

What is the problem?

As you probably know, mining used to be a major business in this area. While this work provided a lot of jobs, business practices and rules didn't always do enough to make sure the land stayed clean and safe for the people living and visiting here. A lot of chemicals and garbage were dumped where they shouldn't have been. Although some work has been done to clean it up, we are still finding it in many places around Torch Lake even now.

Why is it in the Lake Linden area?

The Lake Linden Recreation Area used to be the site of the Calumet & Hecla Lake Linden Operations Area. The Calumet & Hecla Reclamation Plant operated here. The business had two regrinding plants, a flotation plant, a leaching plant, and a distillation plant. They were trying to get more copper out of old mining waste called stamp sands. These sands were first left behind or dumped into the lake as waste after the bigger pieces of copper were taken out.

This work wasn't the cleanest. Lead and other harmful chemicals were left behind. You can't always see these chemicals - some of them are ground up and are now mixed into the sand. Although most of these chemicals are about a foot or more underground, they can be a risk to your health if you are exposed.

What should I look out for?

You can't always see lead and other chemicals in the sand. However, sometimes you may notice areas of the beach or shoreline that aren't a normal color. There could be orange, white, or gray streaks in the sand along the edge of the lake. **Do not touch any strange colored sands. They likely contain high amounts of lead and/or other harmful chemicals.** Although these chemicals won't go easily through your skin, you don't want to risk getting it in your mouth. Always be sure to wash off all other sand before you eat or when you leave the beach.

Call the Village of Lake Linden at 906-296-9911 or the Western Upper Peninsula District Health Department (WUPHD) at 906-482-7382, ext. 119 and let them know what you saw, when, and where you saw it.

What chemicals are in this area?

Chemicals that are found at higher levels in the Lake Linden Recreation Area are:

- arsenic
- lead
- copper
- polychlorinated biphenyls (PCBs)

These chemicals are mostly underground. The higher levels of lead and other chemicals are about a foot or more underground on both the beach and out in the swim areas. Every so often, though, some might come up to the surface, and you might see strange colors in the sands.

It's important to note that the creek area has higher levels of chemicals. It is best to stay away from this area at all times.

As long as you don't dig down too far into the sand or the swim areas and stay away from the creek, you are not likely to come into contact with these chemicals.



Is it still safe to go to the beach?

Yes. Unlike Hubbell Beach, the Lake Linden Recreation Area doesn't seem to have the old metal or glass pieces that could cut you in the sand or water. The biggest risk here is getting some of the sand or sediment in your mouth and accidentally swallowing it - at the beach or if you track it home.

Adults and kids can stay safe by:

- washing their hands before eating,
- not digging deep holes in the beach or along the shore,
- staying away from sand or water that doesn't look normal (different colors),
- washing off at the shower stations before heading home, and
- staying away from the creek area - especially when the lake level is low. There tends to be higher levels of chemicals in the dirt and sediment in that area.

Is it safe to swim and play in the lake?

Yes. But stay away from the creek. That area tends to have higher levels of lead or other chemicals. If you do accidentally touch any of the chemicals, though, they won't easily go through your skin. They aren't going to be mixed in the water at high levels, either.

The biggest risk is accidentally swallowing some of the sand that may still be on your hands when you eat or drink. Always wash your hands after playing in the sand.

Swimming, and even every so often accidentally swallowing a gulp of water, is not a health concern from the chemicals. But it's never a good idea to ever drink untreated lake or river water. Even if the chemicals aren't a problem, there are bacteria that could make you very sick.

The WUPHD tests this beach and others in the area for E. coli bacteria once a week to make sure it is safe to swim. See the test results at www.deq.state.mi.us/beach.



Is it safe to go fishing? Can we eat the fish?

Yes. There are chemicals in fish everywhere in Michigan. Torch Lake is normal in this case. The Michigan Department of Health and Human Services (MDHHS) tests only the filets or steaks of fish to find out what kind of chemicals are in the fish and how much there is. The MDHHS *Eat Safe Fish Guide* lists the fish that have been tested from Torch Lake, Portage Lake, Lake Superior, and other waters in Michigan and how much is safe to eat. To get the free *Eat Safe Fish Guide*, visit www.michigan.gov/eatsafefish or call 1-800-648-6942.



Learn More...

The Michigan Department of Environmental Quality's (MDEQ) Remediation and Redevelopment Division's Upper Peninsula District Office has a web page where you can get more information about recent and on-going work related to historic mining-related industrial operations along the western shoreline of Torch Lake. The website has links to other test results, EPA emergency response projects in the area, project records, and newsletters. Visit: www.michigan.gov/deq and type in *Mining Waste* in the search box at the top of the screen.