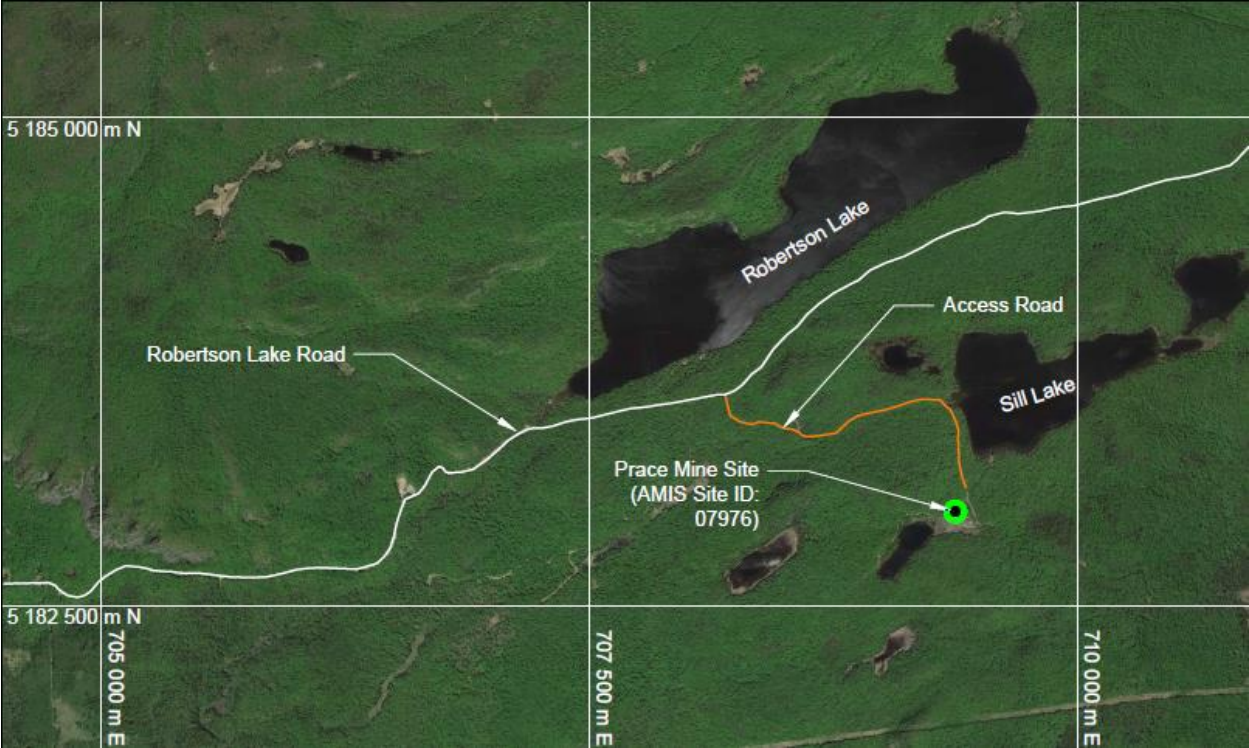


# Project Description: Prace Mine Rehabilitation Project

## BACKGROUND

The Prace Mine (AMIS # 07976) is a former silver-lead mine that operated from 1973 to 1988. The property has also historically been referred to as Sill Lake Mine due to its proximity to Sill Lake, situated approximately 300 m north of the mine. The mine is in Vankoughnet Township, approximately 25 km north of Sault Ste. Marie, Ontario, and 1.5 km southeast of Robertson Lake. The property is accessed via an approximately 2km gravel access road located off Robertson Lake Road. The location of the mine is illustrated below on Figure 1.



**Figure 1 – Site location plan (Image Source: WSP 2023)**

The mine historically featured two adits, two raises, a stope to surface, an open cut, and a tailings management area. There are two crown pillars associated with the underground workings, one located west of the stope and open cut and another related to the adit. Two of the above mine features, an exploration adit and a raise, have previously been rehabilitated in accordance with the requirements of the Mine Rehabilitation Code of Ontario (O. Reg 240/00) and no further rehabilitative work is required. Although evidence of historical rehabilitative activities is apparent at several of the other mine hazards, the current condition of the features does not satisfy the requirements for final closure and certification in accordance with O.Reg 240/00. In addition to

the above hazards, various debris remains throughout the property associated with the historical mining activity, including buried tarps, and building materials.

## **REHABILITATION ACTIVITIES**

The purpose of the project is to rehabilitate the mine hazards at the Prace Mine property to eliminate the risk to the public. Mine hazards proposed for rehabilitation include the adit, raise, open cut, stope to surface, and crown pillars. All remaining debris associated with the historical mining activities will be removed and disturbed areas allowed to revegetate and return to pre-disturbance condition. The rehabilitation of the tailings management area is excluded and will be assessed as part of a separate Class Environmental Assessment.

