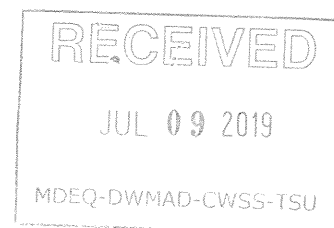
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB52B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 12:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48002  
Work Order: 90700550\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB52B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 12:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48003**  
**Work Order: 90700551\_01**

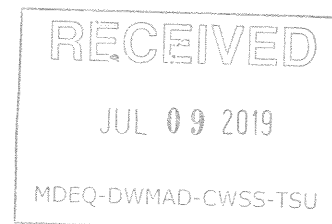
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB54B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 07:45
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.011	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48004  
Work Order: 90700551\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB54B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 07:45
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.004	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48005**  
**Work Order: 90700552\_01**

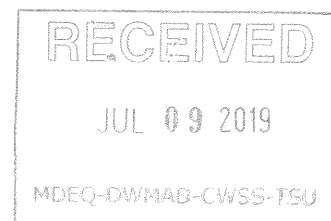
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB58B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 06:30
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.004	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

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CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48006**  
**Work Order: 90700552\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB58B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 06:30
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48007**  
Work Order: 90700553\_01

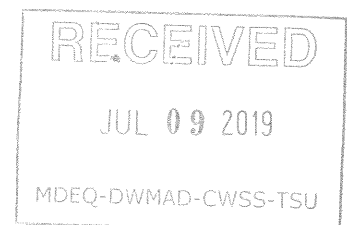
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB9B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:15
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Laboratory Contact: Marlene Kane



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER LABORATORY  
USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48008  
Work Order: 90700553\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB9B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 06:15
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.005	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48009**  
**Work Order: 90700554\_01**

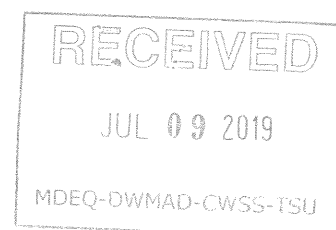
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB5B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 20:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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269 927-5623



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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48010  
Work Order: 90700554\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB5B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 20:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.002	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48011**  
**Work Order: 90700555\_01**

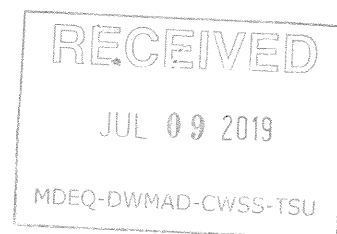
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB32B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 09:45
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.013	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623



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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER LABORATORY  
USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48012  
Work Order: 90700555\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB32B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 09:45
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.021	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48013**  
**Work Order: 90700556\_01**

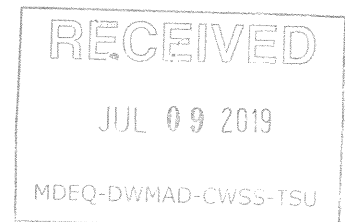
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB11B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 13:20
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.031	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48014**  
Work Order: 90700556\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB11B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 13:20
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.008	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48015**  
**Work Order: 90700557\_01**

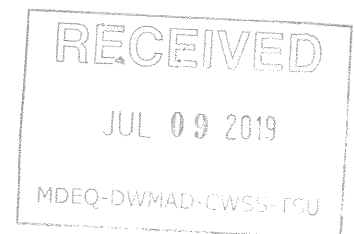
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB7B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 07:07
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.022	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
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269 927-5623



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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
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CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



MICHIGAN DEPARTMENT OF  
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MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER LABORATORY  
USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48016  
Work Order: 90700557\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB7B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 07:07
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.035	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48017**  
Work Order: 90700558\_01

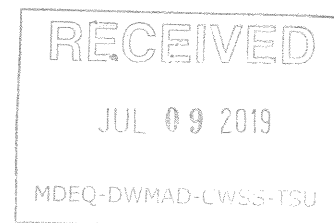
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB39B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 07:15
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.023	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48018  
Work Order: 90700558\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB39B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 07:15
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.008	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48019**  
**Work Order: 90700559\_01**

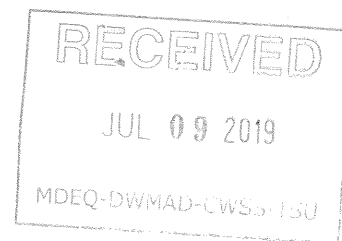
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB36B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 06:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.013	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
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269 927-5623



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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48020**  
**Work Order: 90700559\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB36B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 06:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.005	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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**Berrien County**  
**2149 E. Napier Ave.**  
**Benton Harbor, MI 49022**  
**269 927-5623**

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48021**  
**Work Order: 90700560\_01**

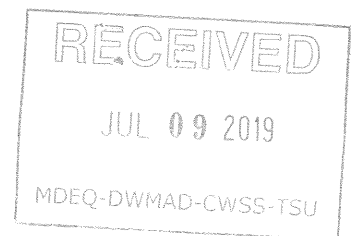
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB19B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 16:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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**Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623**



RL: Reporting Limit  
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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48022  
Work Order: 90700560\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB19B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 16:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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269 927-5623

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48025  
Work Order: 90700562\_01

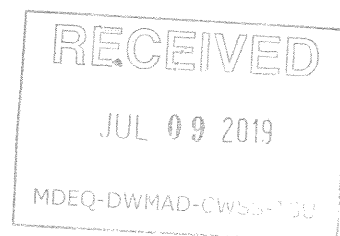
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB16B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 08:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.005	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623



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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48026  
Work Order: 90700562\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB16B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 08:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.005	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623

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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48027  
Work Order: 90700563\_01

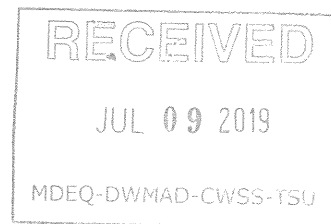
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB37B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 07:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623



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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48028**  
**Work Order: 90700563\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB37B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 07:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48029**  
**Work Order: 90700564\_01**

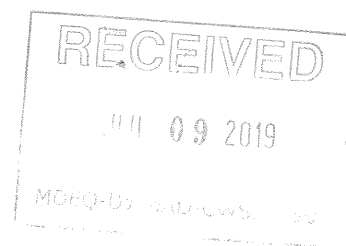
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB27B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 13:30
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.059	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48030  
Work Order: 90700564\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB27B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/27/2019 13:30
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.029	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48035**  
**Work Order: 90700567\_01**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB30B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 10:30
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.006	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48036**  
**Work Order: 90700567\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB30B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 10:30
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623**

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ng/L: nanograms / Liter (ppt)  
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CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48038**  
**Work Order: 90700568\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB41B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 06:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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**Benton Harbor, MI 49022**  
**269 927-5623**

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48037**  
**Work Order: 90700568\_01**

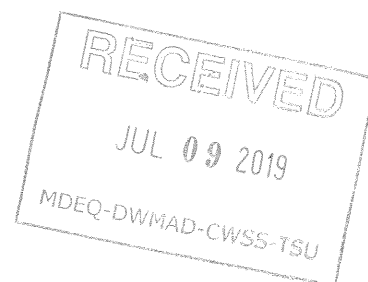
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB41B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/26/2019 06:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI48039  
Work Order: 90700569\_01

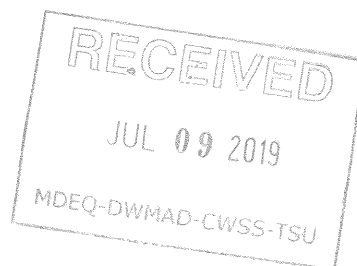
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB46B1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 18:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	0.10	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.012	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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Berrien County  
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269 927-5623



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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI48040**  
**Work Order: 90700569\_02**

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	JPB46B5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	06/25/2019 18:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	07/03/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	07/08/2019	1.3	EPA 200.8	7440-50-8
Lead	0.012	mg/L	0.001	07/08/2019	0.015	EPA 200.8	7439-92-1

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**Berrien County  
2149 E. Napier Ave.  
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269 927-5623**

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
LANSING



LIESL EICHLER CLARK  
DIRECTOR

January 16, 2020

VIA E-MAIL AND U.S. MAIL

Mr. Ellis Mitchell  
City of Benton Harbor  
200 Wall Street  
Benton Harbor, Michigan 49022

WSSN: 00600  
County: Berrien  
Supply: Benton Harbor

Dear Mr. Mitchell:

SUBJECT: Lead and Copper Monitoring - Action Level (AL) Exceedance

During the most recent round of lead and copper monitoring of drinking water taps, from July 1, 2019, through December 31, 2019, Benton Harbor community water supply's 90<sup>th</sup> percentile value exceeded the AL for lead as summarized below.

Contaminant	AL	MCLG*	90 <sup>th</sup> Percentile Value	Number of Sites Above AL	Range of Sample Results	Typical Source of Contaminant
Lead	15 parts per billion (ppb)	0	32 ppb	10	0 ppb – 72 ppb	Corrosion of household plumbing systems; Service lines that may contain lead; Erosion of natural deposits
Copper	1.3 parts per million (ppm)	1.3	0 ppm	0	0 ppm – 0.1 ppm	Corrosion of household plumbing systems; Erosion of natural deposits

\*MCLG: Maximum contaminant level goal means the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

An AL exceedance is not a violation, but it triggers other requirements under the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Requirements include water quality parameter (WQP) monitoring, source water monitoring, corrosion control treatment, and public education (PE). Please refer to the "Timetable of Upcoming Requirements" for your specific deadline for each of the following requirements.

**Issue a Public Advisory (PA)**

An amendment to Act 399 on March 29, 2017, requires a public water supply to issue a PA within three business days from the date of this letter to inform all persons served by the water system about the lead AL exceedance. It is the intent of the Department of Environment, Great Lakes, and Energy (EGLE) to work with you to develop the PE materials to distribute to your customers to fulfill both the PA and PE requirements simultaneously. A template has already been provided to you. If you plan to use broadcast media as your delivery method, please contact EGLE.

### **Deliver Consumer Notice of Lead and Copper Results**

Thank you for completing this requirement timely.

### **Distribute PE**

Sixty days from the date of this letter or sixty days after the end of the monitoring period that exceeded the AL, whichever is sooner, deliver PE materials to all consumers. As previously mentioned, it is your intent to develop and distribute the PE materials within three business days to fulfill both the PA and PE requirements simultaneously.

This material is intended to educate consumers about lead health effects, sources of lead, and steps to minimize exposure. Note that the PE material must include information about the following: the exceedance in your water supply, what you are doing to reduce lead levels, lead service lines in your distribution system, and the history of lead levels in your water supply. A template has already been provided to you.

A sample copy of the final PE material along with a PE distribution certification form must be submitted to EGLE no later than ten days after the PE is due. Repeat each year until the lead AL is no longer exceeded.

### **Conduct WQP Monitoring**

Continue collecting one set of WQP samples every two weeks from the entry point to the distribution system, TP001 (Treatment Plant Tap), and quarterly from ten locations in the distribution system. The WQP samples shall be analyzed for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature. Temperature and pH are field tests and should be completed at the time of sample collection.

If you use EGLE's laboratory, order bottles by calling 517-335-8184, or by downloading the form EQP 2301 *Bottle Order Form* from [Michigan.gov/EGLELab](http://Michigan.gov/EGLELab). Click on Drinking Water. The tests are analyzed from one sample bottle per location. Request the analyses using the following test codes:

Test Code	Cost	Bottle Number	Test Description
CORR	\$51.00	33	Conductivity, Alkalinity, Phosphate, and Calcium
R	\$18.00	32,33	Chloride, Sulfate

### **Conduct Source Water Monitoring**

Thank you for completing this requirement timely. You completed this requirement on March 16, 2019. You must repeat this sampling every third year until both lead and copper ALs are met during the entire three-year period.

### **Correct the Problem**

Minimize lead and copper in drinking water by reducing corrosion of water pipes and household plumbing that contain lead and copper. This is your third AL exceedance. A letter regarding changes to your current corrosion control treatment will be sent under separate cover from Mr. Ernie Sarkipato, Surface Water Engineer, Engineering Unit, Environmental Health Section, Drinking Water and Environmental Health

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Division (DWEHD); and Mr. Brandon Onan, Supervisor, Lead and Copper Unit, Community Water Supply Section, DWEHD.

### **Lead and Copper Monitoring**

You have already increased your lead and copper monitoring. Please continue to collect samples from 60 sites between January 1 and June 30, 2020, and again between July 1 and December 31, 2020.

When selecting new sites, choose the highest Tier criteria available within the distribution system, giving Tier 1 sites first priority. Please see the enclosed tiering criteria to help inform your site selection process. If you have Tier 1 or Tier 2 sites, i.e. sites with a lead service line, compliance sampling will require that you collect a first-liter and fifth-liter sample from each sampling location.

Within 30 days of learning of the results from the samples, provide individual lead and copper tap results to people who receive water from sites that were sampled. Even if lead or copper was not detected, all monitoring, reporting, consumer notification, and EGLE certification requirements remain in effect.

### **Consumer Confidence Report (CCR)**

Include this AL exceedance in your CCR, which is due to our office, your customers, and the local health department by July 1, 2020. You may use the table format from the first page of this letter.

Also, because the lead AL was exceeded, include the following health effects language:

*Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development.  
Children could show slight deficits in attention span and learning abilities.  
Adults who drink this water over many years could develop kidney problems or high blood pressure.*

### **What Happens Next?**

If you can show that both lead and copper ALs are met in two consecutive six-month periods, then many of the requirements outlined in this letter will no longer apply.



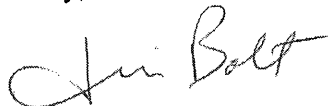
### Timetable of Upcoming Requirements

Complete By	Requirement	Comments
Within three business days	Distribute a PA.	Distribute a PA to inform all persons served by the water supply of the lead AL exceedance. Distribution of the notice must be in a form and manner designed to fit the specific situation and must be reasonably calculated to reach all persons served by the public water supply.
Every two weeks	Collect WQP samples. (Entry Point)	Continue collecting one set of WQP samples every two weeks from the entry point to the distribution system, TP001 (Treatment Plant Tap). Analyze the samples for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature.
February 29, 2020	Perform PE activities including delivering PE materials to all consumers.	PE required activities are listed in enclosed template and checklist. Repeat every year until the lead AL is met in the most recent round of sampling.
March 10, 2020	Send EGLE certification of PE compliance along with a sample copy of the materials delivered.	Sample certification enclosed. Required within ten days of PE distribution.
Between January 1 and June 30, 2020	Collect samples from 60 sites in the distribution system and have them analyzed for lead and copper.	Report the results to EGLE and deliver the consumer notice of individual lead and copper results using the downloadable <i>Lead and Copper Report and Consumer Notice for Community Water Supply</i> (download form at <a href="http://Michigan.gov/LCR">Michigan.gov/LCR</a> ). <b>Report due July 10, 2020.</b>
Between January 1 and June 30, 2020	Collect WQP samples. (Distribution system)	Collect one set of WQP samples from ten locations in the distribution system <u>quarterly</u> . Analyze the samples for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature.
July 1, 2020	Report the 2019 AL exceedance in the CCR.	Specific lead health effects language must be included.
Between July 1 and December 31, 2020	Collect samples from 60 sites in the distribution system and have them analyzed for lead and copper.	Report the results to EGLE and deliver the consumer notice of individual lead and copper results using the downloadable <i>Lead and Copper Report and Consumer Notice for Community Water Supply</i> (download form at <a href="http://Michigan.gov/LCR">Michigan.gov/LCR</a> ). <b>Report due January 10, 2021.</b>
Between July 1 and December 31, 2020	Collect WQP samples. (Distribution system)	Collect one set of WQP samples from ten locations in the distribution system <u>quarterly</u> . Analyze the samples for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature.
September 29, 2020	For the January through June 2020 monitoring, send EGLE certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download the <i>Lead and Copper Report and Consumer Notice for Community Water Supply</i> in Word or PDF format from <a href="http://Michigan.gov/LCR">Michigan.gov/LCR</a> .
March 31, 2021	For the July through December 2020 monitoring, send EGLE certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download <i>Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate</i> in Word or PDF format from <a href="http://Michigan.gov/LCR">Michigan.gov/LCR</a> .
March 31, 2022	Collect one lead and copper sample from your entry point to the distribution system.	Repeat every third year until both ALs are met for the whole three-year period.


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We recognize that the Lead and Copper Rule is complex and may be confusing. We will continue to offer assistance in implementing these regulations. If you have any questions, please contact us at BoltJ@Michigan.gov; OnanB@Michigan.gov; or at the phone numbers provided below.

Sincerely,



Jeni Bolt, Environmental Quality Specialist  
Lead and Copper Unit  
Drinking Water and Environmental  
Health Division  
517-331-5161



Brandon Onan, Supervisor  
Lead and Copper Unit  
Drinking Water and Environmental  
Health Division  
616-307-6736

Enclosures (PA Checklist, PE Checklist, WQP Report Form, Tier Criteria)

cc/enc: Mr. Mike O'Malley, City of Benton Harbor

Ms. Nicki Britten, Berrien County Health Department

Mr. Nick Margaritis, Berrien County Health Department

Mr. Steve Crider, Michigan Department of Health and Human Services

Mr. Mike Bolf, EGLE

Mr. Ernie Sarkipato, EGLE

Mr. Jeremy Klein, EGLE





MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION

**LEAD AND COPPER REPORT AND  
CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY  
FORM A – SUPPLIES WITH LEAD SERVICE LINES**

Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399,  
as amended (Act 399), MCL 325.1001 et seq., and the Administrative Rules.

Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within ten days after the end of the monitoring period. This form may be used to meet this requirement. Form instructions are available on pages 8 - 10. Submit the information to the appropriate Michigan Department of Environment, Great Lakes, and Energy (EGLE) district office.

