Miles City Field Office
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ACC MTM106199 Major Modification
DOI-BLM-MT-C020-2020-0081-EA
June 2020

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1 Introduction

1.0 Summary of Proposed Project

The Bureau of Land Management – Miles City Field Office (MCFO) received an application from American Colloid Company (ACC), on October 15, 2018, to modify their Plan of Operations for the Merton TJ Project (MTM106199). The application was reviewed by BLM and deemed incomplete. Several rounds of deficiencies were addressed, and BLM accepted the modification complete on April 17, 2020. BLM notified ACC in July that proposed activities (related to staging areas) met the definition of occupancy under the mining law (43 CFR 3715.0-1) and required an application for occupancy as well. ACC submitted a request for occupancy by email on July 22, 2020.

ACC has been mining bentonite clay from the Belle Fourche formation near Alzada in Carter County, Montana since the 1970's. Their operations occur on private, federal, and state-owned surface and minerals. ACC has secured valid existing rights to the federal minerals in their mines by claiming the minerals or leasing the right to mine from other claimants. The mines are authorized under Montana Department of Environmental Quality (MTDEQ), Opencut Permits and BLM Plans of Operation: MTM 77811 known as the Alzada North Project and MTM 106199 known as the Merton TJ portion within the Alzada South Project.

The project area is located in Carter County, Montana; approximately ten miles west of Alzada and one mile south of the Ridge Road, near the Montana/Wyoming State line (see Map 1). The legal descriptions of the proposed action are as follows:

Township 9 South, Range 58 East, Prime Meridian of Montana (PMM)

Section: 29:	S½S½SW¼SE¼		7.7 Acres
		Subtotal	*7.7 Acres*
Section 32:	SE¼NE¼NW¼		10.0 Acres
	NW¼NE¼		40.0 Acres
	SE¼NW¼		40.0 Acres
	W½SW¼NE¼		20.0 Acres
	NE¼SW¼NE¼		10.0 Acres
	NE¼SW¼		40.0 Acres
	E½E½ Lot 4 in SW¼SW¼		7.0 Acres
	W½ Lot 3 in SE¼SW¼		14.0 Acres
		Subtotal	*181.0 Acres*
Section 33:	NW¼SW¼		40.0 Acres
		Subtotal	*40.0 Acres*
		TOTAL	**228.7 Acres**

The legal description is the same as the approved Plan of Operations (MTM 106199). However, the existing Plan approved disturbance of approximately 132 acres within this perimeter. This modification expands the disturbance footprint by approximately 95 acres and considers the potential need for additional modifications that could disturb up to the perimeter boundaries of the Plan of Operations. Additionally, the MTDEQ Opencut Permit has considered disturbance

within the full perimeter boundary (consistent with the legal description above), and this modification could allow BLM's authorization to be more consistent with the state permit.

Mining of the federal minerals is done in compliance with state and federal laws as well as the BLM regulations set forth in 43 CFR 3809 including the performance standards set forth in 43 CFR 3809.420. Overall the Plans of Operation and occupancy are required to prevent unnecessary and undue degradation as defined in 43 CFR 3809.5. The environmental assessment helps determine if unnecessary and undue degradation would occur because of the proposed action. ACC is required to submit a financial guarantee to cover the cost of reclamation by a third party. ACC is also required to submit a bond to MTDEQ for reclamation of their Opencut permits which cover, federal, state, and private lands. Through an agreement between the State of Montana and BLM, MTDEQ holds one financial guarantee for the entire area and BLM is a rider on the instrument and ensures that the disturbance on BLM surface is fully bonded to have the area reclaimed by a third party according to the approved reclamation plan in the Plan of Operation which is identical to the reclamation of BLM surface in the Opencut permit.

1.1 Purpose and Need

The purpose of this EA is to assess the modification application for the Merton TJ Plan of Operations (MTM106199) and request for occupancy to determine if the operation can occur without causing undue or unnecessary degradation to public lands. The need for the action comes from BLM's responsibility to respond to the modification application and consider authorizing mining activities under the General Mining Law of 1872, as amended, Federal Land Policy and Management Act (FLPMA) of 1976, as amended, and regulations at 43 CFR 3809 and 43 CFR 3715.

1.2 Decision to be Made

BLM must decide whether to approve, approve with conditions, or deny the modification to MTM 106199 submitted by ACC. Some activities proposed fall subject to occupancy under the mining law (43 CFR 3715). Therefore, BLM must also decide to concur or not concur with occupancy.

1.3 Land Use Plan Conformance

The proposed action is in conformance with the Miles City Field Office Approved Resource Management Plan (ARMP), as amended and Rocky Mountain Region Record of Decision (ROD). Even though the proposed action is not specifically mentioned, it is consistent with the decision(s) [or objective(s)] listed below.

Goal MIN 1*: Provide opportunities for mineral use in an environmentally responsible manner.*

MD MIN 17: *Approximately 2.18 million acres are open to mineral location.*

1.4 Relationship to Statutes, Regulations, Other NEPA Documents

The preparation of this environmental assessment will follow guidelines according to regulations adopted by the Council of Environmental Quality (CEQ) found in 40 CFR Part 1500-1508, and the BLM NEPA Handbook H-1790-1 and policies regarding the implementation of NEPA and

compliance with CEQ regulations.

- National Environmental Policy Act (NEPA) of 1969 (Pub. L 91-190; 42 U.S.C. 4321 et seq.)
- Federal Land Policy and Management Act (FLPMA) of 1976, as amended (Pub. L. 940579); 90 Stat.2743; 43 U.S.C. 1701 et seq.)
- The General Mining Law of 1872;
- Multiple-Use Sustained-Yield Act of 1960;
- Section 106 of the National Historic Preservation Act (NHPA), 1966, as amended

This document is tiered to and incorporates by reference the Miles City Approved Resource Management Plan/Final Environmental Impact Statement (BLM 2015a) and Rocky Mountain Region ROD (BLM 2015b).

1.4.1 Citation for Amendment 11 (2016-023-EA)

Environmental Assessment DOI-BLM-MT-C020-2016-0023 titled "American Colloids Plan of Operations for Amendment Eleven to the Alzada South Area" is hereby incorporated by reference into this document.