Bat acoustic studies completed in 2023 suggest that the stope to surface is utilized by bats as a potential hibernaculum. The proposed rehabilitation strategy for the stope to surface is fencing that meets the specifications outlined in O.Reg 240/00. The fence perimeter would encompass the stope, as well as the stope crown pillar and open cut. Fencing is considered an acceptable rehabilitation measure for these features in accordance with O.Reg 240/00. The use of the fencing will eliminate the risk to public safety, while protecting the bat overwintering habitat. The fencing installation will require tree and vegetation removal extending approximately three meters on either side of the fence perimeter. The work is expected to occur in the fall of 2024.

The raise is currently concrete capped and in fair condition, however there are no records of its construction. The existing cap eliminates access to the underground workings by bats, lacks venting and therefore does not contribute to the airflow of the potential bat hibernaculum. The preferred rehabilitation strategy for the raise is a concrete cap that meets the minimum specification outlined in the code. The existing cap would be removed prior to the construction of the new cap. The installation of the new cap will be completed over three days in the summer of 2024.

The adit is currently flooded above the brow and access to the underground restricted due to the presence of timber, backfill and steel mesh. However, the quality of the backfill is not known and the current condition of the adit does not fulfill the requirements of O.Reg 240/00 for final closure. The adit does not provide habitat to bats due to the backfill and flooded condition. As such, the proposed rehabilitation strategy for the adit and adit crown pillar is to backfill. The trench leading to the adit will be dewatered to provide access to the adit and existing backfill removed. The work will occur in the summer of 2024.

Access improvements have been completed as part of previous investigation work. It is anticipated that only minor vegetation clearing, and grading of existing mine roads will be needed to facilitate the access of heavy equipment to the areas requiring rehabilitation. All remaining debris associated with the historical mining activities will be removed and disposed of in accordance with applicable regulations. Disturbed areas will be allowed to revegetate naturally and return to pre-disturbance condition. The boundary of the project area is defined by the mine access road and area surrounding the mine hazards.

## CLASS EA SCREENING

The proposed rehabilitation activities are subject to The Ministry of Mines Class Environmental Assessment (EA) Process. The undertaking has been screened as a Category B project with low potential for environmental effects, in accordance with the requirements of the Class Environmental Assessment for Activities of the Ministry of Northern Development and Mines under the Mining Act (amended 2018).

## ENVIRONMENTAL EFFECTS AND PROPOSED MITIGATION MEASURES

Several environmental effects associated with the undertaking have been identified during the Class EA screening process. A summary of negative environmental effects and proposed mitigation measures are provided below in Table 1.

**Table 1** - Environmental Effects and Proposed Mitigation Measures

<b>Environmental Effect</b>	<b>Description</b>	<b>Proposed Mitigation Measure</b>
Noise and Vibration Impacts	There is a cabin situated approximately 300 m north of the mine, on the shoreline of Sill Lake, that is utilized by Batchewana First Nation community members. There is the potential for short term noise and vibration disturbances associated with vehicular traffic and use of heavy equipment.	All rehabilitation work and mobilization of equipment will be limited to the daylight hours and will comply with applicable noise guidelines. Batchewana First Nation will be notified of the scheduling of the work and potential for noise and vibration disturbance. If possible, the work will preferentially be schedule when the cabin is not expected occupied.
Fish and other aquatic species or habitat	There is a confined tailings area located in the southeastern part of the property that is currently flooded. It is unknown if the flooded tailings support fish or fish habitat.  The mine access road transects near the eastern shoreline of Sill Lake. According to the MNR Fish ON-Line map, Sill Lake is known to provide habitat to Brook Trout and Muskellunge. There is the potential to impact fish and fish habitat due to spills and sedimentation along the access road route	An emergency spill kit will be always readily available during construction activities and all workers trained on proper use. Should a spill occur, regardless of its severity, the Ministry of Environment, Conservation and Parks will be immediately notified through the Ontario Spill Action Centre (1-800-268-6060).  Speed limits will be enforced along the access road route and erosion control measures utilized, as needed.
Terrestrial species or habitat	The mine property is situated in a remote area, surrounded by deciduous and coniferous tree species. Tree and vegetation clearing is required to facilitate the fence installation and access of construction vehicles and equipment.  The forested areas surrounding the mine is expected to provide habitat	Tree removal will be completed outside of the migratory bird active period, which is from approximately mid-April to late- August.  Any disturbances to wildlife will be temporary and limited to the footprint of the mine. Disturbed areas will be rehabilitated to match surrounding landscapes to facilitate the recolonization of terrestrial wildlife.