1. Supply Name: Benton Harbor Water  
2. County: Berrien 3. WSSN: 0600  
4. Population: 9,639 5. Monitoring Period: From: 7/1/2019 To: 12/31/2019  
6. Minimum # of Samples Required: 7. # of Samples Taken: 40  
8. Name of Certified Laboratory: 8 to MDEQ the rest to Eurofins Eaton Analytical

9. SAMPLE CRITERIA:

This form is for water supplies collecting <u>some</u> or <u>all</u> lead and copper samples from sites WITH LEAD SERVICE LINES. All other supplies should use Form B.	
Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are some or all samples from sites WITH lead service lines? If no sites served by a lead service line, STOP and use Form B.	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
AN Tier 1 sites	Did you prioritize sample collection according to the following: <ul style="list-style-type: none"><li>• Tier 1 sites must be used unless insufficient Tier 1 sites available.</li><li>• If insufficient Tier 1 sites available, then Tier 2 sites must be used.</li><li>• If insufficient Tier 2 sites, then Tier 3 sites must be used.</li><li>• If no Tier 1, 2, or 3 sites are available, sites must be representative of plumbing materials typically found throughout the water system.</li></ul>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Were the same sampling sites used as in the previous monitoring period? If no, explain (attach additional pages if needed): Identify by New Code or Newcode Previous EGLE Code	

For more information see Instructions item 11 "Tier and Sample Category" at the end of the document.

Comments:

I am sorry, I use Excel for all data, 3 tables attached in Landscape Print  
This word document I cannot edit Eurofins Sample reports attached in their entire form (Eurofins EGLE).  
I did not attach EGLE Sample Results (7 of 8)

10. SIGNATURE:

Name: Mike O'Malley

Signature:

Benton Harbor Water  
Title: Operator IN Charge

Phone: (269) 363-0575

Date: 1/9/20

# 11. TAP SAMPLING DATA

Use additional sheets as needed. Sheet 1 of 3.

Water Supply Name: Benton Harbor

WSSN: 0600

Lab Sample Numbers ~~at~~  
with only numbers are  
from Eurofins

Sample Location * was sampled before; and Past EGLE Code	Sample Date	Tier (1,2,3,OT) 1	Category (see below) <sup>2</sup>	Building Plumbing (L,C,G,P) <sup>3</sup>	Service Line (L*,C,G,P) <sup>3</sup>	Tap Type (K,B) <sup>4</sup>	1 <sup>st</sup> Liter Sample				5 <sup>th</sup> Liter Sample			
							Lead ug/L	Copper mg/L	Lab Sample Number	Lead ug/L	Copper mg/L	Lab Sample Number		
OctPb14	11/12/2019	1	A	N/A	L or PSLR	K	0	8.6	4488794	0	8	4488795		
JPb 29*	12/2/2019	1	A	N/A	L or PSLR	K	0	2.4	4512569	0	2.1	4512570		
JPb 4*	12/10/2019	1	A	N/A	L or PSLR	K	9.2	15	4516476	6.3	2.5	4516477		
JPb 27*	12/10/2019	1	A	N/A	L or PSLR	K	33	5.1	4516488	21	2.8	4516489		
JPb 39*	12/17/2019	1	A	N/A	L or PSLR	K	10	8.6	4523031	7.8	3.4	4523032		
OctPb12* JPb22	11/7/2019	1	A	N/A	L or PSLR	K	4.4	2.5	4488796	3.9	3.6	4488797		
CCNPb 28* JPb48	11/29/2019	1	A	N/A	L or PSLR	K	3.1	11	4512929	3.1	11	4512550		
NPb 10* JPb47	12/4/2019	1	A	N/A	L or PSLR	K	72	7.8	4512571	39	11	4512572		
NPb12* JPb50	12/9/2019	1	A	N/A	L or PSLR	K	38	3.6	4512565	24	1.6	4512566		
NPb 13* JPb51	12/9/2019	1	A	N/A	L or PSLR	K	8.6	4	4512563	5.3	2.1	4512563		
NPb 4* JPb29	12/2/2019	1	A	N/A	L or PSLR	K	22	3.4	4512551	32	5.1	4512552		
NPb 5* JPb32	12/2/2019	1	A	N/A	L or PSLR	K	10	15	4512553	12	1.8	4512554		
NPb 17* JPb8	12/9/2019	1	A	N/A	L or PSLR	K	23	53	4512575	9.4	2.1	4512576		
NPb 16* JPb7	12/10/2019	1	A	N/A	L or PSLR	K	25	1.6	4512573	18	0	4512574		

Sample Codes w/ LIXXXXX are from EGLE Lab Reports

Sample Location * was sampled before; and Past EGLE Code	Sample Date	Tier (1,2,3,OT) 1	Category (see below) <sup>2</sup>	Building Plumbing (L,C,G,P) <sup>3</sup>	Service Line (L,C,G,P) <sup>3</sup>	Tap Type (K,B) <sup>4</sup>	1 <sup>st</sup> Liter Sample			5 <sup>th</sup> Liter Sample		
							Lead ug/L	Copper mg/L	Lab Sample Number	Lead ug/L	Copper mg/L	Lab Sample Number
OctPb1* jPb1	11/1/2019	1	A	N/A	L or PSLR	K	0	0	U174912	0	0	U174911
OctPb2* jPb14	10/29/2019	1	A	N/A	L or PSLR	K	7	0	U174907	7	0	U174908
OctPb3	11/1/2019	1	A	N/A	L or PSLR	K	4	0	U174909	3	0	U174910
OctPb5* jPb20	10/26/2019	1	A	N/A	L or PSLR	K	4	0	U174916	4	0	U174915
OctPb6* jPb60	10/29/2019	1	A	N/A	L or PSLR	K	2	0	U174914	5	0	U174913
OctPb9	10/29/2019	1	A	N/A	L or PSLR	K	2	0	U174930	2	0	U174929
OctPb10	10/25/2019	1	A	N/A	L or PSLR	K	2	0	U174928	0	0	U174927
CCNPb 7	12/4/2019	1	A	N/A	L or PSLR	K	3.4	12	4512555	1.9	1.8	4512556
CCNPb 34	12/1/2019	1	A	N/A	L or PSLR	K	0	7.2	4512557	0	8.5	4512558
CCNPb 29	12/3/2019	1	A	N/A	L or PSLR	K	8.4	16	4512559	1.6	7.3	4512560
CCNPb25	12/8/2019	1	A	N/A	L or PSLR	K	9.3	3.3	4512561	1.8	1.5	4512562
OctPb 11	12/2/2019	1	A	N/A	L or PSLR	K	0	0	4512567	0	1.5	4512568
CCNPb 5	12/11/2019	1	A	N/A	L or PSLR	K	3.6	2.5	4546488	2.2	4	4546489
SCT 1	12/12/2019	1	A	N/A	L or PSLR	K	0	3.4	4516480	0	1.4	4516481
SCT 3	12/12/2019	1	A	N/A	L or PSLR	K	0	3	4516482	0	2	4516483
SCT 5	12/12/2019	1	A	N/A	L or PSLR	K	0	7.1	4516484	0	6	4516485

Sample Location * was sampled before; and Past EGLE Code	Sample Date	Tier (1,2,3,OT) 1	Category (see below) <sup>2</sup>	Building Plumbing (L,C,G,P) <sup>3</sup>	Service Line (L*,C,G,P) <sup>3</sup>	Tap Type (K,B) <sup>4</sup>	1 <sup>st</sup> Liter Sample			5 <sup>th</sup> Liter Sample		
							Lead ug/L	Copper mg/L	Lab Sample Number	Lead ug/L	Copper mg/L	Lab Sample Number
CCNPb 31	12/15/2019	1	A	N/A	L or PSLR	K	0	28	4516486	0	2	4516487
CCNPb 1	12/10/2019	1	A	N/A	L or PSLR	K	4.9	4.1	4516490	11	2.8	4516491
CCNPb 16	12/15/2019	1	A	N/A	L or PSLR	K	3.7	18	4516492	14	2.9	4596493
CCNPb 17	12/16/2019	1	A	N/A	L or PSLR	K	5.6	4	4523023	0	1.6	4523024
TGPb 1	12/17/2019	1	A	N/A	L or PSLR	K	2.3	1.2	4523025	19	4.8	4523026
EPDPb 8	12/18/2019	1	A	N/A	L or PSLR	K	19	4.8	4523027	40	2.2	4523028
EPDPb 9	12/18/2019	1	A	N/A	L or PSLR	K	18	6.7	4523029	11	1.6	4523030
EPDPb 1	12/20/2019	1	A	N/A	L or PSLR	K	0	4.9	4523033	0	1.6	4523034
EPDPb 4	12/21/2019	1	A	N/A	L or PSLR	K	19	3.6	4523041	30	2	4523042



MI 0600 Benton Harbor Lead Copper Report Certification  
1/10/20

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EGLE

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A  
EQP5942a

## CONSUMER NOTICE OF LEAD AND COPPER RESULTS REQUIREMENTS AND CERTIFICATION

Each community water supply must deliver a Consumer Notice of Lead and Copper Results (Consumer Notice) to the occupants at each location sampled within 30 days of learning the sample results as required under R 325.10410(5) of the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended. Failure to deliver the Consumer Notice to each location on time will result in a reporting violation.

### Instructions:

- Use the Consumer Notice Form A template for sites with lead service lines or Consumer Notice Form B template for sites without lead service lines. See the examples on Page 10 to document results from both sites with a lead service line and without a lead service line.
- Complete one Consumer Notice for each home or building that was sampled. **MAKE SURE UNITS ARE CORRECT BEFORE DISTRIBUTING TO CONSUMERS.**

Note: 1 mg/L = 1 ppm = 1,000 ppb

Example: 0.002 mg/L = 0.002 ppm = 2 ppb

- Mail or hand deliver each Consumer Notice to the corresponding home or building sampled.
- Water supplies have 90 days after the end of the monitoring period to submit a sample copy of the Consumer Notice along with a signed certification that notices have been distributed as required under R 325.10710d(f)(3) to the appropriate EGLE district office. When possible, EGLE encourages water supplies to send the sample Consumer Notice and certification (page 4 of this document) along with the Lead and Copper Report (pages 1 and 2 of this document), which is due within ten days after the end of the monitoring period. Please **COMPLETE** all forms accurately to avoid resubmittal.

### Certification:

I hereby certify that the Consumer Notice of Lead and Copper Results (Consumer Notice) has been provided to persons served at each of the taps that were tested, including all the following information:

- Delivery was by mail, hand delivery, or another method approved by EGLE.
- Delivery was within 30 days of knowing the result.
- Consumer Notice includes required content:
  - The results of lead and copper tap monitoring for the site that was sampled.
  - An explanation of the health effects of lead and copper.
  - Steps consumers can take to reduce exposure to lead in drinking water.
  - Contact information for the public water supply.
  - The maximum contaminant level goal and the action level for lead and copper with the definitions explaining each.

Please **initial** each line verifying that each requirement was completed:

- 1/2 A Consumer Notice was sent to persons served at each of the taps that were tested.
- 1/2 Delivery was by mail, hand delivery, or another method approved by EGLE.
- 1/2 Each Consumer Notice was delivered to the resident within 30 days of knowing the results.
- 1/2 Each Consumer Notice included the required content as stated above.
- 1/2 A sample copy of a Consumer Notice sent to a resident is attached.

Signature

Title

Date

Benton Harbor Water Operator In Charge

1/10/20

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LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A

**EGLE**

EQP5942a

**CONSUMER NOTICE OF LEAD AND COPPER RESULTS IN DRINKING WATER at a SITE  
WITH A LEAD SERVICE LINE OR A PORTION OF OR REPLACED BY A COPPER LINE**

Thank you for helping Benton Harbor get the Lead Out. The City Water Department exceeded the Lead Action Level in September, 2018. Many things had to happen, specifically, The City was required to go back to the Original Sampling Date (1991) and collect 2 sets of 60 samples in 2019. This October to December was our 2nd set and these. Thank you for your help and here are your testing results.

We will be required to repeat the process by June and by December in 2020. We are hopeful that the State will reduce the sampling requirements from 60 to 40 residential locations.

If you would like to participate in 2020's sampling, please call Toni at the Water Plant (269) 447-1945, please be patient with our new phones. If you do not get an answer, please leave a message.

If you have sampled before and the results look different, that is likely due to the new Lead Corrosion Treatment we started using March 26, 2019. This treatment is specifically designed to isolate and hold to the pipe wall; the Lead and other metals from the tap water in order to eliminate those heavy metal contaminants from your home's drinking water. This corrosion treatment has been working 9 months and has had a sporadic effect in the tests results this sampling period. Scientists suggest it will take 18 months to see the full effect. The good news, is that the Corrosion Factor calculation we used in the laboratory with your help has show a steady improvement in the NON Corrosive realm. It appears that we are on the right path and as we put more in every day for as long as it takes to physically remove All Lead in the System. Removal will be expensive and will take a long time to raise all the money needed.

Water Supply Name: Benton Harbor Water WSSN#: MI0600; Berrien County, MI.

Name: [REDACTED]  
JPb22

Address: [REDACTED]

Your Home's Code: OctPb12\*

Thank you for participating in the lead and copper monitoring of drinking water. The levels of lead and copper found at your location are in the table below. Your home is served by a known lead service line, a presumed Lead Service line or was served at 1 time by lead; but replaced with Copper. This means that the pipe that brings water to your home contains lead. The first liter sample represents the water you are likely from internal plumbing materials that slough off when turning on the tap, and the fifth liter sample likely represents the water in the service line.

Contaminant	Action Level	Maximum Contaminant Level Goal	Your 1 <sup>st</sup> Liter Result	Your 5 <sup>th</sup> Liter Result
Lead (ppb)	15	0	4.4	3.9
Copper (ppb)	1300	1300	2.5	3.6

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**ppb:** Parts per billion or micrograms per liter.

**ND:** Not detected.

To reduce exposure to lead and copper in drinking water:

- **Run your water before drinking.** The more time water has been sitting in your home's pipes, the more lead it may contain. Therefore, if your water has not been used for several hours, run the water before using it for drinking or cooking. This flushes lead-containing water from the pipes. Additional flushing may be required

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for homes that have been vacant or have a longer service line.

- If you **do not** have a lead service line, run the water for 30 seconds to two minutes, or until it becomes cold or reaches a steady temperature.
- If you **do** have a lead service line, run the water for at least five minutes to flush water from both the interior building plumbing and the lead service line.
- **Use cold water for cooking and preparing baby formula.** Do not cook with or drink water from the hot water tap. Lead and copper dissolves more easily in hot water.
- **Do not boil water to remove lead and copper.** Boiling water will not reduce lead and copper levels.
  - **Consider using a filter to reduce lead in drinking water.** Read the package to be sure the filter is NSF 53 certified to reduce lead or contact NSF International at 800-NSF-8010, or [www.nsf.org](http://www.nsf.org) for more information.
- **Consider purchasing bottled water.** The bottled water standard for lead is 5 ppb.
- **Identify older plumbing fixtures that likely contain lead.** Older faucets, fittings, and valves sold before 2014 may contain higher levels of lead, even if marked "lead-free." Faucets, fittings, and valves sold after January 2014 are required to meet a more restrictive "lead-free" definition but may still contain up to 0.25 percent lead.
  - **Clean your aerator.** As part of routine maintenance, the aerator should be removed at least every six months to rinse out any debris that may include particulate lead.
  - **Get your child tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.

**Lead** can cause serious health and developmental problems. It can cause damage to the brain and kidneys, and it can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Although other sources of lead exposure exist, such as lead paint, and lead contaminated dust, your water supply is contacting you to reduce your risk of exposure to lead in drinking water. If you have questions about other sources of lead exposure, please contact your local health department.

**Copper** is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Although the primary sources of lead exposure for most children are from deteriorating lead-based paint, lead- contaminated dust, and lead-contaminated soil, the United States Environmental Protection Agency (U.S. EPA) estimates that 20 percent or more of human exposure to lead may come from drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water.

For more information on reducing lead exposure around your home and the health effects of lead, visit the U.S. EPA's website at [www.epa.gov/lead](http://www.epa.gov/lead), call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

For more information on copper, visit the United States Center for Disease Control website at [www.atsdr.cdc.gov/index.html](http://www.atsdr.cdc.gov/index.html), or contact your health provider.



City of Benton Harbor  
200 East Wall Street  
Benton Harbor, Michigan 49022

B 4 of 4

Benton Harbor Water Department Report of Lead and Copper and Additional Testing Results.

Note  
Report Date: 1/10/2020

To: [REDACTED]; At: [REDACTED]; Code: OctPb12\* JPb22

Thank you for participating in our 2<sup>nd</sup> group of 60 testing sites for Lead and Copper. The samples you returned to us have been analyzed for Our new Corrosion Protection system by our laboratory operators. That was sample bottle #4.

Some of you did not receive a bottle 4 and will not have results in this table other than summary data below. Our water staff was overwhelmed by the flurry of trying to find 60 homes to help us. So, some of you did not get that 4<sup>th</sup> bottle with a cap.

In House	Testing	For Water	Quality	Parameters	June 2019	Lead Results
OPP Residual mg/L Target is set at 1.5 mg/L	Chloride results mg/L	Sulfate results mg/L	Chloride to Sulfate Ratio	A ratio < 1.0 is regarded as Not Corrosive.	To Compare June 2019 previous 1 <sup>st</sup> Draw Lead Result ppb	To Compare June 2019 previous 2 <sup>nd</sup> Draw Lead Result ppb
1.39	25.5	32	0.80		3	2
Avg OPP result	Max OPP result	Min OPP result	AVG Chloride Result	MAX Chloride Result	MIN Chloride Result	
1.30	1.51	1.01	23.16	26.00	20.00	
AVG Sulfate Result	Max Sulfate Result	Min Sulfate Result	AVG CSR value	MAX CSR value	MIN CSR value	
32.25	36.00	28.00	0.72	0.90	0.60	

OPP is our corrosion treatment it stands for Orthopolyphosphate. It is specific for Lead material and has a recommended rate of 1.5 mg/L. Michigan Water Quality Experts consider OPP as an excellent Lead corrosion inhibitor.

Additional Information is available on the City Web Site at [bhcity.us](http://bhcity.us).

Remember the Code Only is listed on the web site.

Your Code is: OctPb12\* JPb22

You can also visit the Berrien County Health Department's web site at [www.bchdmi.org](http://www.bchdmi.org) › Lead-Drinking-Water

Any questions you can call or email Mike O'Malley, Water Spt. at (269) 363-0575 and [momalley@cityofbentonharbormi.gov](mailto:momalley@cityofbentonharbormi.gov) Mike is hard to reach, email is readily available.