1.4.2 Summary for Amendment 11 (2016-023-EA)

DOI-BLM-MT-C020-2016-0023 analyzed Amendment 11 to Montana Department of Environmental Quality, Opencut Bureau permit 190, which initiated BLM's Plan of Operations MTM 106199. The analysis included the effects of bentonite mining by ACC in the same general area as this proposed action and defined the decisions to be made for the Plan of Operations action as well as the various agency roles and responsibilities. The environmental analysis included the environmental consequences for hydrology, lands/realty, soils, vegetation, invasive species-noxious weeds, Visual Resource Management (VRM), range/grazing, wildlife, and Threatened and Endangered Species for mining bentonite in a portion of this analysis area. The document also considered cumulative effects of mining bentonite within the existing mines and the Merton TJ project area. Only the resources with site specific variations for this proposed action are carried forward in this EA.

1.4.3 Citation for Amendment 13 (2013-034-EA)

Environmental Assessment DOI-BLM-MT-C020-2013-34 titled "Environmental Assessment for American Colloid Company Amendment No. 13 to Plan of Operations MTM 77811 and State of Montana Mined Land Reclamation Permit No. 538 Carter County Montana" is hereby incorporated by reference into this document.

1.4.4 Summary for Amendment 13 (2013-034-EA)

DOI-BLM-MT-C020-2013-34 analyzed Amendment 13 to the Plan of Operations for the Alzada North Area. The analysis included the effects of bentonite mining by ACC in the same general area as this proposed action and defined the decisions to be made for the Plan of Operations action as well as the various agency roles and responsibilities. The environmental analysis included the environmental consequences for noise, socioeconomics, and air quality for mining bentonite in a similar environment less than five miles away. The document also considered cumulative effects of mining bentonite within the existing mines and Amendment 13 project

area. Only the resources with site specific variations for this proposed action are carried forward in this EA.

1.4.5 Previous National Environmental Policy Act (NEPA) (42 United States Code [USC] §4321 et. seq.) Analysis Documents[1]

A. 1976, Environmental Impact Statement, Proposed Open Cut Mining Contract for American Colloid Company, Montana Department of State Lands, 50 p.
B. 1981, Environmental Assessment M-027-81-02P, Amendment One to American Colloid Company's Carter County Bentonite Mine MTM 77811, BLM, Miles City District Office 7 p.
C. 1993, Environmental Assessment MT-020-78-349, Plan of Operations for Amendment Five to Reclamation Contract Number 00297, BLM Powder River Resource Area 13 p.
D. 1997, Environmental Assessment MT-020-78-7-31, Environmental Assessment for American Colloid Company's Amendment Seven to Existing Plan of Operations MTM 77811 for Mining of Bentonite, Carter County, Montana, BLM, Powder River Resource Area, 23 p.
E. 2001, Environmental Assessment MT-020-99-216, American Colloid Company Amendment Nine to Plan of Operations MTM 77811, BLM, Miles City Field Office, 42 pg.
F. 2004, Environmental Assessment MT-020-2004-176, American Colloid Company Amendment Ten to Plan of Operations MTM 77811, BLM Miles City Field Office and Montana Department of Environmental Quality, 57 p.
G. 2011, Environmental Assessment DOI-BLM-MT-020-2010-281, American Colloid Company Amendment Twelve to Plan of Operations MTM 77811 and State of Montana Land Reclamation Permit Number 00297, BLM, Miles City Field Office and MDEQ, 111 p.
H. 2013, Environmental Assessment DOI-BLM-MT-C020-2013-34, American Colloid Company Amendment Thirteen to Plan of Operations MTM 77811 and State of Montana Mined Land Reclamation Permit Number 538, Carter County, Montana, BLM Miles City Field Office and MDEQ, 106 p.
I. 2016, Environmental Assessment DOI-BLM-MT-C020-2016-0023, American Colloids Plan of Operations for Amendment Eleven to the Alzada South Area (MTM 106199), Carter County, Montana, BLM Miles City Field Office, 50 p.
J. 2018, Determination of NEPA Adequacy DOI-BLM-MT-C020-2018-0009-DNA, American Colloids Minor Modification to MTM 106199 – Fence Plan, BLM Miles City Field Office, 5 p.

1.5 Issues Identified for Analysis

An issue is a point of disagreement, debate, or dispute with a proposed action based on some anticipated environmental effect. CEQ regulations at 40 CFR § 1500.4 and 1501.7 require an EA to focus on issues that are key to the proposed action. Specific issues that will inform the decision on this proposed modification are outlined here. While many potential issues were raised during scoping, not all of them warranted analysis. Issues raised through scoping were

[1] Previous NEPA Analysis Documents are Available for Review at the BLM, MCFO

analyzed if:

- Analysis of the issue is necessary to make a reasoned choice between alternatives.
- The issue is significant (an issue associated with a significant impact, such as a potential violation of a law imposed to protect the environment)
- Analysis of the issue is necessary to determine if the direct or indirect impacts are themselves significant, or if it would add a measurable incremental impact to past, present and reasonably foreseeable actions that could have a cumulatively significant impact.

Potential impacts to the following resources/concerns were evaluated in accordance with criteria listed above to determine if detailed analysis was required. Consideration of some of these items is to ensure compliance with laws, statutes or Executive Orders that impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general, and to the MCFO in particular.

Many times, a project may have some degree of effect upon a resource or concern, but that effect does not approach any threshold of significance, nor does it increase cumulative impacts by a measurable increment. Such effects are described as "negligible" in the rationale for dismissal from analysis.

Appendix B identifies the resources considered for analysis under the proposed action. Those listed as NP are not part of the affected environment and are not carried forward for analysis. Those marked as NI were present, but any potential impacts were considered negligible or addressed by previous NEPA. Resources marked NI are not carried forward for analysis. Only issues marked PI warranted further analysis. The affected environment (scope of effects) and the environmental consequences for each issue is identified in Chapter 3.

1.5.1 Issue 1 – How would "campsites" on BLM surface impact the environment?

1.6 Issues Identified but Eliminated from Further Analysis (If Applicable)

During the scoping process, the following resources managed under the MCFO RMP were determined to not be present within or adjacent to the area that would be affected by the Proposed Action: fisheries, special-status species plants, bighorn sheep, big game crucial winter range, black-tailed prairie dog colonies, and colonial nesting birds.

