THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Natural Resources
DIVISION OF MINING, LAND & WATER
Mining Section
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Pogo Mine Inspection Report

Inspection Date: October 14, 2015
Weather: 28°, Partly Cloudy
Time of Inspection: 10:00 am to 3:00 pm
Operator Contact: Keri DePalma – Sumitomo Metal Mining Pogo LLC (SMMPogo)
Agency Personnel: Brent Martellaro – Alaska Department of Natural Resources (ADNR)
Stephanie Lovell – ADNR
Tim Pilon – Alaska Department of Environmental Conservation (ADEC)

Inspection Objectives: General inspection of the mine site.

On the morning of October 14, 2015 agency personnel drove from Fairbanks to the Pogo Mine. Upon arriving at the security gate, agency personnel were required to watch the Pogo Mine Road safety video before approval to proceed through the gate.

Conditions of the road were good. Due to Mining Safety and Health Administration (MSHA) regulations, berms were installed along most of the road which has created limitations on safe passage of approaching vehicles along many stretches of the mine road. During the drive to the mine site, fox and grouse were observed.

Upon arrival at the mine site, agency personnel were met by Keri DePalma, Environmental Manager for the Pogo Mine. An onsite safety briefing was conducted by Steve Steel, Loss Control Manager for SMMPogo, followed by a brief meeting to review the current site status and objectives of the site visit. SMMPogo representatives also present at the meeting included General Manager Chris Kennedy, Dino Martin, Kenneth Puchlik, Jason Pyecha, and Adam Pugh. Personal Protective Equipment was provided and agency personnel were escorted onsite by Ms. DePalma.

The inspection started at the recently constructed Mine Water Treatment Plant #3 (MWTP#3) (Photo 1). Work was still occurring on certain appurtenances of the treatment plant, but construction of the main systems was complete. Until all areas of the treatment facility are ready and approved to go online, effluent from MWTP#3 serves as influent for Mine Water Treatment Plant #2 (MWTP#2) where it undergoes treatment and then is released to the Off-River Treatment Works. MWTP#3 Clarifier was observed (Photos 2 & 3).

MWTP#3 utilizes a microfiltration membrane system to treat wastewater from three sources, the Recycle Tailings Pond (RTP) head tank, gravel pond, and the mine, whereas sand filters are utilized in MWTP#2. Rows of the Pall microfiltration tubes were installed and online (Photo 4).

Photo 1: Completion of MWTP#3

Photo 2: MWTP#3 Clarifier

Photo 3: Bottom of MWTP#3 Clarifier

Photo 4: Pall microfiltration tubes

The group then visited the Solid Waste Incinerator, recently enclosed by a chain link and barbed wire fence (Photo 5). The scrubber stack (white) and the burner stack (black) were observed. The incinerator was not in operation, as maintenance on the scrubber system was underway.

Photo 5: Incinerator stacks and chain link fence

At the 1690 portal bench (Photo 6) is the terminus of the blue tube which houses the ore conveyor and paste backfill line (Photo 7). Agency personnel observed the results of the cleanup from the ruptured paste backfill line. On May 7, 2015, the line ruptured resulting in a spill of the cement-like paste out of the Splice House and onto the gravel lined pad. After cleanup, the remediation included building a new secondary containment eliminating the need for Splice House containment (Photos 8 & 9). The foundation of the Splice House is still visible within the new containment area (Photo 10). The new containment area is enclosed with Jersey barriers covered with liner and reinforced with a bed liner spray.

Photo 6: 1690 portal bench

Photo 7: Terminus of blue tube

Photo 8: West side of paste backfill secondary containment

Photo 9: East side of paste backfill secondary containment

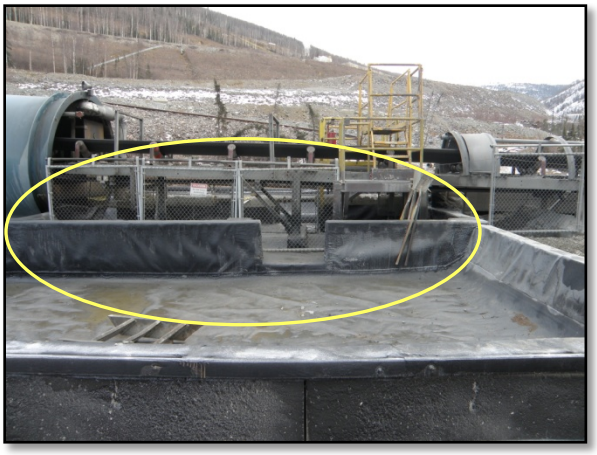


Photo 10: Foundation from the Splice House

Liese Creek drainage (Photo 11) was visible as the group walked along an access road (Photo 12) to observe the recently dredged and relined Storm Water Sedimentation Pond (Photo 13 & 14).

Photo 11: Liese Creek

Photo 12: Access road along Storm Water Pond

Photos 13 & 14: Storm Water Sedimentation Pond

At the Drystack Tailings Facility (DSTF), trucks were actively unloading tails (Photo 15). The group was escorted up the new diversion ditch road to overlook the DSTF (Photo 16). Piles of tailings were placed along the outer edge of the DSTF, and piles of mineralized rock were visible toward the middle of the facility (Photos 17 & 18).

