

# BEREZNIKI

An Industrial Center and Prison Camp



In 1941, Peter was sent to Berezniki, Perm Krai, Russia. It was an industrial center on the banks of the Kama River near the Ural Mountains. Political prisoners constituted much of the slave labor necessary to run its industries.

The city of Berezniki lies along the Kama River in the Northern Ural Mountains. It was founded in 1873 and named for the birch trees that used to occupy the area. It is set in the northern, thickly-forested province of Perm Kai, a mineral-rich region near the border between Europe and Asia. Berezniki has several chemical industries. Potassium, magnesium, and potash mines provide the materials for its many factories, which produce nitrogenous fertilizers, potash, nitric and sulfuric acids, soda, chlorine, titanium sponge, and pesticides.

Berezniki was incorporated as a city in 1932, during the great industrial push of Stalin's First Five-Year Plan, and it was a Soviet Gulag labor camp right from its start. Thousands of political prisoners – dissidents, Germans, and convicts – were sentenced to labor in Berezniki's mines and factories. They were given starvation rations and forced to work 10-12 hours per day, seven days a week. Like many labor camps, it was built within walking distance of the work site; in this case, directly above the potash salt mine.



An ex-Silicate plant in Berezniki.

Today, Berezniki is one of the most polluted cities in Russia. Its chemical production has caused dioxins to leak into the soil and water supply, causing cancer and other health risks to its citizens. The city has high child-morbidity rates due to pollution and the residue of toxic chemicals.



A titanium-magnesium plant

# BEREZNIKI

The Mine Beneath the City



The underground stockroom in Uralkali is a large cave. *Photo: Denis Vyshinsky / Kommersant*

In 1926, the USSR economic planning committee decided to develop the potash industry in the Perm Territory. They constructed a mine in Solikamsk in 1934, followed by four mines and supporting plants in Berezniki.

While no mention of it is made on the Uralkali website, the mines and plants were originally staffed by Gulag prisoners. Many of them were ethnic and political prisoners like Peter and his wife Katie. Some of them were worked to death under terrible conditions. Peter testifies to people being so hungry that they ate the mill waste and died of poisoning.

The company was first called The Soyuzkali Group, and renamed Uralkali in 1964. In 1992, Uralkali became a public company,



Potash is a reddish salt found in rock, useful as a fertilizer.

trading stocks on the Moscow Exchange. Today, Uralkali owns and operates five mines and seven mills in Berezniki and Solikamsk, and employs 11,000 people.

Each day, hundreds of workers descend below ground to the mine. There, in large tunnels, lies about 10% of the world's potash supply. The striped rock from the mine is taken to the plants, where the dusty process of extracting potash from the rock begins.

In 2016, Uralkali produced almost 11 million tons of potash. It exports to 60 countries, including Brazil, India, China, the US, and Europe.

Despite the city's problem with sinkholes, the company financed an ice skating rink in Berezniki.



Mine workers were prisoners in 1932, when Berezniki became a city. It was a labor camp from the start.



1942



1949



1950-60



Berezniki salt plant

Peter worked in Berezniki from 1941 to 1957.

# BEREZNIKI

## Modern Problems



Above and top right: “The Grandfather” Sinkhole, which first appeared in 2007.

“The Young One” appeared in 2010.

Sinkholes plague the city of Berezniki. The city was built directly over the mine, and pillars of available material, potash rock, supported the ceilings of huge underground caverns and tunnels. Potash is a water-soluble mineral.

In October, 2006, a freshwater spring began to flow into the potash mine beneath the city, flooding the mine. The pillars supporting the caverns began to dissolve like sugar cubes in tea. Mining engineers pumped in saltwater, trying to raise the salinity of the floodwater, but the supports continued to dissolve. This left the huge, underground caverns 1000 feet below the city unsupported.

In July, 2007, the earth caved in, and a huge sinkhole appeared. City authorities evacuated almost 2000 people from nearby housing. The cave-in destroyed a warehouse near the sinkhole’s edge. Over time, the sinkhole grew to be 340 yards wide, 430 yards long, and 50 stories deep. Berezniki residents call it “The Grandfather.”

In November, 2010, another sinkhole opened up at the railway station. This one, called “The Young One,” claimed a railroad boxcar, its tracks, and some storage sheds.

Other smaller sinkholes have appeared throughout the city. Many buildings have cracks, hinting that the ground is unstable beneath. Many residents have moved out of the city, and city planners are discussing moving the city to the opposite bank of the river. Geologists and surveyors monitor the city using 24-hour cameras to observe new areas of collapse.

The sinkhole problem has negatively affected the city’s population, however. Between 2005 and 2010, about 12,000 people moved away from Berezniki.