The BLM determined that the following resources managed under the MCFO RMP were present within or adjacent to the area of the Proposed Action but not affected to a degree that detailed analysis is required to make a reasoned choice between alternatives: historic or cultural resources, environmental justice, socioeconomics, aquatics (non-fish), migratory birds, golden eagles, soils, surface water resources.

The resources identified as not present are listed as NP in Appendix B. The appendix also lists those resources that are present and impacted as either NI (not needing further study) or PI (carried forward as an issue in the EA). A rationale for why resources that are present and impacted do not need further study is also provided in this table. During scoping, a few preliminary issues were identified but after further review were determined to not warrant further

analysis to inform the decision. The rationales for dismissal of those preliminary issues are provided here.

How would mining operations impact Greater sage-grouse and sharp-tailed grouse and their habitat?

The project area is within the Restoration Habitat Management Area (RHMA) habitat polygons. The closest lek is approximately 0.64 miles to the northwest of the closest portion of the project area. All access and hauling in and out of the project area would be to the east of the project, on an existing haul road. No hauling would occur west of the project area for mining occurring from the Proposed Action. ACC further restricts hauling on the Lobben Road (west of the project) from March 1 to June 15 from dusk to 9:00 AM annually for all of their operations.

Habitat for Greater sage-grouse exists in the project area. The project activities may affect individual birds during operations by causing short-term avoidance or displacement, but the birds would likely return to using the area immediately after operations concluded as seen on other parts of ACC's mining operations. The area affected by removal of vegetation is approximately 1% of the potentially available habitat for Greater sage-grouse that would be affected by the Proposed Action. ACC will reclaim approximately 216 acres of mined land in other locations with sagebrush and remove approximately 30 acres of encroaching juniper/pine/scrub. This will result in net conservation gain for sage grouse required by the Miles City Approved Resource Management Plan (2015).

The proposed action is already authorized by MT DEQ Opencut Bureau and will not require consultation with the Montana Sage Grouse Program under the State Executive Order 12-2015.

There was one known Sharp-tailed grouse lek within the buffer of the project area, which has been unused since 2009. Sharp-tailed grouse have been seen within the area before, during and after mining operations in the region, and are expected to continue to be present during and after the Proposed Action. Less than half of one percent (0.5%) of existing habitat within the 2-mile buffer of the project area would be impacted directly by the existing and proposed mining operations. There is an abundance of potential habitat for sharp-tailed grouse within the adjacent lands. This project is not expected to have any measurable effect on sharp-tail grouse habitat or populations.

Based upon this mitigation and the availability of adjacent habitat, there is adequate protection for Greater sage-grouse and net conservation gain will be achieved by voluntary offsite sage brush restoration and removal of conifers in the project area. Therefore, these two species will not be carried forward as issues needing further analysis in this EA.

How would mining operations impact migratory birds and their habitat?

Various species of migratory birds are expected to use the area; such as American Robin, Black-throated Gray Warbler, Brewer's Blackbird, Brewer's Sparrow, Mourning Dove, Gray Flycatcher, Green-tailed Towhee, Hermit Thrush, Lark Sparrow, Sage Thrasher, Sage Sparrow, Savannah Sparrow, Vesper Sparrow, Western Meadowlark, Rock Wren, Northern Flicker, Chipping Sparrow. Raptors such as Red-tailed hawk, Golden eagle, Northern harrier, American

kestrel, Cooper's hawk, and Short-eared owl have been observed on or near the project area throughout the year, while Rough-legged hawks and Bald eagles are usually only seen during winter surveys.

American Colloid Company would take necessary precautions to avoid a take and ensure compliance with the Migratory Bird Treaty Act through coordination with USFWS as needed when active nests are identified in areas to be disturbed during the nesting season (annual survey). Due to these steps and the abundance of habitat adjacent to the project area, the Proposed Action is not expected to have a measurable impact on migratory bird populations locally or regionally. Therefore, migratory birds are not carried forward as an issue needing further analysis in this EA.

How would mining operations impact Northern Long-Eared Bat and their habitat?

The listed threatened northern long-eared bat (NLEB) *(Myotis septentrionalis)* may potentially range within portions of eastern Montana. Specific surveys for this species have not occurred within the project area. Habitats suitable for winter hibernaculum are known to exist further to the southeast, roughly 65 miles, near Sturgis, South Dakota (Schmidt, 2003; Tigner & Stukel, 2003). Suitable winter habitat (hibernacula) includes caves and cave-like structures with large passages with significant cracks and crevices for roosting; relatively constant, cool temperatures and high humidity with minimal air currents. The project area does not contain any features that would provide winter hibernacula. Close to the proposed project area is the known summer roost locations in the Devils Tower area of Wyoming, roughly 30 miles to the south. Suitable summer roosts include cavities, underneath bark, crevices, or hollows of both live and dead trees typically equal to or greater than 3 inches diameter at breast height (United States Fish and Wildlife Service, 2014). Trees in the project area and vicinity contain the characteristics to provide summer roosting habitat.

The Proposed action plans for all necessary tree removal to occur prior to April 1 or after October 31. Streamlined consultation with USFWS on the 4(d)-rule dated July 20, 2020, concurs that application of this design feature would not have an adverse impact on NLEB. Because habitat will not be altered or destroyed during the time that it would be in use by the species, NLEB are not carried forward as an issue needing further analysis in this EA.

2 Alternatives

This chapter describes the Alternatives considered for this environmental assessment. The alternatives carried forward represent a reasonable range of alternatives to inform the decision to be made on this pending application.

2.0 Alternative 1 - No Action Alternative

The No Action Alternative would mean the modification would result in undue and unnecessary degradation, and therefore it would be denied, and BLM would not concur on occupancy. Mining would continue in a portion of the project area under the existing Plan of Operations approved in 2016. However, the mine pits would not be expanded, there would be no drilling within the mine site, the stock pond would not be implemented as part of reclamation, and campsites would not be established on BLM surface.