	<p>to several terrestrial species. Wildlife may be temporarily displaced due to increased noise levels, vibrations and vehicular traffic associated with the rehabilitation work.</p> <p>Wildlife-vehicle collisions may cause injury/mortality to individual animals. Domestic waste generated may unintentionally attract wildlife to the work area.</p> <p>The NHIC Map and Ontario Reptile and Amphibian Atlas identifies a previous occurrence of Midland Painted Turtle (<i>Chrysemys picta marginata</i>) adjacent to the mine. There is the potential for turtles to utilize the substrate along the mine access road and property as nesting habitat.</p>	<p>The risk of mortality and injury to wildlife will be reduced by enforcing speed limits on access roads. The work area will remain free of litter and all waste disposed of in accordance O.Reg 347.</p> <p>Exclusionary fencing will be utilized as needed to deter turtles and other wildlife from entering the work area. The fencing installation and types will be in accordance with the MNR Best Management Practices for <i>Reptile and Amphibian Exclusion Fencing</i>.</p>
<p>Endangered Species / Species at risk or habitat</p>	<p>The stope is confirmed to be utilized by bats as a hibernaculum. The proposed rehabilitation strategy will not impact the ability for bats to utilize the habitat in the long term. The installation of the fencing is not expected to harm or harass bats that occupy the underground workings.</p> <p>The NHIC Map identifies a previous occurrence of Midland Painted Turtle (<i>Chrysemys picta marginata</i>) adjacent to the mine, a species currently listed as special concern provincially under the Endangered Species Act (ESA 2007). In addition, West Virginia White (<i>Pieris virginianensis</i>) and Braun's Holly Fern (<i>Polystichum brauna</i>) have previously been observed in the area, two species are currently considered vulnerable provincially. No impacts to the abovementioned butterfly and plant species are currently anticipated.</p>	<p>The MECP will be consulted to confirm permitting requirements under the <i>Endangered Species Act</i> (ESA 2007). The work as it is currently planned is not expected to contravene with Section 9 or 10 the ESA (2007).</p> <p>Mitigation measures for turtles are provided above in <i>Terrestrial Species or Habitat</i>.</p> <p>If any SAR are encountered, work will immediately stop and the MECP consulted as to how to proceed. Applicable regulatory requirements will be adhered to, and mitigation measures implemented to avoid impacting SAR.</p>
<p>Migratory bird species and migratory bird habitat</p>	<p>The mine is surrounded by a mix of deciduous and coniferous tree species that is likely to provide habitat to migratory birds. Trees/vegetation will be required to facilitate the fence installation and access of vehicles and equipment.</p>	<p>Vegetation clearing will be completed outside of the migratory bird period. If work is completed during the breeding bird season, vegetation proposed for removal will be surveyed by a qualified individual to confirm the presence/absence of migratory birds or nests. If avian nests are identified,</p>

		work around the nest will cease and a setback buffer established. All work inside the buffer avoided until the young have fledged and left the area.
Surface water quality/quantity and Soils - contaminants, sedimentation, erosion.	<p>Dewatering of the trench leading to the adit will be needed to remove existing backfill and allow for a final inspection of the adit. The water will need to be discharged to the environment. There is the potential to introduce contaminants during the dewatering activities.</p> <p>There is the potential to negatively impact surrounding surface water features and soil quality through sills and sedimentation.</p> <p>There is the potential to introduce new contaminants through the importation of backfill material.</p>	<p>The rehabilitation activities will be completed during dry summer months, to reduce the volume of dewatering required to expose the adit. All surface water will be sampled to ensure that it meets the Provincial Water Quality Objectives (PWQO) prior to discharging to the environment. The Ministry will confirm permitting requirements with the MECP for the discharge of water prior to initiating the work.</p> <p>Mitigation measures for spills have been identified above in <i>Fish and other aquatic species or habitat</i>.</p> <p>All backfill material mobilized to site will be transported in clean trucks and will be free of contaminants.</p>
Air Quality	<p>Standard construction equipment will be utilized, and the emissions associated with this equipment is expected to be minimal.</p> <p>There is the potential for increased fugitive dust to occur along the mine access road due to the movement of equipment and vehicles. The dust will be minimal and limited to the footprint of the road and rehabilitation work area.</p>	<p>Speed limits will be enforced along the mine access roads to minimize dust emissions. If required, water or an approved dust suppressant will be utilized as needed.</p>
Designated Substances, Hazardous Materials and Waste	<p>There are several buried tarps and building materials present associate with the historical mining activities. Workers and/or the environment may be exposed to designated substances and/or other hazardous materials during the removal of waste and other rehabilitation work.</p>	<p>A designated substance survey will be completed to confirm the presence of eleven designated substances as defined by O.Reg 490/09, as well as other hazardous materials that may require special handling or management during the proposed rehabilitation work.</p>

**NEXT STEPS**

It is anticipated that the rehabilitation activities will be completed in the summer and fall of 2024. All buried waste and building materials will be sampled prior to removal to confirm handling and disposal requirements. The sampling and removal of waste will be completed in the summer of 2024 concurrently with the rehabilitation activities.