



INSPECTION REPORT: KENSINGTON GOLD MINE

Tongass National Forest Minerals Group
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Date of Inspection: Thursday March 29, 2018
Date of Report: Friday April 20, 2018
USDA Forest Service Inspector: Richard Dudek

Ranger District: Juneau Ranger District
Weather Conditions: Sunny. Temperature: Mid 40's °F.

Exploration in accordance with operating plan	Not Applicable
Timber removal following timber sale contract	Not Applicable
BMPs for erosion control	Satisfactory
Water Quality BMPs	Satisfactory
Public safety & fire prevention	Satisfactory
Reclamation work adequate and timely	Satisfactory
Roads maintenance adequate and current	Satisfactory
Tails placement in accordance with plan	Satisfactory
Waste Rock placement in compliance	Satisfactory
Company supervision of operation	Satisfactory
Operating in a clean and orderly manner	Satisfactory

Any conditions noted as UNSATISFACTORY will require follow up action by the Mine Inspector and a written memorandum to the operator, outlining the necessary work.

NEW REMARKS

Ward Air provided transportation Cessna 185 to and from site.

Kevin Eppers (Sr. Environmental Engineer, Coeur Alaska) accompanied Curtis Caton (Geologist, United States Forest Service (USFS)), and Richard Dudek (Geologist, USFS).

This inspection included the Access roads, Comet Development Pile, Comet Water Treatment Plant, Sherman Creek Outfall, Comet Beach, Kensington Development Pile, Kensington mill area, Mud Dump, Pit 7, the TTF area, and the Fuel Depot.

ACTION ITEMS:

- **The GP test barrels hoses need to be connected to the ARD collection barrels.**
- **Comet water treatment plant pond's 1 and 2 require dredging.**

NOTEWORTHY ITEMS:

- Coeur Alaska is currently preparing for the stage 3 dam construction this summer.

ACCESS ROADS

The access roads were in good condition. Coeur Alaska personnel will be conducting routine access road maintenance to prevent erosion and sedimentation from melt water runoff (2016 BMP Plan; Table 4-4).





COMET DEVELOPMENT PILE

Waste rock from the Raven drift was recently deposited at this location (Photos 1-2).

COMET WATER TREATMENT PLANT (CWTP)

On 03/29/2018, the CWTP was treating 1,300 gallons per minute. Pond-1 (Photo 3) was receiving mine site water, and Pond-2 (Photo 4) was receiving backwash from the CWTP. It was observed that water was spilling over into Pond-2 (Photo 5). Both ponds require dredging, and Pond-1 will need new silt curtains installed. Coeur personnel frequently monitor Pond-2 to ensure the crest has at least 12 inches of freeboard. Good housekeeping practices (2016 BMP plan Table 4-1) were observed inside the CWTP.

White material was not observed on the test rocks used for monitoring white material in treated mine site water (Photo 6).

SHERMAN CREEK OUTFALL

White material was observed in Sherman Creek (Photo7). However, since the inspection, Coeur Alaska has reported that there has been no white material observed in Sherman Creek.

COMET BEACH

The area where rock core is being stored is on patented property (Photo 8).

As warmer temperatures persist, both Sherman Creek and the South Fork of Sherman Creek Bridge abutments (Photos 9-10) will need to be frequently monitored for sediment loading caused by meltwater runoff.

KENSINGTON AREA

At the time of the inspection, ore from the 1355 level was being separately staged at the Kensington ore pad (Photo 11).

The waste rock (Photo 12) from this location is being temporarily staged at Pit 7, and will be used as fill material for the TTF stage 3 dam construction activities.

Contractors continue with the construction of the new powerhouse station. The 1,000 gallon tanks for the four generators have been staged inside the powerhouse (Photo 13).

The 30,000-gallon day tank that is staged next to the new powerhouse was not in use due to the piping and connections were not in place. While the 30,000-gallon day is not in use, a 1,000-gallon tank was being used for refueling.

Site contractors were in the process of pouring cement for the new refueling pad (Photo 14).

