

Department of Natural Resources

DIVISION OF MINING, LAND & WATER
Mining Section
Northern Office

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Mahn Choh Inspection Report

Inspection Date: September 20, 2023

Weather: High Overcast, Good Visibility, No Precipitation, Snow, Rain-Snow, 30 to 41°F

Time of Inspection: 8:00 AM to 2:00 PM

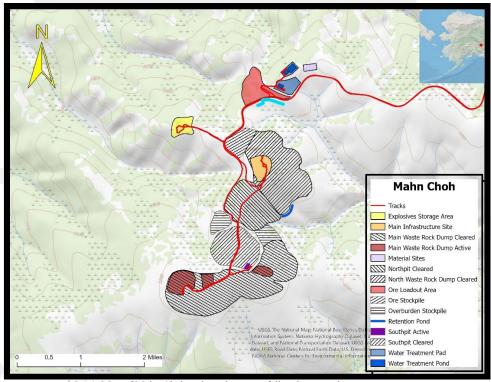
Operator Contact: Bartley Kleven and Paige Lambert

Agency Personnel: William Groom and Jesse G. White (ADNR – Mining)

Inspection Objectives:

ADNR Mining Section conducted a site inspection of operations at the Mahn Choh Mine for compliance with the approved Reclamation Plan. The inspection focused on documenting the baseline of active mining disturbance to help with the future determination of reclamation success.

The Mahn Choh mine is in interior Alaska approximately 11-miles south of Tok and 12-miles west of Tetlin Village via the Alaska Highway. It is located within the Tanana-Kuskokwin Lowlands at an elevation between 2,000 ft and 3,300 ft amsl. The inspection focused on the Main Infrastructure Site (MIS), South Pit (SP), Main Waste Rock Dump (MWRD), Explosives Storage Area (ESA), Ore Loadout Area (OLA), and Water Treatment Ponds (WTP). (Map 1).



Map 1: Map of Mahn Choh active mine area of disturbance and water management.

Main Infrastructure Site: The Main Infrastructure Site (MIS) (Photos 1 and 2) is southwest of the Water Treatment ponds. The layout contains Cat Rental Power portable generators, fuel tanks, Kiewit and Kinross administration buildings and trailers, WTP Storage and Operations Area, numerous connex containers, Rent-A-Cans, and parked light-duty vehicles and heavy machinery. Three concrete foundations have been built on the MIS for Mine Drill and 777 Maintenance. Vegetation around the entire MIS has been removed and graded.



Photo 2: Drone imagery of the Mahn Choh Main Infrastructure Site. View to the south.



Photo 2: Drone imagery of the Mahn Choh Main Infrastructure Site. View to the west.

South Pit: The South Pit (SP) (Photos 3 and 4) is north of the Main Waste Rock Dump (MWRD). It was in its initial phase at the time of inspection. Drilling rigs and truck and shovel operations were working on and removing the fourth bench of waste rock overburden. A CAT 6030 hydraulic crawler excavator was actively loading 777 haul trucks that were transporting waste rock to the Main Waste Rock Dump.



Photo 3: Drone imagery of the Mahn Choh South Pit. View to the southeast.



Photo 4: Drone imagery of the Mahn Choh South Pit. View to the south.

Main Waste Rock Dump: The MWRD (Photos 5 and 6) is located south of the South Pit. Blended non-acid generating material (NAG) and blended low-sulfur waste rock will be placed in the MWRD. The west lobe dry waste rock stockpile is temporary and consists of both NAG with stockpiles of metal leaching (ML) and potentially acid generating (PAG) waste rock, all of which will be relocated to the South Pit at end of mining. Vegetation around current MWRD has been removed and graded for WRD expansion.



 $Photo \ 5: \ Drone \ imagery \ of \ the \ Mahn \ Choh \ Main \ Waste \ Rock \ Dump \ - \ West \ Lobe \ Dry \ Waste \ Rock \ Stockpile. \ View \ to \ southeast.$



Photo 6: Drone imagery of the Mahn Choh Main Waste Rock Dump - West Lobe Dry Waste Rock Stockpile. View to west.

Explosives Storage Area: The Explosives Storage Area (ESA) (Photos 7 and 8) is located west-southwest of the MIS. At the time of inspection, the explosives silo foundation was in its initial construction phase. The pads circumference was surrounded by organic stockpile.



Photo 7: Mahn Choh Main Explosives Storage Area. View to the southwest



Photo 8: Mahn Choh Main Explosives Storage Area. View to the south.

Ore Loadout Area: The Ore Loadout Area (OLA) (Photos 9 and 10) is northeast of the MIS. It consists primarily of a gravel pad that at the time of inspection was being expanded to the west-southwest. Mine trucks will dump ore onto lined stockpile pads for transfer into the highway ore hauling trucks. There is a scale-house and scales for weighing the loaded highway ore trucks, room for numerous parked mine trucks, a highway truck shop, washroom module/trailer, office trailer, and parts laydown areas. At the time of inspection, the OLA contained large temporary stockpiles of gravel placed by Keiwett contractors.



Photo 9: View of Mahn Choh Ore Loadout Area.



Photo 10: View of Mahn Choh Ore Loadout Area. View to the north.

Water Treatment Ponds: The Water Treatment Ponds (WTP) (Photo 11) are northeast of the MIS. All contact water sources are to be captured and conveyed via perimeter ditches surrounding the mine infrastructure and redirected (pumped) from the retention basins (North Ditch Lined Pond, North Ditch Transfer Pond, and South Ditch Lined Pond) and piped to the Open Treatment Pond, Brine Pond, and Untreated Water Pond. All the ditches, and ponds are lined and bermed.

In the area of the Open Treatment Pond is the Water Treatment Plant and a laydown yard. At the time of inspection, the laydown yard contained several connex containers, Rent-A-Cans, light duty vehicles (trucks and vans), and heavy machinery.

The Brine Pond and Untreated Water Pond are lined and bermed. Note the material site under construction at the top center of Photo 11.



Photo 11: Mahn Choh Water Treatment Ponds. View to the northeast.

Conclusion: At the time of inspection, Mahn Choh had cleared areas for the Main Waste Rock Dump, North Pit, Ore Stockpile, Overburden Stockpile, and South Pit. The Explosives Storage Area was in the process of being built. The Main Infrastructure Site was also in the process of being completed. Three concrete foundations have been built for Mine Drill and 777 Cat Haul Truck maintenance but were awaiting structures. The Main Waste Rock Dump had been initiated and active dumping was occurring on the West Lobe Dry Waste Rock Stockpile. Material sites were also in the early stages of development, specifically the site northwest of the Water Treatment Ponds. In the Ore Loadout Area, the scales were nearing completion and the ore haul truck maintenance shop and scale house had been erected. Active truck and shovel operations and drilling were occurring in The South Pit. Waste rock was being trucked to the Main Waste Rock Dump. At the time the highwall had 3 benches and the 4th was being drilled for blasting. The Water Treatment Pads were completed. The Water Treatment Ponds were lined, and pipe laid. Ditches and retention ponds were also lined.

Action Items: Currently nothing to report.

End of Report

Cc:

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