December 20, 2019

Sent via ePermit system

Bill Pruitt
Decker Coal Company
East Decker Coal Mine
12 Lakeshore Drive
Decker, MT  59025

 Permit ID:  C1983007
 Revision Type: Amendment
 Permitting Action: Deficiency
 Subject: AM2; Northeast Extension-Round 1 Acceptability Deficiency

Dear Bill:

The Department of Environmental Quality (DEQ) has completed its acceptability review regarding Decker Coal Company’s application for Amendment AM2. The following deficiencies must be adequately addressed before DEQ can determine the application acceptable; however, due to the nature of broad deficiencies associated with the first-round review, Decker may receive longer and more specific deficiencies during the second round of review.

**ARM 17.24.303(1)(b):** The description of the AM2 area given in 303.1.b_Location_AM2.pdf refers to the entire East permit. As outlined in ARM 17.24.303(1)(b), the application must include a description of "the location and area of land to be affected by the operation". The description given lists the sections containing the East Decker permit. This can be included, but according to the rule please provide a legal description and acreage given for the AM2 Amendment alone.

**ARM 17.24.303(1)(c):** There are several names listed on the map Exhibit 305 1b Mineral Ownership which are not listed in this section. Please review and ensure that both the surface and mineral owners listed match the names on the surface and mineral ownership maps. As a reminder, there should be a mineral owner for each surface owner even if Decker does not have the right to mine.

**ARM 17.24.303(1)(d):** There are several names listed on the map Exhibit 305 1b Mineral Ownership which are not listed in this section. Please review and ensure that both the surface and mineral owners listed match the names on the surface and mineral ownership maps. As a reminder, there should be a mineral owner for each surface owner even if Decker does not have the right to mine.

**ARM 17.24.303(1)(g):** Please submit the updated ownership and control information as required by these rules and their subsections.

**ARM 17.24.303(1)(h):** Please submit the updated ownership and control information as required by these rules and their subsections.
ARM 17.24.303(1)(i): Please submit the updated ownership and control as required by this rule and its subsections.

ARM 17.24.303(1)(l): Please include all prospecting permits held by Decker under this section.

ARM 17.24.303(1)(n): Please submit an updated violations history per this rule and its subsections.

ARM 17.24.303(1)(o): Please update the legal right of entry with the appropriate information provided in SO-1 (Change in Ownership approved on September 3, 2015).

ARM 17.24.303(1)(p)(i): DEQ understands that there are no private mineral estates involved in the Amendment AM2 Application. However, the previous submittals for this rule have not been clear. Please reword this section to better correspond with 303(1)(p)(i). If there are no private mineral estates that have been severed from private surface estates, then state as such. If there are private mineral estates that have been severed from private surface estates, then you will need to list the appropriate documentation as listed by this rule and attach them to this section.

ARM 17.24.303(1)(t): Please update the Expiration Date of Insurance to match the date of expiration on the pdf attachment East Insurance StateofMontana_W8113276.

ARM 17.24.303(1)(u)(ii): Please add heading information for the columns listed for the licenses/permits. Decker needs to include the addresses for all issuing authorities listed. Also, please update "Industrial and Energy Minerals Bureau" to "Coal and Opencut Mining Bureau".

ARM 17.24.303(1)(v): Please remove the Billings Office address from this section.

ARM 17.24.303(1)(x): Please correct the Newspaper Name to Big Horn County News.

ARM 17.24.304(1)(b): Review of what has been submitted so far lacks sufficient detail to meet the data needs. The 2002 Peterson and Deaver overview is not present within the submitted documents, and though it would be useful, does not address the proposed area directly and is now dated. Also, not included are the Northern Cheyenne Tribe 2002 and Crow Tribe of Indians 2002 reports (See the Corral Creek Report section on TCP's). The Penson 2010 report has identified that sites of concern to the Northern Cheyenne exist in the project area.

An ethnographic study, or land use study, done in coordination with the Northern Cheyenne, the Sioux, and the Crow, regarding the project area and any areas they identify as a tribal concern, is needed to meet the ethnographic data requirements.

ARM 17.24.304(1)(d): Section 17.24.304(1)(d) of the proposed permit states, "Mining operations will not have any adverse impact upon the immediate or surrounding environment as per ARM 17.24.304(1)(d)". MSUMRA does not simply address whether mining will have “any” adverse impact. Rather, the MSUMRA rules require analysis of "whether the permit area possesses special, exceptional, critical, or unique characteristics as defined in 82-4-227, MCA, and whether surrounding land possesses special, exceptional, critical or unique characteristics that would be adversely affected by mining”, ARM 17.24.405(6)(b). This is because the DEQ may not approve an application which includes an area of land that has special, exceptional, critical or unique characteristics. Section 82-4-227(2), MCA.
Further research discovered that the Environmental Impact Statement for the original East Decker Mine (East Decker and North Extension Mines Decker Coal Company Big Horn County, Montana) states on page three that “The Department regards the Deer Creek valley as having special, exceptional, critical or unique characteristics. Disturbance of such areas in conjunction with strip mining is prohibited in section 9 of the Montana Strip and Underground Mine Reclamation Act” (USGS & MDSL 1977). Attached to the EIS, pg. J-8, is a letter from Montana’s Department of State Lands dated February 17, 1976 which states that “The Deer Creek drainage does contain special values in terms of biological productivity and as critical in terms of ecological fragility and importance”. ARM 17.24.518 states that mining must cease at least 100 feet from an area deemed of unique value.

Based on 82-4-227(2), MCA, “The department may not approve the application for prospecting, strip-mining, or underground-mining permit when the area of land described in the application includes land that has special, exceptional, critical, or unique characteristic.” As this application proposes to mine directly through the Deer Creek drainage this application cannot be approved as proposed.

The Ethnographic Overview located within this section of E-permit is marked “Confidential Information”, and shouldn’t be in this section. Ethnographic information should be contained within the Cultural Resources section to allow it to be password protected and confidential.

**ARM 17.24.304(1)(e):** The purpose of ARM17.24.304(1)(e) is to collect the data needed to evaluate baseline conditions, probable hydrologic consequences, and cumulative hydrologic impacts. Referring to the PHC in the baseline section is a circular argument. This section should present a summary of baseline data used in the preparation of the PHC, and include maps and tables representing baseline conditions for AM2. Actual analyses of these data are contained in 17.24.314.

The potentiometric surface maps submitted with the AM2 application are from 1979, with unspecified updates to 1992. These maps are largely illegible and do not include the AM2 area. The maps included with the application must clearly show the AM2 amendment area and should not include any of West Decker, except where required by natural geography.