MUD DUMP

Coeur Alaska removed all of the Graphitic Phyllite (GP) material from Pit 7 and staged it at the Mud Dump (Photo 15). The GP material was placed on a layer of pebble rock that covers an HDPE liner.

PIT 7

Additional waste rock will be staged at this location, and will be utilized as fill material for the stage 3 dam construction activities (Photo 16).





TAILINGS TREATMENT FACILITY (TTF) AREA

The TTF was partially frozen over and the recorded water level on 03/29/2018 was 702.8 feet (Photo 17).

At the time of the inspection, the water treatment plant was treating 700-gpm. In order to meet the APDES permit limits for total dissolved solids (TDS) and sulfate (SO₄), Coeur personnel continue diluting or blending influent water at the water treatment plant with water from the Upper Slate Lake diversion. Approximately 350 gpm was being withdrawn from the Upper Slate lake diversion for the blending process. The total net volume of water being discharge was 1,050 gpm.

Good housekeeping practices (BMP plan Table 4-1) were observed inside the water treatment plant (Photo 18).

In the northern TTF laydown area, site contractors have begun staging sand and gravel (Photo 19) to be utilized as an aggregate for cement required for the Stage 3 dam construction. The lined ditch, which contains acid rock drainage (ARD) was frozen over and covered in snow.

The Graphitic Phyllite (GP) cells (ARD test barrels) hoses were not connected to the ARD collection barrels (Photo 20). The hoses need to be connected to prevent ARD from escaping the barrels and flowing into the environment.

Below the dam, the decommissioned seep plant has been removed (Photo 21) for the preparation of the TTF dam's construction expansion.

FUEL DEPOT

The fuel tank's structural gravel pad was covered by approximately three feet of melt water and ice (Photos 22-25). The Fuel Depot Operators will remove the accumulation when it is impacting the capacity to store 110% of the volume from a single tank.

FOLLOW UP ITEMS

- Inspect the access roads.
- Inspect the Comet water treatment plant, and settling ponds.
- Inspect for white material in Sherman Creek.
- Observe construction of the powerhouse facility.
- Inspect the TTF area.
- Inspect the Fuel depot's gravel pad.
- Inspect the bridges/abutments for sedimentation.
- GP test barrels hoses are connected to the collection barrels.



PHOTOS (Additional photos available upon request)



Photo 1. The Comet development pile.



Photo 2. Recently deposited waste rock from the Comet side underground mine activities.



Photo 3. CWTP's Pond-1 requires dredging and installation of new silt curtains.



Photo 4. The CWTP's Pond-2.



Photo 5. Water flowing over Pond-1's spillway and into Pond-2.



Photo 6. The CWTP's test rocks for white material accumulation.



Photo 7. White material observed at one outfall discharge hose.



Photo 8. Rock core from geotechnical drilling is staged at this location.



Photo 9. The South fork Sherman Creek Bridge.



Photo 10. Upper Sherman Creek Bridge.



Photo 11. Ore from the 1355 level is being staged separately at the Kensington ore pad.



Photo 12. Coeur continues to remove waste rock from the Kensington development pile for the TTF dam expansion.



Photo 13. 1,000-gallon fuel tanks are now staged behind all four new generators.



Photo 14. Contractors pouring cement for the new refueling pad.



Photo 15. GP material staged at Mud Dump's southern end.



Photo 16. Additional waste rock for the stage 3 dam construction activities will be staged at Pit 7.



Photo 17. The TTF.



Photo 18. The TTF water treatment plant.



Photo 19. Cement aggregates staged at the TTF laydown yard.



Photo 20. The ARD test barrels.



Photo 21. The decommissioned seep plant was removed for the TTF's dam construction.



Photo 22. The fuel depot.



Photo 23. Melt water and some ice covering the gravel pad.



Photo 25. A hydrocarbon contamination boom was placed around the fuel depot's refueling pad's drain to capture small fuel spills.

Thanks to Kensington Mine for a safe visit.
U.S. Forest Service Officer: /s/ Richard Dudek
