

# STATE OF ALASKA

**FRANK H. MURKOWSKI, GOVERNOR**

## **DEPARTMENT OF NATURAL RESOURCES**

### ***Division of Mining, Land and Water***

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## **POGO INSPECTION REPORT**

**Inspection Date:** September 29, 2005  
**Weather:** Overcast, 30 deg., snowing lightly  
**Time of Inspection:** 11:30 am to 2:30 pm  
**Operator Contact:** Karl Hanneman and Jack DiMarchi - Teck Alaska  
**Agency Personnel:** Brent Martellaro, Steve McGroarty, and Tom Crafford - ADNR  
**Inspection Objectives:** General Inspection

We met Karl Hanneman at the Pogo Road gate at approximately 10:30 a.m. and continued on to the mine site in one vehicle. The road was in good condition, especially considering the recent 2 week wet period. Karl mentioned that the road had been graded only once all summer. No significant dust or rutting was observed anywhere on the road.

We drove to the North side of upper Liese Creek above the Pogo Mill. Karl pointed out the recent shotcrete work done to line the diversion ditch (Photo 1). The lined portion of the diversion ditch appeared to adequately capture and hold waters from the primary source of Liese Creek, but it is unclear if this ditch would be effective in capturing surface water that seeps into fractures before it reaches the ditch, such as water from snow melt or rain. Still the majority of captured flow was diverted to a point approximately 50 yards below the lined portion of the ditch where the water disappeared into the fractured bedrock (Photo 2). Plans are to shotcrete this section of ditch as well, so the captured flow is diverted to a point below the RTP Dam.

We drove around to the diversion ditch on the south side of Liese Creek. This ditch was not currently collecting any water and did not appear to be effective in collecting minor rain water or seeps due to the fractured nature of the bedrock (Photo 3). However, it is likely that this ditch would capture significant water during spring breakup or high water events.

Shotcrete work in the diversion ditches is 80 % complete according to Karl.

We drove down to the Recycle Tailing Pond (RTP) Dam. The Geotextile and Liner system had been installed on the face of the dam. A dozer was spreading a protective layer of gravel over the liner by pushing uphill. A drill rig was drilling holes for examination of the rock and to conduct packer tests to evaluate the permeability of the grout curtain constructed to control the flow of solution under the RTP Dam (Photo 4). Three seepage collection wells were currently being drilled below the RTP Dam.

The permanent camp is fully operational. Here we were briefed and equipped for an underground tour by Teck – Alaska geologist Jack DiMarchi, who provided a brief description of the mine plan and the results of last season's surface exploration program undertaken to the southeast of the Pogo

Deposit. We walked to the 1875 portal (Photo 5) and proceeded underground to the working face where stope access development was underway (Photo 6).

The conveyor from the 1690 portal to the mill was nearly complete but additional work was required to complete the underground loading facility and stockpile loading facilities at the mill. We examined waste rock stockpiles on the surface outside the 1875 Portal. Each round was staked with a unique identification number and was sampled if a drilling sludge sample had not been taken for the round. Samples are analyzed in Teck's on-site X-ray Diffraction Laboratory for both sulfur and arsenic content to determine whether the rock is classified as non-mineralized rock that can be used as construction material or mineralized rock that must be disposed of in accordance with the ADEC Waste Management Permit and the ADNR Plan of Operations Approval.

We drove down to the Off River Treatment works. Karl explained the pump system and mixing of river water with treated mine water. One concern Karl expressed is the potential for noncompliance with EPA permit terms due to the naturally low PH of the Goodpaster River upstream of the Pogo Project. Water quality is continually monitored for optimal mixing. A new automated sampling system has been installed at the outlet.

### Conclusion

Development at Pogo continues to be conducted in a manner consistent with the terms of state authorizations. Dumps, stockpiles, and haul roads appear to be maintained in a stable configuration that minimizes the potential for erosion.



**Photo 1 – Shotcrete lining in diversion ditch on North Side of Liese Creek.**





**Photo 2 – Flow in diversion ditch on North Side of Liese Creek, disappears within 50 yards below shotcrete.**



**Photo 3 – Diversion ditch on south side of Liese Creek.**





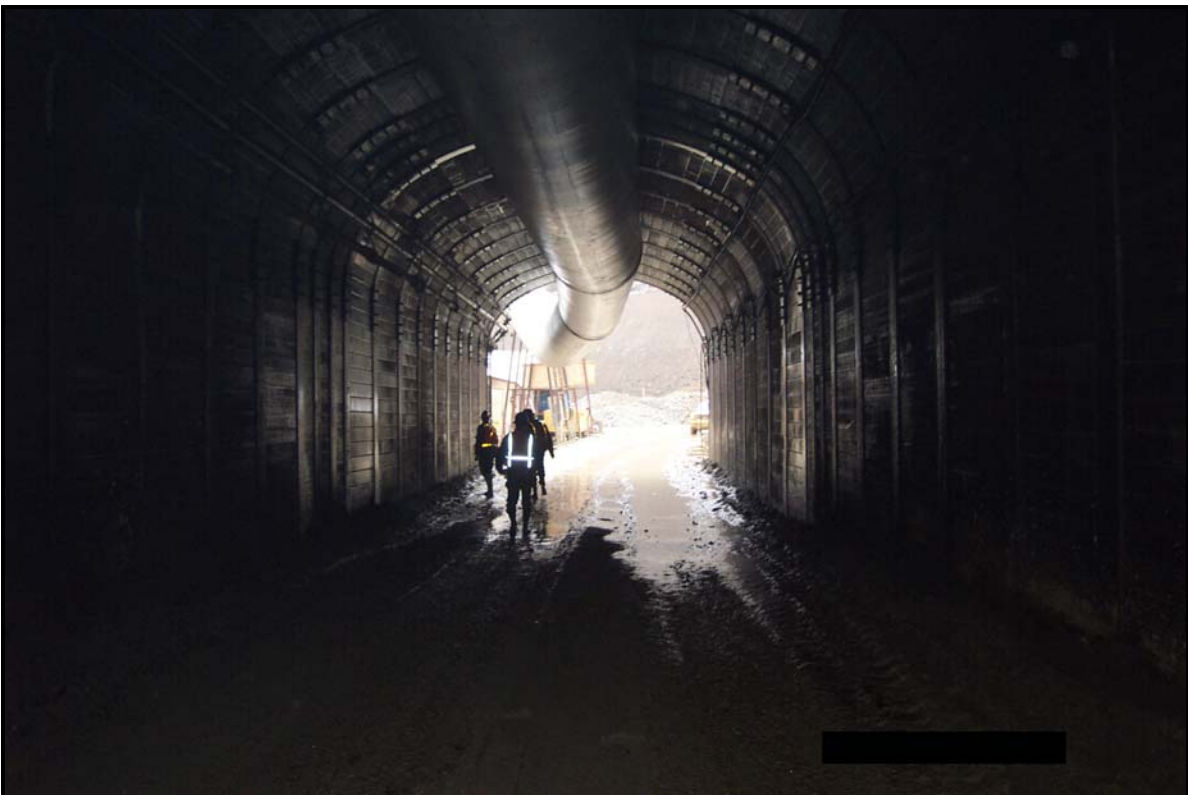
**Photo 4 – Work on Upstream Side of RTP Dam.**



**Photo 5 – The 1875 Portal**



**Photo 6 – Stope development off of the 1875 access decline.**



**Photo 7 – There is Light at the end of the Pogo Tunnel!**

cc: (Note – Report was not distributed.)