The text of 17.24.304(1)(e) mentions a groundwater model updated in 2018 for AM2. Potentiometric surface contours should include a date and be in general agreement with those used as baseline for the 2018 modeling.

The Hydrology text states, "Subsequent to the information available in the above 1983 Hydrologic Report Section..." This report is not cited, and no information is provided that would assist the reader in locating this report. Simply referencing a decades-old report is not sufficient data to support the section, in any case. At a minimum, a summary of the relevant data must be provided, and the report itself should be attached as an appendix if the data is not included in the application.

Exhibit 7-4 allegedly shows contours on the potentiometric surface in the D1U coal seam. Although the date cannot be determined because the scan is truncated short of showing the entire legend and title block, the condition of the scanned map and the primitive printing technology suggest the map was drafted in the early 1980s. The map does not include the AM2 area, and is largely illegible. As such, it is entirely unsuitable for the purposes of the AM2 application.

Exhibit 7-5 represents contours on the potentiometric surface in the D1U coal seam. The map was
drafted in 1979, with an unspecified "update" in 1992. Due to the noted 1999 increase in reservoir level and the potential impacts of CBM beginning in 1998, any map of potentiometric contours in this area prior to 2000 is of questionable relevance, and potentially invalid. Text on the map is largely illegible. The map domain does not include the AM2 area. An acceptable map for the AM2 application must include all control points used in the generation of the potentiometric surface, labeled contour lines, the AM2 application area, the existing East Decker permit boundary, and any geological structure that affects the potentiometric surface. To reduce possible confusion, the base map should not include topographic contours, unless the topography and potentiometric contours are depicted in significantly different colors and a legend is provided which explains every line and symbol on the map.

Exhibit 7-6 is intended to represent contours on the potentiometric surface of the D1L coal seam. As noted for Exhibit 7-5, the map area does not include the AM2 application area, the text on the map is largely illegible, and the large number of lines in the same color is very confusing. A brief scan of the map reveals hundreds of symbols of at least five different types, many of which are completely illegible, and only two points (WRE-10 and WRE-28) that match the legend example of a control point.

Exhibit 7-7 is subject to the same deficiencies as Exhibit 7-6. Two potentiometric surface maps from 1979 provide very little meaningful insight to the variation of the potentiometric surface over time, or of the current potentiometric surface in the area.

Exhibit 7-8 depicts the potentiometric surface of the D2 coal seam. The map does not cover the application area, and the profusion of irrelevant points make it very difficult to interpret.

Exhibit 7-9 shows the potentiometric surface of the D2 coal seam. The purpose behind two potentiometric surface maps is presumably to show trends in the surface over time. Having two maps a few months apart, both of which are over 40 years old, prior to the increase in reservoir elevation and CBM activity in the area, does not accomplish this. Also, the map does not include the application area.

ARM 17.24.301(e) requires "all hydrologic and geologic data necessary to evaluate baseline conditions, to evaluate the probable hydrologic consequences and cumulative hydrologic impacts of mining, pursuant to ARM 17.24.314(3) and (5) and 82-4-222, MCA, and to develop a plan to monitor water quality and quantity to address the requirements of ARM 17.24.314." This should include a discussion and presentation of baseline data for each aquifer encountered in the AM2 area- alluvium, clinker, overburden, D1, D2, and underburden. While some of this data may be included within the PHC, it does not meet the requirement to simply refer the reader to the PHC. This section specifically addresses baseline conditions, while the PHC is predictive.

An examination of the 2016 Annual Hydrological Report, as cited on page 2 of the Baseline Introduction, did not disclose any information on the proposed mine expansion.

Please include all hydrologic data collected as part of the Deer Creek AVF study as baseline for the AM2 project.

**ARM 17.24.304(1)(f):** Hydrologic and geologic descriptions required by ARM 17.24.304(1)(f) are not included.

**ARM 17.24.304(1)(f)(ii):** Please include in the baseline data an inventory of pre-mine geomorphic
characteristics of Deer Creek and all undisturbed drainages in the AM2 application area. The inventory should include photographs as well as measurements of key geomorphic properties such as bankfull width and floodplain terrace widths and heights.

Deer Creek in the 1975 - 1976 was noted to contain 'pot holes' that would fill and retain water after melt and flow events. These pools provided retention in the drainage of flows as well as water sources for wildlife and livestock use. Please provide a current inventory of small depressions and wetland features within the AM2 application. If any wetlands exist, a detailed wetland functionality assessment must be performed to ensure that reclamation activities restore features of similar functionality.

**ARM 17.24.304(1)(g):** EX 4-1 is a map from 1982 which does not cover the AM2 area. There is no reason provided to consider this map to be applicable in any way to this application.

Ex 322_1 should be included in Section 322, as the Rule requiring cross sections is ARM 17.24.322(2)(a)(ii). The map does not show the currently approved permit or the proposed AM2. It does not provide a key to symbols and lines on the map. Many of the drill hole identifiers are illegible due to crowding and poor layout. The only drill holes needed on this map are those used in construction of the cross sections. Cross section A-A’ is entirely outside of AM2, and does not provide any useful information for this application.

Ex 322-2 should be included in Section 322. The key provided does show the various patterns, but does nothing to illuminate what the various notations are representing. As noted under Ex 322-1, this cross section is entirely outside the AM2 area and provides no useful information for this application.

EX 322-3 should be included in Section 322. The key provides a reference to the various patterns, but does nothing to explain the notations used on the figure. Much of the text is not legible due to crowding and poor layout.

Ex 322-4 should be included in Section 322. The map does not show the currently approved permit boundary or the proposed AM2. The key provided is incomplete and provides no information on several line types. ARM 17.24.322(2)(v) specifies isopach maps. A shaded relief map with no isopach lines does not satisfy this requirement.

Ex 322_5 should be included in Section 322. This map does not show the currently approved permit boundary or the proposed AM2. The key does not identify several lines and symbols shown on the map.

Ex 322_6 should be included in Section 322. The map does not show the currently approved permit boundary or the proposed AM2. Many lines and symbols shown on the map are not in the key. The thickness scale is from 0-25, when the maximum thickness shown is 8 feet. Several line types shown in the key are not present on the map.

EX 322_7 should be included in Section 322. The map does not show the currently approved permit boundary or the proposed AM2. Many drill holes are not identified. Several line and point types on the map are not identified in the key. Some line types shown in the key are not on the map.

