



Public Service Commission

State of North Dakota

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Mr. Jesse Noel, P.E.
Director, Environmental & Regulatory
Westmoreland Beulah Mining LLC
Beulah Mine
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Dear Mr. Noel:

The Reclamation Division has reviewed DWC's (WBM LLC) February 12th response to our October 9, 2020 technical review of Revision 32 to KRSB-8603. The following items must be addressed prior to this office recommending Commission approval. Since many of our pre-renewal items and the Worst Case Bond is being updated with Revision 32, Revision 32 must be approved prior to Renewal No. 7 to KRSB-8603. Please respond to this letter in a timely manner to allow for the continued review and processing of Revisions 32 and 33 and Renewal No. 7.

Table of Contents

1. Please repair the Table of Contents hyperlinks so that all permit files can be accessed through the Table of Contents. (WTG)

Section 1.1 - Application and Support Documents

2. The wording "and addresses midterm permit review comments" is lined through in the Revision 32 Summary on page 62 of Section 1.1. This language should be retained since the Revision addresses our midterm review dated February 13, 2019. Please correct this error. (GAW)

Section 2.2 - Surface Water Hydrology Inventory and Monitoring

3. Please update Exhibit 2.2.7, Surface Water Monitoring Map, to include the updated post-mining topography of Permit KRSB-8603 and depict the boundary of each watershed associated with a sediment pond or control point. (GAW)

Section 2.3 – Ground Water Hydrology – Probable Hydrological Consequences

4. Follow-up to Item No. 6 of our technical review letter dated October 9, 2020. Narrative below Table 2.3.6 on page 2.3.16 regarding the Gunsch spring is lined-through but not highlighted. Please clarify if any changes are being proposed to this paragraph with Revision 32. Historical information must be retained in the permit. (GAW)
5. Follow-up to Item No. 6 of our technical review letter dated October 9, 2020. Please update Table 2.3.7, Pre- and Post-Mining Watersheds, page 2.3.25, to account for all watersheds associated with the control points listed on Exhibit 2.2.7, Surface Water Monitoring Map. Control points associated with sediment ponds P81, P82, P83, P84, P87, P88 and P89 are not included in Table 2.3.7 and perhaps a control point should be added for Pond 99 which is assumed to be the drainage in between Sumps 99E and 99W which is where runoff will flow when the ponds are reclaimed. (GAW)
6. Follow-up to Item No. 6 of our technical review letter dated October 9, 2020. DWC removed a ridge in the fall of 2020 to direct runoff from reclaimed lands to Pond 95. Please review Table 2.3.7 to ensure the post-mining watershed size is accurate. (GAW)
7. Follow-up to Item No. 6 of our technical review letter dated October 9, 2020. DWC incorrectly added a sentence at the end of page 2.3.24 which states that “drainage basins are depicted on Exhibit 3.2.1”. Please revise this sentence to state that the post-mining watershed boundaries are depicted on Exhibit 2.2.7, Surface Water Monitoring Map. (GAW)

Section 2.7 – Post-Mining Land Use

8. Follow-up to Item No. 9 of our technical review letter dated October 9, 2020. The updated aerial photography on the Post-Mining Land Use Map, Exhibit 2.7.1, obscures the wetland and woodland land uses. Please consider lightening the background of the aerial photography or otherwise edit so that the information presented is clear. If updated photography is going to be added to this Exhibit then the photo date (7/1/04) listed at the bottom of the map should be updated accordingly. Aerial photography is not required on the Post-Mining Land Use Map so DWC could choose to replace the aerial photography with the approved Post-Mining Topography to improve clarity. (GAW)
9. Follow-up to Item No. 9 of our technical review letter dated October 9, 2020. Please update the mitigation wetland narrative on pages 3.2.61 and 3.2.62 of Section 3.2 to account for location changes to reclaimed wetlands SW20-1W and SE20-2W. Please also update Exhibits 3.2.54 and 3.2.55 accordingly, as previously requested. (GAW)

Section 3.1 – General Mining Plan

10. An imprecise disturbance boundary is depicted on Exhibit 3.1.3, Pre-Mining Topography, with Revision 32. Please revise the disturbance boundary such that it accurately reflects areas that either have been or will be affected by mining. The disturbance boundary depicted on Exhibit 3.1.3 includes considerable acreage that has not been, nor will be affected by mining. This includes areas in the NW1/4SW1/4 of Section 22, NE1/4 of Section 21, S1/2 of Section 21 and the boundary on the entire north side of the permit in Sections 15, 16, 17

and 18. The Reclamation Division can provide you with an AutoCAD file of the boundary.
(GAW)

