



STATE OF
COLORADO

Zuber - DNR, Rob <rob.zuber@state.co.us>

Geotech Review for Monarch DENM

1 message

Zuber - DNR, Rob <rob.zuber@state.co.us>

Tue, May 17, 2022 at 7:33 AM

To: eric.leigh@quikrete.com, Kyle Regan <kyle@civilresources.com>

Kyle and Eric -

Thanks again for your time yesterday.

Attached is the Division's review related to the stability analysis for permit application M-2022-009, the Monarch DENM Mine. Please respond to this memo in the same response to my preliminary adequacy review letter dated May 13, 2022.

Thank you,
Rob

Rob Zuber, P.E.
Environmental Protection Specialist
Active Mines Regulatory Program



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

I am working remotely and can be reached by cell at 720.601.2276.

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Monarch_Geotech_Memo_20220517.pdf
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MEMORANDUM

Date: May 17, 2022

To: Rob Zuber; Division of Reclamation, Mining & Safety

From: Peter Hays; Division of Reclamation, Mining & Safety

Re: **Adequacy Review of Exhibit 6.5 - Geotechnical Stability
Monarch Mountain Minerals and Aggregates, LLC; Monarch DENM Mine; File No. M-
2022-009**

The Division of Reclamation, Mining and Safety (Division/DRMS) reviewed the Stability Analysis submitted by Civil Resources, LLC dated February 22, 2022 for the Monarch DENM 112c permit application.

In accordance with Table 1 - Recommended Factors of Safety for Slope Stability Analysis for Operations and Reclamation within Section 30.4 of the Policies of the Mined Land Reclamation Board (MLRB) effective May 16, 2018, the Division will require the Applicant to comply with the factor of safety (FOS) of 1.5 for critical structures and 1.3 for critical structures in seismic conditions since the Applicant utilized generalized strength measurements in the analysis.

Please provide the following information related to the stability analysis.

1. Please update the Exhibit C - Mining Plan Map to indicate the required offsets from the slurry wall, gas lines and property lines from the stability analysis report.
2. The report states twenty-seven (27) borings were drilled at the site. Please provide a copy of the drilling logs for Division review.

The Division will require the Applicant to demonstrate they attempted to obtain notarized structure agreements with all owners of the structures within 200 feet of the affected area of the proposed mine site, pursuant to Rule 6.4.19, prior to the Division's consideration of the stability analysis.

If you have any questions regarding these adequacy items, please contact me at peter.hays@state.co.us or (303) 866-3567, Ext. 8124.