The No Action was analyzed as the Proposed Action in DOI-BLM-MT-C020-2016-0023-EA. The previous EA describes the impacts mining and related activities would have on the environment in the project area. Impacts include removal of vegetation and soil. Topsoil and subsoil would be stockpiled and managed to maintain productivity for use in reclamation or live spread when possible. Overburden would be removed and stockpiled or directly backfilled into an open pit. Wildlife would be impacted by the presence of human activity, the noise from heavy equipment and the removal of vegetation. Fugitive dust and Exhaust may impact local air quality but is not anticipated to exceed any national or state ambient air standards. No water wells, surface waters, or wetlands occur in the vicinity and mining typically to a maximum depth of 50 feet would not intersect the water table. However, small perched water tables may be intersected and removed. Stormwater would be handled through the General Permit for Stormwater Discharge (**Appendix G**) and the Stormwater Pollution and Prevention Permit (**Appendix H**). Potential spills or leaks of petroleum or lubricants from equipment used on site would be handled through the Spill Prevention Control and Countermeasure Permit (**Appendix I**). Impacts to perched water tables may be long-term (post bond release), but all other impacts summarized here would be short-term (rectified by the time the liability and bond for reclamation is released. Downstream, the bentonite is transported to Colony, Wyoming for processing and then shipped by truck or train to customers around the country. Fugitive dust and mobile equipment emissions for transport, could contribute to local, short-term degradation of air quality. The processing plant also produces emissions which may degrade air quality. The processing plant is under State of Wyoming Air Quality Division Permit Facility #F021196 and has not shown a recent history of exceeding ambient air quality standards.

2.1 Alternative 2 - Proposed Action Alternative

ACC has proposed a modification to their existing Plan of Operations (MTM 106199). The modification generally conforms to the same mining practices as approved in the existing Plan. The specific details of the modification are described in the application attached as **Appendix F**. **Map PO-1** documents the new proposed mine plan and **Map PO-2** documents the current disturbance in the project area under the existing Plan of Operations. **Map 1** In **Appendix E** shows the difference between the currently approved disturbance boundary for which impacts were analyzed in DOI-BLM-MT-C020-2016-0023-EA and the proposed disturbance boundary.

The main changes to the existing plan are described in this section but are described in more detail in **Appendix F**. The main changes consist of expanding the potential disturbance area, adding drilling activities within the mine site, clarifying the location of a permanent stock pond, using campsites on BLM surface (not previously done in ACC's federal operations in MT), and further clarifying reclamation measures of success.

Mining is a dynamic process that changes direction as nuances of the deposit are discovered during the mining process. As ACC began opening the deposit in this project area, they encountered nuances such as increased swell factors and fault lines that have caused them to reconsider their mine plan. In general, the mining practices will remain the same, but the footprints of disturbance would change. They have proposed changes in the layouts of the pit including expansion of some pits. They have proposed relocation and larger sized overburden piles due to the increased swell factors. They have proposed a change in the location of temporary roads due to the changes in layouts of the pits. The modification requests approval for this new disturbance within the overall State permit area. To be more consistent with the State permit OC#190, and to plan for minor modifications and better address the dynamic nature of mining, the proposed action will analyze the potential for surface disturbance related impacts within the entire BLM block of the permit, an addition of approximately 95 acres. Changes to the mine plan to disturb more of these 95 acres than currently proposed would still require submission of a minor modification and approval by BLM before commencing operations.

As mining operations encounter changes in the deposit, additional drilling may be utilized to further delineate the deposit before additional overburden removal or extraction occurs. The information gained from drill holes can inform the operators to conduct extraction in a more efficient manner. Sometimes the drilling may reveal that a deposit does not exist with economic potential in area intended to be mined, which could reduce the disturbance footprint. Drilling within the mine site on BLM surface was not previously identified or addressed in DOI-BLM-MT-C020-2016-0023-EA.

ACC was approved to put a permanent stock pond in NE¼SW¼ of Section 32 as part of reclamation. The stock pond would provide water source for grazing that was not previously available in this part of the allotment and would provide water for wildlife as well. Due to the changes in the mine plan, the specific location of the stock pond will be Pit 36X (see **Map PO-1** in **Appendix F**). At this time, ACC is not proposing any additional stock ponds on BLM surface. If future modifications are submitted, subsequent NEPA analysis would be prepared to address the site-specific action, as necessary.

ACC is proposing the use of staging areas which they refer to as "campsites" and these proposed facilities and activities fall subject to occupancy under the mining laws (43 CFR 3715). Staging areas have not previously been located on federal surface in there other mining operations in Carter County, Montana. The campsites are not for overnight residence, but instead are disturbed areas to be used to house mobile office trailers, equipment when not in use, porta-johns, fuel storage, and provide a location to do maintenance on the equipment. Previous plans of operation and modifications utilized adjacent private lands for these campsites in other project areas. However, ACC does not have operations on adjacent private lands in the Merton TJ project area.

Occupancy requires that the activities be reasonably incident; constitute substantially regular work; be reasonably calculated to lead to the extraction and beneficiation of minerals; involve observable on-the-ground activity that BLM may verify under 43 CFR 3715.7; and use

appropriate equipment that is presently operable, subject to the need for reasonable assembly, maintenance, repair, or fabrication of replacement parts. ACC mines the area year-round as weather permits. The proposed occupancy would meet these requirements because the area is remote from town and it is not easy to transport equipment to and from the area without great expense. Roads in the area can become hazardous regularly throughout the year due to rainstorms and heavy use. Regular transport of heavy equipment on private and public roads would increase hazards to the public, residents, and ranchers in the area.

Several previous authorizations have required reclamation to include measures to restore sagebrush habitat. However, the Plans were never clear on what reclamation success would look like and now that restoration work has been implemented in ACC's Carter County operations for several years, it is a little uncertain what measures should be met to be deemed successful. Therefore, ACC is proposing clearer and additional measures of success for MTM 106199.

While the main changes between the approved plan of operations and the proposed modification are described here. The decision to be made is on the full modification as proposed in **Appendix F**. The Proposed Action Alternative incorporates the full Plan modification by reference here. The State of Montana permits for stormwater and spill contingency plans are included in **Appendices G-I** and are incorporated by reference here.

2.2 Alternatives Considered but not Analyzed in Detail

BLM did not identify any additional alternatives. The Proposed Action meets the goals and objectives of the MCFO RMP and there are no resource issues identified to drive another alternative.

