INSPECTION REPORT: KENSINGTON GOLD MINE

Tongass National Forest Minerals Group
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Date of Inspection: Tuesday May 8, 2018
Date of Report: Wednesday May 23, 2018
USDA Forest Service Inspector: Richard Dudek

Ranger District: Juneau Ranger District
Weather Conditions: Sunny. Temperature: low 60'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 a Beaver floatplane to and from site.

Kevin Eppers (Sr. Environmental Engineer, Coeur Alaska) accompanied Edward Gazzetti (Geologist, United States Forest Service (USFS)), Richard Dudek (Geologist, USFS), and David Khan (Alaska Department of Environmental Conservation (ADEC)).

This inspection included the Access roads, Comet Development Pile, Comet Water Treatment Plant, Sherman Creek Outfall, Kensington mill area, Mud Dump, Pit 4, the TTF area, and the Fuel Depot.

ACTION ITEMS:

- **Sediments accumulation near the bridge 2 south abutment. Coeur Alaska placed jute mats down to prevent sediments from entering Johnson Creek. However, mitigations are required to prevent additional sediment loading, and sediments from entering Johnson Creek.**

NOTEWORTHY ITEMS:

- Coeur Alaska will be shipping 10,000 tons of waste rock per month off site to a construction company.

ACCESS ROADS

The access roads were in good condition (2016 BMP Plan; Table 4-4). At Bridge 2, sediment accumulation was observed downgradient of the south abutment near Johnson Creek (Photos 1-2). Coeur Alaska is aware of this and stated the accumulation resulted from meltwater flowing out of the

access road ditch. Surface Operations placed jute mats down as a control to prevent sediments from flowing into Johnson Creek.

COMET DEVELOPMENT PILE
Coeur Alaska continues to deposit waste rock from the Raven drift at this location (Photos 3-4).

COMET WATER TREATMENT PLANT (CWTP)
On 05/08/2018, the CWTP was treating 1,436 gallons per minute. Pond-1 (Photo 5) was receiving mine site water, and Pond-2 (Photo 6) was receiving backwash from the CWTP. Coeur Alaska has plans to dredge both ponds, and during that process, the CWTP personnel will install new silt curtains in Pond-1. 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 7). CWTP personnel continue to use calcium chloride ($CaCl_2$) to remove white material out of solution during the water treatment process (Photo 8).

SHERMAN CREEK OUTFALL
White material was not observed in Sherman Creek (Photo 9).

KENSINGTON AREA
Contractors continue with the construction of the new powerhouse station.

Contractors were in the process of connecting the 30,000-gallon day tank to the new powerhouse (Photo 10). A 1,000-gallon fuel tank is currently being used for refueling.

MUD DUMP
The temporary Graphitic Phyllite (GP) stockpile was covered with a liner (Photo 11).

PIT 4
The Pug plant (Photo 12) is operational and approximately 2,300 tons of GP material has been mixed with cement and taken underground for backfilling the stopes. When not in use, the GP feedstock pile should remain covered to reduce the potential for acid generation (Photo 13).

TAILINGS TREATMENT FACILITY (TTF) AREA
The TTF's recorded water level on 05/9/2018 was 703.5 feet (Photo 14).

The east access road re-alignment/raise is completed (Photo 15), and below the stage 2 dam, contractors were in the beginning stages (Photo 16) for the TTF stage 3 dam's construction expansion.

At the time of the inspection, the water treatment plant was treating 1,180 gpm. Coeur personnel continue blending effluent water at the water treatment plant with influent water from the Upper Slate Lake diversion to meet the APDES permit limits for total dissolved solids (TDS) and sulfate (SO_4). Approximately 550 gpm was being withdrawn from the Upper Slate lake diversion for the blending process. Coeur Alaska is currently in the process of staging additional mobile reverse osmosis (RO) systems next to the TTF water treatment plant. With the addition of these RO's the overall amount of water treatment will increase.

In the northern TTF laydown area, contractors have staged a cement batch plant that will generate the concrete for the stage 3 dam construction (Photo 17). At the time of the inspection, the lined ditch that collects acid rock drainage (ARD) had no ARD accumulation (Photo 18).

The Graphitic Phyllite (GP) cells (ARD test barrels) hoses were connected to the ARD collection barrels (Photo 19).

FUEL DEPOT

At the time of the inspection, the Fuel Depot Operators were pumping out accumulated precipitation from the fuel farm and into the refueling pad (Photo 20). All accumulation is removed when it impacts the farm's secondary containment's capacity to store 110% of the volume from a single tank. Hydrocarbon booms and absorbent pads were placed inside the refueling pad's drain to capture any fuel that was mixed with water (Photo 21). Water discharging from the refueling pad's outlet drain was emptying into a tote with hydrocarbon absorbent pads (Photo 22). This was done as a final precaution to ensure all possible hydrocarbons are captured prior to discharging into the environment.

FOLLOW UP ITEMS

Inspect the access roads.
Inspect Bridge 2 area for sediment mitigations.
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.

PHOTOS (Additional photos available upon request)

Photo 1. Sediments have flowed out from a ditch near Bridge 2.

Photo 2. Jute mats are in place to prevent sediments from entering Johnson Creek near Bridge 2.

Photo 3. The Comet development pile.

Photo 4. Recently deposited waste rock from the Raven drift.

Photo 5. CWTP's pond 1.

Photo 6. The CWTP's Pond 2.

Photo 7. The test rocks used for monitoring white material accumulation.

Photo 8. A 300-gallon tote with Calcium Chloride ($CaCl_2$).

Photo 9. Sherman Creek Outfall (Outfall 002).

Photo 10. The 30,000-gallon day tank.

Photo 11. A temporary GP stockpile located at the south end of the mud dump.

Photo 12. The Pug plant located at Pit 4.

Photo 13. The GP feedstock pile located at Pit 4.

Photo 14. The tailing treatment facility (TTF).

Photo 15. The east access road was raised approximately 25 feet.

Photo 16. Contractors excavating rock for stage 3 dam construction.

Photo 17. The cement batch plant located at the northern TTF laydown area.

Photo 18. The northern TTF area lined ARD ditches.

Photo 19. The GP test barrels.

Photo 20. Meltwater accumulation being pumped out of the fuel farm.

Photo 21. The fuel depot refueling pad.

Photo 22. The refueling pads outlet drain.

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