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL STREET  
BENTON HARBOR MI 49022

**Sample ID: LI74907**  
**Work Order: 91100584\_01**

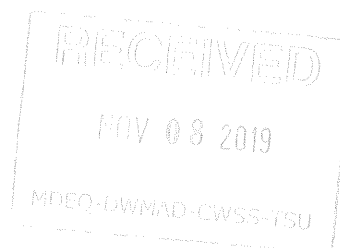
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL STREET, BENTON HARBO	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB 2-51
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	10/29/2019 08:45
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	11/05/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.007	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

**Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.**

**Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623**



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER LABORATORY  
USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL STREET  
BENTON HARBOR MI 49022

Sample ID: LI74908  
Work Order: 91100584\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL STREET, BENTON HARBO	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB2-S 5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	10/29/2019 09:15
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	11/05/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.007	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623

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AL: Action Level  
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ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL STREET  
BENTON HARBOR MI 49022

**Sample ID: LI74909**  
**Work Order: 91100585\_01**

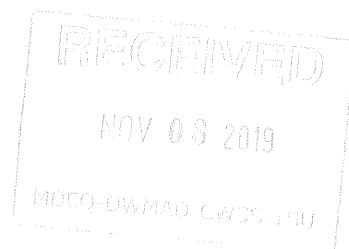
System Name/Owner:	BENTON HARBOR COMPLIANCE	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL STREET, BENTON HARBO	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB 3-S1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	11/01/2019 09:15
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	11/05/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.004	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623**



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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
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CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



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USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL STREET  
BENTON HARBOR MI 49022

Sample ID: LI74910  
Work Order: 91100585\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL STREET, BENTON HARBO	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB 3-S5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	11/01/2019 09:15
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	11/05/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.003	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623

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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL STREET  
BENTON HARBOR MI 49022

**Sample ID: LI74911**  
**Work Order: 91100586\_01**

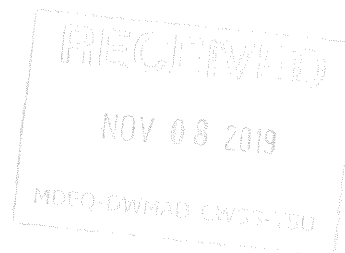
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL STREET, BENTON HARBO	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB13-5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	11/01/2019 06:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	11/05/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623**



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AL: Action Level  
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mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



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TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL STREET  
BENTON HARBOR MI 49022

Sample ID: LI74912  
Work Order: 91100586\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL STREET, BENTON HARBO	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB 1-51
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	11/01/2019
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	11/05/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623

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AL: Action Level

Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)

ng/L: nanograms / Liter (ppt)

MPN: Most Probable Number

CFU: Colony Forming Unit

CAS: Chemical Abstract Service

Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: **LI74913**  
Work Order: **91100587\_01**

System Name/Owner: BENTON HARBOR COMPLIANCE 2019  
Collection Address: 200 EAST WALL ST, BENTON HARBOR  
Collected By: RESIDENT  
Township/Well#/Section: //  
County: Berrien  
Sample Point: KITCHEN SINK FIFTH DRAW  
Water System: Public System Surface Water

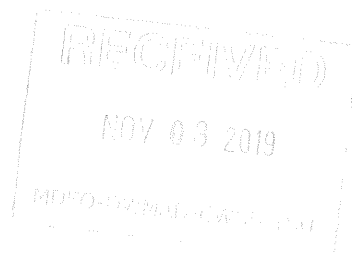
WSSN/Pool ID: 600  
Source: TYPE I  
Site Code: OCTPB6-5 5  
Collector: Other  
Date Collected: 10/29/2019 08:00  
Date Received: 11/05/2019 13:22  
Purpose: Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.005	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

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269 927-5623



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CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



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TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI74914  
Work Order: 91100587\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB6 S1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	10/29/2019 08:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	11/05/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.002	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

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AL: Action Level

Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI74915**  
**Work Order: 91100588\_01**

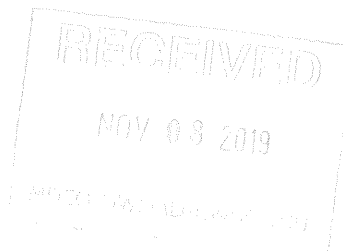
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB5 S5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	10/26/2019 07:00
Sample Point:	KITCHEN SINK FIFTH DRAW	Date Received:	11/05/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.004	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

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**Berrien County**  
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**Benton Harbor, MI 49022**  
**269 927-5623**



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Laboratory Contact: Marlene Kane





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Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI74916  
Work Order: 91100588\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB 5 S-1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	10/26/2019 07:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	11/05/2019 13:22
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.004	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

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Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit  
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AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: **LI74917**  
Work Order: **91100589\_01**

System Name/Owner: BENTON HARBOR COMPLIANCE 2019  
Collection Address: 200 EAST WALL ST, BENTON HARBOR  
Collected By: RESIDENT  
Township/Well#/Section: //  
County: Berrien  
Sample Point: KITCHEN SINK  
Water System: Public System Surface Water

WSSN/Pool ID: 600  
Source: TYPE I  
Site Code: OCTPB 13 S5  
Collector: Other  
Date Collected: 10/28/2019 06:30  
Date Received: 11/05/2019 13:23  
Purpose: Routine Monitoring

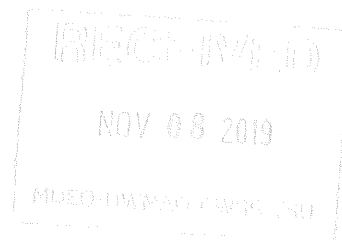
Sample Comment **LI74917** Sample was received at the laboratory for test code CCUB and was not accepted for testing, due to low sample volume submitted. Container must be filled to the base of the neck, per sample collection instructions.

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
^^^ NOT TESTED^^^					Not Tested		
					11/05/2019		
					NOTST-00-C		

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER LABORATORY  
USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI74918  
Work Order: 91100589\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB 13 S1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	10/28/2019 06:30
Sample Point:	KITCHEN SINK	Date Received:	11/05/2019 13:23
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

Sample Comment LI74918 Sample could not be analyzed for test code CCUB, due to sample LI74917 not being tested.

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
AAA NOT TESTED AAA	Not Tested			11/05/2019			NOTST-00-C

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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Berrien County  
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Benton Harbor, MI 49022  
269 927-5623

RL: Reporting Limit

MCL: Maximum Contaminant Level

AL: Action Level

Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)

ng/L: nanograms / Liter (ppt)

MPN: Most Probable Number

CFU: Colony Forming Unit

CAS: Chemical Abstract Service

Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI74928**  
**Work Order: 91100592\_02**

System Name/Owner: BENTON HARBOR COMPLIANCE 2019  
Collection Address: 200 EAST WALL ST, BENTON HARBOR  
Collected By: RESIDENT  
Township/Well#/Section: //  
County: Berrien  
Sample Point: KITCHEN SINK FIFTH DRAW  
Water System: Public System Surface Water

WSSN/Pool ID: 600  
Source: TYPE I  
Site Code: OCTPB 10 S1  
Collector: Other  
Date Collected: 10/25/2019 15:00  
Date Received: 11/05/2019 13:25  
Purpose: Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.002	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

**Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.**

**Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623**

RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



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DRINKING WATER LABORATORY  
USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI74927  
Work Order: 91100592\_01

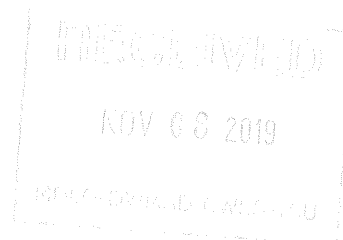
System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB10 S5
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	10/25/2019 15:00
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	11/05/2019 13:25
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	Not detected	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623



RL: Reporting Limit  
MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

**Sample ID: LI74929**  
**Work Order: 91100593\_01**

System Name/Owner: BENTON HARBOR COMPLIANCE 2019  
Collection Address: 200 EAST WALL ST, BENTON HARBOR  
Collected By: RESIDENT  
Township/Well#/Section: //  
County: Berrien  
Sample Point: KITCHEN SINK FIFTH DRAW  
Water System: Public System Surface Water

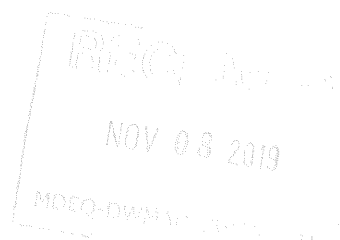
WSSN/Pool ID: 600  
Source: TYPE I  
Site Code: OCTPB 9 S5  
Collector: Other  
Date Collected: 10/29/2019 05:15  
Date Received: 11/05/2019 13:25  
Purpose: Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.001	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

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Benton Harbor, MI 49022  
269 927-5623



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MCL: Maximum Contaminant Level  
AL: Action Level  
Not Detected: Not detected at or above the reporting limit (RL)

mg/L: milligrams / Liter (ppm)  
ng/L: nanograms / Liter (ppt)  
MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



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FAX: (517) 335-8562

Official Laboratory Report

Report To: MIKE O'MALLEY  
200 EAST WALL ST  
BENTON HARBOR MI 49022

Sample ID: LI74930  
Work Order: 91100593\_02

System Name/Owner:	BENTON HARBOR COMPLIANCE 2019	WSSN/Pool ID:	600
Collection Address:	200 EAST WALL ST, BENTON HARBOR	Source:	TYPE I
Collected By:	RESIDENT	Site Code:	OCTPB S1
Township/Well#/Section:	//	Collector:	Other
County:	Berrien	Date Collected:	10/29/2019 05:15
Sample Point:	KITCHEN SINK FIRST DRAW	Date Received:	11/05/2019 13:25
Water System:	Public System Surface Water	Purpose:	Routine Monitoring

TESTING INFORMATION					REGULATORY INFORMATION		
Analyte Name	Result	Units	RL	Date Tested	MCL/AL	Method	CAS #
Copper	Not detected	mg/L	0.05	11/06/2019	1.3	EPA 200.8	7440-50-8
Lead	0.002	mg/L	0.001	11/06/2019	0.015	EPA 200.8	7439-92-1

The analyses performed by the EGLE Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below.

Berrien County  
2149 E. Napier Ave.  
Benton Harbor, MI 49022  
269 927-5623

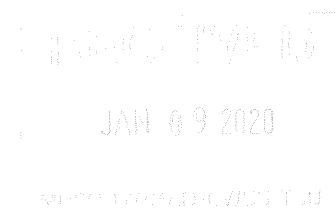
RL: Reporting Limit  
MCL: Maximum Contaminant Level  
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Not Detected: Not detected at or above the reporting limit (RL)

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MPN: Most Probable Number

CFU: Colony Forming Unit  
CAS: Chemical Abstract Service  
Laboratory Contact: Marlene Kane



## LABORATORY REPORT



If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

\*NELAP/TNI Recognized Accreditation Bodies



Eaton Analytical

110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor  
Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 471354  
Priority: Standard Written  
Status: Final  
PWS ID: MI0600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4488794	Oct Pb 14 Sample 1	200.8	11/11/19 05:00	Client	11/18/19 16:20
4488795	Oct Pb 14 Sample 5	200.8	11/11/19 05:00	Client	11/18/19 16:20
4488796	Oct Pb 12 Sample 1	200.8	11/10/19 06:00	Client	11/18/19 16:20
4488797	Oct Pb 12 Sample 5	200.8	11/10/19 06:00	Client	11/18/19 16:20

### Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Authorized Signature

Title

11/22/2019

Date

Client Name: City of Benton Harbor  
Report #: 471354

Client Name: City of Benton Harbor

Report #: 471354

Sampling Point: Oct Pb 14 Sample 1

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 I	1.0	8.6	ug/L	---	11/20/19 19:24	4488794
7439-92-1	Lead	200.8	15 I	1.0	< 1.0	ug/L	---	11/20/19 19:24	4488794

Sampling Point: Oct Pb 14 Sample 5

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 I	1.0	8.0	ug/L	---	11/20/19 19:28	4488795
7439-92-1	Lead	200.8	15 I	1.0	< 1.0	ug/L	---	11/20/19 19:28	4488795

Sampling Point: Oct Pb 12 Sample 1

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 I	1.0	2.5	ug/L	---	11/20/19 19:31	4488796
7439-92-1	Lead	200.8	15 I	1.0	4.4	ug/L	---	11/20/19 19:31	4488796

Sampling Point: Oct Pb 12 Sample 5

PWS ID: MI0600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 I	1.0	3.6	ug/L	---	11/20/19 19:34	4488797
7439-92-1	Lead	200.8	15 I	1.0	3.9	ug/L	---	11/20/19 19:34	4488797

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	Λ	!

### Lab Definitions

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Eaton Analytical

110 S. Hill Street  
South Bend, IN 46617  
T: 1.800.332.4345  
F: 1.574.233.8207

3857183  
11/18/19  
Order # 250409  
Batch # A71354

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### CHAIN OF CUSTODY RECORD

REPORT TO: Shaded area for EEA use only

REPORT TO:	M. McMillan		SAMPLER (Signature)		D. Dwyer		PWS ID #		STATE (sample origin)		PROJECT NAME		PO#		# OF CONTAINERS		MATRIX CODE		TURNAROUND TIME	
BILL TO:	M. McMillan		COMPLIANCE MONITORING		Yes		No		POPULATION SERVED		SOURCE WATER		M-F		Stydz		M-D			

LAB Number	COLLECTION				SAMPLING SITE		TEST NAME		SAMPLE REMARKS		CHLORINATED		# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
	DATE	TIME	AM	PM	Yes	No					YES	NO			
4488794	11/11/19	5:00	X		Oct Pb Sample 1		Lead & Copper				X		1	SW	SW
4488795	11/11/19	5:00	X		Oct Pb Sample 5						X		1	SW	SW
4488796	11/10/19	6:00	X		Oct Pb 12 11										
4488797	11/13/19	9:00	X		Oct Pb 12 Sample 5										
4488798	11/13/19	11:30	X		Stage 2 DBP Site 1		THM				X		3	SW	SW
4488799	11/13/19	11:30	X		Stage 2 DBP Site 2		THM				X		1	SW	SW
4488800	11/13/19	12:30	X		Blue water Thermal						X		3	SW	SW
4488801	11/13/19	12:30	X		TOC Raw water		TOC						1	SW	SW
4488802	11/13/19	12:30	X		TOC finished water		TOC				X		3	SW	SW

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	LAB COMMENTS	
	11/11/19	4:20				Client provided Pb & Cu bottles only. Date 11/18/19	
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	CONDITIONS UPON RECEIPT (check one):	
				11/18/19	16:00	Cool/Wet/Bottle Ambient N/A	

MATRIX CODES:	TURN-AROUND TIME (TAT) - SURCHARGES
DW-DRINKING WATER	SW = Standard Warrant: (15 working days) 0%
RW-REAGENT WATER	RV = Rush Warrant: (5 working days) 50%
GW-GROUND WATER	RW = Rush Warrant: (5 working days) 75%
EW-EXPOSURE WATER	
SW-SURFACE WATER	
PW-POOL WATER	
WW-WASTE WATER	

\* Please call, expedited service not available for all testing

100%  
125%  
CALL  
CALL

100%  
125%  
CALL  
CALL

100%  
125%  
CALL  
CALL

Sample analysis will be provided according to the standard EEA Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agreed to in writing by EEA.

06-LO-F0435 Issue 7.0 Effective Date: 2018-10-11

## LABORATORY REPORT

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LA000343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

\*NELAP/TNI Recognized Accreditation Bodies



Eaton Analytical

110 South Hill Street  
South Bend, IN 46617  
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Fax: (574) 233-8207  
1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor  
Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 473564  
Priority: Standard Written  
Status: Final  
PWS ID: MI600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4512549	CCNPb 28 Sample 1	200.8	11/30/19 06:05	Client	12/12/19 11:15
4512550	CCNPb 28 Sample 5	200.8	11/30/19 06:05	Client	12/12/19 11:15
4512551	NPb 4 Sample 1	200.8	12/03/19 07:00	Client	12/12/19 11:15
4512552	NPb 4 Sample 5	200.8	12/03/19 07:00	Client	12/12/19 11:15
4512553	NPb 5 Sample 1	200.8	12/03/19 13:50	Client	12/12/19 11:15
4512554	NPb 5 Sample 5	200.8	12/03/19 13:50	Client	12/12/19 11:15
4512555	CCNPb 7 Sample 1	200.8	12/05/19 17:30	Client	12/12/19 11:15
4512556	CCNPb 7 Sample 5	200.8	12/05/19 17:30	Client	12/12/19 11:15
4512557	CCNPb 34 Sample 1	200.8	12/02/19 14:50	Client	12/12/19 11:15
4512558	CCNPb 34 Sample 5	200.8	12/02/19 14:50	Client	12/12/19 11:15
4512559	CCNPb 29 Sample 1	200.8	12/04/19 04:30	Client	12/12/19 11:15
4512560	CCNPb 29 Sample 5	200.8	12/04/19 04:30	Client	12/12/19 11:15
4512561	CCNPb 25 Sample 1	200.8	12/09/19 07:15	Client	12/12/19 11:15
4512562	CCNPb 25 Sample 5	200.8	12/09/19 07:15	Client	12/12/19 11:15
4512563	NPb 13 Sample 1	200.8	12/09/19 08:00	Client	12/12/19 11:15
4512564	NPb 13 Sample 5	200.8	12/09/19 08:00	Client	12/12/19 11:15
4512565	NPb 12 Sample 1	200.8	12/10/19 10:00	Client	12/12/19 11:15
4512566	NPb 12 Sample 5	200.8	12/10/19 10:00	Client	12/12/19 11:15
4512567	OctPb 11 Sample 1	200.8	12/03/19 07:03	Client	12/12/19 11:15
4512568	OctPb 11 Sample 5	200.8	12/03/19 07:03	Client	12/12/19 11:15
4512569	JPb 29 Sample 1	200.8	12/03/19 04:35	Client	12/12/19 11:15
4512570	JPb 29 Sample 5	200.8	12/03/19 04:35	Client	12/12/19 11:15
4512571	NPb 10 Sample 1	200.8	12/05/19 07:50	Client	12/12/19 11:15
4512572	NPb 10 Sample 5	200.8	12/05/19 07:50	Client	12/12/19 11:15
4512573	NPb 16 Sample 1	200.8	12/11/19 09:15	Client	12/12/19 11:15
4512574	NPb 16 Sample 5	200.8	12/11/19 09:15	Client	12/12/19 11:15
4512575	NPb 17 Sample 1	200.8	12/10/19 10:30	Client	12/12/19 11:15
4512576	NPb 17 Sample 5	200.8	12/10/19 10:30	Client	12/12/19 11:15

### Report Summary

Note: Sample containers were provided by the client.