Section 3.2 – Water Management Plan

11. Original Item No. 15 of our midterm review letter dated February 13, 2019 and Item No. 21 of our technical review letter dated October 9, 2020. Please revise Section 3.2, Water Management Plan, to include a table that identifies the year each temporary sediment pond will be reclaimed as required by NDAC 69-05.2-09-09(1)(d). The language being added to page 3.27 stating that ponds and diversion will be reclaimed beginning two years after seeding and vegetation establishment is inadequate. (GAW)
12. Follow-up to Item No. 22 of our technical review letter dated October 9, 2020. DWC has indicated that new design plans for sediment ponds P104, P105 and P106 have been added to the permit but Exhibits 3.2.44, 3.2.68 and 3.2.69 have not been provided. Please provide updated design plans for sediment ponds 104, 105 and 106. The complete copy of the permit submitted March 2, 2021 included old design plans for these ponds. (GAW/SMN)
13. Follow-up to Item No. 22 of our technical review letter dated October 9, 2020. DWC has indicated that sediment pond P108 will be constructed as planned after the Gold Pit is filled. Sediment pond P108 is not situated to manage surface water runoff from the life of mine disturbance boundary as depicted on the Post Mining Topography map, Exhibit 3.5.2. Please revise the surface water management section to show all runoff from the Gold Pit area passing through a sediment pond as required by NDAC 69-05.2-16-04(1)(a). (GAW)
14. Follow-up to item No. 24 of the October 9, 2020 technical review letter: Pond 109, Diversion Ditch 109S, and Diversion Ditch 109N will not be constructed because of the shortened Iron Pit sequence in the N½ of Section 29. Please revise pages 3.2.41 and 3.2.54 of Section 3.2 (Water Management Plan) to strike-through the descriptions of Pond 109, Diversion Ditch 109S, and Diversion Ditch 109N. Please also update the permit's Table of Contents to strike-through the listings for Pond 109, Diversion Ditch 109S, and Diversion Ditch 109N. (WTG)
15. Follow-up to item No. 24 of the October 9, 2020 technical review letter: The following tables and exhibits for Ponds 109, 110, and 111, and their associated diversions, that will not be constructed should be removed from the permit: Exhibits 3.2.58, 59, 60, 61, 62, and 63; and Tables 3.2.58, 60, and 62. (WTG)
16. Follow-up to Item No. 25 of our technical review letter dated October 9, 2020. Please revise Section 3.2 to include a discussion about the diversion that was constructed along the east side of Ramp 2, east of Pond 85 Sump, and describe how surface water runoff will be managed when the Gold Pit is backfilled and is no longer used to store runoff. The temporary Pond 85 Sump has not been constructed at an elevation that will accommodate reclamation of the surrounding area. (GAW)
17. Please include design plans for a sediment pond in the drainage above Pond 85 adjacent the section line in the NW1/4 of Section 22. This pond should be designed in conjunction with reclaimed County Road No. 12, meaning the embankment should function as a pond and a reclaimed road. Pond 85 Sump was originally designed at this location with Revision 31 but

18. was temporarily moved upstream to remediate NOV-1901. A sediment pond is needed at this location because Pond 85 is not a "SEDIMENT POND" and because temporary Pond 85 Sump was constructed upstream of its originally designed location. Perhaps the original design plan for P85 Sump, Exhibit 3.2.40 in the approved version of Revision 31 could be used to satisfy this deficiency. This pond needs to be constructed prior to removing the existing temporary sump in the drainage above Pond 85 or removing the diversion along the west side of Ramp 2 that transports runoff to the final Gold Pit. (GAW)
19. Please revise Section 3.2 to clarify how the open pit in the SW1/4 of Section 15 is being used to control surface water runoff and explain how runoff will be managed when the pit is reclaimed. (GAW)
20. Follow-up to Item No. 30 of our technical review letter dated October 9, 2020. Please revise Exhibit 3.2.1, Water Management Plan Map, to properly depict the diversion that conveys runoff from graded spoil east of Pond 85 Sump to the final Gold Pit. (GAW)
21. Follow-up to Item No. 32 of our technical review letter dated October 9, 2020. Please depict the diversion in the E1/2 of Section 16 (Diversion 81W) that conveys runoff from disturbed areas to Pond 86 at the location where it actually exists on the Surface Water Management Map, Exhibit 3.2.1. Exhibit 3.2.1 has been incorrectly revised to show Diversion 81W on reclaimed land in the E1/2 of Section 16. (GAW)
22. Please depict the intermittent stream in Sections 22 and 23 on the Water Management Plan map, Exhibit 3.2.1, as indicated in the legend. (GAW)

