

Colorado Division of Reclamation, Mining and Safety

To: Rob Zuber

From: Zach Trujillo

CC: Jason Musick

Date: December 11, 2019

Re: Bowie No. 2 Mine Waste Bank Review

As requested, I have reviewed Bowie Resources, LLC's Bowie No. 2 Mine 2019 3rd Quarter Waste Bank Inspection Report in compliance with the following Rules:

1. 4.09.1(11)(a) – The fill was inspected for stability by a registered engineer during the placement and compaction of fill materials. No placement occurred during the 3rd quarter.
2. 4.09.1(11)(b) – A qualified registered engineer provided to the Division a certified report however, *not* within two weeks after the inspection of the waste bank was completed. Due to HBETs servers being hacked, as stated by the Operator, it took several days to restore files associated with this report.
3. 4.09.1(11)(c) – This rule is not applicable during this phase of construction.
4. 4.10.2 – All criteria for Rule 4.10.2 were met.

The following is a summary and notes in regards to the Bowie No. 2 Mine 2019 3rd Quarter Waste Bank Inspection Report:

- Cleaning has been suggested on the upper diversion at gob pile #3 during 2019. This maintenance item was noted in in the 2nd Quarter Waste Bank Report as well. The lower diversion (J3) noted in the 2nd Quarter Waste Bank Report was cleaned by the Operator in September 2019.
- The seep north of the east drying area of gob pile #3 continues to flows but has decreased since being discovered in the 2nd quarter. Based on the comments in the report, it appears that the seep may have a connection with the Fire Mountain Canal as the Operator has notified the associated party in regards to loss of water from the canal. It is stated that the seep at this time is not expected to impact the long-term stability of the gob pile however, the Division should be make note of the seep and associated area during inspections.
- Inclinometer readings were provide for gob pile #2. As stated in the 2nd quarter report, deflection was noted near the top of inclinometer GB05-5 that is perpendicular the slope. This deflection continued however showing up deeper into the gob pile. This discontinuity in displacement result leads the Operator to believe this is due to systematic error. Additionally, the displacement direction

does not reflect instability. The Division should take note of any changes in the 4th quarter report to ensure this is deflection isn't an indication of instability.

- Vibrating wire piezometers readings were provided for gob pile #2 and #3. Pore pressure recordings for both gob piles have remained relatively consistent or with slight fluctuations expected during seasonal changes.
- Compaction results for gob pile #3 has been provided. The location of the test areas are located at the southwestern part of the gob pile. All relative compaction meets or exceeds the minimum requirement by the Division.

If you have questions, feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Zach Trujillo'.

Zach Trujillo
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