3 Affected Environment and Environmental Consequences

This section presents the existing environment (i.e., the physical, biological, social, and economic values and resources) of the analysis area, the issues analyzed, the impacts to the analyzed resources, and mitigation that could be applied that would reduce those impacts. Mitigation proposed in this section could be included in the FONSI to prevent potentially significant impacts. Application of the mitigation measures to the proposed action would then be carried forward into the Decision Record as a condition of approval of the proposal.

3.0 General Setting

The project is located in Carter County in the southeast corner of Montana. The Amendment No. 11 project area is located about 12 miles west of Alzada, and south of the Ridge Road, a county road depicted in Map 2.

The topography of the project area is dominated by a broad basin. The project area is gently sloping to the northwest with a few shallowly incised drainage channels, tributaries of Thompson Creek. The project is sandwiched between Thompson Creek approximately one mile to the west and Holben Creek approximately one mile to the east.

The landscape is best described as dissected upland, with relatively flat to gentle slopes, gently rolling terrain and broad basins. The landscape exhibits various erosional remnants, such as cuts and draws, eroded hillsides, calcite exposures, and isolated ridge spurs. Elevations range from approximately 3,540 feet to 3,620 feet.

Climate
This mine is located within the Missouri Plateau section of the Great Plains in southeastern Montana. This Eco region has a dry mid-latitude steppe climate (Wiken, Nava, & Griffith, 2011). The frost-free period ranges from 90 days to 155 days. The mean annual precipitation is 15.5 inches, ranging from 10 to 20 inches, mostly in the form of snow and summer thunderstorms. Summers are short but hot and winters are long and bitterly cold, though some parts of eastern Montana are moderated by the Chinook wind, causing 'warm' spells of 35-50 degrees Fahrenheit that can last from several days to two to three weeks. July temperatures average a high 87 degrees Fahrenheit and low 55 degrees Fahrenheit, January temperatures average a high 30°F and low 3°F. The hottest temperature recorded is 108 degrees Fahrenheit on July 28, 1975 and the lowest recorded temperature is -48 degrees Fahrenheit on December 17, 1964 (Western Regional Climate Center Albion 1 station no. 240088).

3.1 Resource Issue 1 - How would staging areas or “campsites” on BLM surface impact the environment?

3.1.1 Affected Environment

The general terrain consists of rolling hills primarily dominated with grass, forbs, and sagebrush. The campsites (staging area) would be constructed as part of operations when beginning a new mine site. The campsites would be located on relatively flat areas that would be one to two acres in size and located for convenience to the mining area. The sites would be stripped of topsoil and subsoil with sediment traps located at low areas of the disturbance to catch any possible runoff. When possible, the campsites would be placed in already disturbed areas regraded to flat

topography.

The sites would contain a parking area for mobile equipment, support vehicles, mobile office trailer, portable outhouse, and light plant/generator. The campsite is also used to house the mobile fuel tanks, as a fueling area, and a maintenance area. The pollution potential for campsites is runoff containing total suspended solids, hydrocarbons, and miscellaneous trash. All trash and debris generated at the camp will be collected and regularly transported to the field shop or landfill for disposal.

Mobile fuel tanks will often be located on site at campsite areas. ACC will use several mobile fuel tanks in their three state area mining operations, none of which exceed a capacity of 10,000 gallons. All other petroleum products are stored on the two mobile service trucks. These service trucks carry diesel fuel and various vehicle oils for performing vehicle/equipment refueling and maintenance activities at the mine sites. These service trucks will be on site and manned during normal operating hours but are parked at the company field shop, located in South Dakota, when not being operated. Fueling, lubrication, and maintenance of equipment all takes place at designated campsites. The pollution potential from the tanks and service trucks would be a leak or unintended discharge from the tanks, hoses, or valves.

3.1.2 Environmental Effects —No Action Alternative

Depending on where the campsites are located there is the possibility that the area would be mined. If the campsite is not eventually mined then the area would be left as it is and with the only current use it has on it, which is livestock grazing. However, there would be off-site degradation to other areas and resources that may not happen if the campsites are allowed.

The campsites will reduce the amount of traffic by providing a local site where maintenance and fueling could be done. This will decrease the amount of travel to and from the shop in South Dakota which will decrease air pollution from dust and exhaust fumes. Potential road degradation would also be decreased as well as the potential number of roads that may be needed which in turn decreases potential vegetation loss, sedimentation in water, and air quality degradation.

3.1.2.1 Cumulative Effects

The increase of equipment travel will influence air and water quality as well as vegetation loss. These effects can travel outside the localized area of the mine sites and have a cumulative and increasing effect on resources down stream and down wind.

If the campsites are allowed, effects on other natural resources will be contained and treated if a spill or anything else occurs. The campsites will also be mitigated after there use and/or mined.

3.1.3 Environmental Effects—Alternative 2

The potential environmental effects to campsites are erosive and chemical in nature. The site will be stripped of its topsoil and subsoil which can lead to erosion from water and wind. The use of the campsites as a storage location for fuel and a maintenance area could have a spill on the site which, left unchecked would cause environmental damage to natural resources.

Hazardous materials potentially used and/or stored at the ACC campsite areas could include

ethylene glycol (antifreeze), diesel fuel, unleaded gasoline, motor oil, hydraulic and transmission fluids, and various types of fluids (e.g., brake fluid, battery acid, fuel additives) for equipment and vehicle operation could be an issue if not managed appropriately. The Storm Water Pollution Prevention Plan (SWPP) (**Appendix H**) for field operations has been implemented at the mine and the campsites which describes cleanup and protection procedures should a spill of hazardous materials occur on site as well as how the site will be constructed to help prevent erosion. Petroleum products used at the Mine will be stored in aboveground storage tanks with secondary containment which is designed to hold up to 110% of capacity as discussed in ACC's SWPP plan. Any hazardous material will be disposed of as per ACC's SWPP plan.

Monitoring of these facilities will be on a continuous basis. A formal company inspection of all Hazardous material facilities will be conducted and logged weekly. Spills of any hazardous material regardless of size, must be properly and expeditiously managed, contained, and removed to protect public health and the environment.

Portable toilets will be maintained at campsite locations and serviced regularly by a contractor or trained ACC employee. All sewage removed from portable toilets will be disposed of at a licensed sewage treatment facility or a Montana DEQ approved septic system located off public lands.

