



600 Shields Ave.
Butte, Montana 59701

February 11, 2021

Montana Department of Environmental Quality
Hard Rock Mining Bureau
Attn: Herb Rolfes
P.O. Box 200901
Helena, MT 59620

Re: 2020 Annual Inspection Report for Yankee Doodle Tailings Impoundment and Corrective Action Plan for Recommendations

Dear Mr. Rolfes:

The Engineer of Record (EOR) annual inspection of the Montana Resources, LLP (MR) Yankee Doodle Tailings Impoundment (YDTI) was conducted on October 15, 2020, by Mr. Allen Gipson (P.E. in Colorado and Wyoming) on behalf of Mr. Ken Brouwer, P.E., the Engineer of Record (EOR), due to public health restrictions relating to travel associated with the COVID-19 pandemic. Mr. Gipson was accompanied during the site inspection by Mr. Mike Harvie (Manager of Engineering and Geology) of MR.

The EOR annual inspection is required under Section 82-4-381 of the Montana Code Annotated (MCA), which also requires the mine operator to prepare a Corrective Action Plan (CAP) summarizing the recommendations of the EOR and an implementation schedule for the corrective actions. KP prepared the 'Yankee Doodle Tailings Impoundment – 2020 Annual Inspection Report' (AIR), following the inspection.

This letter documents MR's CAP in response to the five recommendations presented by the EOR:

1. Maintain reductions in freshwater use from the Silver Lake Water System to the extent reasonably practicable and continue the Pilot Project to incrementally reduce the water inventory in the YDTI supernatant pond towards the target of approximately 15,000 acre-ft.
2. Modify the tailings distribution system by extending Line 2 to allow discharge at location NS-1 and NS-2 when the EL. 6,450 ft raise of the embankment is completed adjacent to these discharge locations.
3. Further develop the construction sequence and dumping plan for the EL. 6,450 ft lift focused on the next 12 to 24 months, including a more detailed summary of the sequence and anticipated progress of embankment construction on approximately a quarterly basis.
4. Cease recirculation of barren leach water to the rock disposal sites (RDSs) directly adjacent to the YDTI embankments over the next several years.
5. Develop an updated five-year plan that includes consideration for continued phased site investigation, installation of new monitoring instrumentation, and potential replacement of lost or abandoned monitoring instruments.

MR has developed the following CAP that is expected to effectively address the recommendations contained in the AIR.

- 1. Maintain reductions in freshwater use from the Silver Lake Water System to the extent reasonably practicable and continue the Pilot Project to incrementally reduce the water inventory in the YDTI supernatant pond towards the target of approximately 15,000 acre-ft.**

MR continued to operate with reduced freshwater use in 2020, with an average SLWS flowrate of approximately 1.1 MGD, which is comparable with the average flowrate since mid-2017. MR anticipates comparable average use of freshwater in 2021.

Since commissioning the Pilot Project in September 2019, through December 2020, approximately 770 M gallons (2,400 ac-ft) of YDTI water has been discharged to Silver Bow Creek. MR is optimistic that the YDTI supernatant pond target inventory of approximately 15,000 acre-ft can be achieved over the next 2 to 4 years through a combination of the discharging water from the YDTI using the pilot project and continuing to operate the concentrator with reduced freshwater use. However, the Pilot Project is not entirely within MR's control due to a variety of factors and Polishing Plant issues and other interruptions are possible that could impact the timeline.

- 2. Modify the tailings distribution system by extending Line 2 to allow discharge at location NS-1 and NS-2 when the EL. 6,450 ft raise of the embankment is completed adjacent to these discharge locations.**

As noted in the 2019 CAP, MR recognizes that the ability to discharge from either of two lines or at two locations concurrently along the North-South Embankment would improve flexibility for operations and enhance beach development along the embankment. MR evaluated options for the adjustment of this line in 2020, and determined that realignment of Line 2 would not be practicable during 2020 due to the embankment construction that was occurring along the East-West Embankment and is proposed to continue adjacent to NS-1 and NS-2 in 2021.

MR proposes the Line 2 realignment be deferred until the 6450 raise on the YDTI embankment is completed in the embankment section adjacent to NS-1 and NS-2 so the line does not have to be removed and replaced twice. MR anticipates the construction will be complete in this area in late 2021, and Line 2 can then be realigned in early 2022, and complete by Q2.

- 3. Further develop the construction sequence and dumping plan for the EL. 6,450 ft lift focused on the next 12 to 24 months, including a more detailed summary of the sequence and anticipated progress of embankment construction on approximately a quarterly basis.**

MR will develop a short-term mine plan that estimates the schedule and quantity of rockfill available for construction by the end of Q2 2021. The schedule will consider the period from Q3 2021 through Q2 2023 (inclusive).

The rockfill schedule will include forecasting of rockfill availability on a monthly basis for the first six months, then quarterly, and will include identification of proposed use for the rockfill and maps identifying placement location.



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4. Cease recirculation of barren leach water to the rock disposal sites (RDSs) directly adjacent to the YDTI embankments over the next several years.

MR will progressively decrease the recirculation flowrate by initially slowing down and then turning off the Precipitation Pump House pumps that recirculate the flow. Excess flow that is not recirculated will discharge to the HsB Pond via the PPT overflow weir or Hooligan by-pass. The excess flow will be treated in the HsB WTP or HsB Capture System. MR is targeting a 0.5 – 1.0 million gallons per day drawdown of the recirculating load to the RDSs.

MR commenced preliminary decommissioning of the leach circuit recirculation system in Q4 2020 by turning off the Cell 11 recirculation pump. The rate at which the recirculation system can be turned down depends on the drain down of the leach RDSs, annual precipitation and the availability of treatment system capacity. While the total volume of leach water in circulation is uncertain, MR anticipates that by reducing the leach circuit recirculating load in this manner, active pumping of leach water to RDSs can be ceased in 2022.

5. Develop an updated five-year plan that includes consideration for continued phased site investigation, installation of additional monitoring instrumentation, and potential replacement of non-functional or abandoned monitoring instruments.

MR will engage KP to develop a five-year instrumentation, investigation and monitoring plan that provides a forward-looking framework for continued phased site investigation, installation of additional monitoring instrumentation and replacement of damaged or abandoned instrumentation, where appropriate. MR suggests that the five-year plan should be informed by the results of the upcoming update to the risk assessment and in consideration of planned El. 6,450 embankment construction and findings of operational monitoring and site investigation programs completed to date. An adaptive management approach will continue to be used to allow selection and placement of instrumentation to be optimized to expand on existing monitoring network, enhance monitoring for key potential failure modes identified during the updated risk assessment, and maintain sufficient monitoring coverage as construction progresses.

If there are any questions or concerns regarding the CAP and schedule please contact me at (406) 496-3211.

Sincerely,

A handwritten signature in blue ink that reads 'Mark Thompson'.

Mark Thompson

Vice President of Environmental Affairs
Montana Resources, LLP

Attachments:

- A. Engineer of Record – Verification

ATTACHMENT A:

Engineer of Record (EOR) Verification

I have reviewed and verify that the corrective actions proposed by MR should reasonably be expected to effectively address the recommendations contained in the 2020 Annual Inspection Report.

Reviewed:

Ken Brouwer, P.E.
Engineer of Record,
Knight Piésold Ltd.