

MCL Investigation

Grand Traverse County
Environmental Health Department

Annual Coliform Bacteria and Nitrate samples were taken by Grand Traverse Co. Health Dept. from the Acme McDonald's on 12-27-2012

- Grand Traverse County Health Department was contacted on 12-31-2012 by SOS Analytical Lab that Coliform Bacteria was present in the sample taken on 12-27-2012



Response to Positive Coliform Results on December 31, 2012

- 4 repeat samples within 24 hours
- 1 at positive tap
- 1 at raw water tap
- Others from approved distribution taps in facility



Site visit was made on Dec 31, 2012

- 1 sample taken from positive tap
- 1 sample taken from raw water tap
- 2 other samples taken in building
- Samples taken at 11:00 am at McDonald's and taken to SOS Analytical for testing
- Contacted SOS Analytical – stayed open to receive samples

Results from SOS Analytical on Jan. 2, 2013 at 11:00 am

- Call from SOS Analytical – all four samples were positive for Coliform Bacteria – Neg. for E Coli
- Site visit conducted on Jan. 2, 2013
- Talked w/ manager – investigated well and distribution system for problems

Problem with well found during investigation

on 12:30 pm on 1/2/2013

- Heard rapid cycling of submersible pump, loss of pressure in drop pipe - observed at wellhead
- Contacted Cluff Well Drilling for immediate service call
- MCL Posting signed and posted at entrance
- McDonald's closed immediately and closed through well repair and chlorination on 1/2 and 1/3/2013

Concerns found during site visit

In-line filters maintenance, faucet and aerator condition, and pressure tank sampling tap and condition

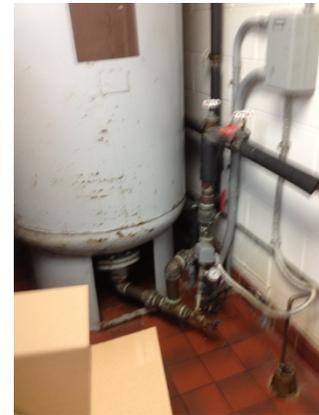


Repairs to Well at McDonald's on 1/2/2013 by Cluff Well Drilling

- Foot valve was replaced
- New well cap – old seal on cap was not tight
- Pressure tank bladder had ruptured ? 5-10 sec. pump run time
- Drop pipe was replaced – it had cracked above the foot valve – probably due to torque created from the rapid pump cycling
- Well and distribution system was chlorinated on 1/2/2013 after well repairs were completed - late evening by Cluff Well Drilling
- Well and distribution system was flushed out on morning of 1/3/2013

Concern with pressure tank

- Pressure tank liner had failed
- Pump run time 5-10 seconds
- Limited storage capacity
- Submersible pump life expectancy reduced



McDonald's Reopens on Jan. 3 under Precautionary Measures

- Only serve bottled water
- Carton milk
- Single serve juice
- Canned pop
- Signs indicating limited menu
- Signs in restrooms: “Water Unsafe for Drinking”



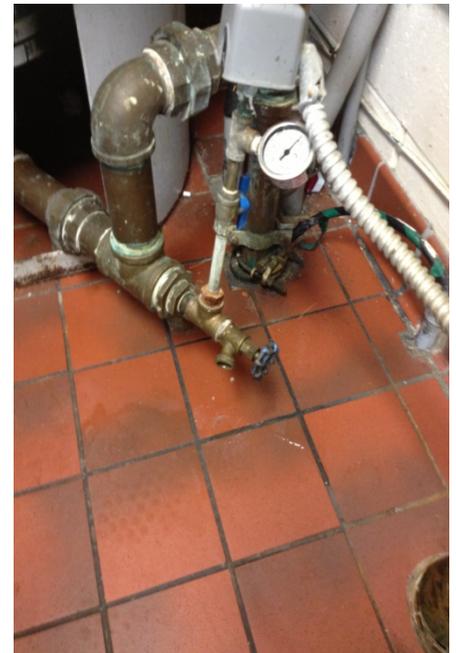
Two samples are required
after chlorination
and after system has been flushed