Photo 15: Truck unloading tailings on DSTF

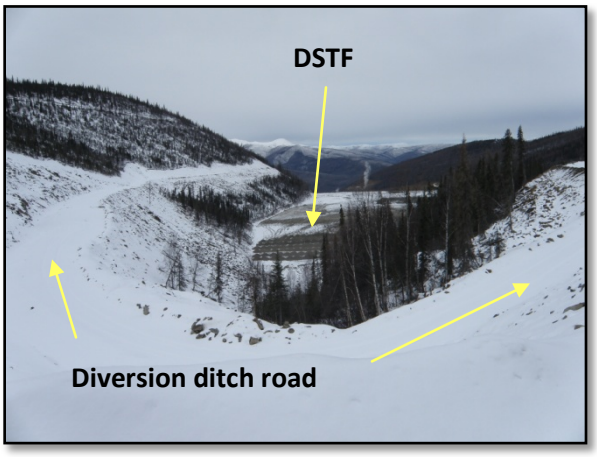
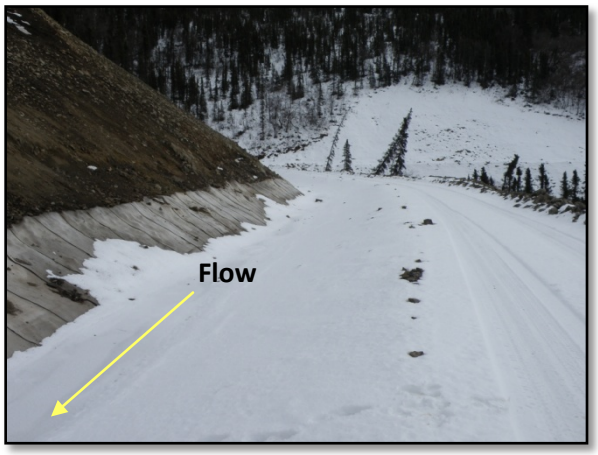


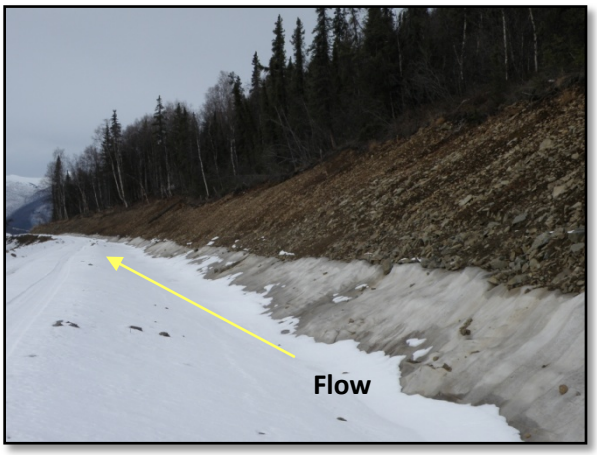
Photo 16: Overview of the DSTF from diversion ditch road

Photo 17: Piled tailings on upper DSTF edge

Photo 18: Cell of mineralized rock toward middle of DSTF

The new diversion ditch had been lined with horizontal segments of a new material consisting of a fabric infused with cement (Photos 19, 20 &21). Once the material becomes wet, the cement hardens and creates a solid barrier. The hardened segments are secured with screws (Photo 22). Water flowing out of Inlet #2 appears to be captured and diverted along the new diversion ditch.





Photos 19 & 20: New diversion ditch liner (arrow indicates direction of flow)

Photo 21: Section of new liner segments

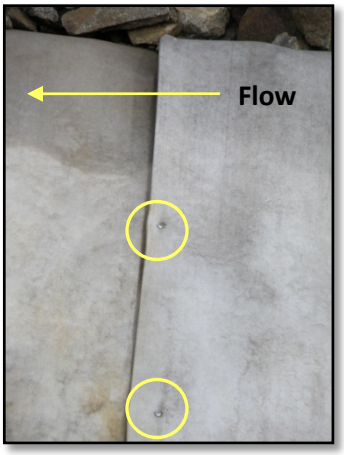


Photo 22: Screws securing overlap

The construction of the infrastructure for 2150 portal paste backfill line was observed (Photo 23). The new CIP tank constructed to replace the old CIP was observed (Photos 24, 25 & 26). Along the mill bench wall, the natural revegetation of woody species was noted (Photos 27 & 28).

Photo 23: Infrastructure for 2150 portal paste backfill line

Photo 24: Old CIP Tank

Photo 25: New CIP Tank

Photo 26: New cement pad and curb outside paste building


Photo 27 & 28: Natural revegetation of woody species on Mill bench wall

Conclusion:

Operations at the site appear to be moving along as permitted. Evidence of the wet summer was observed in the remnants of mucky areas along roads and at facilities. SMMPogo indicated it has been challenging to keep lower levels of the mine from flooding, as they continue to experience increased water inflow.

Construction of MWTP#3 looked complete. All components were constructed or installed, with only minor completion of appurtenances remaining before going online. The secondary containment on the 1690 portal bench for the paste backfill looked sufficient. Placement of tailings on the DSTF appears to be in compliance with permit conditions. The new diversion ditch liner looks to be working as intended to capture and divert water.

Action Items:

- Continue operations as permitted.

End of Report

Cc: Kyle Moselle (ADNR)
Marty Lentz (ADNR)
Brent Martellaro (ADNR)
Stephanie Lovell (ADNR)
Allan Nakanishi (ADEC)
Tim Pilon (ADEC)
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