


MEMORANDUM


OFFICE OF THE STATE ENGINEER

Hydrology Bureau

DATE: February 7, 2020

TO: David Ogori, Permit Lead, Mining Act Reclamation Program ("MARF")/MMD

THROUGH: Ghassan Musharrafieh, Ph.D., P.E., Chief, Hydrology Bureau, Santa Fe 

FROM: Steve Acheampong, Ph.D., WRP IV, Hydrology Bureau, Santa Fe 

SUBJECT: Review of Hydrogeologic Resources Report For the Tererro Project In Santa Fe County, New Mexico, Comexico, LLC, New World Cobalt Limited

I. Introduction

On December 12, 2019, the Mining and Minerals Division (MMD) of the Energy, Minerals and Natural Resources Department (EMNRD) of the State of New Mexico requested the Hydrology Bureau of the Office of the State Engineer (OSE) to review a report titled "Hydrogeologic Resources Report for the Tererro Project in Santa Fe County" which was submitted to the EMNRD by Comexico, LLC. The report was prepared by SWCA Environmental Consultants for Comexico, LLC in fulfillment of the hydrology requirements under the National Environmental Policy Act (NEPA) permitting and/or permitting by other state or local agencies for their mineral exploration project in Northern New Mexico.

The report describes and discusses available data on the general physiography, geology, hydrogeology, surface hydrology and the water use in the project area, and addresses the regulatory requirements and potential impacts from the drilling activities at the site (SWCA Environmental Consultants, 2019).

II. Comments

II. A. Surface Water

The report states that there are four perennial creeks which lie within 0.8 to 2.6 miles of some of the proposed drill pad sites. Since they will be using the best management practices in their operation it is likely that the proposed drilling activities may not adversely impact these perennial creeks. With a lot of uncertainties in weather conditions and the susceptibility of the soils in the area to erosion, it is possible to underestimate the potential impacts to the water

quality. However, following best management practices and sediment control measures during drilling may reduce any such potential impacts.

II. B. Groundwater

Groundwater occurs at the project site and the closest drilled well, UP 00826 is only about 1700 feet from the nearest drill pad. Well log data show that the water occurs in a fracture zone at depths between 205 and 220 feet. The current (August, 2019) measured depth to water is at 17.48 feet below ground level (bgl) and suggests that the groundwater is under confined conditions. Depths to groundwater measurements of twenty wells within ten miles of the project site range from 6 to 52 feet bgl with total depths of the wells ranging from 75 to 400 feet bgl (SWCA Environmental Consultants, 2019). This suggests that groundwater in the area is under artesian conditions. The depth to water data also suggests a strong possibility of encountering groundwater during the proposed drilling project.

The report states that Comexico, LLC proposes to divert water from well UP 00826 for its drilling program. Well UP 00826 was permitted for Prospecting or Development of Natural Resource in 1981. It is recommended that prior to diverting any water from the well, Comexico, LLC should contact the Water Rights Division of the Office of the State Engineer and complete the necessary required forms.

Reference

SWCA Environmental Consultants, 2019, Hydrogeologic Resources Report for the Tererro Project in Santa Fe County, *Prepared for Comexico, LLC, New World Cobalt Limited.*