- Samples should be 24 hours apart
- Samples must be free of chlorine
- Samples may be taken 8 hours apart if the well is continuously pumped between sampling



Samples were taken on 1/3 and 1/4

- 1 sample from the sampling tap – raw water tap
- 1 sample from a previous positive tap
- Both samples were Negative



Precautionary measures were taken off on 1/5/2013

- Copies of letters to be put in file:
- Initial positive letter
- Maximum Contaminate Letter
- Coliform Bacteria Maximum Contaminant Level Violation Resolution Letter
- Tracking Form for Noncommunity Public Water Supply - filled out w/ dates

5 Follow-up samples are required the following month after an MCL

- 5 samples taken at McDonald's on Feb. 28
- Raw water tap
- Previously positive water tap
- Other taps in building

Coliform Sample Results from SOS Analytical on Saturday, March 2

- 2 positive coliform bacteria results out of the 5 taken
- Prep sink and a utility sink were positive

Site visit to McDonald's on 3/2/13

- Notify manager on-site that another MCL has occurred
- Post signed public notice that an MCL is present in building
- Called Cluff Well Drilling for immediate service call
- Restaurant closed during re-chlorination on 3/2/2013

Water system chlorinated

- Water system chlorinated by Cluff Well Drilling on Saturday evening w/ 2x strength chlorine
- System flushed out Sunday morning
- Problem w/ Pressure Tank again noted during service call on 3/2/2013

Pressure Tank concerns at McDonald's

- Rapid cycling of pump
- 5-10 second run time on pump
- Bladder in pressure tank has ruptured

Pressure Tank concerns discussed with manager and Cluff Well Drilling

- New owner concerned with costs for new tank
- Pressure tank too large to remove from building
- Concerns with pump life if tank not replaced
- Plans to order a new pressure tank liner

System flushed out on Sunday

- First sample on Sunday, March 3
- GTCHD took second sample on Monday, March 4
- Precautionary Measures were implemented on Sunday, March 3

Precautionary Measures were lifted on Tues., March 5, 2013

- Both samples had been confirmed negative for Coliform and E Coli Bacteria by SOS Analytical on Tuesday, March 5
- Discussion with manager on plans for pressure tank and pump life at facility

Second MCL letters to be put in file

- Initial Coliform Bacteria Positive Letter
- Maximum Contaminate Letter
- Coliform Bacteria Maximum Contaminant Level Violation Resolution Letter
- Tracking Form for Noncommunity Public Water Supply – filled out completely w/ dates

Pressure Tank

- Cluff Well Drilling ordered new bladder for pressure tank after second MCL
- Advised that facility must go on precautionary measures until 2 consecutive samples have been taken when work is done on pressure tank

Pressure Tank bladder installed

- Cluff Well Drilling installed new pressure tank bladder on the night of 3/28/2013
- After work completion, precautionary measures put in place at facility



Cluff Well Drilling installing liner

- Started work on Thursday at 11:30 pm, while restaurant was closed
- Chlorinated system overnight after completion of work
- Flushed system on Friday morning
- First sample taken on Friday, 3/29, second sample taken 4/1/2013
- Results from SOS Analytical on Tuesday, 4/2/2013



McDonald's back in compliance on 4/2/2013

- 5 Samples due following month – May 2013



McDonald's MCL Conclusion

- New Owner
- Lack of maintenance
- Cost of repairs
- Filters, Softener maintenance
- Cost of not maintaining water supply
- Cost to facility to have a recurring MCL problem



Codes and sample results to be added in Watertrack

- SIA- date alerted facility that an MCL has occurred and when informing facility of precautionary measures and corrective actions
- SIC- Date Technical Assistance is provided
- SIE- Date when the Public Notice is issued
- SIF- Date Public Notice is signed and posted

Second MCL needs to be generated in Watertrack

- SIA – Date Facility is notified of MCL
- SIC – Date Technical Assistance has been provided at facility
- SIE - Date Public Notice of MCL is issued
- SIF – Date Public Notice is signed and posted at facility
- Type in notes section of action at facility in Watertrack