Ex 322_8 should be included in Section 322. The map does not show the currently approved permit boundary or the proposed AM2. The shading scale does not include the entire range of elevations.
Several line and symbol types shown on the map are not on the key.

Ex 322_9 should be included in Section 322. The map does not show the currently approved permit boundary or the proposed AM2. Several line and symbol types shown on the map are not on the key. Some line types on the key are not shown on the map.

Ex 322_10 should be included in Section 322. The map does not show the currently approved permit boundary or the proposed AM2. Several line and symbol types shown on the map are not on the key. Some line types on the key are not shown on the map.

Ex 322_11 should be included in Section 322. The map does not show the currently approved permit boundary or the proposed AM2. Several line and symbol types shown on the map are not on the key. Some line types on the key are not shown on the map. The shading scale does not include the entire range of elevations on the map.

**ARM 17.24.304(1)(g)(i):** Requires a detailed description of all overburden and mineral materials (all materials other than soil) that will be handled during mining or backfilling operations within AM2. While tables and maps can supplement the narrative, they cannot replace it. These analyses must include, at a minimum, Deer Creek alluvium, clinker, overburden, any coal units encountered (whether they are mined), interburden, and underburden.

If groundwater modeling suggests a measurable impact to water levels in the D3 coal, it must be included also.

This section is concerned only with material properties; stratigraphy and structure are addressed elsewhere. For this analysis, coal units can be treated the same as other strata, and need not replicate the full coal quality analyses required in ARM 17.24.322.

**ARM 17.24.304(1)(g)(iii):** The map with overburden sample locations shows thirteen samples. Appendix 322_1 is 469 pages of lithologies, with no maps or lithological keys. Many of the drill holes described are not within or near AM2.

Table 304_1 should include definitions of all abbreviations used in the table headings.

"Loam" is a soil term and requires the presence of organic matter, which is unlikely in deep overburden. Soil textures are not particularly relevant in overburden analysis.

**ARM 17.24.304(1)(g)(iv):** The required narrative is not included. This discussion may make use of chemical data as required by ARM 17.24.322, but requires a synthesis of all data available as related to the suitability of each material for reclamation.

**ARM 17.24.304(1)(h):** The Decker Climate and Air Quality Report addresses the requirements of this section. The other two older documents do not add anything useful and can be removed. A single page summary narrative referring to the appropriate sections of the report would be helpful.

The air and climate maps should show East Decker only, with the map area extended as much as needed to include the West precipitation station. There is no need to show the West permit.

Section 2.0 of the Climate and Air Quality Report seems to be missing.
The caption for Map 1 mentions a BLM study area, which is not shown on the map.

PRB is used extensively but is not defined anywhere in the report. It should be defined and shown on a map to provide regional context.

**ARM 17.24.304(1)(j):** The AM2 application baseline wildlife studies have not been updated since the original baseline in the 1970s and early 1980s. Please update the baseline information with more recent studies. The beneficial use impacts to Deer Creek cannot be assessed without data on the current biologic community utilizing the intermittent reach of Deer Creek. A Department of State Lands (predecessor to DEQ) letter (March 3, 1976) expressed concern about the impacts to antelope fawn rearing from disturbance in the Deer Creek area after a 1975 survey indicated the area may be critical for fawn rearing. It was speculated that the subirrigation of bottom lands provided higher quality forage as well as escape cover and therefore Deer Creek should be considered critical and fragile.

**ARM 17.24.304(1)(l)(i):** 17.24.304(l)(i) specifies a map and supporting narrative of the uses of the land existing at the time of the filing of the application. The pre-mine land use assessment included is at least 35 years old, and generalized to the East Decker permit, not specific to AM2.

EX 3-1 is a map entirely without referents. There is no way to tell what part of the earth this collection of polygons is meant to represent. It is also dated 1974, which has little or no relation to conditions at the time of filing the application.

EX 3-2 is a range site condition map dated 1979. It does not show the AM2 expansion area. It does not meet the requirements of ARM17.24.304(l)(i).

**ARM 17.24.305(1)(a):** The table “Hydrological Design Storm Calculations” in “Ex 12-7 Post Mine Drainage_AM2.pdf” contains several mistakes. A quick review reveals the areas for Basins 20-7 and 20-9 are wrong. The watercourse length of Basin 20-9 is wrong. Basin 20-10 from the table is not shown on the map. The other values were not checked. Please check and correct the values on this table, so DEQ review can proceed.

**ARM 17.24.305(1)(b):** Montana Royalty Co, LTD and Arrowhead 1, LLC are listed as mineral owners under 303(1)(b) but are not listed on the Exhibit 305 1b Mineral Owner map. Please review and ensure that both the surface and mineral owners listed match the names on the surface and mineral ownership maps.

**ARM 17.24.305(1)(k):** Exhibits 313-4, 5, 6, 7, and 8 do not incorporate the proposed additional areas for AM2. Submit updated exhibits that accurately depict the current and proposed permit areas.

**ARM 17.24.305(1)(o):** It is indicated in the Deficiency Response cover letter dated Feb 1, 2019 that "EX 11_4 Surface Drainage_mr78" was uploaded to replace "EX 11_4 Surface Drainage_TR3". It is not clear why this map was uploaded as it doesn't cover the proposed AM2 area. Also, the PDF version of this map does not show collector ditches, the DWG version does not match the PDF version, and the DWG version of TR3 is still included in the e-permit.

Exhibit 11-4, Surface Drainage map, does not show the collector ditch and flow of water during mining even though the legend states that the map contains this information. Please update this
map to show drainage control during mining.

**ARM 17.24.305(1)(w):** Drainages outside the permit boundary identified on Exhibit 12-7 “Premine Channels and Basins” (such as 13-1, 20-G, Coal Creek, etc.) are missing in Exhibit 12-7 “Postmining Channels and Basins”. Please add the missing drainages.

Please add proposed drainages to Exhibit 12-2, the PMT plan.

**ARM 17.24.306(1)(2)(3):** Please include reference to the baseline determination that supports the Prime Farmland statement for 17.24.306.

**ARM 17.24.308(1)(a):** Table 308(1)(a) is not referenced in the narrative and does not have sufficient explanation of derivation of quantities. Please provide narrative of how recoverable coal and overburden quantities were determined.

**ARM 17.24.308(1)(b):** An Appendix 308-1 is mention in the narrative for 308.1.b Facilities but was not located. It appears Appendix 11-5 and 11-6 contain the information referenced. Please rename the appendices or alter the reference in the narrative.

