

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N739655672

FACILITY: WHITE PINE COPPER REFINERY INC		SRN / ID: N7396
LOCATION: 29784 WILLOW ROAD, WHITE PINE		DISTRICT: Marquette
CITY: WHITE PINE		COUNTY: ONTONAGON
CONTACT: JAMES R RICHARDSON , ENVIRONMENTAL MANAGER		ACTIVITY DATE: 08/14/2020
STAFF: Joe Scanlan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Emails/phone call to JR Richardson to discuss status of the mine and the pilot copper recovery project.		
RESOLVED COMPLAINTS:		

LOCATION: The White Pine Copper Refinery is located in Carp Lake Township, near the unincorporated community of White Pine, Ontonagon County. Geologically, this area is the southern portion of the "Copper Country"

FACILITY DESCRIPTION: The White Pine Copper Refinery is a remnant of the former White Pine Mine, which was the last major copper mine to operate in Michigan. The mine and refinery were owned and operated by the Copper Range Company, a major copper-mining company throughout the Keweenaw Peninsula. The mine and refinery are currently owned by Highland Copper Company Inc.

Most copper mines in the Copper Country had been long abandoned for decades when large-scale mining began at White Pine in 1953. At it's peak in the 1970's the mine employed 3000 people, although by the 1980's it was around 1000. The mine closed permanently in 1995; shafts were capped and allowed to flood. The mine had reached a maximum depth of 2700' and had produced 4.5 billion pounds of copper and 47 million ounces of silver over its lifetime.

After the mine closed, Copper Range Co was permitted by DEQ (EGLE) in 1996 to develop a solution mining project, where the extraction of metals from an ore body is completed by dissolving minerals with a solution using sulfuric acid. It was planned to inject 550 million gallons of sulfuric acid into certain areas of the flooded mine to chemically extract any remaining metals in the ore. Due to environmental concerns for river, groundwater, and Lake Superior contamination, this led to the Bad River Train Blockade, which resulted in stopping the rail shipment of sulfuric acid through the Bad River Indian Reservation and preventing it from getting to the mine. Eventually the project was deemed uneconomical and the company announced plans to begin reclamation of the site.

Beginning in 2012, a plant-based pharmaceutical company named SubTerra converted underground portions of the unflooded mine into biosecure growth chambers. SubTerra continues to grow a variety of pharmaceutical-grade crops in this Level 2 underground containment.

In 2014 Highland Copper Company acquired the White Pine copper project from Copper Range Company. Highland is focused on mining an area north of the former White Pine mine, calling the project White Pine North, and utilizing the existing refinery for processing. In September of 2019, Highland completed a preliminary economic assessment of the White Pine North Project. The project seeks to extract nearly 8 billion tons of copper and 137.1 million ounces of silver.

NAME Joe Scanlan
Ed F

DATE 1/15/21

SUPERVISOR *Ed F*