Client Name: City of Benton Harbor

Report #: 473564

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

*Note: This report may not be reproduced, except in full, without written approval from EEA.*



ASM

Authorized Signature

Title

12/19/2019

Date

Client Name: City of Benton Harbor

Report #: 473564

Client Name: City of Benton Harbor

Report #: 473564

Sampling Point: CCNPb 28 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	11	ug/L	---	12/16/19 16:13	4512549
7439-92-1	Lead	200.8	15 l	1.0	3.1	ug/L	---	12/16/19 16:13	4512549

Sampling Point: CCNPb 28 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	11	ug/L	---	12/16/19 16:15	4512550
7439-92-1	Lead	200.8	15 l	1.0	3.1	ug/L	---	12/16/19 16:15	4512550

Sampling Point: NPb 4 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	3.4	ug/L	---	12/16/19 16:22	4512551
7439-92-1	Lead	200.8	15 l	1.0	22	ug/L	---	12/16/19 16:22	4512551

Sampling Point: NPb 4 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	5.1	ug/L	---	12/16/19 16:24	4512552
7439-92-1	Lead	200.8	15 l	1.0	32	ug/L	---	12/16/19 16:24	4512552

Sampling Point: NPb 5 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	15	ug/L	---	12/16/19 16:26	4512553
7439-92-1	Lead	200.8	15 l	1.0	10	ug/L	---	12/16/19 16:26	4512553

Client Name: City of Benton Harbor

Report #: 473564

Sampling Point: NPb 5 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.8	ug/L	---	12/16/19 16:28	4512554
7439-92-1	Lead	200.8	15 !	1.0	12	ug/L	---	12/16/19 16:28	4512554

Sampling Point: CCNPb 7 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	12	ug/L	---	12/16/19 16:30	4512555
7439-92-1	Lead	200.8	15 !	1.0	3.4	ug/L	---	12/16/19 16:30	4512555

Sampling Point: CCNPb 7 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	1.8	ug/L	---	12/16/19 16:33	4512556
7439-92-1	Lead	200.8	15 !	1.0	1.9	ug/L	---	12/16/19 16:33	4512556

Sampling Point: CCNPb 34 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	7.2	ug/L	---	12/16/19 16:35	4512557
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	12/16/19 16:35	4512557

Sampling Point: CCNPb 34 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	8.5	ug/L	---	12/16/19 16:37	4512558
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	12/16/19 16:37	4512558

Client Name: City of Benton Harbor

Report #: 473564

Sampling Point: CCNPb 29 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	8.4	ug/L	---	12/16/19 16:44	4512559
7439-92-1	Lead	200.8	15 l	1.0	16	ug/L	---	12/16/19 16:44	4512559

Sampling Point: CCNPb 29 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	1.6	ug/L	---	12/16/19 16:46	4512560
7439-92-1	Lead	200.8	15 l	1.0	7.3	ug/L	---	12/16/19 16:46	4512560

Sampling Point: CCNPb 25 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	3.3	ug/L	---	12/16/19 16:52	4512561
7439-92-1	Lead	200.8	15 l	1.0	9.3	ug/L	---	12/16/19 16:52	4512561

Sampling Point: CCNPb 25 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	1.5	ug/L	---	12/16/19 16:55	4512562
7439-92-1	Lead	200.8	15 l	1.0	1.8	ug/L	---	12/16/19 16:55	4512562

Sampling Point: NPb 13 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	4.0	ug/L	---	12/16/19 16:57	4512563
7439-92-1	Lead	200.8	15 l	1.0	8.6	ug/L	---	12/16/19 16:57	4512563

Client Name: City of Benton Harbor

Report #: 473564

Sampling Point: NPb 13 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	2.1	ug/L	---	12/16/19 16:59	4512564
7439-92-1	Lead	200.8	15 l	1.0	5.3	ug/L	---	12/16/19 16:59	4512564

Sampling Point: NPb 12 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	3.6	ug/L	---	12/16/19 17:01	4512565
7439-92-1	Lead	200.8	15 l	1.0	38	ug/L	---	12/16/19 17:01	4512565

Sampling Point: NPb 12 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	1.6	ug/L	---	12/16/19 17:03	4512566
7439-92-1	Lead	200.8	15 l	1.0	24	ug/L	---	12/16/19 17:03	4512566

Sampling Point: OctPb 11 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	< 1.0	ug/L	---	12/16/19 17:06	4512567
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/16/19 17:06	4512567

Sampling Point: OctPb 11 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	1.5	ug/L	---	12/16/19 17:08	4512568
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/16/19 17:08	4512568



Client Name: City of Benton Harbor

Report #: 473564

Sampling Point: JPb 29 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	2.4	ug/L	---	12/16/19 17:19	4512569
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/16/19 17:19	4512569

Sampling Point: JPb 29 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	2.1	ug/L	---	12/16/19 17:21	4512570
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/16/19 17:21	4512570

Sampling Point: NPb 10 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	7.8	ug/L	---	12/16/19 17:28	4512571
7439-92-1	Lead	200.8	15 l	1.0	72	ug/L	---	12/16/19 17:28	4512571

Sampling Point: NPb 10 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	11	ug/L	---	12/16/19 17:30	4512572
7439-92-1	Lead	200.8	15 l	1.0	39	ug/L	---	12/16/19 17:30	4512572

Sampling Point: NPb 16 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	1.6	ug/L	---	12/16/19 17:32	4512573
7439-92-1	Lead	200.8	15 l	1.0	25	ug/L	---	12/16/19 17:32	4512573

Client Name: City of Benton Harbor

Report #: 473564

Sampling Point: NPb 16 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	< 1.0	ug/L	---	12/16/19 17:34	4512574
7439-92-1	Lead	200.8	15 !	1.0	18	ug/L	---	12/16/19 17:34	4512574

Sampling Point: NPb 17 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	53	ug/L	---	12/16/19 17:36	4512575
7439-92-1	Lead	200.8	15 !	1.0	23	ug/L	---	12/16/19 17:36	4512575

Sampling Point: NPb 17 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	5.1	ug/L	---	12/16/19 17:39	4512576
7439-92-1	Lead	200.8	15 !	1.0	9.4	ug/L	---	12/16/19 17:39	4512576

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

## Lab Definitions

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

110 S. Hill Street  
South Bend, IN 46617  
T: 1.800.332.4345  
F: 1.574.233.8207

Order # 386847  
Batch # 473564

# CHAIN OF CUSTODY RECORD

Page 1 of 1

Shaded area for EEA use only

REPORT TO:		SAMPLER (Signature)		PWS ID #		STATE (sample origin)		PROJECT NAME		PO#		OF CONTAINERS		MATRIX CODE		TURNAROUND TIME	
Mike O'Malley, momalley@cityofbentonharbormi.gov				600		MI		Lead & Copper 1st and 5th draw for 2019 end of Compliance		S04894							
BILL TO:		COMPLIANCE MONITORING		Yes		No		POPULATION SERVED		SOURCE WATER							
Mike O'Malley, momalley@cityofbentonharbormi.gov		x						9,639		Lake Michigan							
LAB Number		COLLECTION		SAMPLING SITE		TEST NAME		SAMPLE REMARKS		CHLORINATED							
Sample 1		DATE		TIME		AM		PM		YES		NO					
1 4512549		11/30/19		6:05		x				x				1st & 5th draw		2 SW	
2 551		12/03/19		7:00		x				x				1st & 5th draw		2 SW	
3 553		12/03/19		1:50						x				1st & 5th draw		2 SW	
4 555		12/05/19		5:30						x				1st & 5th draw		2 SW	
5 557		12/02/19		2:50						x				1st & 5th draw		2 SW	
6 559		12/04/19		4:30		x				x				1st & 5th draw		2 SW	
7 561		12/03/19		7:15		x				x				1st & 5th draw		2 SW	
8 563		12/03/19		8:00		x				x				1st & 5th draw		2 SW	
9 565		12/10/19		10:00		x				x				1st & 5th draw		2 SW	
10 567		12/03/19		7:03		x				x				1st & 5th draw		2 SW	
11 569		12/03/19		4:35		x				x				1st & 5th draw		2 SW	
12 571		12/05/19		7:50		x				x				1st & 5th draw		2 SW	
13 573		12/11/19		9:15		x				x				1st & 5th draw		2 SW	
14 575		12/10/19		10:30		x				x				1st & 5th draw		2 SW	

RELINQUISHED BY (Signature)		DATE		TIME		RECEIVED BY (Signature)		DATE		TIME		LAB COMMENTS	
		12/10/19		10:20				12/17/19		10:00		* BOTHs show NPD 13 55 12-12-19	
RELINQUISHED BY (Signature)		DATE		TIME		RECEIVED BY (Signature)		DATE		TIME		LAB COMMENTS	
		12/12/19		11:15				12/12/19		11:15		Client Provided Sample Container	
RELINQUISHED BY (Signature)		DATE		TIME		RECEIVED FOR LABORATORY BY:		DATE		TIME		CONDITIONS UPON RECEIPT (check one):	
		12/12/19		11:15				12/12/19		11:15		<input type="checkbox"/> Lead, Wet/Blue <input checked="" type="checkbox"/> Ambient <input type="checkbox"/> °C Upon Receipt <input checked="" type="checkbox"/> N/A	

# LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

\*NELAP/TNI Recognized Accreditation Bodies



Eaton Analytical

110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor  
Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 473903  
Priority: Standard Written  
Status: Final  
PWS ID: MI600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4516476	JPb 4 Sample 1	200.8	12/11/19 07:15	Client	12/17/19 12:35
4516477	JPb 4 Sample 5	200.8	12/11/19 07:15	Client	12/17/19 12:35
4516478	CCNPb 5 Sample 1	200.8	12/12/19 06:30	Client	12/17/19 12:35
4516479	CCNPb 5 Sample 5	200.8	12/12/19 06:30	Client	12/17/19 12:35
4516480	SCT 1 Sample 1	200.8	12/13/19 07:00	Client	12/17/19 12:35
4516481	SCT 1 Sample 5	200.8	12/13/19 07:00	Client	12/17/19 12:35
4516482	SCT 3 Sample 1	200.8	12/13/19 05:30	Client	12/17/19 12:35
4516483	SCT 3 Sample 5	200.8	12/13/19 05:30	Client	12/17/19 12:35
4516484	SCT 5 Sample 1	200.8	12/13/19 06:00	Client	12/17/19 12:35
4516485	SCT 5 Sample 5	200.8	12/13/19 06:00	Client	12/17/19 12:35
4516486	CCNPb 31 Sample 1	200.8	12/16/19 08:00	Client	12/17/19 12:35
4516487	CCNPb 31 Sample 5	200.8	12/16/19 08:00	Client	12/17/19 12:35
4516488	JPb 27 Sample 1	200.8	12/11/19 07:00	Client	12/17/19 12:35
4516489	JPb 27 Sample 5	200.8	12/11/19 07:00	Client	12/17/19 12:35
4516490	CCNPb 1 Sample 1	200.8	12/11/19 06:00	Client	12/17/19 12:35
4516491	CCNPb 1 Sample 5	200.8	12/11/19 06:00	Client	12/17/19 12:35
4516492	CCNPb 16 Sample 1	200.8	12/16/19 08:05	Client	12/17/19 12:35
4516493	CCNPb 16 Sample 5	200.8	12/16/19 08:05	Client	12/17/19 12:35

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

*Note: This report may not be reproduced, except in full, without written approval from EEA.*



Client Name: City of Benton Harbor

Report #: 473903

*Pat Muff*

*ASM*

Authorized Signature

Title

12/26/2019

Date

Client Name: City of Benton Harbor  
Report #: 473903

Client Name: City of Benton Harbor

Report #: 473903

Sampling Point: JPb 4 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	15	ug/L	---	12/19/19 17:14	4516476
7439-92-1	Lead	200.8	15 l	1.0	9.2	ug/L	---	12/19/19 17:14	4516476

Sampling Point: JPb 4 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	2.5	ug/L	---	12/19/19 17:16	4516477
7439-92-1	Lead	200.8	15 l	1.0	6.3	ug/L	---	12/19/19 17:16	4516477

Sampling Point: CCNPb 5 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	2.5	ug/L	---	12/19/19 17:20	4516478
7439-92-1	Lead	200.8	15 l	1.0	3.6	ug/L	---	12/19/19 17:20	4516478

Sampling Point: CCNPb 5 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	4.0	ug/L	---	12/19/19 17:22	4516479
7439-92-1	Lead	200.8	15 l	1.0	2.2	ug/L	---	12/19/19 17:22	4516479

Sampling Point: SCT 1 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	3.4	ug/L	---	12/19/19 17:26	4516480
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/19/19 17:26	4516480

Client Name: City of Benton Harbor

Report #: 473903

Sampling Point: SCT 1 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	1.4	ug/L	---	12/19/19 17:28	4516481
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/19/19 17:28	4516481

Sampling Point: SCT 3 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	3.0	ug/L	---	12/19/19 17:30	4516482
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/19/19 17:30	4516482

Sampling Point: SCT 3 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	2.0	ug/L	---	12/19/19 17:32	4516483
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/19/19 17:32	4516483

Sampling Point: SCT 5 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	7.1	ug/L	---	12/19/19 17:33	4516484
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/19/19 17:33	4516484

Sampling Point: SCT 5 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	6.0	ug/L	---	12/19/19 17:35	4516485
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/19/19 17:35	4516485

Client Name: City of Benton Harbor

Report #: 473903

Sampling Point: CCNPb 31 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	28	ug/L	---	12/19/19 17:36	4516486
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/19/19 17:36	4516486

Sampling Point: CCNPb 31 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	2.0	ug/L	---	12/19/19 17:38	4516487
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	12/19/19 17:38	4516487

Sampling Point: JPb 27 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	5.1	ug/L	---	12/22/19 21:31	4516488
7439-92-1	Lead	200.8	15 l	1.0	33	ug/L	---	12/22/19 21:31	4516488

Sampling Point: JPb 27 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	2.8	ug/L	---	12/22/19 21:40	4516489
7439-92-1	Lead	200.8	15 l	1.0	21	ug/L	---	12/22/19 21:40	4516489

Sampling Point: CCNPb 1 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	4.1	ug/L	---	12/22/19 21:43	4516490
7439-92-1	Lead	200.8	15 l	1.0	4.9	ug/L	---	12/22/19 21:43	4516490

Client Name: City of Benton Harbor

Report #: 473903

Sampling Point: CCNPb 1 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.8	ug/L	---	12/22/19 21:46	4516491
7439-92-1	Lead	200.8	15 !	1.0	11	ug/L	---	12/22/19 21:46	4516491

Sampling Point: CCNPb 16 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	18	ug/L	---	12/22/19 21:49	4516492
7439-92-1	Lead	200.8	15 !	1.0	3.7	ug/L	---	12/22/19 21:49	4516492

Sampling Point: CCNPb 16 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 !	1.0	2.9	ug/L	---	12/22/19 21:52	4516493
7439-92-1	Lead	200.8	15 !	1.0	14	ug/L	---	12/22/19 21:52	4516493

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

## Lab Definitions

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

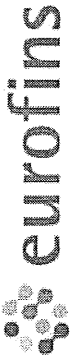
**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Eaton Analytical

110 S. Hill Street  
South Bend, IN 46617  
T: 1.800.332.4345  
F: 1.574.233.8207

Order # 387458  
Batch # 473903

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### CHAIN OF CUSTODY RECORD

Page 1 of 1

REPORT TO:		Shaded area for EEA use only		SAMPLER (Signature)		PWS ID #		STATE (sample origin)		PROJECT NAME		PO#		# OF CONTAINERS		MATRIX CODE		TURNAROUND TIME	
BILL TO:		COMPLIANCE MONITORING		Yes		No		POPULATION SERVED		SOURCE WATER		MI		Lead and Copper Testing 3rd to 5th draw for end of 2019		S04896			
LAB Number		COLLECTION		SAMPLING SITE		TEST NAME		SAMPLE REMARKS		CHLORINATED		YES		NO					
DATE	TIME	AM	PM	DATE	TIME	AM	PM	DATE	TIME	AM	PM	DATE	TIME	AM	PM	DATE	TIME	AM	PM
12/11/19	7:15	x		12/11/19	7:15	x		12/11/19	7:15	x		12/11/19	7:15	x		12/11/19	7:15	x	
12/12/19	6:30	x		12/12/19	6:30	x		12/12/19	6:30	x		12/12/19	6:30	x		12/12/19	6:30	x	
12/13/19	7:00	x		12/13/19	7:00	x		12/13/19	7:00	x		12/13/19	7:00	x		12/13/19	7:00	x	
12/13/19	6:30	x		12/13/19	6:30	x		12/13/19	6:30	x		12/13/19	6:30	x		12/13/19	6:30	x	
12/13/19	6:00	x		12/13/19	6:00	x		12/13/19	6:00	x		12/13/19	6:00	x		12/13/19	6:00	x	
12/16/19	8:00	x		12/16/19	8:00	x		12/16/19	8:00	x		12/16/19	8:00	x		12/16/19	8:00	x	
12/11/19	7:00	x		12/11/19	7:00	x		12/11/19	7:00	x		12/11/19	7:00	x		12/11/19	7:00	x	
12/11/19	8:00	x		12/11/19	8:00	x		12/11/19	8:00	x		12/11/19	8:00	x		12/11/19	8:00	x	
12/16/19	8:05	x		12/16/19	8:05	x		12/16/19	8:05	x		12/16/19	8:05	x		12/16/19	8:05	x	
10				10				10				10				10			
11				11				11				11				11			
12				12				12				12				12			
13				13				13				13				13			
14				14				14				14				14			

RELINQUISHED BY: (Signature) [Signature] DATE 12/17/19 TIME 11:30 AM/PM

RELINQUISHED BY: (Signature) [Signature] DATE 12/17/19 TIME 12:35 AM/PM

RELINQUISHED BY: (Signature) [Signature] DATE 12/17/19 TIME 12:35 AM/PM

LAB COMMENTS: Client Provided Sample Container

CONDITIONS UPON RECEIPT (check one):  
Inc. Wet/Blue X Ambient    °C Upon Receipt X N/A

MATRIX CODES:  
DW-DRINKING WATER  
RW-REAGENT WATER  
GW-GROUND WATER  
EW-EXPOSURE WATER  
SW-SURFACE WATER  
PW-POOL WATER  
WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES:  
SW = Standard Written: (15 working days) 0%  
RW = Rush Verbal: (5 working days) 50%  
RW = Rush Written: (5 working days) 75%  
\* Please call, expedited service not available for all testing

STATISTICS:  
IV\* = Immediate Verbal: (3 working days) 100%  
IW\* = Immediate Written: (3 working days) 125%  
SW\* = Weekend, Holiday CALL  
STAT\* = Less than 48 hours CALL

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.

