BAAL BONE UNDERGROUND

GLENCORE

17 November 2020

Andrew Rode
Senior Environmental Assessment Officer
Energy, Resource and Compliance Division
NSW Department of Planning, Industry and Environment

Email: andrew.rode@planning.nsw.gov.au

Dear Andrew,

RE: Proposed changes to Groundwater Monitoring

The 2019 Independent Environmental Audit for Baal Bone Colliery recommended the following with respect to Schedule 3 Condition 21 of PA 09_0178, and an ongoing exceedance of water quality trigger levels for dissolved zinc at BBP3 in the vicinity of Coxs River Swamp:
"Revisit the zinc trigger levels for BBP3 in consultation with DPIE for Mine Closure Phase".

In response to the audit recommendation, Baal Bone Colliery committed to engaging a consultant to carry out an investigation of the zinc trigger levels. In correspondence dated 20 March 2020, DPIE requested that a copy of the investigation report be supplied to the Department no later than COB 30 March 2021.

Baal Bone Colliery engaged Umwelt Australia Pty Ltd to conduct an investigation of the Coxs River Swamp monitoring program. Please find a copy of the investigation report attached in Appendix 1.

The Investigation of Coxs Swamp River Monitoring Program, concluded that:
"Except for BBP1, groundwater levels in the Coxs River Swamp monitoring network do not show evidence of impacts associated with mining-related subsidence. Groundwater levels in these bores appear to be typical of a shallow groundwater source, responding to short-term rainfall and following long-term rainfall trends.

The mobilisation of trace metals and their transport of the mobilised metals to an underlying groundwater source is a naturally occurring process that may be accelerated by mining-related subsidence. Historical monitoring data for the period 2008 to present suggests that this natural process has occurred across all of the Coxs River Swamp monitoring bores, including the background bore BBP4. The data also shows that subsidence around LW31 may have accelerated this process and contributed to an extended period of elevated zinc concentrations in BBP3. However, given the ongoing period of rainfall deficit and the high pre-mining zinc concentration (recorded September 2008), the elevated zinc concentrations recorded at BBP3 cannot be definitively attributed to mine subsidence."

Furthermore, the Investigation of Coxs Swamp River Monitoring Program recommended that:
"Monitoring bores BBP1, BBP2, BBP5 and BBP6 do not show evidence of groundwater quality impacts associated with mine subsidence. Rather, water quality within these bores appears to be representative of background groundwater quality and vary based on natural processes. As such, ongoing monitoring in these bores is unlikely to provide further benefit and is not recommended.

Given the consistently elevated zinc concentrations recorded at BBP3 it is recommended that water quality and level monitoring continue once every two months until at least December 2020 to confirm whether zinc concentrations return to pre-mining and pre-rainfall deficit concentrations. For reference purposes, groundwater level and water quality monitoring in the background bore, BBP4, should continue with BBP3 monitoring."

Accordingly, Baal Bone Colliery request permission to cease groundwater monitoring in BBP1, BBP2, BBP5 and BBP6 immediately.

As per the recommendations, monitoring at BBP3 and BBP4 will continue, at a reduced frequency of once every two months, for at least another 6 months, until June 2021. At this time Baal Bone Colliery will conduct another review to determine if further monitoring is required.

Should you require any further information please do not hesitate to contact Elizabeth Fishpool on 02 6350 6945 or at Elizabeth.Fishpool@glencore.com.au.

Yours sincerely,

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