**ARM 17.24.308(1)(b)(iv):** The West Decker permit is reference multiple times in 308.1.b(iv Land Farm. Please remove all references to West Decker LTU and West Decker permit.

**ARM 17.24.308(1)(c):** Appendix 11-4 was not located. Please submit Appendix 11-4 for review.

**ARM 17.24.308(1)(d):** Table 313-1A was not located during review. Please submit the table for department review.

**ARM 17.24.312(1):** The wildlife plan refers to parts of the permit, Sections, which no longer exist in the e-permit. Please update these references.

**ARM 17.24.312(1)(c):** The text in MP08-17.24.312 states that "habitats of unusually high value for fish and wildlife, such as wetlands, riparian areas and cliffs, are identified and will continue to be identified". Please include a map which shows these areas and data on these areas as to their extent, functionality, and use.

**ARM 17.24.313(1):** Please address sections 1(a) through 1(e), so review can be completed.

All the deficiencies on the reclamation plan that were listed for MR96 need to also be addressed in AM2. Please update the AM2 document with the reclamation plan submitted for MR96, listed in the round 2 review. The reclamation plan in AM2 has been broken up into multiple documents. For each reclamation plan deficiency listed in MR96, please identify which document was updated for each deficiency.

**ARM 17.24.313(1)(b):** On page 1 of 17.24.313(1)(b) estimated completion of reclamation states that reclamation can’t be kept current. Under the requirements of ARM 17.24.501(6) reclamation must be kept current unless adequate written justification is approved by the Department. The referenced variance is not included and cannot be verified. This text must be revised to not delay reclamation or present a reasonable justification for delays must be submitted for department review that still facilitates reclamation.
The ramp areas leading to Pit 13 are proposed for reclamation "Post 2034". These should be reclaimed concurrently with the "2029-2034" areas.

In several areas, the reclamation plan does not correspond to the cut/fill bond sequence proposed in Exhibit 313_6_Earthwork. Area TS04c, for instance, is proposed to be trucked to Area TS04f. However, Area TS04f is not scheduled for reclamation until 10 years after TS04c. Please revise the reclamation plan to more closely correspond to the bonding plan.

**ARM 17.24.313(1)(c):** The bond on file is for TR3 and no longer applicable. Please use the approved bond from MR98 as a base and incorporate AM2 area with initially projected disturbance to calculate required bond for AM2. Exhibits 313_4 through 313_8 do not incorporate the AM2 area and need to be updated with the bond calculation.

**ARM 17.24.313(1)(d):** Include exhibits that show the drainage basins and channels used to obtain the values presented in Table 12-3, premine and postmine subwatershed comparison so that DEQ can check the numbers presented.

**ARM 17.24.313(1)(d)(iii):** The blasting swell adjustment factor is missing from the narrative. Please provide details or references to where total cut, total fill, and coal mined were derived. Verify percent swell number with on the ground swell from previous backfilling, adjust calculations as needed, and incorporated updated swell in bond calculation.

**ARM 17.24.313(1)(d)(iv):** There are multiple issues with the proposed PMT. There are multiple instances of single contour lines at the top of hills that are not constructible. Multiple contour lines meet at nearly right angles that are not natural or approvable. The proposed PMT does not match existing topography at the proposed boundary in multiple places that must be addressed. The knob from premine has been drastically reduced and no longer resembles premine. The ridge south of the knob is too uniform to approximate premine features. The Deer Creek flood plain has been drastically altered and does not approximate premine. All these issues must be addressed by adjusting the proposed design to be constructible and better resemble premine topography.

The proposed PMT needs to be checked with revised swell to ensure enough material is available to complete construction.

Tables 12-1 and 12-2 are from TR3 and need to be updated. Submit excel versions of updated tables 12-1 and 12-2 for DEQ review.

Exhibits 12-8 and 12-9 do not match the narrative. Both sheets for each are post-mine designs where the narrative describes sheet 1 as pre-mine. Please update the narrative or add additional sheets with pre-mine details for exhibits 12-8 and 12-9.

**ARM 17.24.313(1)(d)(v):** Remove the reference to West Decker permit from steep slope/escapements.

**ARM 17.24.313(1)(e):** Please include exhibits for Appendix 12-3 that shows the basins and channels used to calculate the numbers in the tables so that DEQ can review these tables.

**ARM 17.24.313(1)(e)(i):** The proposed AM2 postmine drainage density within the boundary of the currently permitted East Decker Mine is lower than the currently permitted drainage density. Please add drainages in this area as necessary so that the proposed drainage density is equal to, or
greater than the currently approved drainage density.

**ARM 17.24.313(1)(f):** The proposed post mine drainage design has greatly reduced the flood plain of Deer Creek and constrained the channel to a predominantly trapezoidal channel. The channel is required to contain a 2-year 24-hour bank full rain event, but does not need to contain the 100-year 6-hour rain event entirely in the channel. The 100-year 6-hour event is the only event that must be kept in the drainage basin. The Deer Creek design needs to be revised to incorporate a more substantial flood plain and reduce the lengths of channel that are deeply incised.

**ARM 17.24.313(1)(f)(i):** DEQ requests more geomorphic details and reclamation commitments for details below the resolution of the PMT and not included in the cross sections for the drainage designs. Please refer to West Decker’s Volume 19 reclamation plan commitments for the C-section and B-valley drainages for examples. Decker must include commitments for channel reclamation techniques to add in channel length inside the floodplain.

**ARM 17.24.313(1)(f)(ii):** DEQ requests more geomorphic details and reclamation commitments for channels that do not fall within ARM 17.24.313(1)(f)(i). Please refer to the West Decker reclamation commitments for ‘undesigned’ channels. West Decker used Rosgen derived bankfull widths as narrative commitments for adding appropriate diversity to first and second order drainages. Another acceptable method would be to inventory baseline channel morphology and creating commitments for postmine drainages from the surveyed channels. Please consult and work with DEQ to develop appropriate commitments for this rule.

**ARM 17.24.313(1)(g)(all):** Table 313-3 Topsoil Replacement projects a soil balance. The numbers suggest that calculation of the balance is correct. Numbers show AB lift soils could be reapplied at 5.1 inches and the subsoil could be reapplied at 12.4 inches. These are not the depths indicated for reapplication.

The table indicates AB lift topsoil will be .5 feet (6-inches) thick at reapplication. A 5.1-inch balance is almost an inch short of the target 6-inches indicated. Distributing soil at 6-inches over 4,541 acres of reclamation as indicated results in an approximately 706-acre deficit. Using the 5.1- inches available leaves only an approximately 29-acre topsoil deficit. Targeting 6 inches if your projected salvage says there are 5.1-inches available is not acceptable.

