Fact Sheet : 5

METALS AND CYANIDE (INORGANIC CHEMICALS) SAMPLING
Noncommunity Public Water Supplies

WATER SUPPLY SERIAL NUMBER (WSSN):_____ WELL#:_____
NAME OF WATER SUPPLY: _____
SAMPLING CONTACT PERSON:_____PHONE:_____
HEALTH DEPARTMENT CONTACT:_____ PHONE:_____

⇒COMPLETE METALS SAMPLING FREQUENCY:_____SAMPLE EVERY _____YEARS
⇒CYANIDE SAMPLING FREQUENCY:_____SAMPLE EVERY _____YEARS
⇒SAMPLE TAP LOCATION:_____
(Sample siting plan required to be approved by local health department – see sanitary survey document)
⇒LABORATORY FOR METALS/CYANIDE TESTING:_____PHONE:_____

Metals and Cyanide – General Information

The regulated metals are generally toxic in varying degrees and their presence in drinking water may be the result of contamination by industrial waste or some may be naturally occurring in certain soils and geologic formations in Michigan. Their presence at significant levels may be an indication of poor well construction or a vulnerable aquifer. Cyanide is used to make the compounds needed to make nylon and other synthetic fibers and resins, as well as being found in some herbicides. It does not bind with soil and may migrate to groundwater.

SAMPLING PROTOCOL

- Obtain the proper bottles from a certified laboratory and follow the instructions provided.
- Collect samples just prior to delivery or mailing to the laboratory. Samples must be analyzed within 48 hours of collection. Keep the sample refrigerated.
- Collect sample as close to the well as possible prior to any treatment and flush stagnant water by running water at full flow for several minutes before collecting the sample. (Fill out the form while you wait.)
- Adjust the tap to provide a pencil sized stream of water and fill the bottle to the bottom of the neck.
- Complete the report form ***making sure to record the WSSN, date and time of sampling*** and return address are recorded on the form correctly. Be sure to request the proper tests.
- Deliver or mail the samples to the lab as soon as possible so the 48 hour transit time is not exceeded.

(over)

NOTE: IN ORDER TO COMPLY WITH STATE REGULATIONS, IT IS NECESSARY TO USE A LABORATORY CERTIFIED IN THE ANALYSIS OF ALL OF THE REQUIRED CHEMICAL ANALYTES.

SAMPLING FOR COMPLETE METALS AND CYANIDE IS A REQUIREMENT FOR NONTRANSIENT, NONCOMMUNITY WATER SUPPLIES ONLY.

INORGANIC SAMPLING (WITH WAIVER)

Contaminant	***MCL (mg/l)***	***Contaminant***	***MCL (mg/l)***
Antimony	*.006*	*Mercury*	*.002*
Barium	*2.0*	*Arsenic*	*.010*
Beryllium	*.004*	*Cadmium*	*.005*
Chromium	*.1*	*Selenium*	*.05*
Cyanide	*.2*	*Thallium*	*.002*

WHEN YOU RECEIVE THE TEST RESULTS:

1. Review the sample results and send a copy of results to the local health department. (Note if you use the MDEQ lab and have **properly completed the sample form**, results are automatically sent to the local health department.**) One sample is required per three year monitoring period. If there have been three testing cycles (9 years) not exceeding the maximum contaminant level (MCL), the frequency may be decreased to one sample every nine years.**

2. Whenever an **initial** water sample exceeds the MCL for any of the analytes:
   - ♦ A confirmatory sample must be taken from the same tap within 24 hours of receipt of the test results.
   - ♦ There is a violation of the drinking water standard if the average of the two samples exceeds the MCL.

If You Have an MCL Violation, you must:

- ♦ Notify the local health department within 24 hours or the next business day.
- ♦ Notify the public (consumers) of the MCL violation as instructed by the health department.
- ♦ Provide a temporary **ALTERNATE SUPPLY OF WATER FROM AN APPROVED SOURCE, such as bottled water.**
- ♦ Begin seeking a new source. When possible drill a new well into an acceptable aquifer or connect to municipal water if available.