Solid waste is disposed of in accordance with regulatory guidelines. No solid waste is buried on-site unless approved by the regulatory agencies. Scrap metal will be salvaged and recycled. Refuse and other undefined solid waste will be disposed of in an approved landfill facility. No hazardous waste is generated or disposed of on-site.

3.1.3.1 Cumulative Effects

The design and maintenance of the campsites should offer ample protection from hazardous material as well as erosion ramification from migrating offsite and therefore not becoming a cumulative issue.

Mining will most likely occur without the campsites. Which will increase harder to control issues such as erosion from roads and potential accidents involving hazardous material in locations that do not have mitigation controls in place. If this were to occur, hazardous material could escape off site and potentially have negative effects on the wider environment and landscape.

3.1.3.2 Mitigation and Residual Effects

All petroleum storage and fueling areas are restricted to the designated campsite areas. Any campsite that houses a mobile fuel tank must contain a secondary containment that will hold 110% capacity of the largest fuel tank on site. In addition, the fuel tank and secondary containment also have berms placed around the three sides not used for fueling equipment.

Pre-shift inspections are conducted by the operator on all equipment to be in service during that shift. If there are maintenance issues found with the equipment, it is reported to maintenance personnel immediately. Equipment is regularly inspected, tested, and maintained to avoid situations that may result in leaks, spills, and other releases of pollutants.

The mobile service trucks are equipped with an evac system that uses quick coupler hose

connections to remove and add oils to mobile equipment. This type of system greatly reduces chances of spills or leaks. Drip pans are placed beneath filters and filters drained on expanded metal into drip pans, then drained oil is vacuumed from the drip pans into the mobile service truck using the evac system and the filters are properly disposed of.

Standard protocol for mobile fuel tank fuel transfer is that an ACC employee must be on site with the tanker transport driver to act as a spotter for any issues or leaks during fuel transport. All mobile fuel tanks are locked and can only be unlocked by task trained operators.

The camp area is typically situated on shale overburden, with a finer fractured material at surface which readily absorbs petroleum products and other liquids with a consolidated undisturbed shale lower in the profile acting as an impermeable layer preventing significant migration of spills. Minor surficial releases of petroleum in amounts less than reportable quantities are immediately cleaned up by on-site personnel using sorbent materials that are stored on the service trucks. In the event of larger spills of hydrocarbon product, the materials are excavated and removed to an appropriately permitted landfill or land-farm. All spills shall be reported internally to the SWPP Coordinator. Spills greater than 25 gallons must be reported to the appropriate agencies.

In the event of a release, American Colloid personnel will immediately implement response and cleanup measures following the discovery of a spill. Personnel are instructed to shut-off the source of the spill, if possible, and use spill control equipment to contain the release as best as possible. Spill equipment and materials include earth moving equipment, sorbents, brooms and shovels, and other miscellaneous tools. Additionally, emergency spill control supplies are available in abundance from the bentonite clay on-site that could be used in the event of a spill to create dams or soak up a spill. If necessary, an outside contractor will be called in to assist in cleanup and disposal of waste materials.

As soon as safe and possible, personnel must perform the required notifications to the proper contacts (based upon the size and impacted media). The Mine Manager is to be notified of a measurable spill as soon as possible. Tables of quantities of reportable releases are provided in 40 CFR 117.3 and 40 CFR 302.4. Minimum quantities (in excess of 25-gallons) for mandatory reporting of spills have been established by the state, as detailed on the spill reporting guidance from the respective environmental agency. In the event that the facility has discharged more than 1,000-gallons of oil in a single discharge or more than 42-gallons of oil in each of two (2) discharges within a 12-month period, information must be submitted to the EPA Regional Administrator within 60-days from the date of discharge.

4 Consultation and Coordination

4.0 Summary of Consultation and Coordination

Tribal: No tribal concerns were brought forward for the decision DOI-BLM-MT-C020-2016-0023-EA approved in 2016. Operations proposed in this application and alternatives are not substantially different than the previous decision. No tribes have demonstrated a concern with bentonite mining in this area to date.

USFWS: Streamlined consultation with USFWS on the 4(d)-rule dated July 20, 2020, concurs that application of this design feature would not have an adverse impact on Northern Long Eared Bat because habitat will not be altered or destroyed during the time that it would be in use by the species.

4.1 Summary of Public Participation

The proposed action is very similar to other actions considered for bentonite mining in Carter County in the past 10 years (See **Section 1.4.5** for some of the related NEPA documents). BLM has not had a lot of response during scoping or comment periods on these types of actions. This proposal also overlaps the existing project which was analyzed and approved only 4 years ago with only two comments received. Therefore, BLM did not find it necessary to scope this project with the public. The Plan of Operations and NEPA project were posted in eplanning on July 15, 2020. The EA was posted for public comment period August 31, 2020 through October 1, 2020.

5 List of Appendices

6 Appendix A: List of Preparers

Name	Title	Resource Area
Carissa Shilling	Geologist	NEPA document
Christopher Morris	Hydrologist	Water Resources
Josh Buckmaster	Soil Scientist	Soils, Vegetation, Reclamation
Andy Daniels	Wildlife Biologist	Wildlife, Threatened and Endangered Species
CJ Truesdale	Archaeologist	Cultural Resources, Tribal Consultation, Native American Religious Concerns
Lori Harbaugh	Planning and Environmental Coordinator	NEPA, LUP Conformance
Philip Reierson	Rangeland Management Specialist	Vegetation/Grazing

7 Appendix B: Table of Issues Considered

This table provides an exhaustive list of issues, resources and uses for which issues may arise. Each office should carefully modify this table to include issues, resources or uses that are "**present**" within the Miles City Field Office.

