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Delivered Via Email and Hard Copy

Dustin Czapla
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Denver, CO 80203
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RE: The Pride of America Mine, Permit #M-1999-058, October 2019 Diesel Spill Report, Clarification Issues - Colorado Stone Quarries' (CSQ) Response

Mr. Czapla:

I am responding to your December 27, 2019 letter to me concerning the *October 11th, 2019 Diesel Spill Report*, dated November 27, 2019, which was prepared by Greg Lewicki and Associates, PLLC (GLA) (the "Spill Report"). Specifically, the Division requested additional discussion or clarification regarding two identified issues. Those issues are presented below along with our responses.

DRMS Comment: The report concludes that no diesel appears to have left the site and no discharge of contaminated water occurred at any time during the initial spill or mitigation. This conclusion is not accurate based on the fact that detectable amounts of BTEX were found in the DG3 sample following the flushing efforts. Except for Xylenes detected in the DG4 sample post-flushing, the DG4 and DG5 sample points did not show detectable amounts of contaminants related to the spill, which could be explained through dilution by Yule Creek. However, it is clear that at least some contaminates entered Yule Creek following the spill. Please correct or clarify the conclusion that no detectable amount of contaminated water reached Yule Creek.

Response: The focus of our discussion in the Spill Report regarding the results of water quality sampling conducted in response to the October spill was intended to be on gasoline range organics (GRO) and diesel range organics (DRO). As discussed in the Spill Report and shown in its Appendix G, the only samples that contained DRO or GRO concentrations above detection limits were collected from the sump. No diesel fuel (i.e., free phase product) appears to have migrated off the site and into Yule Creek, but rather was contained within the sump area above the creek. The statement that no detectable amount of contaminated water reached Yule Creek as a result of the spill, however, was imprecise. As noted in your comment and as shown in Appendix G, trace amounts of certain BTEX components (i.e., toluene, ethylbenzene and

xylenes) were reported above detection limits in certain samples collected in Yule Creek on October 30, 2019, following the completion of the flushing activities that took place on October 29, 2019. Trace amounts of fluorene and naphthalene were also identified in certain instances. Benzene was reported as non-detect for all samples. The reported concentrations of those parameters were all de minimis, were well below (in some instances by more than an order of magnitude) applicable state and federal screening thresholds, and presented no risk to Yule Creek.

The fact that trace amounts of certain parameters were detected was not surprising. During these types of response actions, where a large volume of water is introduced into an impacted area, it is not uncommon for the water to come into contact with areas of contamination in the un-saturated zone. When this occurs, the more soluble constituents such as BTEX will partition off the impacted soil and enter the water in a dissolved phase. This is likely what occurred and what was observed in sample DG 3, which is located immediately downstream from the collection sump. Once again, although small amounts of dissolved phase constituents were observed in sample DG 3, and to a lesser extent in DG 4, as noted above, the concentrations were well below any regulatory thresholds and do not present a risk to Yule Creek.

DRMS Comment: The report states that when the water level in the sump rose during flushing operations clean water was able to pass through the berm while contaminated water was contained within the sump. Please explain how only clean water was able to infiltrate the berm.

Response: The reference to "clean" was imprecise. "Clean" was intended to mean concentrations less than screening threshold levels. As noted in the Spill Report, GLA was aware that infiltration from the sump would occur through the berm, but anticipated that any diesel product on the surface of the water in the sump would be captured by the booms that had been placed in the sump and the earthen surface of the berm. As was noted in the report, following the flushing operations that occurred at the site and a large precipitation event that occurred prior to October 30, 2019, there was a significant amount of water that collected in the sump and a visible flow of water through the berm (i.e., seepage) was observed. This event was immediately reported to the CDPHE and DRMS on October 30, 2019. Upon observing the seepage through the berm, additional absorbent booms were placed within Yule Creek and additional downgradient sample locations added. No free phase product was observed on the downstream side of the berm. As discussed above in regard to Comment 1, the only detection of hydrocarbons were observed within the BTEX constituents and polyaromatic hydrocarbons, which were well below screening thresholds.

Please contact me if you have any questions or require additional information.

Regards,

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cc: Daniele Treves, Colorado Stone Quarries
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