

MEMORANDUM ADDENDUM
OFFICE OF THE STATE ENGINEER
Hydrology Bureau

DATE: July 19, 2021

TO: David Ohoi, Permit Lead, Mining Act Reclamation Program (MARP)/MMD
Holland Shepherd, MARP Program Manager

THROUGH: Ghassan Musharrafieh, Ph.D., P.E., Hydrology Bureau Chief *JRM*

FROM: Kamran H. Syed, Ph.D., P.E., Water Resources Engr., Hydrology Bureau *KHS*

SUBJECT: Addendum to the Hydrology Bureau Memorandum of March 11, 2021, titled
"Comments on Rio Grande Resources Corporation's Response to Hydrology
Review of Modification 20-1 to Mt. Taylor Mine Permit No. CI002RE, –
Closeout/Closure Plan", Syed (2021)

On June 26, 2020, the Hydrology Bureau of the New Mexico Office of the State Engineer (NMOSE) received a request for comments by the Mining and Minerals Division (MMD) of the Energy, Minerals and Natural Resources Department (EMNRD) for the Rio Grande Resources Corporation's (RGR) proposed modification 20-1 of MMD Mt. Taylor mine permit No. CI002RE (Permit). The application is for the modification of the Closeout/Closure Plan. The project is located approximately 1/2-mile northeast of the Village of San Mateo, New Mexico in portions of Section 24, Township 13N, Range 8W in Cibola County.

In response to the request, the NMOSE Hydrology Bureau provided several comments and recommendations in a memorandum to MMD dated July 24, 2020 (Syed, 2020). The Rio Grande Resources Corporation responded to those comments/recommendations in a letter (dated December 7, 2020) by Mr. Bruce Norquist (Facilities Manager, RGR) to the MMD. Most of the RGR's responses adequately addressed our comments. However, one of the RGR's responses (in reply to our comment/recommendation #1) regarding shaft design and construction details fell short of fully addressing our request. Therefore, the required information was requested again in the form of a Hydrology Bureau Memorandum dated March 11, 2021 (Syed, 2021). In response to that request, Mr. Norquist provided shaft plan drawings and explained the shaft construction and grouting procedures in detail.

Considering the shaft design and construction procedures as provided and explained by Mr. Norquist, it seems that the shaft closure plan may be acceptable in minimizing comingling of, and contamination between aquifers, as long as the water level and water chemistry data from the

monitoring wells (surrounding the shafts) do not indicate otherwise. In other words, continuous water level and water chemistry monitoring would be necessary to ensure that the original shaft construction is holding, as intended (i.e., not deteriorating over time to the point that the segregation of aquifers is compromised).

REFERENCES

- Syed K. H., 2020. Comments on Modification 20-1 to Mt. Taylor Mine Permit No. CI002RE, Rio Grande Resources Corporation – Closeout/Closure Plan. NMOSE Hydrology Bureau Memorandum to MMD, dated July 24, 2020.
- Syed K. H., 2021. Comments on Rio Grande Resources Corporation's Response to Hydrology Review of Modification 20-1 to Mt. Taylor Mine Permit No. CI002RE, – Closeout/Closure Plan, dated March 11, 2021.