



POGO MINE INSPECTION REPORT

Inspection Date: September 12, 2013

Weather: Clear skies, light wind, 55 ° F

Time of Inspection: 11:30am to 4:30pm

Operator Contact: Makoto Umedera, Sally McLeod, Ben Farnham, Chris Kennedy, Takeshi Nakamura, Leonard Hansen, and Lucas Walker

Agency Personnel: ADNR – Brent Martellaro, Carolyn Curley, Jim Vohden, Jenny Wynne
ADEC – Tim Pilon, Pete McGee, Doug Kolwaite

Inspection Objectives: General Inspection

Agency personnel signed into the site prior to traveling on the Mine Access Road. The road was in good condition. Moose were sighted in several areas along the access road. Upon arrival at the Administration Building, agency personnel were met, provided lunch and safety briefings. The agency personnel divided into three groups for the inspection and were escorted through the site by POGO personnel.

Pogo's Lucas Walker and Leonard Hanson guided Doug Kolwaite (DEC) on a tour of surface and ground water sampling sites, Carolyn Curley (DNR) and Jenny Wynne (DNR) toured the underground mine workings with Pogo's Ben Farnham, and Sally McLeod and Makoto Umedera showed the new diversion channel at the Drystack Tailings Facility, 2150 portal, and site for the new CIP stock tank to Brent Martellaro (DNR), Jim Vohden (DNR), Pete McGee (DEC), and Tim Pilon (DEC). At 3 pm, the three touring groups were joined by Chris Kennedy, the mine's general manager, and Takeshi Nakamura, water management engineer, for a closing conference to review current and future site operation, maintenance, and construction. We departed the mine around 4 pm.

The underground tour began with additional site specific training for underground operations and the issuance of the personal protective equipment specific for underground activities. Agency personnel climbed aboard the tram to take them underground. The 1710-1760 adit that had been reclaimed was viewed. The concrete wall sealed the opening and the paste backfill pumped into the void through the pipes seen in Photo 2.



Photo 1: En-route to the 1875 portal



Photo 2: View of reclaimed 1710-1760 mine workings.

Underground water is collected and pumped to main sumps (Photo 3) where flocculant is added to allow for settlement and reuse. Underground operations viewed were rock bolting (Photo 4 and Photo 5), shot loading (Photo 6 and Photo 7), and movement of ore (Photo 8, 9 and 10).



Photo 3: Underground sump for water treatment and reuse.



Photo 4: Rock bolting and underground support installation.



Photo 5: Completed section of roof rock bolting.



Photo 6: Blaster loading holes for the next shot.



Photo 7: Loaded blast pattern.



Photo 8: Haul truck dumping ore into the ore pass.



Photo 9: Rock breaker in action.



Photo 10: View of the grizzly for the ore pass.

On the surface, agency personnel inspected the diversion ditch tie-in between the new and the old sections. Photo 11 shows the tie-in for the north side diversion ditches. Work has been completed to tie in stream channels to the new diversion ditches (Photos 12 through 16).



Photo 11: North side connection between the old and the new diversion ditches.



Photo 12: One stream channel intercept with the north diversion ditch system.



Photo 13: Stream channel #1 intercept with the north drainage ditch.



Photo 14: Stream channel #2 tie intercept with the north drainage ditch.



Photo 15: A view of drainage channels for surface streams on the south side.



Photo 16: The stream intercept on the south side drainage ditch.

Additionally, on the north side, the old diversion ditch has been breached (Photos 17 and 18). The old north diversion ditch is plugged as shown in Photo 19. Photo 20 shows the drop pipe installed to connect the old and new diversion ditch systems. Photos 21 through 25 show the pipe, flume, and sump system installed for the south diversion ditch. An overview of the connection between the old and new south drainage ditch systems is shown in Photo 26.



Photo 17: A view of the old north drainage ditch.



Photo 18: A view of the old north drainage ditch.



Photo 19: The old north diversion ditch is plugged.



Photo 20: A view of the drop pipe to connect the new south ditch to the old north ditch.



Photo 21: A view of the pipe system for the south new diversion ditch.



Photo 22: A view of the exit from the south diversion ditch pipe.



Photo 23: A view looking into the south flume sump.



Photo 24: Drainage channel constructed for flow into the south flume sump.



Photo 25: A view of the terrain and the south diversion ditch pipe system.



Photo 26: An overview of the area where the south diversion ditch systems are tied together.

The work for the 2150 portal continues as shown in Photo 27 and Photo 28. General site photos indicate that berms along the access road are in good condition (Photo 29), the seasonal changes are visible (Photo 30), and animal habitat is sustained (Photo 31).



Photo 27: Ventilation installation for the 2150 portal.



Photo 28: Supporting equipment for the 2150 portal.



Photo 29: Berms are maintained along the mine roads.



Photo 30: Fall colors evident on the land surrounding the mine activities.



Photo 31: That's all folks...

After the site tour, POGO employees reviewed the items seen on the site inspection and further discussed current and future site operation, maintenance, and construction.

Conclusions:

Operations continue to be conducted in a manner consistent with the terms of the Plan of Operations. Maintenance work is in progress on the access road. Dumps, stockpiles and haul roads appear to be maintained in a stable configuration which minimizes the potential for erosion. The tie-in between the old diversion ditches and the new diversion ditches has been completed. Approval from DNR is granted to Pogo to place material over or beyond the original DSTF ditches as requested in the email dated September 17, 2013.

Action Items:

There were no action items generated from DNR as a result of this inspection.

cc: Ed Fogels, ADNR, Anchorage
 Sharmon Stambaugh, OPMP, Anchorage
 Tom Crafford, OPMP, Anchorage
 Scott Pexton, ADNR, Anchorage
 Jim Vohden, ADNR, Fairbanks
 Tim Pilon, ADEC, Fairbanks
 Pete McGee, ADEC, Fairbanks
 Charlie Cobb, ADNR, Anchorage
 Jack Winters, ADFG, Fairbanks
 Brad Wendling, ADFG, Fairbanks
 Ruth Hamilton Heese, AGO, Fairbanks
 Makato Umedera, Sumitomo Pogo, Fairbanks
 Chris Milles, ADNR, Fairbanks
 Greg Mazer, ACOE, Fairbanks
 Lisa Harbo, ADCCED, Fairbanks
 Kindra Geis, ADNR, Fairbanks
 Jenny Wynne, ADNR, Fairbanks
 Doug Kolwaite, ADEC, Juneau
 Jack DiMarchi, OPMP, Fairbanks