Table 313-3 indicates a 12-inch reapplication of subsoil. This results in a subsoil surplus of approximately 137 acres. This is adequate and less than 6 inches off the target depth. The surplus is acceptable for use in replacing some of the topsoil deficit; however, does not cover all the deficit acres.

Another option to gain reclaimed acres reducing the topsoil deficit would be to use the acres of Scoria based soils. It is expected that reclamation in the northeast extension will contain a fair amount of scoria soil replacement. The number of acres that would be used for scoria soil substitution acres is expected to substantially reduce the 706-acre topsoil deficit. While the reclamation plan may not have a targeted acreage for the replacement category, a rough estimate could be made to show a closer topsoil balance in Table 313-3. It must be noted that the scoria replacement area will be broken up over the entire northeast extension, and not concentrated in a few hundred-acre block.

Please adjust the Topsoil balance in a way that does not show a deficit exceeding 75-100 acres.
The map attached to Table 313-3 is labeled “East Decker Soil Salvage Map.” This seems to be an improper map for soil redistribution. Please evaluate the map and adjust accordingly.

Soil redistribution is discussed in the soil handling plan using a depth calculated per soil availability on an annual basis. Then reapplication depths are indicated in Table 313-3 and implicated under each physiognomic vegetation type. While this makes sense in each of the exhibits separately they do not match each other. This all causes issues for quality control, confusion for equipment operators, and is not practical for depth verification.

Please evaluate the soil reapplication strategies in 17.24.313(1)(g) and 17.24.313(1)(h). Coordinate the depths so that they say the same thing. DEQ expects that there will be a target soil depth and no longer a depth based on annual availability.

Paragraph ii talks about salvage depths being based on annual reporting. This is not totally the case since there is a soil salvage verification with lab results. Please fix the language to reflect the actual salvage process.

**ARM 17.24.313(1)(h)(i):** The table on Page 4/32 in the reclamation plan is not acceptable. The Land Use Types included in the table are not in compliance with the Land Uses defined in the Law. Please re-classify Land Use types, and alter percentages for each.

Table 313-3 of the reclamation plan, assessing the pre-mine and post-mine community types depicts a drastic change in the percentages of each community type from pre-mine to post-mine. Please adjust post-mine acreages to better mimic pre-mine conditions.

**ARM 17.24.313(1)(h)(iii):** Beginning on page 18/32, the application elaborates on having Technical Standards. DEQ has not approved any Technical Standards for the East Decker permit. There is also language referring to several shrubs/ha. These shrub numbers are not acceptable. Please revise for the entire permit.

There are several instances where kg/ha are used. Lbs/ac. are the correct units to be used. Please correct.

Page 20 in the reclamation plan refers to individuals/ha. Please include individuals / acre instead of hectares for the entire permit.

Soil redistribution is discussed in the soil handling plan using a depth calculated per soil availability on an annual basis. Then reapplication depths are indicated in Table 313-3 and implicated under each physiognomic vegetation type of 17.24313(1)(h)(iii). While this makes sense in each of the exhibits separately they do not match each other. This all causes issues for quality control, confusion for equipment operators, and is not practical for depth verification.

Please evaluate the soil reapplication strategies in 17.24.313(1)(g) and 17.24.313(1)(h)(iii). Coordinate the depths so that they say the same thing. Note that DEQ expects target soil depths and no longer will accept depths based on annual availability.

**ARM 17.24.313(1)(h)(ix):** In reference to 313(h)(ix), please include the following: Vegetation monitoring must be conducted on every revegetated field using the Periodic Revegetation Monitoring Form. Each field must be monitored every year after initial seeding or planting until Phase II bond release has been achieved, and at a minimum every third year after Phase II bond
release.

**ARM 17.24.313(1)(h)(v):** Please include the following language in section 17.24.313 (h)(v): All seeding must be done on the contour, whenever possible.

**ARM 17.24.313(1)(h)(vii):** Please include more language from ARM 17.24.714 regarding how soil stabilizing practices must be used on all regraded and resoiled areas for controlling erosion, promoting germination of seeds, and increasing moisture retention of the soil until adequate permanent cover has been established.

**ARM 17.24.313(1)(h)(viii):** At the top of page 30/32 in the reclamation plan, the term Vegetational manipulation is used. Please replace vegetational manipulation with Normal Husbandry Practices, which is in reference to ARM 17.24.718(2).

**ARM 17.24.313(1)(h)(xii):** Table 313-7 is incomplete due to formatting errors. Please correct.

**ARM 17.24.314(1):** The quote from ARM 17.24.314(1) in the first paragraph of the plan for protection of the hydrologic balance does not accurately quote the rule cited. The language has been changed and is required to be changed to match the current rule.

There appears to be no narrative with the sediment control plan, please provide appropriate narrative describing the sediment control plan.

Section 1.2 of the plan for protection of the hydrologic balance states that baseline data is presented in the permit documents, then claims this data has been greatly expanded. ARM 17.24.314(1) requires that "Each permit application must contain a detailed description, supported by appropriate maps, data, and other graphics, of the measures to be taken during and after the proposed mining activities to minimize disturbance of the hydrologic balance on and off the mine plan area and to prevent material damage to the hydrologic balance outside the permit area in accordance with subchapters 4 through 9" (emphasis added). Merely mentioning that data is in the permit documents or annual reports does not satisfy this requirement.

Please cite the Water Right that allows consumptive use of water collected in pits and sumps.

In EX 314_1, the symbol apparently used for splits is not shown in the legend, and is a symbol designated in standard geologic mapping for thrust faults. The depiction of splits may be better shown on coal isopach maps.

On EX 314_1, the proposed AM2 amendment area must be clearly separate from the currently approved permit area.

On EX 314_2, the symbols used for diversion channels should be shown in the legend. Also, because there are at least two different symbols used for existing streams, they should be shown in the legend also.

On EX 314_2, the proposed AM2 amendment should be clearly separate from the currently approved permit area.

On EX 314_3 it would be helpful to add a column to the drill hole table with alluvium thickness encountered.
On EX 314.3, the permit boundary and disturbance limit associated with the AM2 amendment must be clearly separate from the currently approved limits.

On EX 314.4, features called out on cross sections must be shown on the plan view map. Section F-F’ should show permit boundaries

On EX 314.4, the plan view should clearly separate currently approved permit from proposed AM2.