Section 3.4 - Suitable Plant Growth Material Handling Plan

23. Follow-up to item No. 34 of the October 9, 2020 technical review letter: An updated permit soil handling plan will be requested in separate correspondence. (WTG)
24. Exhibit 3.4.1 (Suitable Plant Growth Material Redistribution Depths) of Section 3.4 will not open. Please replace what appears to be a corrupted file. (WTG)

Section 3.5 – Backfilling and Grading

25. Follow-up to Items No. 35 through 38 of our technical review letter dated October 9, 2020. Reclamation Division staff conducted a volumetric analysis of the overburden material in the Gold Pit area and have concluded there is a 1.4 million cubic yard material balance deficit to achieve the post-mining topography currently approved with Revision 31. Please provide an up-to-date detailed analysis demonstrating there is enough spoil available to achieve the approved topography or revise the Revision 31 approved topography accordingly. The Reclamation Division encourages DWC to utilize the topography proposed when the application was deemed complete and update to address concerns identified in our October 9, 2020 technical deficiency letter. (SMN/GAW)
26. Follow-up to Item No. 43 of our technical review letter dated October 9, 2020. Please review the pre-mining and post-mining slope tables on pages 3.5.12 and 3.5.13 and update to ensure the information provided is accurate. The Gold/Red Pit table represents only 689.5 acres but approximately 984 acres have been mined from these pit areas and it is

presumed this table also includes the White Pit area where an additional 87 acres were mined. The Iron Pit table needs to be updated with mine plan changes included with Revision 32. (GAW)

27. As originally requested in Item No. 38 of our technical review letter dated October 9, 2020. DWC is proposing to reclaim a few acres above an undisturbed wooded draw in the SE $\frac{1}{4}$ of Section 15 with slopes exceeding 20 percent. Although topographic changes are not being proposed in this area with Revision 32, please revise the post mining topography in this area such that the reclaimed drainages blend appropriately with adjacent undisturbed land. It does not appear that the disturbance boundary on the Post Mining Topography Map, Exhibit 3.5.3, is accurately depicted in the SE $\frac{1}{4}$ of Section 15 and generally the topography of land not disturbed for the purposes of coal removal should not be altered for reclamation purposes. (GAW)
28. As originally requested in Item No. 39 of our technical review letter dated October 9, 2020. Please update the life of mine approximate disturbance boundary (blue line) on the Post Mining Topography Map, Exhibit 3.5.3 such that it only encompasses lands affected by mining activities. Topographical changes should not be depicted or proposed on any areas not affected by mining or on areas affected only by associated mining disturbances. This includes a large portion of the N1/2S1/2 of Section 21 and the entire east, north and west sides of the mine area. The Reclamation Division can provide you with an AutoCAD file of the boundary. (GAW)
29. As originally requested in Item No. 40 of our technical review letter dated October 9, 2020. Please revise the Post Mining Topography Map, Exhibit 3.5.3 to include a line that clearly depicts the boundary where topographical changes have been or are being proposed. This generally should include areas of coal removal plus the areas necessary for back sloping. Topographic changes should not be shown on areas of associated disturbance or areas that will not go disturbed by mining activities. The Reclamation Division can provide you with an AutoCAD file with the mineral removal boundary and the disturbance boundary. (GAW)
30. As originally requested in Item No. 41 of our technical review letter dated October 9, 2020. Please revise Exhibits 3.5.4(a) and 3.5.4(b), Pre- and Post-Mining Area Slope Maps, with an accurate depiction of the mining disturbance boundary and the boundary where post-mining topographical changes are being made. The Pre-Mine Slope Contours Map, Exhibit 3.5.4a, incorrectly includes mining related features such as SPGM stockpiles and pits in Section 16 and the primary haulroad in Section 15. Please update Exhibit 3.5.4a with an accurate pre-mining topographic map and update the slope table above the legend such that it only includes land that was affected by mining. The Reclamation Division can provide you with an AutoCAD file with the mineral removal boundary and the disturbance boundary. (GAW)
31. The February 12, 2021 versions of Exhibits 3.5.4(a) and 3.5.4(b) were not updated with Revision 32 according to the Exhibit title blocks. (GAW)
32. Please revise the Post Mining Topography Map, Exhibit 3.5.3. such that the shaded grade approved areas are under the contour lines and Section numbers. The shaded areas obscure the post mining topography which is the purpose of this map and the section numbers are obscured. (GAW/SMN)

