December 6, 2021

Sent via ePermit system

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PO Box 99  
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Permit ID:  C1984003B  
Revision Type: Permit  
Permitting Action: Notice of Unacceptability  
Subject:  C1984003B; Area B AM 5 Round 9

Dear Dicki:

The Department of Environmental Quality (DEQ) has completed its acceptability review regarding Westmoreland Rosebud Mining LLC’s application for SMP C1984003B. The following must be adequately addressed before DEQ can determine the application acceptable:

**ARM 17.24.304(1)(b):** Efforts to meet the data needs for compliance with § 82-4-227(2)(d), Montana Code Annotated (MCA) and ARM 17.24.304(1)(b) are ongoing. DEQ is still waiting to see an ethnographic report from the Northern Cheyenne after the field visit conducted on 9/1/2021. Additionally, the Crow Tribe representatives have stated to DEQ that they want to participate in an ethnographic evaluation of the area, please complete the ethnographic study as soon as possible.

**ARM 17.24.313(1)(d)(iv):** The postmine topography (PMT) for the existing Area B East, as demonstrated on Exhibit B, is not the approved Area B PMT from MR93, but rather the original PMT submitted for MR93. The original PMT for MR93 was determined unacceptable by DEQ. See MR93 deficiency letter dated August 10, 2020. This PMT is also displayed on other maps with a PMT base. Please update all maps which include the PMT using the approved PMT for Area B East.

**ARM 17.24.313(1)(f):** Permit section 17.24.313(1)(f) references Exhibits V-1 through V-14 and discusses detailed drainage designs for the Richard Coulee mainstem. With the removal of Richard Coulee mining, there are only Exhibits V-1 through V-10, and Richard Coulee mainstem will not be disturbed or reclaimed. Please revise permit section 17.24.313(1)(f) to reflect the current mine plan.
ARM 17.24.314(2)(a): The pdf for "Area B AM5 EXHIBIT O RICHARD HR_Phase I_Sheet 1 of 3 2021-05.dwg" was not included in this submittal. Please upload this pdf file.

ARM 17.24.314(3): Appendix O-1, Section 2.5.4.4 discusses potential impacts to pond PO-311, however this pond is not shown on the referenced map (Figure 5). Please label this pond on Figure 5. Appendix O-1, Section 2.5.5 on page 14 (and Attachment B) describes that there will be no net increase in total dissolved solids (TDS) at the Lee Coulee Pond due to AM5 because all flow originates in Area B spoil. Based on the evaluation method used in Attachment B, this statement is not correct. Because AM5 mining is located closer to the Lee Coulee Pond than Area B mining, the area and volume of recharge under the AM5 mining scenario would be less than the recharge under the existing Area B scenario, resulting in a greater projected net incremental increase in TDS at the pond with AM5 mining than with only existing Area B mining. Please include an evaluation of the impacts due to AM5 which exceed the impacts from existing mining. Appendix O-1, Table 4 in the Potential Impact column, many lines state “see Table 4.” This is a circular reference, and probably was intended to be Table 5. Please correct this reference. Appendix O-1, Figure 1 incorrectly shows the entire potential future disturbance area in Richard Coulee as potential future mining. This figure also does not show the extents of proposed AM5 mining or disturbance. Please correct Figure 1 to show the correct extents of mining of proposed and potential future mining. Appendix O-1, Attachment A, Table A-4 has two sets of data labeled “Postmine” where one clearly should be premine data. Please correctly label the premine data in this table.

ARM 17.24.314(3)(b)(iv)(A): Appendix V, Sediment Modeling Results, does not contain Table 1 (pre-mine results) impeding comparison of pre-mine to post-mine sediment yield. Please include this table.

ARM 17.24.314(3)(b)(iv)(D): The Appendix I-B groundwater model for post mine conditions (RB-Mine-transient-2091-new-am5.gwv) does not correctly simulate the conversion of the final mining block (Cuts BXS-54 through BXS-64) to post mining hydrologic properties. Instead of a single layer (Layer 2) with spoil properties, the model uses the pre mining configuration of 2 layers (Layers 1 and 2) with overburden and coal properties, respectively. The model needs to be adjusted to correctly simulate the post mining condition.

ARM 17.24.314(4): During permitting of the Big Sky Mine Area B, DEQ’s predecessor, the Department of State Lands, determined that the wet reach of Lee Coulee was intermittent, and initially prohibited disturbance within a buffer zone around this reach. Mining in this area was eventually allowed upon the DEQ’s finding that Big Sky Mine Area B had an acceptable plan for restoration of the reach, including stream function, water resources, and habitat for aquatic life. This restoration plan (Big Sky Area B Permit Attachment 16-2, see attached) relied on the recovery of water levels after mining from “upgradient aquifer recharge sources that probably acted as quasi-constant head sources to the ground water discharges that occurred within pre-mining Lee Coulee valley” which would not be disturbed by mining. Recovery of these post mining groundwater levels was considered
critical to support restoration of the groundwater fed intermittent flow which occurred in this reach before mining. A portion of this aquifer recharge zone is located within the AM5 permit boundary and mine plan area. As described in the Rosebud Area B AM5 permit application Appendix O (PHC), AM5 mining will disturb and potentially endanger a portion of this recharge area and “[a]s such, the reestablishment of the wet reach will be delayed...” Because portions of the wet reach are outside the proposed Area B AM5 permit boundary, delaying or preventing recovery of intermittent flow in this reach may adversely affect restoration of this reach and its support of “the growth and propagation of...aquatic life, waterfowl and furbearers” [ARM 17.30.629(1)]. Such an adverse effect outside the AM5 permit boundary would be a violation of the ARM 17.30.629(1) standard for C-3 waters, and thus material damage which cannot be permitted (ARM 17.24.405(6)(c)). WRM must provide a plan for the protection of the hydrologic balance per ARM 17.24.314(1)(c) that affirmatively demonstrates that recovery of the wet reach of Lee Coulee outside the AM5 permit boundary per the Big Sky Area B permit Attachment 16-2 will continue as approved by DEQ. This demonstration should also address how post-mining water quality in the wet reach will comply with the electrical conductivity (EC)/sodium adsorption rate (SAR) standards in ARM 17.30.670(4).

**ARM 17.24.515(2):** Appendix S, Steep Slope Inventory, Table S-2, S-3, and Exhibit 2 identify post mine steep slopes which will be created in the Richard Coulee mine area which is no longer proposed to be mined. Please update these documents to reflect the current mine plan.

Upon receipt of satisfactory responses to these deficiencies, DEQ will determine the application to be acceptable.

Please feel free to contact me with questions regarding this letter.

Sincerely,

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Cc: Jeff Fleischman, Office of Surface Mining
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