EX 314.4 shows continuous piezometric surfaces between different coal bodies and alluvium. This connection should be dashed, at best. Connecting these points may imply a gradient that does not exist.

EX 314.5 shows continuous contours between different lithologic units. This is unlikely, especially where the 3426 alluvium contour appears to meet up with the (second) 3440 D1L contour.

EX 314.5 must show the currently approved permit boundary and the proposed AM2 amendment as clearly separate polygons.

EX 314.6 must show currently approved permit area and proposed expansion as clearly separate polygons.

It appears that the piezometric contours for spoil and D1L have been generated from the same points. Although the groundwater in the spoil is undoubtedly connected to the adjoining lithologies, the differences in hydraulic properties will result in different character between the surfaces.

EX 314.7 must show the currently approved permit area and the proposed AM2 amendment as clearly separate polygons.

EX 314.8 must show the currently approved permit area and the proposed AM2 amendment as clearly separate polygons.

EX 314.9 must show the currently approved permit area and the proposed AM2 amendment as clearly separate polygons. Additionally, it appears that only two data points were utilized to create these contours. please provide additional data points to all DEQ to evaluate these contours.

**ARM 17.24.314(2):** On Page 6 of the plan for protection of the hydrologic balance, the claim is made that "The higher solute concentrations expected in the groundwater inflow to Pit 20 while mining near Deer Creek may require dilution with water from other areas of the mine prior to treatment for sediment." Please provide evidence of sufficient quantity and quality of available water for this purpose.

**ARM 17.24.314(3):** The discharge rate predictions in 2.1.1.1 of the Probable Hydrologic Consequences document are not adequately supported by data. The Groundwater Model Report states in Section 3.2.1, "Only limited focus was placed on alluvium and clinker during calibration in terms of hydraulic conductivity portion of the calibration." The hydraulic conductivity of the Deer Creek alluvium is likely the single largest issue in this PHC. Data from 21 pumping tests in the Deer Creek alluvium provided a geometric mean hydraulic conductivity of 148 feet per day. Yet the model disregards the actual measured data and assigns a value of 50 feet per day, then states that the actual hydraulic conductivity is probably less than that. This conclusion is apparently based on
previous modeling of ephemeral drainages in the Powder River Basin. The Deer Creek alluvium has very little in common with most of the ephemeral drainages in the area, which are largely colluvial deposits and would be expected to be much less transmissive.

**ARM 17.24.314(3)(a):** In Section 2.1.4 of the PHC, Appendix A Figure 314-4 is referenced in connection to water quality of long-established spoil wells at East Decker. Appendix A is hydrographs, and Figure 314-4 is the hydrograph for 1080-74, a monitoring well in the D2 coal. Apparently, the reference is intended to be to Figure 314-4 in the PHC, not the identically numbered figure in Appendix A. Please reference the correct figure.

**ARM 17.24.314(3)(b)(iv)(A):** Table 1 of Appendix C East Decker sediment control plan reports a 50 percent reduction in sediment load. This reduction is too drastic of a change to be acceptable. Please incorporate MR96 SEDCAD model and PMT when MR96 is approved or revise SEDCAD model and PMT to keep sediment yields similar to premine.

**ARM 17.24.314(4):** Section 2.1.5 of the PHC discusses mining through the Deer Creek alluvium without reconstructing the buried channel and without replacing the alluvial materials removed during mining. Removing the saturated alluvial material will lower the water table upstream of mining, as groundwater discharges into the open pit. This is likely to dewater the intermittent portions of Deer Creek near the County road.

When the alluvium is replaced with spoil after mining, the hydraulic conductivity is likely to be lower than the premine alluvium. The Deer Creek alluvium upstream from mining will continue to deliver groundwater to the reclaimed area at essentially the same rate as before mining. The less transmissive spoil material will act as a dam, and will back up groundwater into the AVF. Flooding is likely to result.

Both results (dewatering during mining and flooding after reclamation) are unacceptable impacts on the hydrologic balance outside the permit area. Based on 82-4-227(3), MCA, “the department may not approve an application for a strip- or underground-coal-mining permit or major revision unless the application affirmatively demonstrates that: (a) the assessment of the probable cumulative impact of all anticipated mining in the area on the hydrologic balance has been made by the department and the proposed operation of the mining operation has been designed to prevent material damage to the hydrologic balance outside the permit area.” As described above this application does not meet the criteria.

**ARM 17.24.315(1):** Under "Plan for Ponds and Embankments" exhibits 11-5 through 11-12 were referenced. Exhibit 11-5 and 11-8 were not located. Based on the pond designs listed there seems to be an error in the reference. Suggest revising the reference to exhibits 11-6, 11-7, 11-9, 11-10, 11-11, and 11-12 for clarity.

The Deer Creek diversion pond designs do not provide sufficient sediment storage as stipulated under ARM 17.24.639(1)(c). Please adjust pond designs to provide sufficient storage for 3-year sediment yields and 10-year 24-hour storm event or provide detailed analysis on how pond designs was developed with justification for reduced sediment storage capacity.

**ARM 17.24.317(1):** The Phase I diversion has two ninety-degree angles that are unrealistic for water to flow through and as such should be smoothed to produce better flow. Phase I diversion reenters the drainage perpendicular to flow. This may cause unnecessary erosion to the existing channel. The Phase II diversion plan view doesn’t show it connecting to the existing drainage and
Exhibit 317-3 is both labeled as the Coal Creek Diversion Ditch and the Deer Creek Diversion Ditch on the exhibit. Please reconcile the titles in this document for the appropriate creek.

The narrative for the Deer Creek diversion states that 2.76 inches was chosen for a 50-year, 24-hour storm from the analysis done for Table 4 in the 1977 EIS. However, this table states that the 50-year, 24-hour storm is 2.90 inches. Please update the model and text to use 2.90 inches if Table 4 from the EIS is going to be used as the model’s precipitation source.