05-LO-F0435 Issue 6.0 Effective Date: 2016-09-20





~~fresh water future~~

TO BE FILLED IN BY  
PURCHASING AGENT

PURCHASE ORDER# \_\_\_\_\_

\_\_\_\_\_ 20 \_\_\_\_\_

REQUISITION #: **04696**

DATE: 12/17/19  
Water Plant Supply  
591.570.940 DEPARTMENT

PURCHASING AGENT: \_\_\_\_\_

VENDOR: Sundling Station Analytical

CONTACT NAME: \_\_\_\_\_

ACCOUNT	WHERE USED	QUANTITY	DESCRIPTION	UNIT PRICE		EXTENSION	TRADE DISCOUNT	NET PRICE
				ESTIMATE	QUOTED			
		9	lets sample 1 & 5 for lead & copper					
		18	so lead & copper tests		30.00		\$	540.00

TERM: \_\_\_\_\_

APPROVAL SIGNATURE: \_\_\_\_\_

Printed & Bound by  
Benton County Printing

## LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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## STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

\*NELAP/TNI Recognized Accreditation Bodies



Eaton Analytical

110 South Hill Street  
South Bend, IN 46617  
Tel: (574) 233-4777  
Fax: (574) 233-8207  
1 800 332 4345

## Laboratory Report

Client: City of Benton Harbor

Attn: Michael O'Malley  
200 East Wall Street  
Benton Harbor, MI 49002

Report: 474452  
Priority: Standard Written  
Status: Final  
PWS ID: MI600

### Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4523023	CCNPb 17 Sample 1	200.8	12/17/19 08:05	Client	12/23/19 10:35
4523024	CCNPb 17 Sample 5	200.8	12/17/19 08:05	Client	12/23/19 10:35
4523025	TGPb 1 Sample 1	200.8	12/18/19 06:39	Client	12/23/19 10:35
4523026	TGPb 1 Sample 5	200.8	12/18/19 06:39	Client	12/23/19 10:35
4523027	EPDPb 8 Sample 1	200.8	12/19/19 06:40	Client	12/23/19 10:35
4523028	EPDPb 8 Sample 5	200.8	12/19/19 06:40	Client	12/23/19 10:35
4523029	EPDPb 9 Sample 1	200.8	12/19/19 06:10	Client	12/23/19 10:35
4523030	EPDPb 9 Sample 5	200.8	12/19/19 06:10	Client	12/23/19 10:35
4523031	JPb 39 Sample 1	200.8	12/18/19 06:15	Client	12/23/19 10:35
4523032	JPb 39 Sample 5	200.8	12/18/19 06:15	Client	12/23/19 10:35
4523033	EPDPb 1 Sample 1	200.8	12/20/19 06:15	Client	12/23/19 10:35
4523034	EPDPb 1 Sample 5	200.8	12/20/19 06:15	Client	12/23/19 10:35
4523041	EPDPb 4 Sample 1	200.8	12/21/19 08:00	Client	12/23/19 10:35
4523042	EPDPb 4 Sample 5	200.8	12/21/19 08:00	Client	12/23/19 10:35

### Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

*Note: This report may not be reproduced, except in full, without written approval from EEA.*

ASM

Authorized Signature

Title

01/06/2020

Date

Client Name: City of Benton Harbor  
Report #: 474452

Client Name: City of Benton Harbor

Report #: 474452

Sampling Point: CCNPb 17 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	4.0	ug/L	---	01/03/20 11:46	4523023
7439-92-1	Lead	200.8	15 l	1.0	5.6	ug/L	---	01/03/20 11:46	4523023

Sampling Point: CCNPb 17 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	1.6	ug/L	---	01/03/20 11:47	4523024
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	01/03/20 11:47	4523024

Sampling Point: TGPb 1 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	1.2	ug/L	---	01/03/20 11:49	4523025
7439-92-1	Lead	200.8	15 l	1.0	2.3	ug/L	---	01/03/20 11:49	4523025

Sampling Point: TGPb 1 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	< 1.0	ug/L	---	01/03/20 11:51	4523026
7439-92-1	Lead	200.8	15 l	1.0	< 1.0	ug/L	---	01/03/20 11:51	4523026

Sampling Point: EPDPb 8 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	4.8	ug/L	---	01/03/20 12:01	4523027
7439-92-1	Lead	200.8	15 l	1.0	19	ug/L	---	01/03/20 12:01	4523027

Client Name: City of Benton Harbor

Report #: 474452

Sampling Point: EPDPb 8 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	2.2	ug/L	---	01/03/20 12:03	4523028
7439-92-1	Lead	200.8	15 l	1.0	40	ug/L	---	01/03/20 12:03	4523028

Sampling Point: EPDPb 9 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	6.7	ug/L	---	01/03/20 12:09	4523029
7439-92-1	Lead	200.8	15 l	1.0	18	ug/L	---	01/03/20 12:09	4523029

Sampling Point: EPDPb 9 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	1.6	ug/L	---	01/03/20 12:12	4523030
7439-92-1	Lead	200.8	15 l	1.0	11	ug/L	---	01/03/20 12:12	4523030

Sampling Point: JPb 39 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	8.6	ug/L	---	01/03/20 12:14	4523031
7439-92-1	Lead	200.8	15 l	1.0	10	ug/L	---	01/03/20 12:14	4523031

Sampling Point: JPb 39 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 l	1.0	3.4	ug/L	---	01/03/20 12:16	4523032
7439-92-1	Lead	200.8	15 l	1.0	7.8	ug/L	---	01/03/20 12:16	4523032

Client Name: City of Benton Harbor

Report #: 474452

Sampling Point: EPDPb 1 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 I	1.0	4.9	ug/L	---	01/03/20 12:17	4523033
7439-92-1	Lead	200.8	15 I	1.0	< 1.0	ug/L	---	01/03/20 12:17	4523033

Sampling Point: EPDPb 1 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 I	1.0	1.6	ug/L	---	01/03/20 12:19	4523034
7439-92-1	Lead	200.8	15 I	1.0	< 1.0	ug/L	---	01/03/20 12:19	4523034

Sampling Point: EPDPb 4 Sample 1

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 I	1.0	3.6	ug/L	---	01/03/20 12:21	4523041
7439-92-1	Lead	200.8	15 I	1.0	19	ug/L	---	01/03/20 12:21	4523041

Sampling Point: EPDPb 4 Sample 5

PWS ID: MI600

Lead and Copper									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
7440-50-8	Copper	200.8	1300 I	1.0	2.0	ug/L	---	01/03/20 12:23	4523042
7439-92-1	Lead	200.8	15 I	1.0	30	ug/L	---	01/03/20 12:23	4523042

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!



## Lab Definitions

**Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC)** - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

**Internal Standards (IS)** - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

**Laboratory Duplicate (LD)** - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

**Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS)** - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

**Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB)** - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

**Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB)** - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

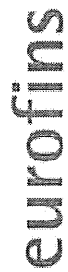
**Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD)** - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

**Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM)** - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

**Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV)** - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

**Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS)** - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

**Surrogate Standard (SS) / Surrogate Analyte (SUR)** - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Eaton Analytica

1110 S. Hill Street  
South Bend, IN 46617  
T: 1.800.332.4345  
F: 1.574.233.8207

Order # 387458  
Batch # 474452

## CHAIN OF CUSTODY RECORD

Shaded area for EEA use only

# CHAIN OF CUSTODY RECORD

Page: 1 of 1

[illegible]

Page 8 of

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agreed to in writing by EEA.





GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
LANSING



LIESL EICHLER CLARK  
DIRECTOR

February 13, 2020

VIA EMAIL AND U.S. MAIL

Mr. Ellis Mitchell  
City of Benton Harbor  
200 Wall Street  
Benton Harbor, Michigan 49022

WSSN: 00600  
County: Berrien  
Supply: Benton Harbor

Dear Mr. Mitchell:

SUBJECT: Water System Corrosion Treatment

On October 22, 2018, the Department of Environment, Great Lakes, and Energy (EGLE), Drinking Water and Environmental Health Division (DWEHD), issued a letter to the City of Benton Harbor (the City) for a lead action level exceedance (ALE). In response, the City applied for a construction permit for installation of corrosion control treatment, under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). On February 25, 2019, EGLE issued the Act 399 construction permit to the City to address the ALE by means of installing a corrosion control treatment system. The treatment chemical permitted, based on a recommendation by Elhorn Engineering, was Carus 8600 which is comprised of 70% orthophosphate and 30% polyphosphate. The target dose was 1.5 milligrams per liter (mg/L) as orthophosphate, and the City's water operators have consistently reached that treatment goal. This has resulted in a residual of approximately 1.5 mg/L orthophosphate in the distribution system.

A review of the last three lead and copper sampling rounds collected by the City concludes the treatment is not achieving desired results quickly enough. The most recent round of samples was collected approximately eight months after the beginning of corrosion control treatment.

The City met with representatives from EGLE on January 15, 2020, to discuss results from the City's lead and copper sampling as it relates to the City's corrosion control treatment. The purpose of this letter is to provide a summary of that meeting and outline next steps for the City to pursue designation of optimized corrosion control treatment as required by Rule 604f of the administrative rules promulgated under Act 399.

Based on a review of the corrosion control treatment and the last three rounds of tap samples for lead and copper, **the City is hereby directed to change its current blended phosphate chemical from the 70%/30% ortho/poly-phosphate to a product with a minimum of 90% orthophosphate.** The chemical selected must be ANSI/NSF 60 certified for use in drinking water systems. **The City is also hereby directed to adopt a new treatment rate, such that a minimum of 3.0 mg/L orthophosphate (as phosphate) residual is maintained throughout the distribution system.** This

designation is being made under R325.10604f(3)(d). The reason for this change is to speed up treatment effectiveness. EGLE's intent is to quickly put into place treatment that will more efficiently lower corrosion rates in the distribution system for greater protection of public health. This decision is based on corrosion control treatment studies and analyses of documented analogous treatment systems with other water supplies of similar source water chemistry.

The above phosphate treatment strategy is intended to provide immediate improvement of corrosion protection in the distribution system but, without further study, it is not certain to be the optimum treatment strategy. Therefore, the City is directed to have a third-party consultant submit to the department a corrosion control study proposal following the requirements of Rule 325.10604f(3)(c) of the administrative rules promulgated under Act 399. This study proposal must be submitted to the department within six months following the date that the directed treatment change is completed. The study plan must focus on identifying optimum corrosion control treatment for the City's water system. Reference to analogous water systems alone will not suffice to meet this requirement.

In addition, the permitted corrosion control treatment scheme requires the high service pump suction header valve that is next to High Service Pump 3 be closed. This is to force the flow of all water from the suction well through the meter and corrosion control treatment. At the onsite meeting referenced above, it was indicated that the valve state is unknown. Please immediately verify in writing to the department the valve has been closed according to the permit.

#### **TRANSITION AND TIMELINE**

Prior to changing chemicals, the City must obtain approval of the specific chemical selected by requesting revision of the construction permit under Act 399.

Following approval, the transition to a minimum 90% orthophosphate product must occur as soon as possible, but not later than February 28, 2020.

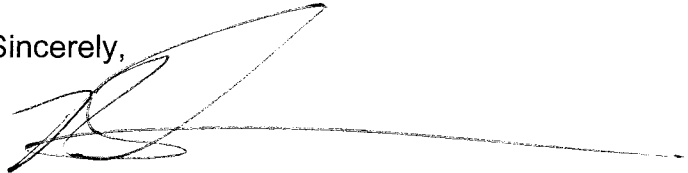
The City must follow these guidelines during transition to the new chemical:

1. Blending of the two phosphate products must not occur. The transition should be abrupt.
2. Immediately following the transition to the new treatment, gentle flushing of the distribution system will help provide a thorough transition.
3. Increased monitoring of the plant tap and distribution sites will verify when the transition has concluded and the directed residual of a minimum 3.0 mg/L orthophosphate as phosphate is achieved.

Mr. Ellis Mitchell  
Page 3  
February 13, 2020

We anticipate and appreciate your cooperation in resolving this matter. If you have any questions regarding this letter, please contact me at 616-307-6736 or OnanB@Michigan.gov; or you can contact Mr. Ernie Sarkipato, Surface Water Treatment Specialist, Engineering Unit, Field Operations Section, DWEHD, at 616-307-0261; SarkipatoE@Michigan.gov; or EGLE-DWEHD, 350 Ottawa Avenue NW, Unit 10, Grand Rapids, Michigan 49506.

Sincerely,

A handwritten signature in black ink, appearing to be 'Brandon Onan', with a long horizontal line extending to the right.

Brandon Onan, Supervisor  
Lead & Copper Unit  
Community Water Supply Section  
Drinking Water and Environmental Health Division

cc: Mr. Mike O'Malley, City of Benton Harbor  
Mr. Darold Harlan, Fleis & Vandenbrink  
Mr. Todd Luks, Elhorn Engineering  
Ms. Nicki Britten, Berrien County Health Department  
Mr. Eric Oswald, EGLE  
Mr. Mike Bolf, EGLE  
Mr. Ernie Sarkipato, EGLE



**PERMIT APPLICATION FOR WATER SUPPLY SYSTEMS**  
 (CONSTRUCTION - ALTERATION - ADDITION OR IMPROVEMENT) AS DESCRIBED HEREIN  
*Required under the Authority of 1976 PA 399, as amended*

This application becomes an Act 399 Permit only when signed and issued by authorized Michigan Department of Environmental Quality (DEQ) Staff. See instructions below for completion of this application.

<b>1. Municipality or Organization, Address and WSSN</b> that will own or control the water facilities to be constructed. This permit is to be issued to: Darwin Watson, City Manager 200 East Wall Street Benton Harbor, MI 49022  <b>WSSN: 600</b>	Permit Stamp Area (DEQ use only)	
<b>2. Owner's Contact Person</b> (provide name for questions):  Contact: Mike O'Malley Title: Water Plant Superintendent Phone: 269-927-8470		
<b>3. Project Name</b> (Provide phase number if project is segmented):  Phosphate Corrosion Inhibitor Installation	<b>4. Project Location</b> (City, Village, Township): City of Benton Harbor	<b>5. County</b> (location of project): Berrien

ISSUED UNDER THE AUTHORITY OF THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENT QUALITY

cc:

Issued by: \_\_\_\_\_

Reviewed by: \_\_\_\_\_

☐ **If this box is marked see attached special conditions.**

**Instructions:** Complete items 1 through 5 above and 6 through 21 on the following pages of this application. Print or type all information except for signatures. Mail completed application, plans and specifications, and any attachments to the DEQ District Office having jurisdiction in the area of the proposed construction.

**Please Note:**

- This **PERMIT** only authorizes the construction, alteration, addition or improvement of the water system described herein and is issued solely under the authority of 1976 PA 399, as amended.
- The issuance of this **PERMIT** does not authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other DEQ permits, or approvals from other units of government as may be required by law.
- This **PERMIT** expires two (2) years after the date of issuance in accordance with R 325.11306, 1976 PA 399, administrative rules, unless construction has been initiated prior to expiration.
- Noncompliance with the conditions of this permit and the requirements of the Act constitutes a violation of the Act.
- Applicant must give notice to public utilities in accordance with 1974 PA 53, (MISS DIG), being Section 460.701 to 460.718 of the Michigan Compiled Laws, and comply with each of the requirements of that Act.
- All earth changing activities must be conducted in accordance with the requirements of the Soil Erosion and Sedimentation Control Act, Part 91, 1994 PA 451, as amended.
- All construction activity impacting wetlands must be conducted in accordance with the Wetland Protection Act, Part 303, 1994 PA 451, as amended.
- Intentionally providing false information in this application constitutes fraud which is punishable by fine and/or imprisonment.
- Where applicable for water withdrawals, the issuance of this permit indicates compliance with the requirements of Part 327 of Act 451, Great Lakes Preservation Act.





## Permit Application for Water Systems (Continued)

6. **Facilities Description** – In the space below provide a detailed description of the proposed project. Applications without adequate facilities descriptions will be returned. SEE EXAMPLES BELOW. Use additional sheets if needed.

Installation of equipment to feed a blended polyphosphate for the purposes of corrosion protection. Consultation with Elhorn Engineering has resulted in a recommended corrosion inhibitor. The following are components of the project:

- Carus 8600, 70% orthophosphate, 30% polyphosphate, chemical strength of 33% as total Phosphate, SG=11.4 lbs/gal
- Necessary equipment to feed at a rate of 1.5 mg/L as phosphate:
  - No day tank needed per estimated chemical use
  - Stenner S series pump capable of 40 gpd dosing with flow-pacing capabilities
  - Insertion meter to interface with chemical dosing pump
  - isolation of the high service pump suction line using existing valves to allow a single dosing pump and flow meter
  - chemical scale with digital readout (Forceflow XT-600)
  - LMI corporation stop and nozzle assembly

**EXAMPLES – EXAMPLES – EXAMPLES – EXAMPLES – EXAMPLES – EXAMPLES**

Water Mains	500 feet of 8-inch water main in First Street from Main Street north to State Street. <b>OR</b> 250 feet of 12-inch water main in Clark Road from an existing 8-inch main in Third Avenue north to a hydrant.
Booster Stations	A booster station located at the southwest corner of Third Avenue and Main Street, and equipped with two, 15 Hp pumps each rated 150 gpm @ 200 feet TDH. Station includes backup power and all other equipment as required for proper operation.
Elevated Storage Tank	A 300,000 gallon elevated storage tank located in City Park. The proposed tank shall be spherical, all welded construction and supported on a single pedestal. The tank shall be 150 feet in height, 40 feet in diameter with a normal operating range of 130 – 145 feet. The interior coating system shall be ANSI/NSF Standard 61 approved or equivalent. The tank will be equipped with a cathodic protection system, and includes a tank level control system with telemetry.
Chemical Feed	A positive displacement chemical feed pump, rated at 24 gpd @ 110 psi to apply a chlorine solution for Well No. 1. Chlorine is 12.5% NaOCL, ANSI/NSF Standard 60 approved and will be applied at a rate of 1.0 mg/l of actual chlorine.
Water Supply Well	Well No. 3, a 200 foot deep well with 170 feet of 8-inch casing and 30 feet of 8-inch, 10 slot screen. The well will be equipped with a 20 Hp submersible pump and motor rated 200 gpm @ 225 feet TDH, set at 160 feet below land surface.
Treatment Facilities	A 5 million gpd water treatment plant located at the north end of Second Avenue. The facility will include 6 low service pumps, 2 rapid mix basins, 4 flocculation/sedimentation basins, 8 dual media filters, 3 million gallon water storage reservoir and 6 high service pumps. Also included are chemical feed pumps and related appurtenances for the addition of alum, fluoride, phosphate and chlorine.