Determination*	Issue	Rationale for Determination
NI	Access	Access is already established for the existing Plan of Operation (MTM 106199). No new access is proposed for this modification. Public access is only restricted within the mine site for public safety and does not exclude access to surrounding BLM.
NI	Air Quality	Activities proposed are similar to past actions that analyzed and found no significance for air resources; the proposal is not adding more emissions, just moving the location of annual mining emissions since ACC has ample other reserves permitted in MT and adjacent WY; there is no known exceedances of Montana or National Ambient Air Quality Standards due to mining in this region; and there have been no complaints from local residents regarding air resources (air quality, dust, haze, etc.).Therefore, air resources were not identified as an issue requiring further analysis.
NP	Areas of Critical Environmental Concern	Not present in the analysis area.
NP	Cultural Resources	The affected land has been inventoried for cultural resources (ACC surveys 2005 and 2012). No cultural resources were recorded within the inventoried areas. The proposed action would have no effect to historic properties (See BLM Cultural Resources Inventory MT-0202-20-125).
NP	Environmental Justice	No Environmental Justice populations are present and impacted by the alternatives.
NP	Farmlands (Prime or Unique)	Not present in the project area.
NI	Fire Management	Removal of vegetation and reclamation to native grasslands could impact fire behavior if a fire occurs in this area during the life of the operation. However, the proposed action is not expected to have a measurable impact on fire management

Determination*	Issue	Rationale for Determination
		locally or regionally, and therefore is not carried forward for analysis.
NP	Fish Habitat	Not present in the analysis area.
NP	Floodplains	Not present in the analysis area.
NI	Forestry Resources and Woodland Products	A limited number of trees occur in the project area. Operations would need to remove trees as part of land clearing in preparation for mining. This may require a vegetative materials disposal and subsequent NEPA documentation. Therefore, the lack of forest and lack of current management for that use in this project area provides support that this resource is not an issue to be carried forward for analysis.
PI	Human health and safety concerns	See **Section 3.1** for a description of how campsites may affect human health and safety.
NI	Invasive, Non-native Species	The proposed action design features address prevention and removal of invasive species. Seed mixes strive for native species and are approved by BLM. Therefore, there is no issues for invasive and non-native species that have not been addressed through design features or requirements of state permits to mine.
NP	Lands and Realty	Not present in the analysis area.
NP	Lands with Wilderness Characteristics	Not present in the analysis area.
NI	Livestock Grazing Management	Livestock grazing was analyzed under DOI-BLM-MT-C020-2016-0023-EA and considered in DOI-BLM-MT-C020-2018-0009-DNA. The analysis in these documents considered the same area as proposed to be disturbed in this EA. No further impacts to AUMs or grazing management is proposed as part of this project.
NI	Fluid Minerals	There are no oil and gas wells or leases in the project area. Therefore, fluid minerals will not be carried forward for analysis.
NI	Solid Minerals	There are no other approved or conflicting uses of locatable, leasable, or salable minerals from this project area. Therefore,

Determination*	Issue	Rationale for Determination
		solid minerals will not be carried forward for analysis.
NI	Native American Religious Concerns	No known concerns have been identified in the project area.
NI	Noise Resources	Noise was analyzed for a similar action in DOI-BLM-MT-C020-2013-34-EA and bentonite mining was not found to cause significant impacts to the human environment from noise. Activities in this proposed action are similar in nature to that analyzed in the previous EA. There are no occupied dwellings near the mining operation and no local residents have raised a concern of noise from bentonite mining operations in Carter County, Montana. Noise impacts from this modification would also be similar to the existing conditions. Therefore, noise is not an issue that needs further analysis even though mining operations may produce noise in the local area.
NI	Paleontological Resources	Both alternatives would disturb the Pierre Shale Formation which has a Potential Fossil Yield Classification rating of 3a. This means that while vertebrate and other scientifically important invertebrates are known to occur on a regular basis, surface disturbing activities are thought to have a low potential to affect scientifically important paleontological remains. Previous Environmental Assessments for bentonite mining in Carter County, Montana have analyzed paleontological resources and found no significant impacts. Therefore, paleontological resources were not identified as an issue requiring further analysis for this decision.
NI	Recreation Resources	Access to the public for recreation may be limited in active areas of the project areas pursuant to Mining Safety Health Administration regulations. Impacts to recreation was analyzed for a similar action in DOI-BLM-MT-C020-2013-34-EA and bentonite mining was not found to cause

Determination*	Issue	Rationale for Determination
		significant impacts to recreational opportunities on public lands.
NI	Sage Grouse Habitat	The project occurs in the Carter Restoration Habitat Management Area. There is no General Habitat Management Areas or Priority Habitat Management Areas. Vegetation removal and the presence of human activities and noise would have an impact on sage grouse in the short-term. The area affected by removal of vegetation is approximately 1% of the potentially available habitat for Greater sage-grouse that would be affected by the Proposed Action. ACC will reclaim approximately 216 acres of mined land in other locations with sagebrush and remove approximately 30 acres of encroaching juniper/pine/scrub. This will result in net conservation gain for sage grouse required by the Miles City Approved Resource Management Plan (2015). See section 1.6 for rationale dismissing Greater sage-grouse as an issue requiring further analysis.
NI	Socioeconomics	The resource use choices embodied in this decision will not significantly affect the area economy and the decision will not disparately affect Environmental Justice populations. The costs of production and value of output are similar across the Federal plots such that a similar amount of effort will yield the operators similar economic rewards. A similar amount of economic activity will take place whether the proposed action or the no-action alternative is chosen, and this economic activity will take place within the same geographic area. The percentage of the area population belonging to one or more Environmental Justice populations is low relative to the state overall, and the economic outcomes associated with the decision will not

Determination*	Issue	Rationale for Determination
		disparately impact any of these populations.
NI	Soils	Soils disturbed by the Proposed Action would be locally impacted. Potential impacts include compaction, erosion and, soil mixing. However, the biological, physical, and chemical properties of the soil would be preserved by the application of best management practices (BMPs) including but not limited to, reclamation and reseeding and the use of erosion control devices. BMPs and reclamation would be used to reduce impacts to soils. Unnecessary surface disturbing activities would be kept to a minimum in order to prevent unnecessary and undue disturbance of native soil profiles as required by the performance standards at 43 CFR 3809.420. Disturbed areas would be recontoured and reseeded as soon as suitable conditions occur, with a BLM approved native seed mix, to promote the quick recovery of vegetation and further reduce erosion. Reclamation efforts would be monitored and deemed complete once the requirements found in the Plan (Appendix H) are met. These efforts would meet the goals and objectives for soils in the MCFO ARMP, as amended, and would not contribute to exceedances of any state or federal standards for maintaining soil health. Therefore, soils will not be carried forward in the issue analyses.
NI	Threatened, Endangered or Candidate Plant or Animal Species	The Northern Long Eared Bat has known summer roosts within 50 miles of the proposed project area (near Devils Tower National Monument). No surveys have been done for the bat in the project area and know documented observations of the bat have been made in southern Montana. However, trees of adequate size to be summer or maternity roosts are present in the project area and may be disturbed by