The Environmental Impact Statement for the original East Decker Mine (East Decker and North Extension Mines Decker Coal Company Big Horn County, Montana) listed concerns with a Deer Creek diversion that was proposed with the original mine plan in the 1970s. While the 1970s proposed permanent diversion was through the Deer Creek alluvium and Tongue River alluvium, it shares some characteristics with the temporary diversion proposed with AM2, such as the location of the diversion in T9S R41E S6. The EIS stated that “Once maintenance of this diversion by the Decker Coal Co. is discontinued, failure of the system is inevitable” (pg. 336). The concern was that high flow velocities through unconsolidated materials would be susceptible to erosion without maintained rip rap or other engineered solutions. Unconsolidated material will be encountered in the area proposed for Phase I of the diversion ditch. The diversion through T9S R41E S6, T9S R40E S6, and the beginning of the diversion in T9S R41E S9 will be through Deer Creek alluvium and alluvial terrace deposits. According to Ex 317-1 the Phase I channel between 35+00 and 50+00 is expected to hit coal which would be excavated and replaced with unconsolidated material, and portions of the Phase II channel will be in unconsolidated backfill. In total, DEQ calculates that in Phase I almost 40% of the channel, from 50+00 to the confluence with Deer Creek, could be through unconsolidated material. Furthermore, DEQ questions the competency of the rock for the Phase I diversion channel and the increase in the Manning’s number used by Decker to increase roughness and decrease the modeled velocity. The narrative states that the Manning’s number was increased from 0.025 to 0.033 “based on literature”, and the erosive velocity warnings given by SEDCAD were ignored “because the channel will be in rock” (317 diversions deer creek_am2.docx pg. 3). There is no reference cited for this higher Manning’s number. The 1977 EIS designed the Deer Creek diversion as earthen with riprap lining and estimated a velocity of 7.5 ft/s for the 50-year flow, and stated that the riprap lining would protect to a velocity of 10 ft/s (Table 35; pg. 344). Decker must provide quantifiable justification as to why the proposed diversion no longer needs to be designed with rip rap despite going through sections of alluvial sediments, why the erosive velocity warning was ignored in SEDCAD, and the justification as to the Manning’s number. Decker must provide a geotechnical analysis of the local overburden rock that the channel will be excavated in to support the claims of competent rock. The overburden is comprised of the Tongue River Formation which is known to be highly heterogeneous and poorly cemented.

The 317 narrative refers to a SEDCAD model, but no reference is given as to the location of the model results in the permit. Please provide the SEDCAD model.

The narrative includes several references to exhibits that are misnamed. For example, "Exhibit 317-1 S1Div_Area" is not in the e-permit, but "Ex 317-1 DC Diversions S1 Drn Area_AM2" is. Please revise the narrative to be consistent with the actual exhibits contained in the e-permit.

According to Ex 317-1 Sheet 1 and the flows presented in the 317-section narrative, the modeled Deer Creek diversion assumes contributions only from the Deer Creek watershed. However, the Middle Creek diversion in the Bowen Collins Technical Memorandum (App 317_1 Middle Cr
Diversion Extension.pdf under the Diversions section of the E-permit), shows Middle Creek diverted into Deer Creek downstream of the proposed levee and diversion. According to the mine plan, mining in Middle Creek will be ongoing through 2022, which is the year proposed for mining through Deer Creek. Therefore, the Middle Creek diversion will still be needed at the time that Deer Creek is diverted. Decker must either alter their mine plan to reclaim Middle Creek and remove the diversion before mining commences in Deer Creek or alter the diversion to route Middle Creek upstream of the levee and Deer Creek diversion. If the Middle Creek diversion is incorporated into the Deer Creek diversion, the 50-year, 24-hour storm event model must be updated to include the Middle Creek watershed and the small Deer Creek tributary watersheds that would be routed into Deer Creek.

**ARM 17.24.321(1):** Exhibit 11-3 does not have haul and ramp roads for Pit 20 as is shown on Exhibit 11-1. Please incorporate the Pit 20 roads on Exhibit 11-3.

Please indicate final full length of all proposed ramps.

**ARM 17.24.321(1)(a):** There is a ramp between Ramp 1 and Ramp 2 in Pit 13 that is not identified. Please address this ramp.

Please add 2-track reclamation roads to Exhibit 11-3.

**ARM 17.24.322(1):** Appendix 322-1 and 322-2 were not located during review, please submit them for review.

**ARM 17.24.325(all):** The AVF has been completed and should now be attached to the rule in the permit.

Additionally, although Decker has submitted enough information to determine the presence and absence of an AVF, it has not yet "submit(ted) a complete application" as described in ARM 17.24.325(3)(c)(ii). Please ensure that a complete application has been included that demonstrates compliance with this rule.

**ARM 17.24.501(4):** The rounded 80’ tall approximately 3000’ diameter mound (located in NW Section 8 and SW Section 5) does not meet AOC requirements. The areas to the east and west of this mound likewise do not comply with AOC requirements. Please redesign these areas so that the reclaimed terrain closely resembles the general surface configuration of the surrounding premine terrain.

**ARM 17.24.501(6):** Exhibit 313-10, Reclamation Schedule, shows that cuts north of Deer Creek would not be reclaimed until post 2034 despite some being mined as early as 2025. Please explain why reclamation cannot be kept current with mining operations. Also, please clarify if more than 4 spoil ridges would be created in the northern section of Pit 20.

**ARM 17.24.501(6)(b):** The mine plan shows Pit 13 will be mined out by 2022, but reclamation for this pit area, as shown on Exhibit 313-10, is not scheduled for reclamation until 2029-2034. This timeframe does not meet the requirements for completing backfilling and grading within 2 years after coal removal in the pit has been concluded.

**ARM 17.24.503(1):** Please create a plan within the permit that describes the methodology that Decker will use to get approval for and track small depressions. Postmine small depressions that
are anticipated to exist in the PMT must be shown on a map and described in the PHC due to the effect they have on surface water storage. DEQ traditionally approves a 1:1 replacement of small depressions, and a plan must be developed to inventory and track all premine and postmine depressions.

**ARM 17.24.504(1):** Please clarify why the Toxic Materials section is referenced under the permanent impoundments rule. Additionally, the comment states "see attachment: acid and toxic forming spoils.pdf" but this pdf does not exist in the Toxic Materials section of the permit.

**ARM 17.24.633(4):** The proposed MPDES point, EDDCD (PHC Appendix C Exhibit 314-2), which is located at the downstream confluence of the Deer Creek diversion and the native Deer Creek channel, is located upstream of drainage 20-8 and sediment pond 20-8-A (Exhibit 11-15). Sediment pond 20-8-A does not have a proposed MPDES monitoring location. Discharges from pond 20-8-S must comply with MPDES.

**ARM 17.24.634(1):** Compliance with this rule cannot be checked until further information is supplied concerning the geomorphic habit of the basins. See deficiencies under ARM 17.24.313.

**ARM 17.24.635(4)(a):** The mine plan does not propose any additional hydrologic monitoring during the use of the Deer Creek diversion. Provide a discussion as to how the diversion will be monitored to ensure that additional contributions of suspended solids are not being added to streamflow and runoff outside the permit area. Also provide a description as to how excess sediment will be prevented from entering the lower native channel of Deer Creek. Without a referenced SEDCAD model, the projected sediment load into the native Deer Creek channel from the diversion cannot be assessed.