## Permit Application for Water Systems (Continued)

<b>General Project Information – Complete all boxes below.</b>	
<p>7. Design engineer's name, engineering firm, address, phone number, and email address:</p> <p>Chemical Supplier: Mike Enlow, Elhorn Engineering Co. 517-204-2845 mike@michonline.net</p>	<p>8. Indicate who will provide project construction inspection:</p> <p><input checked="" type="checkbox"/> Organization listed in Box 1.  <input type="checkbox"/> Engineering firm listed in Box 7.  <input type="checkbox"/> Other - name, address, and phone number listed below.</p>
<p>9. Is a basis of design attached?</p> <p><input checked="" type="checkbox"/> YES      <input type="checkbox"/> NO</p> <p>If no, briefly explain why a basis of design is not needed. Adequate design information is attached</p>	
<p>10. Are sealed and signed engineering plans attached?</p> <p><input type="checkbox"/> YES      <input checked="" type="checkbox"/> NO</p> <p>If no, briefly explain why engineering plans are not needed. Project is in coordination with Elhorn and MDEQ</p>	
<p>11. Are sealed and signed construction specifications attached?</p> <p><input type="checkbox"/> YES      <input checked="" type="checkbox"/> NO</p> <p>If specifications are not attached, they need to be on file at DEQ.</p>	
<p>12. Were Recommended Standards for Water Works, Suggested Practice for Water Works, AWWA guidelines, and the requirements of Act 399 and its administrative rules followed?</p> <p><input checked="" type="checkbox"/> YES      <input type="checkbox"/> NO</p> <p>If no, explain which deviations were made and why.</p>	
<p>13. Are all coatings, chemical additives and construction materials ANSI/NSF or other adequate 3<sup>rd</sup> party approved?</p> <p><input checked="" type="checkbox"/> YES      <input type="checkbox"/> NO</p> <p>If no, describe what coatings, additives or materials did not meet the applicable standard and why.</p>	
<p>14. Are all water system facilities being installed in the public right-of-way or a dedicated utility easement? (For projects not located in the public right-of-way, utility easements must be shown on the plans.)</p> <p><input checked="" type="checkbox"/> YES      <input type="checkbox"/> NO</p> <p>If no, explain how access will be obtained.</p>	
<p>15. Is the project construction activity within a wetland (as defined by Section 324.30301(d)) of Part 303, 1994 PA 451?</p> <p><input type="checkbox"/> YES      <input checked="" type="checkbox"/> NO</p> <p>If yes, a wetland permit must be obtained.</p>	
<p>16. Is the project construction activity within a 100-year floodplain (as defined by R 323.1311(e)) of Part 31, 1994 PA 451, administrative rules?</p> <p><input type="checkbox"/> YES      <input checked="" type="checkbox"/> NO</p> <p>If yes, a flood plain permit must be obtained.</p>	
<p>17. Is the project construction activity within 500 feet of a lake, reservoir, or stream?</p> <p><input type="checkbox"/> YES      <input checked="" type="checkbox"/> NO</p> <p>If yes, a Soil and Erosion Control Permit must be obtained <u>or</u> indicate if the owner listed in box 2 of this application is an Authorized Public Agency (Section 10 of Part 91, 1994 PA 451) <input type="checkbox"/> Owner is APA.</p>	

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit Application for Water Systems (Continued)

18. Will the proposed construction activity be part of a project involving the disturbance of five (5) or more acres of land?

☐ YES ☒ NO

If yes, is this activity regulated by the National Pollutant Discharge Elimination System storm water regulations?

☐ YES: NPDES Authorization to discharge storm water from construction activities must be obtained.

☐ NO: Describe why activity is not regulated:

Please call 517-241-8993 with questions regarding the applicability of the storm water regulations.

19. Is the project in or adjacent to a site of suspected or known soil or groundwater contamination?

☐ YES ☒ NO

If yes, attach a copy of a plan acceptable to the DEQ for handling contaminated soils and/or groundwater disturbed during construction. Contact the local DEQ district office for listings of Michigan sites of environmental contamination.

20. IF YOU ARE A CUSTOMER/WHOLESALE/BULK PURCHASER, COMPLETE THE FOLLOWING

1) Name and WSSN of source water supply system (seller) \_\_\_\_\_

2) Does the water service contract require water producer/seller to review and approve customer/wholesale/bulk purchaser water system construction plans?

☐ YES ☐ NO

If yes to #2, the producer/seller approval letter must be attached when submitted to DEQ.

21. **Owner's Certification** The owner of the proposed facilities or the owner's authorized representative shall complete the owner's certification. It is anticipated that the owner will either be a governmental agency (city, village, township, county, etc.) or a private owner (individual, company, association, etc.) of a Type I public water supply.

OWNER'S CERTIFICATION

I, Nike O'Malley (name), acting as the Benton Harbor Water Superintendent (title/position) for

City of Benton Harbor, MI. (entity owning proposed facilities) certify that this project has

been reviewed and approved as detailed by the Plans and Specifications submitted under this application, and is in compliance with the requirements of 1976 PA 399, as amended, and its administrative rules.

Signature\*

Date

Phone

\*Original signature only, no photocopies will be accepted.



## Permit Application for Water Systems (Continued)

## PROJECT BASIS OF DESIGN – FOR WATER MAIN PROJECTS

PROJECT NAME: \_\_\_\_\_

For this PROJECT the following information must be provided per Act 399 unless waived by the Department. For projects other than water main installation, or if additional space is needed, attach separate sheet(s) with detailed Basis of Design calculations.

- A. A general map of the initial and ultimate service areas  
☐ Included on engineering plans ☐ Attached separately
- B. Number of service connections served by this permit application \_\_\_\_\_
- C. Total number of service connections ultimately served by entire project \_\_\_\_\_
- D. Residential Equivalent Units (REUs) served by this permit application \_\_\_\_\_
- E. Total Residential Equivalent Units (REUs) ultimately served by entire project \_\_\_\_\_
- F. Water flow rates for proposed project based on REUs listed in "D" and "E" above
1. Initial design average day flow (mgd) \_\_\_\_\_
  2. Initial design maximum day flow (mgd) \_\_\_\_\_
  3. Total design average day flow (mgd) \_\_\_\_\_
  4. Total design maximum day flow (mgd) \_\_\_\_\_
  5. Required fire flows: <sup>(1)</sup> \_\_\_\_\_ gpm for \_\_\_\_\_ hours
- G. Actual flows and pressures of existing system at the connection point(s) <sup>(2)</sup>
- \_\_\_\_\_ gpm at \_\_\_\_\_ psi  
\_\_\_\_\_ gpm at \_\_\_\_\_ psi  
\_\_\_\_\_ gpm at \_\_\_\_\_ psi  
\_\_\_\_\_ gpm at \_\_\_\_\_ psi
- H. Estimated minimum flows and pressures within the proposed water main system <sup>(3)</sup>
- \_\_\_\_\_ gpm at \_\_\_\_\_ psi

(1) Every water system must decide what levels of fire fighting flows they wish to provide. Fire flow should be appropriate for the area (residential, commercial, industrial) being served by the project. Typical fire flow rates can be obtained from the water supply, local fire dept., ISO or AWWA. The water system must then be designed to be able to provide the required fire flows while maintaining at least 20 psi in all portions of the distribution system.

(2) Flows and pressures at the connection points must be given to determine if the existing water main(s) are able to deliver water to the new service area. These numbers can be obtained from a properly modeled and calibrated distribution system hydraulic analysis or hydrant flow tests performed in the field. If more than one connection is proposed, list as needed.

(3) List what the estimated minimum flows can be expected in the proposed water mains based on estimated water demands, head losses, elevation changes and other factors that may affect flows, such as dead end mains.

November 21, 2018

City of Benton Harbor  
601 N. Ridgeway Street  
St. Joseph, MI. 49035  
Attn: Mike O'Malley – Water Superintendent

Mike,

Thank you for your courtesies extended on my recent visit. As discussed, I am providing information on phosphates and why they are applied for your water system.

Phosphates have a long history of successful application in drinking water treatment, providing both primary and secondary benefits. Phosphates are widely used by facilities to help meet regulatory rules and to produce quality drinking water that will meet public expectations. Phosphates are water treatment chemicals used to solve specific water quality problems resulting from inorganic contaminants (iron, manganese, calcium, etc.) in ground water supplies and also to maintain water quality (inhibit corrosion, scale, biofilm, reduce lead and copper levels) in the distribution system. Ortho and Polyphosphates work together, stabilizing water quality and minimizing color, scale, deposits, corrosion and chlorine demand in drinking water systems.

Phosphates are used in water systems to perform three broad functions.

- 1) Inhibit corrosion of water mains / plumbing (iron, steel, galvanized, asbestos, cement, lead and copper)
- 2) Sequester nuisance metals in water supply (iron, manganese, calcium, magnesium).
- 3) Improvement of the water in the distribution system by removing scale deposits and tuberculation, discourage microbial film formation, regrowth and stabilizing free chlorine disinfectant residuals.

Presently you are not using any phosphate treatment. We are recommending a blended ortho/poly phosphate (Carus 8600). This product is a 70/30 ortho/poly blend, which is a blend with a emphasis on corrosion control. The starting recommended applied dosage rate is 1.0 as PO<sub>4</sub>. The American Water Works Associate Research Foundation (AWWARF) and the EPA have reported corrosion control (phosphate included) provides numerous health and consumer benefits at a rate of return much greater than the original cost of the additive. Lastly, we would like to install corrosion couple racks to monitor and verify performance results are optimal.

I hope this information is helpful in your dealings with the general public and regulatory agencies.

Sincerely,

Mike Enlow  
Elhorn Engineering Company

## CARUS™ 8600 Water Treatment Chemical



## DATA SHEET

CARUS™ 8600 water treatment chemical is an effective corrosion inhibitor and sequesterant for use in potable and industrial water systems. The product is a liquid concentrate of exceptional purity, clarity, and stability utilizing a broad spectrum of phosphates for better sequestering and corrosion control.

## BENEFITS OF CARUS™ 8600

- Inhibits corrosion of steel distribution system water lines, iron and galvanized piping, and lead and copper plumbing
- Decreases iron tuberculation, to extend the life of the distribution system
- Inhibits lead and copper leaching, resulting in lower lead and copper levels in the delivered potable water
- Minimizes the occurrence of microbial-influenced corrosion providing longer life system
- Controls iron and manganese minimizing rusty and dirty water in the system
- Reduces discoloration, staining, and mineral build-up resulting in fewer customer complaints
- Diminishes calcium scale deposits typically seen in hot water lines and heaters
- Saves money by reducing corrosion and scale; lowering chlorine demand and decreasing hydrant flushing, leaks and failures.

## PROPERTIES AND CERTIFICATIONS

**Description:** Clear homogenous liquid  
**Freezing Point:** Do not Freeze  
**Specific Gravity:** 1.34-1.40  
**pH (1% w:w):** 5.0 ± 0.5  
**NSF Maximum Feed Rate:** 23 mg/L  
**NSF/ANSI Standard 60, Kosher Approved**



## HANDLING AND STORAGE

CARUS™ 8600 water treatment chemical should be handled with care. Wear proper protective equipment including goggles, face shield, apron, respirator and proper gloves when handling this product.

Protect containers from physical damage. Store in a cool, dry area in closed containers. In case of accidental release: contain spill by collecting the liquid in a pit or holding behind a dam (sand or soil). Absorb with inert media and dispose of properly. Disposal of all materials shall be in full and strict compliance with federal, state, and local regulations Consult the MSDS for additional safety information.

## SHIPPING

CARUS™ 8600 water treatment chemical is generally considered to be safe and is not classified as hazardous according the US Department of Transportation, Canada TDG, UN, IMDG, or IATA regulations.

## COMPATIBILITY INFORMATION

CARUS™ 8600 water treatment chemical can be stored in high-medium density polyethylene, cross-linked polyethylene, fiberglass reinforced plastic, 316 stainless steel, glass lined /epoxy lined steel tanks. Piping materials may include schedule 80 PVC/CPVC piping, clear PVC, and white polyethylene tubing. Pump materials may include ceramic, Teflon, viton, hypalon and PVC liquid end pump materials.

Metering equipment can include diaphragm and peristaltic type metering pumps and other pumps meeting compatibility requirements.

It is not compatible with black iron, mild steel, galvanized metals, aluminum, zinc, copper, lead, brass, bronze, tin, and other base metals.

ONE COMPANY. ENDLESS SOLUTIONS

CARUS CORPORATION



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 Peru, IL U.S.A.  
 Tel. + 1 815 223 1500  
 1 800 435 6856 (Toll free US Only)  
 Fax + 1 815 224 6697

Carus Europe  
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Certified Company



Web: [www.caruscorporation.com](http://www.caruscorporation.com)  
 E-Mail: [salesmkt@caruscorporation.com](mailto:salesmkt@caruscorporation.com)







## DATA SHEET

## SHIPPING CONTAINERS

**5-gallon (57-lb) Jerrican**

(UN Specification: UN3H1/Y1.8/100) Made of high density polyethylene (HDPE). Weighs 3.0 lb (1.36 kg). **The net weight is 57 lb (25.85 kg).**

**15-gallon (171-lb) Drum**

(UN Specification: UN1H1/Y1.8/100) Made of high density polyethylene (HDPE). Weighs 6.5 lb (3.0 kg). **The net weight is 171 lb (77.6 kg).**

**30-gallon (342-lb) Drum**

(UN Specification: UN1H1/Y1.8/100) Made of high density polyethylene (HDPE). Weighs 14 lb (6.35 kg). **The net weight is 342 lb (155.1 kg).**

**55-gallon (627-lb) Drum**

(UN Specification: UN1H1/Y1.8/100) Made of high density polyethylene (HDPE). Weighs 21 lb (9.5 kg). **The net weight is 627 lb (284.4 kg).**

## SHIPPING CONTAINERS CONT.

**275-gallon IBC (Intermediate Bulk Container)**

(UN Specification: UN31HA1/Y1.9/100) Weighs 129 lb (58.5 kg). The net weight is 3135 lb (1422 kg). The IBC has a 2 in. butterfly valve with NPT threads in bottom sump.

Bulk Quantities up to 4150 gallons are available.

Other containers may be available, contact Carus Corporation at 800-435-6856 for details.

## CARUS VALUE ADDED

## LABORATORY SUPPORT

Carus Corporation has technical assistance available to answer questions, evaluate treatment alternatives, and perform laboratory testing. Our laboratory capabilities include: Consulting, Treatability Studies, Feasibility Studies, and Analytical Services.

## FIELD SERVICES

As an integral part of our technical support, Carus provides extensive on-site treatment assistance. We offer full application services, including technical expertise, supervision, testing, and feed equipment design and installation in order to accomplish a successful evaluation and/or application.

## CARUS CORPORATION

During its more than 90-year history Carus' ongoing emphasis on research and development, technical support, and customer service has enabled the company to become the world leader in permanganate, manganese, oxidation, and base-metal catalyst technologies.

## ONE COMPANY. ENDLESS SOLUTIONS.

## CARUS CORPORATION

The information contained herein is accurate to the best of our knowledge. However, data, safety standards and government regulations are subject to change; and the conditions of handling, use or misuse of the product are beyond our control. Carus Corporation makes no warranty, either expressed or implied, including any warranties of merchantability and fitness for a particular purpose. Carus also disclaims all liability for reliance on the completeness or confirming accuracy of any information included herein. Users should satisfy themselves that they are aware of all current data relevant to their particular use(s).



Carus Corporation  
Peru, IL U.S.A.  
Tel. +1 815 223 1500

Carus Europe  
Aestirise Spain



Responsible Care®  
Good Chemistry at Work

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Carus and Design is a registered service mark of  
Carus Corporation. Responsible Care is a

Copyright 2009





Carus Corporation  
1500 8th Street  
LaSalle, IL 61301

Benton Harbor, MI

Date Received: 11/8/2018  
Date Analyzed: 11/12/2018  
Lab Number: 1108-07744  
Product: N/A  
PWS No.: N/A  
Number of Samples: 2  
Tests per Sample: 14

cc: Mike Enlow  
Elhorn Engineering Co.  
889 Eden Road  
Mason, MI 48854

#### SAMPLE INFORMATION

	Sample Site	Date	Time	Sampler
A	Raw	10/31/2018		ME
B	Finished	10/31/2018		ME
C				
D				
E				
F				
G				

#### RESULTS

Parameter	A	B	C	D	E	F	G	Units
Hardness	149.8	151.2						mg/L as CaCO <sub>3</sub>
Orthophosphate	0.05	0.04						mg/L as PO <sub>4</sub>
Iron	0.08	<0.02						mg/L
Manganese	<0.01	<0.01						mg/L
Copper								mg/L
Lead								mg/L
Initial pH								
Final Temp.	21.9	22.0						Celsius
Final pH	7.8	7.7						
Alkalinity	53.0	58.3						mg/L as CaCO <sub>3</sub>
Calcium	38.7	39.2						mg/L
Langelier	-0.21	-0.29						mg/L
Conductivity	153	180						umhos/cm
Chloride								mg/L
TDS	102	120						mg/L
Sulfate	23	32						mg/L
Poly Phosphate	0.08	0.01						mg/L as PO <sub>4</sub>
Total Phosphate	0.13	0.05						mg/L as PO <sub>4</sub>

Comments:

Note: These results are for monitoring purposes only. They cannot be used for compliance reporting.

Tina Garcia, Senior TS Lab Specialist

Tel: (815) 224-6880



# INVOICE

**Account Address:****Reference:**

Lab Number: 1108-07744  
Date: 11/8/2018

Description of Service	Number of Samples	Tests Per Sample	Price Per Test	Net Extension
Carus Corporation Laboratory Services	2	14	\$25.00	\$700.00
Customer Appreciation Credit				(\$700.00)
Total USD				\$0.00

By teaming with Elhorn Engineering and Carus, you just saved \$700.00 in outside laboratory fees!

Thank you for giving us the opportunity to serve you.

We appreciate your business and the confidence you have placed in us.  
Please contact Tina Garcia at (815) 224-6880 for further assistance.