33. The approximate disturbance boundary on the Post Mining Topography Map, Exhibit 3.5.3, extends within 100 feet of an intermittent stream in Sections 22 and 23. Please either revise the disturbance boundary such that it stays beyond 100 feet of this intermittent stream or provide the necessary information for compliance with NDAC 69-05.2-16-20. (GAW)

Section 3.8 – Time Schedules

34. A sentence being added at the top of page 3.8.4 states that “Revision 32 to the permit includes an updated, balanced PMT”. Please provide evidence that the existing (Revision 31) Post Mine Topography (PMT) can be achieved since DWC has previously repeatedly stated that the Gold Pit has a significant material balance deficit that has no economically viable options to resolve without adjusting the post mining topography. The Reclamation Division believes there is 1.4 million cubic yard deficit and that the approved Post Mining Topography (Revision 31) cannot be achieved with this deficit. (GAW)
35. Follow-up to Item No. 45 of our technical review letter dated October 9, 2020. Rather than redefining the term “Reclamation” in the 2020 Schedule of Events, please replace the word “Reclamation’ with the terms “backfilling and grading”. (GAW)
36. Table 3.8.2, Time Schedules, for mineral removal areas is being revised to show that all reclamation was completed in the Silver Pit in 2020. The Reclamation Division does not believe this was accomplished in 2020, but it is difficult to determine which portions of the pit are needed to support future reclamation activities. Please separate the remaining mineral removal areas in the Silver Pit by surface ownership and revise Table 3.8.2 to show privately owned land in Silver and Gold Pit areas being reclaimed prior to any DWC owned property. (GAW)
37. DWC has revised Table 3.8.2, Time Schedules, to suggest that the Gold Pit will be completely reclaimed in 2021. Please provide evidence that this can be accomplished with DWC’s existing employees and equipment or revise the Time Schedule with a realistic pit closure plan. (GAW)
38. The 2020 Schedule of Events, page 3.8.8, incorrectly indicates that reclamation was completed in the Silver Pit in 2020. This was not accomplished. Please separate the Silver Pit by surface ownership and revise the annual schedule of events to show privately owned land in Silver and Gold Pit areas being reclaimed prior to any eligible DWC owned property. (GAW)
39. The 2021 Schedule of Events indicates that DWC is planning to complete reclamation of the Gold Pit in 2021. Please provide evidence that this can be accomplished with DWC’s existing employees and equipment or revise the Schedule of Events with a realistic reclamation schedule. (GAW)
40. A sentence at the bottom of page 3.8.10 references Iron Pit No. 18 for the Worst Case Bond Pit. Please review and update as necessary. (GAW)
41. DWC is proposing to replace the year “2015” in a paragraph on page 3.8.12 with “2019” but the Variance Area (14) was mined in 2015 and 2016 as currently stated, and DWC is

proposing to extend the variance area into areas mined in 2017 and 2018. Please do not replace 2015 with 2019 and a new Variance area should be proposed for areas of the final pit not included in Variance Area No. 14. (GAW)

42. Revision 32 language is being added to Variance Area No. 14, page 3.8.12, suggesting that the Variance is needed because the Post Mining Topography is being updated with Revision 32, which is no longer the case. Please update this statement if necessary. (GAW)
43. As originally requested in Item No. 51 of our technical review letter dated October 9, 2020. In Section 3.8, please clarify how many acres of additional contemporaneous reclamation variance are being requested with Revision 32. This must be itemized as acres of variance from the 180-day backfilling and rough grading rule and the acres of coal removal that will not be seeded within 3-years of coal removal. These acreage values should include only areas of variance not previously approved and detailed justification must be provided with the request for delaying reclamation on these additional acres. It would be helpful to provide the acres in each existing variance area to help justify granting variances on additional acreage. NDAC 69-05.2-21-01 and NDCC 38-14.1-24(14). (GAW)