The diversion ditch in both Phase I and Phase II joins the native Deer Creek drainage at approximately a 90-degree angle. This angle may facilitate erosion in the native channel during high flow events. Per ARM 17.24.636(4), “Energy dissipaters must be installed in streams where exit velocity of the diversion is greater than that of the receiving stream.” Please quantify the potential for erosion in the native channel from the diversion through modeling.

**ARM 17.24.638(1):** The disturbance boundary shown in the PHC's Appendix C Exhibit 314-2 includes disturbance in unnamed drainages in T9S R41E S6 and T8S R41E S31. It also shows disturbance downstream of sediment pond 20-8-A. Decker must propose sediment control measures for these drainages and ensure they comply with MPDES on monitoring discharges off the permit boundary.

**ARM 17.24.638(2):** The disturbance boundary shown in the PHC’s Appendix C Exhibit 314-2 includes disturbance in unnamed drainages in T9S R41E S6 and T8S R41E S31. It also shows disturbance downstream of sediment pond 20-8-A. Decker must propose sediment control measures for these drainages and ensure they comply with MPDES on monitoring discharges off the permit boundary.

**ARM 17.24.639(2):** The storm modeling parameters used in Appendix 11-3 and the PHC's Appendix C are not consistent. The curve number and time of concentration used for the pond designs in Appendix 11-3 do not appear to be for either the premine or postmine basins. All ponds in 11-3 use identical curve numbers and time of concentrations. This model is unrealistic, and will lead to undersized ponds. Please develop numbers for the worse-case scenario for each basin requiring a pond. Justify in a narrative the parameters chosen for each basin. Since each pond is
required to be built prior to any disturbance in a basin, the pond at a minimum must contain the premine 10-yr 24-hr event.

**ARM 17.24.644(1) and (2):** In the PHC’s Appendix D, Figure 11 shows that the Deer Creek alluvium is a recharge area. Decker must have a plan to restore the approximate premining recharge capacity of the alluvium after mining.

The PHC, geologic maps, and groundwater model in Appendix D indicate that the Pit 15 and Pit 20 areas are mining through a large clinker area which is a significant area of groundwater recharge. Additional disturbance with AM2 will increase the clinker area that is mined through. Well data shows seasonal variation in the D1L wells underneath this clinker area indicating that the clinker provides recharge to lower aquifers. The PHC on page 31 also acknowledges the importance of the clinker and D1L coal for diluting high solute concentrations in the alluvium near well 237282. Due to the connectivity of the D1 and D2 to the Deer Creek alluvium, it is also likely that the clinker directly and indirectly provides recharge to the Deer Creek alluvium. The PHC must explain the impacts to the hydrologic balance from mining through the clinker area and how impacts to the hydrologic balance, with emphasis on quantity and quality of the lower Deer Creek alluvium, will be minimized. Decker must have a plan to restore the approximate recharge capacity of the area.

**ARM 17.24.645(1):** Please update the MQAP to include the updated notification language requested by DEQ in the summer of 2019. This language is a commitment to notify DEQ in writing in a timely manner any time sampling is missed or cannot be completed.

**ARM 17.24.646(1):** Please update the MQAP to include the updated notification language requested by DEQ in the summer of 2019. This language is a commitment to notify DEQ in writing in a timely manner any time sampling is missed or cannot be completed.

**ARM 17.24.651(1):** Please provide an inventory of the biologic community in Deer Creek so that DEQ can determine if a stream buffer is warranted. Additionally, please show any areas that are intermittent stream reaches within and adjacent to the proposed permit area.

**ARM 17.24.701(2):** The landscape position and setting of the soils in the Deer Creek corridor are entirely different than those soils to the north above the Deer Creek valley. There is some level of influence from the parent materials of the northern uplands as they erode into the Deer Creek valley; however, other soil forming factors of time, topography and biology have more influence changing these sediments into fundamentally different soil types. It is not logical that either of these soil settings would be mixed together or placed in the alternate landscape position. This points to a need to at least keep the Deer Creek valley soils in the Deer Creek valley. The cuts in the Deer Creek valley where soils are unique compared to other soils of the permit range between roughly the east half of Cut 1 D1L and the west end of Cut 22 D1L.

At a minimum soil handling will contain a commitment to keeping a corridor of soil in the Deer Creek Valley within the same setting. This should include the area between pits for Cut 1 D1L and Cut 22 D1L. These soils will remain in the Deer Creek Valley corridor.

**ARM 17.24.702(2):** Please incorporate that during soil salvage the depth is determined through testing and concurrence. Replacing language saying salvage depth is set with annual reporting. This can be done by referencing the sampling and concurrence plan elsewhere in the permit or new language in the paragraph.
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The text states that soil piles will be represented on the annual report map. Being that stockpile footprints are a facility and will be represented on the facilities map the language may need to be enhanced. A footprint may be represented as a facility and when not in use, the footprint would not be indicated on the annual report map. Both soil stockpiles and footprints should be indicated in the language.

Please evaluate the facilities map and ensure that stockpile footprints are indicated. Add a reference or statement that indicates both maps for soil stockpile locations.

**ARM 17.24.702(6):** Depth sampling density indicates per reclamation block one sample per 5 acres will be collected, and one sample when less than 5 acres. Five-acre reclamation blocks are not common; however, one sample cannot be an average.

Please ensure that any reclamation block contain at least two depth samples for calculating an average.

**ARM 17.24.801(1)(2) and (3):** Decker has not submitted a plan to preserve the essential hydrologic functions and protection of farming with regards to the Deer Creek AVF. Please submit a plan that addresses these concerns.

**ARM 17.24.802(1), (2) and (3):** Decker has not addressed this rule. Please ensure compliance with ARM 17.24.802.

**ARM 17.24.804(1), (2), (3) and (4):** Decker has not addressed this rule. Please ensure compliance with ARM 17.24.804.

**ARM 17.24.806(1), (2), (3), (4) and (5):** Decker has not addressed this rule. Please ensure compliance with ARM 17.24.806.

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

Please feel free to contact Robert D. Smith at 406-444-7444 with questions regarding this letter.

Sincerely,

Matthew Dorrington, Supervisor
Coal Section
Coal and Opencut Mining Bureau
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Cc: Jeff Fleischman, Office of Surface Mining
    Erica Trent, Office of Surface Mining