



Department of Conservation & Natural Resources

Brian Sandoval, Governor Leo M. Drozdoff, P.E., Director David Emme, Administrator

March 8, 2016

Taurus Massey Singatse Peak Services, LLC 603 W. Bridge St. Yerington NV 89447

Re: Combined Comments on Singatse Peak Services Enhanced Evaporation Pilot Study Work Plan Draft

Dear Taurus,

Singatse Peak Services, LLC (SPS) developed a Draft Work Plan (Plan) for an Enhanced Evaporation (EE) Pilot Study to be performed on one or more of the Heap Leach Pads (HLPs) associated with Operable Unit 8 (OU-8) at the Yerington Anaconda Mine Site. The Plan was submitted to the Nevada Division of Environmental Protection (NDEP), the US Environmental Protection Agency (EPA) and other stakeholders on January 27, 2016. SPS requested that comments on the Plan be submitted as one set of comments.

The NDEP discussed the submittal of comments with EPA, Atlantic Richfield (ARC), US Bureau of Land Management (BLM), and the Yerington Paiute Tribe (Tribe), and we requested that comments be provided to NDEP by February 12, 2016. We received comments from ARC, BLM and EPA, but have not received comments from the Tribe as of the date of this letter. The combined comments are grouped below into two categories: 1) comments that require a change to the Plan or a separate response as explanation, and 2) comments that do not require a change to the Plan, but are points for consideration by SPS.

Specific comments that require a change to the Plan, or a separate response as explanation

- 1. Section 2.0: Include BLM in the coordination and plan/report review.
- Section 7.0: Include more definitive performance testing criteria and state how the pilot test results will be evaluated. Define how success of the pilot test will be evaluated. This could be added to Section 4.0 or 7.0.
- 3. Include a section on potential releases and responses. As part of that new section, include an estimate of the maximum volume of an accidental release from the primary pilot test equipment and to the environment. This section on potential releases and responses could be included following the Health & Safety (H&S) Section, or as a separate Spill Prevention and Response Plan attachment. Here's a link to an example plan for use as guidance, but this level of effort is not required:
 https://www.denvergov.org/content/dam/denvergov/Portals/771/documents/CGD/Resource_Sheets/Auto_Repair/Spill%20Prevention%20and%20Response.pdf
- 4. Section 7.0, Table 7-1: We interpret "blinding" of the HLP surface as a reduction in the infiltration capacity of the surface due to accumulation of salts. Please include a description of the term "blinding" in the text.

- 5. Section 8.0, Water Truck: remove Pond A from potential sources, and add Slot HLP as a source. Pond A is not available for use due to the extent of pond sedimentation. The Slot HLP Pond is at capacity, and the less draindown from the Slot HLP, the less this Pond has to be continually managed.
- 6. Section 9.0: The responsibility for maintaining pond fluid levels should remain with ARC, as opposed to the text which indicates that SPS will have this responsibility. NDEP suggests that you change the statement to "SPS is responsible for ensuring that ARC is made aware of substantial changes in pond fluid levels...".
- 7. Add a figure to the Plan for public/private property boundaries, or add a layer on Fig. 3.1
- 8. The following technical suggestions are recommended. Please consider incorporating the following in relevant sections.
 - a. During the one-hour pumping period, workers should keep an eye on the system to ensure minimum potential for line failures that could cause rilling or erosion of HLP surfaces.
 - b. Provide additional specifications on pipe that will be used to ensure that proposed piping and threads, valves, and sprinkler heads meet the pressure requirements.
 - c. For the run up the side of the HLP, consider using new piping. If SPS elects to use existing piping, it should have the piping inspected by a qualified inspector and state the QA/QC procedures to be implemented and followed.
 - d. Follow all pipe and sprinkler head manufacturer's recommendations and QA/QC for installation and use, especially the HDPE pipe welding.
 - e. The plan does not include specifications or locations of pressure gauges. Include gauge locations.
- 9. The following Table addresses the Fluid Management System (FMS) Pump Configuration Table (Appendix A, Plan pp 10-12).

ltem#	Report Section	Report Text	Comment
1	Table 3-2 (p. 6)	Arimetco FMS Pump Information	Revise table to reflect recent pump assignments due to maintenance. The 25hp Durco pump is currently installed at the VLT Sediment Pond as a back-up pump. The 15hp Durco pump is currently out for repairs, to be rotated to a back-up pump once repairs are complete. The 20hp Goulds pump is currently installed at the Slot Sediment Pond. The table and text should also recognize that fluid transfers at the Slot Pond are a two-stage process. First stage is transfer from Slot Pond II to the Slot Sediment Pond with a 2hp submersible pump. Second stage transfer is with the 20hp pump up and over the Slot HLP to the FMS Evaporation or VLT Ponds pump.
2	Use of existing pumps for pilot test (p. 10, paragraph 4)	Either the portable Godwin diesel powered pump or the existing 25hp Durco electric pump are planned to be used for the pilot test. The pump curves are provided in Appendix A and show that adequate pump rates and pressures can be accomplished using either pump for the pilot test.	The Slot Sediment Pond now has the zohp Goulds pump installed for pumping. The design should incorporate this change.
3	Slot Pond pump (p. 12, paragraph 2)	Pump selected for pilot test is expected to be the existing 25hp electric pump located at Slot Pond or	Correct to 20 hp electric pump

Comments that do not require a change to the Plan, but are points for consideration by SPS

- 1. Consider using Phase I HLP fluid as a water source for the pilot study, when utilizing the water truck for fluid delivery. This utilization will help balance the current capacity issue in the Phase I Pond.
- Acknowledging the role of BLM as public land manager for a portion of the study area, please use Dave
 Davis as an additional point of contact. Please include BLM in site visits to view pilot study operations,
 conference calls, test results, final report, etc.
- 3. SPS should be responsible for maintaining ARC equipment used for the pilot study, and be prepared to replace or repair equipment (and/or FMS components such as liners) as needed.
- 4. We recognize the ongoing discussions between ARC and SPS on operation and maintenance (O&M) responsibilities, as well as mention of that in Section 9.0. However, pilot study operations cannot interfere with other FMS O&M activities, including use of pumps and piping that are also used in ARC's routine O&M; those routine O&M activities will take precedence over pilot study use of the same equipment. If pilot study operations require access to ARC work areas, workers should follow ARC H&S plans and protocols. Also, the proposed pilot study operations should not increase the amount of drain down fluid currently being managed by ARC, or adversely affect ARC's ability to continue to perform O&M. Consider, as back-up, obtaining dedicated equipment for use in certain pilot study operations.
- 5. Operation of the EE pilot study will involve significant maintenance due to precipitate accumulation in pumps, piping, valves and sprinkler heads. Any existing plans for how specific maintenance activities will be performed should be included in the Work Plan. You might also consider keeping back up equipment (extra pumps, piping, sprinkler heads, etc.) for maximizing operational uptime.

We look forward to receipt of the Final Work Plan for the Enhanced Evaporation Pilot Study, and we look forward to reviewing the results of the Pilot Study with SPS.

Singerely,

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Abandoned Mine Lands Program Coordinator, NDEP Yerington Project Manager

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Bureau of Corrective Actions

Nevada Division of Environmental Protection

cc:

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