

## Geosmin - Frequently Asked Questions

### What is causing the taste and odor experienced by some customers served by the Lindsay water supply?

This is the season in which the City of Lindsay typically switches from well water to Friant Kern Canal water. The switch and use of canal water has resulted in reports of an earthy or musty odor and taste, which is caused by the presence of geosmin. Geosmin, even at low levels, can be detected by the average person.

### What is geosmin?

Geosmin is a naturally occurring compound produced by bacteria in soil and algae found in surface water. Cold temperatures kill off algae in surface water, and the dead algae release the geosmin.

### Where is the odor and taste occurring?

There are reports of an earthy, musty-type odor/taste in the water coming from a variety of areas served by the Friant Kern Canal. These areas include Lindsay, Strathmore, Orange Cove and Terra Bella.

### Is the water quality affected?

While the taste and odor can be unpleasant, geosmin is **not toxic or harmful. The water remains safe to drink.** On-going testing continues to show an absence of harmful bacteria and other pathogens in the water.

### How long will the taste and odor last?

It is impossible to predict the onset of an incidence of geosmin or how long it will last. The general threshold for human detection is about 15 nanograms per liter; however, people with sensitive pallets can detect geosmin in drinking water at concentrations as low as 5 nanograms per liter. This is why some customers notice the taste and odor while others do not.

### Can the taste and odor be reduced at the tap?

To make the water taste better, try chilling it, adding ice cubes, a slice of lemon, or a few drops of lemon juice.

### What does it smell like?

Geosmin typically produces an earthy or musty odor as is found in the odor of overturned rich soils, and is present in some foods such as beets, spinach, and mushrooms.

### Why do we smell it?

The human nose is extremely sensitive to geosmin. If you poured a teaspoon of geosmin into the equivalent of 200 Olympic-sized swimming pools, you would still be able to smell it.

The general threshold for human detection is about 15 ng/l (15 nanograms per liter = 15 parts per trillion). However, people with sensitive pallets can detect these compounds in drinking water when the concentration is as low as 5 ng/l.

Heating the water increases the volatility of these compounds, which explains why the smell is more easily detected when you are in the shower or when used for hot beverages.

**Can it be removed from the drinking water?**

Geosmin cannot be removed by conventional water treatment processes.

**Does geosmin occur elsewhere?**

Geosmin is common in many jurisdictions across the United States, Canada and elsewhere in the world.