Carus 8600

City of Benton Harbor

Corrosion Inhibitor Addition

Ortho Content 70% Poly Content 30% Density: 11.4 lbs/gal  
Strength 33% total P

Chemical Use Flow Rate Calculation (gallons per day)					
Plant Flow Rate (mgd):		Min Flow Rate	Ave Flow Rate	Max Flow Rate	State Rated Capacity
		2	3	5	8
Chem Dosing Rate:	1 mg/L as PO4	6.33	9.50	15.84	25.34
	2 mg/L as PO4	12.67	19.00	31.67	50.67
	3 mg/L as PO4	19.00	28.50	47.51	76.01

Goal: 1.5 mg/L as PO4

Low End: 9.3 gpd

High end: 37.5 gpd

Proposed Pump: 40 gpd

Day Tank Use		
	realistic day:	max day:
Gal Chem per day	10	40
# days per tank	5.5	1.38



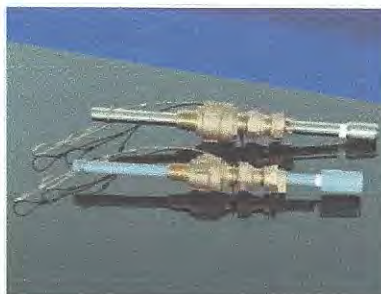
[COMPANY](#) [PRODUCTS](#) [MARKETS](#) [DISTRIBUTOR LOCATOR](#) [RESOURCES](#) [CONTACT US](#)

[LMI](#) [PRODUCTS](#) [Accessories](#) [Corporation Stop & Nozzle Assembly](#)

## Corporation Stop & Nozzle Assembly

### Corporation Stop & Nozzle Assembly

LMI offers a selection of Corporation Stop & Nozzle Assemblies to meet your chemical injection requirements. Available in four sizes consisting of 1" NPT with PP Nozzle, 1" NPT with Carpenter 20 Nozzle, 1" Mueller with PP Nozzle and 3/4" NPT with CPVC Nozzle. The durable brass components in contact with potable water are designed with a 0.10% maximum lead content which meets certain areas requiring "lead free" or "no lead" fixtures.



High Resolution Image

[Request a Quote](#)



[Features Tab](#)

[Information Tab](#)

Brass components in contact with potable water are designed with a 0.10% maximum lead content

Injects Chemical into the center of the water flow

Allows easy nozzle withdrawal for service removal of injection check valve without shutdown of treated line.

Maximum pressure : 150 PSI

Part No.	Description
49290	1" Mueller Bronze Corp Stop Assembly with PP Nozzle Assembly (replaces P/N 27741)
49289	1" NPT Bronze Corp Stop with Carpenter 20 Nozzle Assembly (replaces P/N 26741)
49288	1" NPT Bronze Corp Stop with PP Nozzle Assembly (replaces P/N 10741)
49287	3/4" NPT Bronze Corp Stop Assembly with CPVC Nozzle Assembly (replaces P/N 10998)



STENNER PUMPS®

# S SERIES

## PERISTALTIC PUMP

SMART TECHNOLOGY

SIMPLE PROGRAMMING

SOLID CONSTRUCTION

For Demanding Applications



# S SERIES

## PERISTALTIC PUMP

For Demanding Applications



### THE S SERIES INTERFACES WITH PROCESS CONTROL SYSTEMS UTILIZING A 4-20mA OUTPUT SIGNAL AND THREE RELAY OUTPUTS

Built to NEMA 4X for demanding applications. Select from multiple performance indicators and operational modes with intuitive programming and easy navigation. Fine-tune the pump to fit the application; monitor the pump for peace of mind. Prevent unauthorized access to programmed settings with the password protection.

## SMART TECHNOLOGY

### PERFORMANCE INDICATORS

Program the pump to respond based on a selected condition:

- Tube Leak
- Tube Change
- Standby
- Repeat Pulse
- Run
- Mode Change
- Low Signal
- High Signal
- Low Flow
- High Flow
- Drive Fault
- Signal Overrun
- Transfer
- Off



### TUBE LEAK DETECTOR

- Can detect solution in the pump head, vertically or horizontally
- Program alarm indicator with option to stop pump upon alarm
- Calibrate the sensitivity to avoid false detection



### TUBE TIMER

Set the tube's life expectancy in hours. When the set time is reached, the display shows the tube change alarm indicator.



### STANDBY

Program the transfer function to activate a relay to start a second S Series in Standby, as a back up to the primary pump.





# SIMPLE PROGRAMMING

## PUMP SIGNAL INPUTS

### ANALOG 4-20mA

- Proportional response to a 4-20mA signal; scalable, invertible.
- Speed varies to the signal level.

### 0-10VDC

- Proportional response to a 0-10VDC signal; scalable, invertible.
- Speed varies to the signal level.

### DIGITAL Pulse

- Accepts a dry contact or open collector type input signal from a controller or water meter.
- Activates at the number of pulses received, to run for a set amount of time.

### Hall Effect

- Speed varies according to Hall Effect input from a controller or flow meter.
- Program is based on meter's K factor, process flow range and desired pump output.

### PPM Feed Constant Flow

- Accepts a dry contact or open collector type input signal from a flow switch.
- Program is based on the process flow rate, chemical concentration, chemical specific gravity and the desired ppm feed rate.

### PPM Feed Variable Flow

- Accepts a Hall Effect input from a flow meter.
- Speed varies to maintain the desired ppm feed rate.
- Program is based on meter's K factor, process flow range, chemical concentration, chemical specific gravity and desired ppm feed rate.

### MANUAL Manual

- Speed controlled manually.
- Adjustable from 0% to 100% in 1% increments.

### 7 Day / 24 Hour Timer

- Program with a clock in real time.
- Run for a specific day, at a specific time, at speeds from 1% to 100%.
- 24 independent events, any combination of days.

### Cycle Timer

- Run on a repeatable ON/OFF sequence.

## PUMP SIGNAL OUTPUTS

### ANALOG 4-20mA

- Produces a non-adjustable, proportional signal corresponding to the speed percentage the pump is running. 4mA=0% & 20mA=100%

### DIGITAL Relays

- Dry contact signal; program normally open or normally closed.
- Indicate an alarm.
- Repeat an incoming signal.
- Transfer operation to another S Series pump in Standby.

## SOLID CONSTRUCTION

- Brushless DC motor is equipped with ball bearing support
  - Switch mode power supply is energy efficient
  - Totally enclosed pump is outdoor rated
  - OLED operating display is easy to navigate with intuitive programming
  - QuickPro® pump head offers tube replacement without tools
  - Splined shaft designed pump head & roller assembly allow smooth installation & replacement
  - NEMA 4X, NSF 61 & 372, cULus indoor/outdoor, CE IP65
- 

### MAXIMUM FLOW RATES

40 gpd, up to 100 psi / 151.4 lpd, up to 6.9 bar

85 gpd, up to 25 psi / 321.8 lpd, up to 1.7 bar

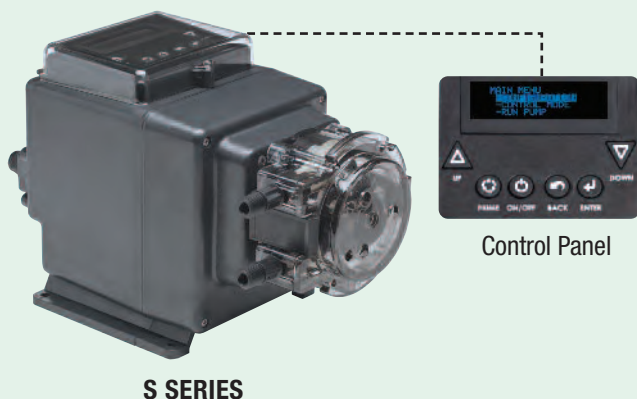
### VOLTAGE

120 VAC, 60Hz

230 VAC, 50Hz

## STENNER PUMPS BUILT WITH A STRONG WORK ETHIC

1. Self-priming against maximum working pressure
2. Can inject off-gassing solutions
3. No vapor lock or loss of prime
4. Easy tube replacement without tools
5. Uniquely manufactured solid one piece tube construction
6. Tube lubrication not required
7. Three point roller design assists with anti-siphoning
8. Output reproducibility
9. Output volume not affected by back pressure
10. Foot, prime or de-gassing valve not required



## Designed for Demanding Applications

The S Series is an advanced peristaltic metering pump built to NEMA 4X for demanding applications. Select from multiple operational modes and performance indicators that readily interface with process control systems utilizing a 4-20mA output signal and three relay outputs. Navigate through the many pump configurations with the tactile keypad and OLED display to customize the parameters for the specific application.

## Quick Facts

- 0.05 to 40.0 gpd, pressures to 100 psi
- 0.40 to 85.0 gpd, pressures to 25 psi
- Digital keypad with OLED display
- Tube leak detector
- Tube life timer
- Password protection

## Features

- Advantages of Stenner peristaltic pumps on page 1
- Fast tube replacement without tools with patent pending QuickPro® pump head
- Brushless DC motor with ball bearing support
- Switch mode power supply
- Totally enclosed housing
- NEMA 4X
- NSF 61 & 372
- cULus indoor/outdoor
- CE IP65

## Performance Indicators

Pump Condition	Control Mode	Programmable Communication	
		Display Alarm on pump control panel	Output Relay to another pump, system or device
Tube Change	Manual 4-20mA 0-10VDC Pulse Hall Effect 7 Day Timer PPM Feed Cycle Timer	✓	not applicable
Tube Leak		✓	✓
Standby		✓	✓
Drive Fault		✓	✓
Off		✓	✓
Repeat Pulse		not applicable	✓
Run		not applicable	✓
Mode Change		not applicable	✓
Transfer		not applicable	✓
High Signal	4-20mA or 0-10VDC	✓	✓
Low Signal	4-20mA or 0-10VDC	✓	✓
High Flow	Hall Effect or PPM Feed	✓	✓
Low Flow	Hall Effect	✓	✓
Signal Overrun	Pulse	✓	✓

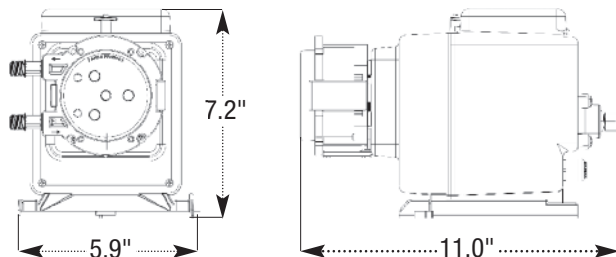
# S SERIES

## Weights and Dimensions

**Shipping Weight** 8 lbs (3.7 kg)

**Box Dimensions** 14 x 9 x 9 in. (35 x 23 x 23 cm)

### Product Dimensions



## Accessory Kit Shipped with Each Pump

- 3 Connecting nuts 1/4" or 3/8"
- 3 Ferrules 1/4" or 6 mm *EUROPE*
- 1 Injection check valve 100 psi (6.9 bar) OR  
1 injection fitting 25 psi (1.7 bar)
- 1 Weighted suction line strainer 1/4", 3/8" or 6 mm *EUROPE*
- 1 20' Roll suction/discharge tubing 1/4" or 3/8", white or UV black  
OR 6 mm white *EUROPE*
- 1 Additional pump tube
- 2 Additional latches
- 1 Mounting bracket
- 1 Quick start guide

## Specifications

### Flow Rate Output Control

Varies per control mode; digital keypad

**Reproducibility**  $\pm 2\%$

### Maximum Working Pressure

25 psi (1.7 bar), 100 psi (6.9 bar)

**Maximum Operating Temperature** 104°F (40°C)

### Maximum Suction Lift

25 ft (7.6 m) vertical lift, based on water

**Motor Type** Brushless DC motor

**Duty Cycle** Continuous

### Motor Voltage (Amp Draw)

120V 60Hz 1PH (0.6), 230V 50Hz 1PH (0.3)

### Power Cord Type

120V 60Hz SJTOWA, 230V 50Hz H05RNF

### Power Cord Plug End

120V 60Hz 15P, 230V 50Hz CEE7/7,  
230V 50Hz SEV1011

**Hall Effect Max. Input Frequency** 100 KHz

**RPM** Variable

**RPM (maximum)** 45

**RPM (gradient)** By %

The % sets the speed and is not 1 to 1 for RPM.

**Maximum Altitude** 6562 ft. (2000 m)

**Maximum Viscosity** 1500 Centipoise

**Pulse Duration Required** 10 milliseconds

Minimum duration required for pump to read signal.

## Materials of Construction

**All Housings** Polycarbonate

### Pump Tube & Check Valve Duckbill

Santoprene<sup>®</sup>, optional Versilon<sup>™</sup>, FDA approved

**CV Duckbill with Versilon<sup>™</sup> Tube** Pellathane<sup>®†</sup>

**Pump Head Rollers** Polyethylene

**Roller Bushings** Oil Impregnated sintered bronze

**Suction/Discharge Tubing, Ferrules 1/4" & 6 mm**

Polyethylene, FDA approved

### Tube Fittings, Injection Fittings

Type 1 Rigid PVC or Polypropylene, NSF Listed

### Connecting Nuts

Type 1 Rigid PVC or Polypropylene

**3/8" Adapter** Type 1 Rigid PVC, NSF Listed

**Suction Line Strainer** Polypropylene or Type 1

Rigid PVC body with Type 1 Rigid PVC Cap, NSF listed; ceramic weight

**All Fasteners** Stainless steel

**Pump Head Latches** Polypropylene

## Agency Listings

Models (Santoprene<sup>®</sup> only) tested by IAPMO to conform to ANSI/NSF STD 61 & 372.



THIS PUMP IS TESTED AND CERTIFIED BY IAPMO ACCORDING TO ANSI/NSF 61 FOR CONTACT WITH SODIUM HYPOCHLORITE AND WATER ONLY AND NSF/ANSI 372.



\* Santoprene<sup>®</sup> is a registered trademark of Exxon Mobil Corporation.

\*\* Versilon<sup>™</sup> is a registered trademark of Saint-Gobain Performance Plastics.

† Pellathane<sup>®</sup> is a registered trademark of The Dow Company.

## S Series - Flow Rate Output Chart 25 psi (1.7 bar) maximum

Model	Item Number Prefix	Pump Tube	Turndown Ratio	Gallons per Day	Liters per Day	Gallons per Hour	Liters per Hour	Ounces per Hour	Milliliters per Hour	Ounces per Minute	Milliliters per Minute
S3003	<b>S3003</b>	3	100:1	0.40 to 40	1.51 to 151	0.017 to 1.67	0.063 to 6.31	2.13 to 213	63.09 to 6309	0.036 to 3.56	1.05 to 105
S3004	<b>S3004</b>	4	100:1	0.60 to 60	2.27 to 227	0.025 to 2.50	0.095 to 9.46	3.20 to 320	94.64 to 9464	0.053 to 5.33	1.58 to 158
S3005	<b>S3005</b>	5	100:1	0.85 to 85	3.22 to 322	0.035 to 3.54	0.134 to 13.41	4.53 to 453	134.07 to 13407	0.076 to 7.56	2.23 to 223
Approximate Output @ 50/60Hz											

## S Series - Flow Rate Output Chart 100 psi (6.9 bar) maximum

Model	Item Number Prefix	Pump Tube	Turndown Ratio	Gallons per Day	Liters per Day	Gallons per Hour	Liters per Hour	Ounces per Hour	Milliliters per Hour	Ounces per Minute	Milliliters per Minute
S3001	<b>S3001</b>	1	100:1	0.05 to 5	0.19 to 19	0.002 to 0.21	0.008 to 0.79	0.27 to 27	7.89 to 789	0.004 to 0.44	0.13 to 13
S3002	<b>S3002</b>	2	100:1	0.17 to 17	0.64 to 64	0.007 to 0.71	0.027 to 2.68	0.91 to 91	26.81 to 2681	0.015 to 1.51	0.45 to 45
S3007	<b>S3007</b>	7	100:1	0.40 to 40	1.51 to 151	0.017 to 1.67	0.063 to 6.31	2.13 to 213	63.09 to 6309	0.036 to 3.56	1.05 to 105
Approximate Output @ 50/60Hz											

NOTE: Injection check valve included with pumps rated 100 psi (6.9 bar) maximum.

**NOTICE:** The information within these charts is solely intended for use as a guide. The output data is an approximation based on pumping water under a controlled testing environment. Many variables can affect the output of the pump. Stenner Pump Company recommends that all metering pumps undergo field calibration by means of analytical testing to confirm their outputs.

## Item Number Builder

Item Number Prefix

N

**Voltage & Hertz**  
**AA** 120V 60Hz  
**DC** 230V 50Hz, CEE7 Cord  
*INTERNATIONAL*  
**DE** 230V 50Hz, SEV1001 Cord  
*INTERNATIONAL*  
 Contact the factory for additional voltage and cord options.

**Suction & Discharge Tubing**  
**10** 1/4" White  
**20** 1/4" UV Black  
**30** 3/8" White  
**40** 3/8" UV Black  
**50** 6 mm White *EUROPE*  
 O.D. does not affect output.

**Tube Material**  
**1** Santoprene®  
**2** Versilon™ (#7 not available)  
 Refer to the chemical resistance guide for chemical compatibility.

### How to build an Item Number

1. Refer to above **Flow Rate Output Chart** to select a pump.
2. Select the **Item Number Prefix** from the output chart.
3. Select the remaining options to complete the item number.





**FPI Mag™**  
**Full Profile Insertion**  
**Flow Meter**



The Only Hot Tap  
Full Profile Insertion  
Mag Meter

High Performance • Easy to Install



# Unbeatable Value in Cost of Installation and Ownership

Ideal for Capital or Maintenance Projects,  
Retrofits and Sites Never Before Metered

## MUNICIPAL WATER AND WASTEWATER

The FPI Mag Full Profile Insertion mag meter supports the following water and wastewater treatment applications:

### Water

- Distribution
- Effluent
- Pumping Stations
- UV Dosing
- Filter Balancing and Backwash
- Wells & Booster Stations

### Wastewater

- Effluent
- Recycle / Reclaim

The FPI Mag is ideal for chilled water in campus style facilities, hospitals, airports, hotels, casinos, etc.



## INDUSTRIAL FACILITIES

The FPI Mag is also suitable for a variety of industrial facilities: power plants (including cogeneration), paper mills, chemical & petrochemical plants, metals & mining, and food & beverage.

### Applications Include:

- Cooling Water
- Fire Water
- Feed Water
- Raw Water
- Inlet to Surge Basin
- Effluent Wastewater



## Simple Installation

The insertion design of the FPI Mag allows for easy installation across a wide range of applications and pipe sizes. Hot Tap installation allows you to insert the meter without interrupting service, de-watering lines, cutting pipe or welding flanges.

## Lower Costs

Customers save 45%+ on installation and the total cost of ownership. The FPI Mag eliminates the need for heavy equipment and manpower necessary to support installation.

## Unmatched Accuracy

The FPI Mag's multi-electrode design and unique operating principle delivers accuracy unmatched by other insertion meters and rivals the performance of full-bore mag meters.

