



March 31, 2015

Robert Holmes
Director, Mineral Resources
Government of Yukon
P.O.Box 2703 (K-9),
Whitehorse, Yukon
Y1A 2C6

Dear Mr. Holmes;

Re: Sä Dena Hes Mine – Quartz Mining License QML-0004 – 2014 Detailed Decommissioning and Reclamation Plan Report

As required in Part III – Reporting, Monitoring and Inspections of licence QML-0004, Teck is submitting this report describing the annual inspections, and the decommissioning and reclamation activities completed in 2014 at the Sä Dena Hes (SDH) mine.

Annual Inspections

Section 9 of the licence states that annual inspections be conducted no later than September 30th in each year. The 2014 geotechnical inspection of water and waste management facilities at SDH was carried out by SRK on July 8 and September, 2014. The inspection report¹ was submitted to the Director, Mineral Resources on January 19, 2015. The report provides observations and recommendations which generally include monitoring and regular inspections for each facility. No significant events occurred during the year which required any remedial measures.

Reporting and Monitoring

Section 10.1 in Part III of the licence states that in 2013 and 2014 the licensee must submit a written report documenting (a) the decommissioning and reclamation activities completed; (b) the effectiveness of the remediation measures implemented; (c) the results of the studies and monitoring programs detailed in the DDRP and subsequent updates; and (d) summary of decommissioning and reclamation activities planned for the upcoming year. Each of these items is further discussed below.

2014 Decommissioning and Reclamation Activities

Decommissioning work began on site on April 19, 2014 and ended on October 14, 2014. At the end of the decommissioning activities, the road was temporarily deactivated to minimize access to the site until activities commence in 2015. The details of the decommissioning work completed are included in the attached report *2014 Reclamation Activities and As-Built Report*, dated March 30, 2015 prepared by AMEC Foster Wheeler.

¹ *2014 Geotechnical Inspection Tailings Management Facility, Sä Dena Hes, Yukon Territory* dated December 2014, SRK Consulting

Effectiveness of the Remediation Measures

Mine closure construction activities during 2014 temporarily increased TSS concentrations below the former Reclaim Pond in Camp Creek. This increase was expected during the completion of construction and is considered temporary. Sediment and erosion control was implemented throughout the duration of construction including sediment fencing and hay bales. All areas on and around the newly capped reclaim area was seeded in October in an effort to promote rapid vegetation growth, and erosion control blankets were placed on the steep hillside of the mill site to mitigate potential erosion.

Additional construction and remediation activities will be conducted in 2015, as such the effectiveness likely won't be determined until the vegetation is re-established.

Results of Studies and Monitoring Programs

Several studies as required under Section 6.3 were submitted between March 31, 2014 and October 20, 2015 and are not re-iterated here.

However, during the 2014 construction season additional studies were completed including:

- Environmental Site Assessment (ESA) work conducted by Golder Associates (Golder) which included further characterization of soil in discrete areas of environmental concern (AECs), confirmation sampling following the re-shaping works and placement of clean soil covers, groundwater monitoring and sampling, additional characterization of waste rock. Golder's report is currently in progress and will be submitted upon completion.
- A separate ESA was conducted by Golder for the landfill area due to concerns raised by the Liard First Nation (LFN). The details of the work and results are included in the attached report prepared by Golder². In summary, impacts to the groundwater and surface water were not detected due to the construction of the landfill. Monitoring will continue in 2015.
- Terrestrial Ecological Risk Assessment (ERA) work conducted by Azimuth included supplemental sampling to verify results of high lead observed from 2013 samples. The results will be included in Azimuth's Volume 2 Ecological Risk Assessment for the Terrestrial Environment and is currently in progress and will be submitted upon completion;
- Aquatic ecological risk assessment work including sediment and benthic sampling, electrofishing of Camp Creek. Results will be included in Azimuth's Volume 3 Aquatic Ecological Risk Assessment which is currently in progress.

The routine annual surface water quality monitoring and biennial EEM conducted in 2014 is summarized in the 2014 Annual Water Licence report prepared by SRK³.

2015 Decommissioning and Reclamation Activities

There are no major changes to the schedule that was submitted in 2013. The major works remaining for 2015 include final capping of the mill and landfill areas, road decommissioning, and seeding and planting. Additional environmental studies, including soil confirmatory sampling on the final cap covers and groundwater monitoring and sampling will be conducted in 2015.

² *Environmental Site Assessment - Site Landfill, Sa Dena Hes Mine, Yukon Territory*, dated December 18, 2014, Golder Associates

³ *Sa Dena Hes – 2014 Annual Report, Yukon Water Licence Water QZ99-045*, dated March 2015, SRK Consulting Ltd.

I trust that the information provided is sufficient under the Licence. Please do not hesitate to contact me at (250) 427-8422 if you have any questions or require any further information.

Sincerely,



Michelle Unger, B.Sc.
Senior Environmental Scientist

cc:
Chief Daniel Morris, Liard First Nation
Chief Jack Caesar, Ross River Dena Council

Attachments:

- 1 – Sä Dena Hes Mine Decommissioning and Reclamation 2014 Reclamation Activities and As-Built Report, AMEC Foster Wheeler Environment & Infrastructure, March 2015
- 2 – Environmental Site Assessment – Site Landfill, Sa Dena Hes Mine, Yukon Territory, Golder Associates, December 18, 2014

ATTACHMENT 1

**Sä Dena Hes Mine Decommissioning and Reclamation 2014
Reclamation Activities and As-Built Report, AMEC Foster
Wheeler Environment & Infrastructure, March 2015**

ATTACHMENT 2

Environmental Site Assessment – Site Landfill, Sä Dena Hes Mine, Yukon Territory, Golder Associates, December 18, 2014