

State of New Mexico
Energy, Minerals and Natural Resources Department

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Mining and Minerals Division



Electronic Transmission

November 6, 2023

Unita Basin Sand LLC
c/o Mr. Harry N. Relkin, Attorney
P.O. Box 11594
Albuquerque, NM 87192

Re: Unita Basin Sand LLC, Proposed Volcanic Deposit (Pozzolan) Mine, Colfax County, New Mexico

Dear Mr. Relkin:

Thank you very much for the information you've shared with MMD about Unita Basin Sand's proposed pozzolan quarry. Thank you as well for your patience over the past few weeks as MMD researched and reviewed the question you raised on behalf of your client. Ultimately, while "quarry rock used as aggregate for construction" is exempt from permitting per New Mexico's Mining Act of 1993, MMD, after careful consideration, believes that the Pozzolan Unita Basin Sand proposes to mine does not constitute a "quarry rock used as aggregate for construction" because it holds cementitious value.

Long standing MMD policy defines "aggregate" narrowly as inert, volumetrically stable rock extracted from a surface mine, which is actually used in construction. MMD's approach is consistent with the way the term would be used in industry, according to the usage of trade. *See e.g.* American Portland Cement Association holds that "aggregates are inert granular materials such as sand, gravel, or crushed stone." MMD does not classify cementitious materials to be aggregates.

In contrast, pozzolan is defined by the American Society of Testing and Materials as "a siliceous or siliceous and aluminous material which will, in finely divided form and in the presence of moisture, chemically react with calcium hydroxide at ordinary temperature to form compounds possessing cementitious properties." Based on that definition, the American Concrete Institute classifies pozzolan as a "cementitious material." ACI 116R (<https://www.concrete.org/topicsinconcrete/topicdetail/Pozzolan?search=Pozzolan>).

This recognition of pozzolan's cementitious value is consistent with Unita Basin Sand's "What is Pozzolan" presentation. Slide 3 of that document describes pozzolan as "Cement Material" that "replaces up to 40% of cement in concrete."

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MMD's interpretation also mirrors the federal government's approach with regards to pozzolan on federal lands. BLM Determination in AZA-36808 held that "the pozzolanic chemical reaction is the property that gives the material its distinct and special value." BLM found that pozzolan is not used in industry for the same purposes for which ordinary aggregate is used, but commands a substantially higher economic value than common aggregate because of its cementitious value in industrial, chemical, and manufacturing processes. BLM therefore held that Pozzolan is a locatable mineral under the Mining Law of 1872 (whereas construction aggregate is classified as "salable" minerals).

MMD regrets that we are unable to accommodate your request to categorically exempt Pozzolan mining from Mining Act permitting. However, MMD still believes that your proposal would very likely qualify for minimal-impact permitting under 19.10.3 NMAC, and the information already gathered for other regulatory processes for your project would likely satisfy the majority of those requirements.

MMD is also willing to work with you with regards to the timing of applying for a minimal-impact new mine permit. While your client is only selling unprocessed natural pozzolan as a sand, gravel or borrow dirt material, MMD considers this to be consistent with an exemption from permitting. However, MMD maintains that a permit would be required before the milling of the pozzolan commences.

If you have any questions, please contact me at (505) 372-8634 or by email at david.ennis@emnrd.nm.gov.

Sincerely,



David ("DJ") Ennis, P.G., Program Manager
Mining Act Reclamation Program

cc: File (CO002MN)