



# CHROMIUM GROUNDWATER INVESTIGATION IN ALLEGAN TOWNSHIP

Allegan County, Michigan | October 2017

## Project Overview

In 2015 a fire destroyed a local metal finishing site. To extinguish the fire, an estimated 2 million gallons of water were used, which permeated into the groundwater. As a result, the Michigan Department of Environmental Quality (DEQ) began monitoring 22 area wells for contamination. In September 2016, a residential drinking water well west of the site was detected as having 390 ppb chromium, exceeding the safe drinking water maximum contaminant level (MCL). In June 2017, a second residential well was found to exceed the safe drinking water MCL.

## Future Michigan Department of Environmental Quality Oversight and Coordination

The DEQ is working closely with the U.S. EPA, the Michigan Department of Health and Human Services (MDHHS), Allegan County Health Department, Allegan Township, and the City of Allegan to ensure public health and safety is maintained. Allegan County Health Department will continue sampling area wells via a contract with the DEQ. Any residents impacted or imminently threatened by this contamination will receive bottled water from the DEQ. Alternate sources of potable water are being explored by the U.S. EPA using existing well logs and estimates for supplying municipal water from the City of Allegan. The U.S. EPA will investigate the source of underground water contamination and other possible contaminants.

## Health Effects of Chromium

Chromium is a naturally-occurring element found in rocks, animals, plants, and soil. The most common forms of chromium that occur in the environment are trivalent chromium (chromium-3) and hexavalent chromium (chromium-6). Chromium compounds in either the chromium-3 or chromium-6 forms are used for chrome plating, dyes and pigments, and leather and wood preservation.

- Chromium-3 compounds are much less toxic and do not appear to cause health problems. Small amounts of chromium-3 are essential nutrients and are needed for human bodies to keep normal blood sugar (glucose) levels.
- Chromium, mainly chromium-6, can also cause skin irritation. For some people that have had contact with chromium before (mainly high levels of chromium in workplaces), chromium can cause allergic skin rashes.
- The main health problems seen in animals who were given higher levels of chromium-6 compounds are irritation and ulcers in the stomach and small intestine, low red blood cell counts, and decreased sperm count and more abnormal sperm.
- Humans and animals who drank water for a long time with higher levels of chromium-6 had more stomach tumors than humans and animals drinking lower levels.
- If you have questions about human health and chromium, call the Michigan Department of Health and Human Services (MDHHS) Environmental Public Health Hotline at 1-800-648-6942.

## Additional Information

Find more information on the DEQ's Web site at [www.michigan.gov/alleganresponse](http://www.michigan.gov/alleganresponse)

### Primary Site Contacts:

DEQ: Environmental Assistance Center -  
800-662-9278

U.S. EPA: Tricia Edwards, On-Scene  
Coordinator - 734- 692-7687

U.S. EPA: Brandon Pursel, Project Manager,  
Land and Chemicals Division -  
312-353-9229

Allegan County Health Department:  
269- 673-5411