## Robust Construction

With no moving parts, there is nothing to wear or break. The sensor body is made from heavy-duty 316 stainless steel for maximum structural integrity. The sensor body is hermetically sealed and protected by NSF certified 3M fusion-bonded epoxy coating.

## Versatile

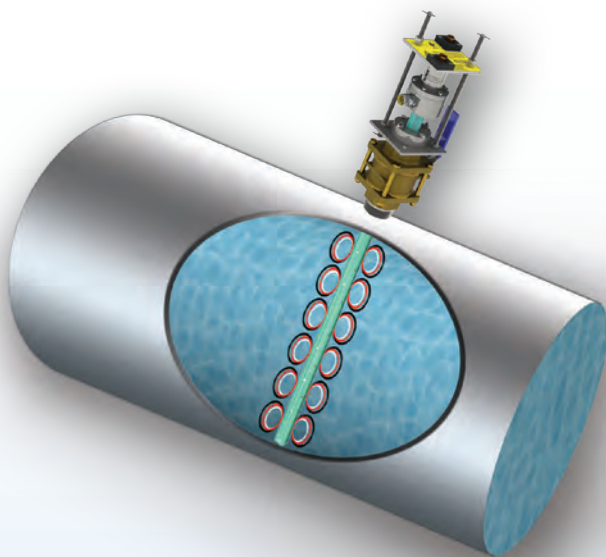
The FPI Mag is ideal for capital or maintenance projects, retrofits and sites never before metered. The unique combination of accuracy, ease of installation and total cost savings make the FPI Mag the perfect choice for a wide range of Municipal and Industrial applications.





- **Simple Installation**
- **Lower Costs**
- **Unmatched Accuracy**

## Principle of Operation



The FPI Mag operates based on Faraday's Law of Electromagnetic Induction: When water (a conductor) moves through a magnetic field, it produces a voltage that is directly proportional to the velocity of the conductor.

## How it Works ...

- Electromagnetic coils installed inside the entire length of the sensor produce magnetic fields
- Stainless steel electrode pairs installed on the outside of the entire sensor length collect the induced voltage caused by the flowing water
- The total voltage signal is then transmitted to the converter electronics where it is converted to an average flow velocity
- The converter then multiplies this average flow velocity by the pipe's cross-sectional area to create a volumetric flow rate

# Rivals the Performance of a Full-Bore Mag!

Multi-Electrode design delivers accurate full profile measurement with repeatable results

## PERFORMANCE SPECIFICATIONS

<b>Range:</b>	0.3 ft/s to 32 ft/s (0.1 m/s to 10 m/s)
<b>Accuracy:</b>	Up to $\pm 0.5\%$ from 1 ft/s to 32 ft/s (0.3 m/s to 10 m/s) Up to $\pm 1\%$ from 0.3 ft/s to 1 ft/s (0.1 m/s to 0.3 m/s)
<b>Linearity:</b>	0.3% of reading
<b>Pipe Sizes:</b>	4" - 138" (100 mm to 3,500 mm)
<b>Materials:</b>	316 Stainless Steel Sensor Body, Insertion Hardware and Sensor Electrodes NSF Certified 3M Fusion-Bonded Epoxy Coating

## CERTIFICATIONS AND APPROVALS

Listed by CSA to 61010-1: Certified by CSA to UL 61010-1 & CSA C22.2 No. 61010-1-04



ISO 9001:2008 certified quality management system



To learn more and see a demonstration, go to:  
[www.mccrometer.com/fpimag](http://www.mccrometer.com/fpimag)

## M-SERIES CONVERTER

The FPI Mag utilizes our pre-programmed M-Series Converter\*:



- Curve-fitting algorithm to improve accuracy
- Dual 4-20 mA analog outputs
- RS485 port for easy connection to DCS
- 8 line graphical LCD display
- 3 key touch programming
- Rugged enclosure meets IP67

*\*See data sheet for complete specs and order information*

# The McCrometer Value Difference



For over 55 years, McCrometer has demonstrated an unyielding commitment to integrity which is reflected in our stringent flow meter calibration processes. Each flow meter is individually wet calibrated in one of our two world-class NIST traceable calibration facilities and delivered with a Certificate of Calibration.



Our Hemet, California factory boasts a robust Calibration Test Lab that enables production of the most accurate and precise flow instrumentation. The test facility utilizes three gravimetric systems and two volumetric systems providing accuracy and calibration tests of flow meters from 1/2 to 20-inch diameter, with flow rates up to 4,000 gpm.



Our large volume test facility is located in Porterville, California. This facility is one of the world's largest volumetric test facilities owned by a meter manufacturer, and it offers accuracy and calibration tests of flow meters from 3 to 72-inch diameter, with flow rates up to 60,000 gpm.

View the Demo:



[www.mccrometer.com](http://www.mccrometer.com)

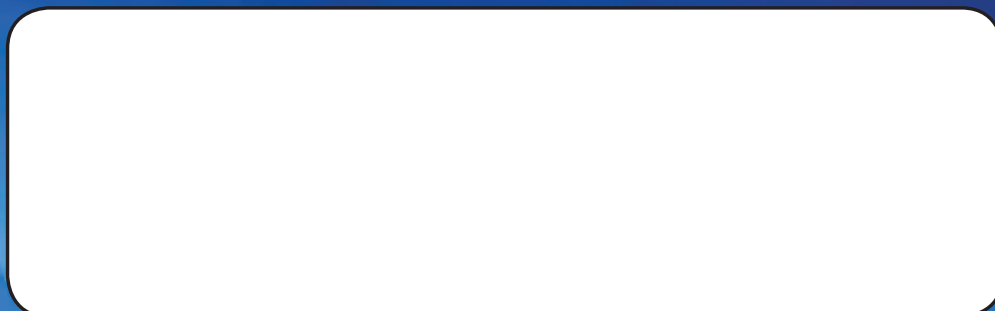
3255 West Stetson Avenue, Hemet, California 92545 USA  
Phone 800-220-2279 | 951-652-6811 | Fax 951-652-3078

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U.S. Patent 8,136,410. Foreign Patents Pending.

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Represented by:





## BATTERY POWERED DIGITAL WEIGHT INDICATOR



CHLOR-SCALE® 150



CARBOY-SCALE™



- + NO AC POWER NEEDED
- + 4-20MA OUTPUT FOR REMOTE MONITORING

- + LEVEL ALARM OUTPUT RELAY
- + LARGE DIGITAL DISPLAY

THE SOLO® XT WEIGHT INDICATOR FROM FORCE FLOW NOW FEATURES KEYPAD CONTROL, BATTERY BACKUP FOR THE 4-20MA OUTPUT MODEL, A BAR GRAPH DISPLAY AND A LEVEL ALARM RELAY. COMBINE THE SOLO XT WITH OUR CHEMICAL MONITORING SCALES TO ACCURATELY TRACK CHEMICAL USAGE AND REMAINING AMOUNTS.

THE SOLO XT USES OUR PROVEN DURABLE HYDRAULIC LOAD CELL FOR WEIGHT SENSING AND HAS A BATTERY POWERED DISPLAY SO NO AC POWER IS REQUIRED. THIS ELIMINATES THE NEED FOR A COSTLY ELECTRICIAN DURING INSTALLATION AND SCALE LIFE IS MAXIMIZED SINCE NO ELECTRONIC COMPONENTS ARE LOCATED ON THE FLOOR.

TWO STANDARD C CELL FLASHLIGHT BATTERIES POWER THE SOLO XT FOR UP TO 4000 HOURS WHEN USED IN CONTINUOUS DISPLAY MODE. IN ORDER TO FURTHER EXTEND BATTERY LIFE, THE

LCD DISPLAY CAN BE ACTIVATED BY THE ON/OFF BUTTON. ONCE ACTIVATED, THE DISPLAY AUTOMATICALLY POWERS DOWN AFTER A USER SELECTED AMOUNT OF TIME OR CAN BE INSTANTLY SHUT OFF BY PRESSING THE BUTTON AGAIN. IN THIS DISPLAY-ON-DEMAND™ MODE, THE BATTERIES WILL LAST UP TO THREE YEARS. THE DISPLAY ON THE 4-20MA MODEL REMAINS ON CONTINUOUSLY, POWERED BY THE 12 TO 36 VOLT DC LOOP WITH THE BATTERIES ACTING AS AN AUTOMATIC BACKUP IF LOOP POWER IS UNAVAILABLE.

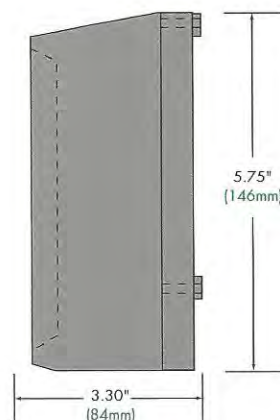
THE SOLO XT CAN BE USED WITH MOST FORCE FLOW SCALES AND CAN EASILY REPLACE AN EXISTING CENTURY HYDRAULIC DIAL TO CREATE A DIGITAL SCALE SYSTEM.

**FORCE FLOW**

WWW.FORCEFLOW.COM



## SOLO® XT WEIGHT INDICATOR WITH CROSS TECHNOLOGY™



DIMENSIONS: INCHES (MILLIMETERS)

SEE BULLETINS 204, 205 &amp; 512 FOR PLATFORM DIMENSIONS

SOLO XT – BATTERY POWERED					TECHNICAL DATA																																								
MODEL NUMBER		DESCRIPTION			<div>CHANNELS</div> <ul style="list-style-type: none"><li>ONE</li></ul> <div>RESOLUTION</div> <ul style="list-style-type: none"><li>USER SELECTABLE: 0.1 OR 1.0</li></ul> <div>POWER</div> <ul style="list-style-type: none"><li>TWO (2) C CELL BATTERIES</li></ul> <div>ENCLOSURE</div> <ul style="list-style-type: none"><li>NEMA 4X POLYPROPYLENE</li></ul> <div>INPUT</div> <ul style="list-style-type: none"><li>HYDRAULIC LOAD CELL</li></ul> <div>DISPLAY</div> <ul style="list-style-type: none"><li>0.8" CHARACTERS</li><li>5 DIGIT</li><li>NET WT, TARE WT, GROSS WT, BAR GRAPH</li></ul> <div>TARE ADJUSTMENT</div> <ul style="list-style-type: none"><li>ENTER TARE WT OR ENTER NET WT</li></ul> <div>OUTPUTS</div> <ul style="list-style-type: none"><li>4-20MA FOR REMOTE MONITORING</li><li>1.0A LEVEL ALARM OR SETPOINT RELAY</li></ul>																																								
<div>STANDARD METRIC</div> <div>CYLINDER SCALES</div> <table><tr><td>XT150-1</td><td>XT100K-1</td><td colspan="3">SINGLE CYLINDER SCALE FOR 150 LB. CHLORINE &amp; SO2 CYLINDERS</td></tr><tr><td>XT150-2</td><td>XT100K-2</td><td colspan="3">DUAL CYLINDER SCALE FOR 150 LB. CHLORINE &amp; SO2 CYLINDERS</td></tr><tr><td>XT400AS</td><td>XT200KAS</td><td colspan="3">SINGLE CYLINDER SCALE FOR 150 LB. AMMONIA CYLINDERS</td></tr></table> <div>CARBOY-SCALES™</div> <table><tr><td>XT200</td><td>XT100K</td><td>CAPACITY</td><td>TANK DIAMETER</td><td>PLATFORM MATERIAL</td></tr><tr><td></td><td></td><td>200 LB (100KG)</td><td>8"-16" (200-400MM)</td><td>PVC W/ TUF-COAT™</td></tr><tr><td>XT400</td><td>XT200K</td><td>400 LB (200KG)</td><td>14"-19" (355-485MM)</td><td>PVC W/ TUF-COAT™</td></tr><tr><td>XT600</td><td>XT300K</td><td>600 LB (300KG)</td><td>18"-24" (460-610MM)</td><td>PVC W/ TUF-COAT™</td></tr></table> <div>DRUM-SCALE™</div> <table><tr><td>XT10DS</td><td>XT5KDS</td><td>1000 LBS (500 KG)</td><td>18"-24" (460-610MM)</td><td>WELDED STEEL W/ TUF-COAT™</td></tr></table>						XT150-1	XT100K-1	SINGLE CYLINDER SCALE FOR 150 LB. CHLORINE & SO2 CYLINDERS			XT150-2	XT100K-2	DUAL CYLINDER SCALE FOR 150 LB. CHLORINE & SO2 CYLINDERS			XT400AS	XT200KAS	SINGLE CYLINDER SCALE FOR 150 LB. AMMONIA CYLINDERS			XT200	XT100K	CAPACITY	TANK DIAMETER	PLATFORM MATERIAL			200 LB (100KG)	8"-16" (200-400MM)	PVC W/ TUF-COAT™	XT400	XT200K	400 LB (200KG)	14"-19" (355-485MM)	PVC W/ TUF-COAT™	XT600	XT300K	600 LB (300KG)	18"-24" (460-610MM)	PVC W/ TUF-COAT™	XT10DS	XT5KDS	1000 LBS (500 KG)	18"-24" (460-610MM)	WELDED STEEL W/ TUF-COAT™
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4-20MA OUTPUT MODELS		LOOP POWERED W/ BATTERY BACKUP ADD THE LETTERS "MA" TO THE END OF THE MODEL NUMBERS ABOVE. EXAMPLE: XT600MA																																											
LEVEL ALARM RELAY MODELS		INCLUDES 4-20MA OUTPUT & BATTERY BACKUP ADD THE LETTERS "MAR" TO THE END OF THE MODEL NUMBERS ABOVE. EXAMPLE: XT150-1MAR																																											
THE SOLO-XT CAN ALSO BE USED WITH CHEM-SCALES TO MONITOR LARGER DAY TANKS AND CHLOR-SCALES FOR CHLORINE TON CONTAINERS. CONTACT FACTORY FOR MODEL NUMBERS.																																													
TYPICAL SPECIFICATION FOR DIGITAL SCALE																																													
A QUANTITY OF _____ SCALES (CYLINDER, CARBOY OR DRUM) SHALL BE PROVIDED AND SHALL BE OF THE DIGITAL READOUT/HYDRAULIC LOAD CELL TYPE. FOR REDUNDANCY, EACH WEIGHING PLATFORM SHALL HAVE A SOLE AND SEPARATE WEIGHT INDICATOR WITH NO SHARED INTERNAL COMPONENTS. SCALE PLATFORM COATING SYSTEM SHALL BE A MINIMUM DRY THICKNESS OF 80 MILS AND BE RESISTANT TO MOISTURE, CHEMICALS, ABRASION, IMPACT AND UV LIGHT. SCALE SHALL BE OF THE SINGLE HYDRAULIC LOAD CELL DESIGN. LOAD CELL SHALL BE OF THE TEMPERATURE STABLE, ROLLING DIAPHRAGM TYPE. FLEXIBLE TUBING SHALL CONNECT LOAD CELL TO INDICATOR TO ALLOW EASY REMOTE INSTALLATION OF THE DIGITAL INDICATOR. TUBING LENGTH SHALL BE _____ FT. (METERS) (6' CARBOY/CYLINDER OR 5' DRUM STANDARD) IN LENGTH.																																													
INDICATOR SHALL UTILIZE CROSS TECHNOLOGY™ TO CONVERT THE HYDRAULIC LOAD CELL SIGNAL INTO A DIGITALLY DISPLAYED WEIGHT VALUE. INDICATOR SHALL BE BATTERY OPERATED AND SHALL NOT RELY ON ANY TYPE OF EXTERNAL POWER FOR DISPLAY OPERATION. BATTERIES SHALL PROVIDE APPROXIMATELY 4000 HOURS OF DISPLAY TIME. INDICATOR SHALL BE HOUSED IN A NEMA 4X ENCLOSURE WITH 6 FUNCTION KEYS FOR INDICATOR OPERATION. NET WEIGHT SHALL BE DISPLAYED IN TWO WAYS: A NUMERICAL DISPLAY WITH .81 INCH HIGH CHARACTERS AND AN ANALOG 0-100% BAR GRAPH DISPLAY. A THIRD DISPLAY LINE SHALL PROMPT THE USER THROUGH ROUTINE USER OPERATIONS.																																													
USER SHALL BE ABLE TO SET THE NET WEIGHT EITHER BY SCROLLING IN THE NET CHEMICAL WEIGHT, OR SCROLLING IN THE TANK TARE WEIGHT. A MENU KEY SHALL PROVIDE ACCESS TO THE FOLLOWING 5 FUNCTIONS: 1) ZERO INDICATOR, 2) SET BAR GRAPH & 4-20 MA CAPACITY, 3) SET DISPLAY AUTO-OFF TIME, 4) SET ALARM RELAY VALUES AND 5) SET DECIMAL POINT.																																													
FULL SCALE ACCURACY SHALL BE BETTER THAN 1%. SCALE SHALL HAVE TUF-COAT™ COATING SYSTEM AND SOLO® XT DIGITAL DISPLAY INDICATOR, MODEL XT _____ AS MANUFACTURED BY FORCE FLOW, 1150-D BURNETT AVENUE, CONCORD, CA 94520 USA (WWW.FORCEFLOW.COM), OR EQUAL.																																													
TYPICAL SPECIFICATIONS, DRAWINGS AND BROCHURES CAN BE DOWNLOADED FROM OUR EXTENSIVE WEBSITE AT WWW.FORCEFLOW.COM																																													
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INDICATOR SHALL HAVE A LOOP-POWERED (12-36 VOLTS DC BY OTHERS) 4-20 MA OUTPUT PROPORTIONAL TO NET WEIGHT. AN 18 INCH FLYING LEAD SHALL BE PROVIDED FOR TERMINATION IN A USER SUPPLIED JUNCTION BOX.																																													
LEVEL ALARM RELAY																																													
INDICATOR SHALL HAVE A 1.0 AMP LEVEL ALARM SET POINT THAT CAN BE CONFIGURED FOR EITHER A HIGH OR LOW LEVEL ALARM CONDITION. AN 18 INCH FLYING LEAD SHALL BE PROVIDED FOR TERMINATION IN A USER SUPPLIED JUNCTION BOX.																																													
SCALE SHALL CARRY A FULL FIVE (5) YEAR WARRANTY. "LIMITED" WARRANTIES SHALL BE CONSIDERED UNACCEPTABLE.																																													
FORCE FLOW																																													

1150-D BURNETT AVE., CONCORD, CA 94520 USA, 925.686.6700 FAX 925.686.6713, E-MAIL: INFO@FORCEFLOW.COM

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