Section 3.9 – Reclamation Cost Estimates and Performance Bond

44. Follow-up to Item No. 34 of our pre-renewal letter dated November 4, 2020. Please update the worst-case Time Period narrative on page 3.9.2 to reflect actual worst-case conditions. The narrative suggests a worst-case period of May 2019 and that DWC's contract will be extended 5 years beyond 2021. The Reclamation Division does not agree that the worst-case time period was May 2019 and the bond estimate calculation includes Silver Pit reclamation that has occurred after 2019. Please update the worst-case reclamation date (time period) to include mining through calendar year 2021 and update the worst-case bond estimate accordingly. (GAW)
45. The Worst-Case Assumptions on page 3.9.2 incorrectly assumes that the entire Silver Pit will have been regraded, respread and seeded. Please revise this statement to address current reclamation conditions and include assumptions for the Gold Pit. (GAW)
46. Please update Exhibits 3.9.1 Sheets 1 and 2 to account for 2020 and 2021 mining in the Iron Pit Area. The Worst-Case Range Diagrams do not appear to correspond to Exhibit 3.9.2, Worst Case Bond Map as stationing extends beyond 13+00. Please update these drawing to accurately reflect the worst case pit configuration. (GAW/SMN)
47. Please provide Worst Case range diagrams for Gold Pit cross sections 1 through 8 so that the volumetrics calculations can be reviewed. (GAW/SMN)
48. Bullet point five of the Assumptions on page 3.9.2 states that "Areas where topsoil is removed and must be respread is shown on Exhibit 3.9.2". Please revise Exhibit 3.9.2 to show all areas where topsoil and subsoil will need to be respread under the worst-case bonding scenario. The Reclamation Division can provide you with an AutoCAD file of areas needing to be respread with subsoil and topsoil. (GAW)
49. Please update Table 3.9.9, Revegetation Areas, and Table 3.9.10, Revegetation Cost, to account for all acreage not currently reclaimed, rather than just 711.2 acres, and then

update the reclamation costs in Table 3.9.11 accordingly. The Reclamation Division has estimated that approximately 1,376 acres that require topsoil respread but this value includes acreage associated with county roads and permanent stock ponds. The Reclamation Division can provide you with an AutoCAD file of areas needing to be respread with topsoil (GAW)

50. Table 3.9.11 provides only \$30,719.50 of costs for resurfacing approximately 3.7 miles of reclaimed County roads. Please update Section 3.9, Reclamation Cost Estimates and Performance Bond, with a narrative providing information about how this amount was derived. The narrative should include the estimated costs of purchasing surfacing material and the costs of hauling and spreading this material. (GAW)
51. Follow-up to Item No. 34 of our pre-renewal letter dated November 4, 2020. DWC states that updated performance bond calculations have been included with Revision 33 but an updated version of Section 3.9 was not provided with the February 16, 2021 response. NDAC 69-05.2-11-03(5)(e) requires evidence that the bond is sufficient and will continue in full force for the proposed renewal period. A copy of the Revision 32 updated worst-case performance bond calculations should be provided with Revision 33 (or referenced in Revision 33) since Revision 33 is attached to the permit renewal. (GAW)
52. Follow-up to Item No. 34 of our pre-renewal letter dated November 4, 2020. The Bonding Worst Case Range Diagrams, Exhibits 3.9.1, Sheets 1 of 5 and Sheet 2 of 5, were not updated with Revision 32. As requested in our pre-renewal review, please update the Worst-Case Range Diagrams, Exhibits 3.9.1, Sheets 1 and 2 and provide up-to-date range diagrams for the Gold Pit Area. (GAW)

All changes to the permit being proposed as a result of landowner objection letters should be addressed in Revision 32 rather than Revision 33. This includes Items No. 28 and 30 of our technical review letter dated October 9, 2020.

If you have any questions, please contact this office.

Sincerely,



Dean K. Moos
Director
Reclamation Division

cc via email only: Scott Aberle (saberle@westmoreland.com)