Determination*	Issue	Rationale for Determination
		the proposed action. Streamlined consultation with USFWS on the 4(d)-rule dated July 20, 2020, concurs that application of this design feature would not have an adverse impact on NLEB. Because habitat will not be altered or destroyed during the time that it would be in use by the species, NLEB are not carried forward as an issue needing further analysis. No other threatened, endangered, or candidate plant or animal species are known to occur or suspected in the project area.
NI	Vegetation	Vegetation will be removed by mining activities, but disturbance will be kept to a minimum as required by the performance standards at 43 CFR 3809.420. Reclamation will reestablish vegetation using a native seed mix conducive to the project area ecological site descriptions. These measures meet the goals and objectives for vegetation in the MCFO ARMP, as amended. Vegetation was analyzed under DOI-BLM-MT-C020-2016-0023-EA in the same area and was not found to have significant effects. Therefore, vegetation will not be carried forward in the issues analyses.
NI	Visual Resources	Visual Resources were analyzed for similar action in DOI-BLM-MT-C020-2013-34-EA and bentonite mining was not found to cause significant impacts to the Class IV visual resources. This proposed action is less than 5 miles away with similar visual impacts and this area has similar visual resources. Therefore, visual resources are not an issue that needs further analysis even though mining operations may be visible from county roads in the area.
PI	Wastes, Hazardous or Solid	The new addition of campsites which may contain fuel storage, vehicle maintenance, and porta-johns presents an impact for solid and hazardous wastes not previously analyzed in ACC's mine plans. See **Section 3.1** for a description of how

Determination*	Issue	Rationale for Determination
		campsites may affect solid and hazardous wastes.
NI	Water	The proposed action does not disturb flowing or standing surface waters and is not expected to encounter groundwater aquifers (only perched water tables). The proposal includes design features to reroute run-on stormwater around disturbances and measures to contain stormwater within disturbances. There are no water wells in the vicinity of the project. Past NEPA documents for bentonite mining have included impacts to water resources and found that there were no significant impacts. Therefore, water is not an issue that needs further analysis.
NI	Wetlands/Riparian Zones	There are no wetland or riparian zones in the project area or adjacent lands. Design features regarding containment of stormwater would also reduce any potential impacts downstream. Past NEPA documents for bentonite mining have included impacts to wetlands and found that there were no significant impacts. Therefore, wetlands/riparian zones are not an issue that needs further analysis.
NP	Wild Horses and Burros	Not present in the analysis area.
NP	Wild and Scenic Rivers	Not present in the analysis area.
NP	Wilderness and Wilderness Study Areas	Not present in the analysis area.
NI	Wildlife	The MCFO RMP lays out management for various species of wildlife and their habitats. The project area does not contain Big Game crucial winter range, colonial nesting water birds, bighorn sheep habitat, raptor nests, black-footed ferret habitat, black-tailed prairie dog habitat, pallid sturgeon habitat, piping plover habitat, or least tern habitat. The project area is habitat for mule deer, white-tailed deer, pronghorn, elk, sharp-tailed grouse, Greater sage-grouse, migratory birds, and numerous other grassland species. However, the RMP does allow for surface disturbance in these species habitats and

Determination*	Issue	Rationale for Determination
		only certain impacts will rise to the level of an issue. See section 1.6 for rationale dismissing migratory birds and Greater sage-grouse as an issue requiring further analysis.

*NP = not present in the area impacted by the proposed or alternative actions.

NI = present, but not affected to a degree that detailed analysis is required.

PI = present and may be impacted. Will be analyzed in affected environment and environmental effects. For consistency, the term 'effects' is used throughout the EA, but we use the term 'impacts' just in this table. (NOTE: PI does not necessarily mean effects are likely to be significant, only that there are effects to this issue, resource or use. Significance will be determined through analysis and documented in a Finding of No Significant Impact or Environmental Impact Statement.)

8 Appendix C: Acronyms and Abbreviations

ACEC	Area of Critical Environmental Concern
AO	Authorizing/Authorized Officer
APE	Area of Potential Effect
APLIC	Avian Power Line Interaction Committee
ARPA	Archeological Resources Protection Act
ATV	All-Terrain Vehicle
AUM	Animal Unit Month
BBCS	Bird and Bat Conservation Strategy
BCC	Birds of Conservation Concern
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	Best Management Practice
BOR	Bureau of Reclamation
CEQ	Council on Environmental Quality
CESA	Cumulative Effects Study Area
CFR	Code of Federal Regulations
DM	Departmental Manual
DR	Decision Record
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESD	Ecological Site Description
FLPMA	Federal Land Policy Management Act of 1976, as amended
FONSI	Finding of No Significant Impact
GHG	Greenhouse Gas
GIS	Geographic Information Systems
IB	Information Bulletin
IBLA	Interior Board of Land Appeals
IDT	Interdisciplinary Team
IM	Instruction Memorandum
KOP	Key Observation Point
MAAT	Mean Annual Air Temperature
MAP	Mean Annual Precipitation
MBTA	Migratory Bird Treaty Act of 1918
MFP	Management Framework Plan
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act

NHT	National Historic Trails
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OHV	Off-Highway Vehicle
PEIS	Programmatic Environmental Impact Statement
PFC	Proper Functioning Condition
P.L.	Public Law
RAC	Resource Advisory Council
RFFA	Reasonably Foreseeable Future Action
RMP	Resource Management Plan
ROD	Record of Decision
ROW	Right-of-way
SHPO	State Historic Preservation Office
SRP	Special Recreation Permit
T&E	Threatened and Endangered
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geologic Survey
VRI	Visual Resource Inventory
VRM	Visual Resource Management
WHB	Wild Horse and Burro
WO	Washington D.C. BLM Office
WSA	Wilderness Study Area

9 Appendix D: List of References

43 Code of Federal Regulations (CFR) 3809.

Bureau of Land Management (BLM). Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. 1994.

BLM, 2015. Miles City Field Office Approved Resource Management Plan, as amended. BLM Miles City Field Office. Miles City. Montana.

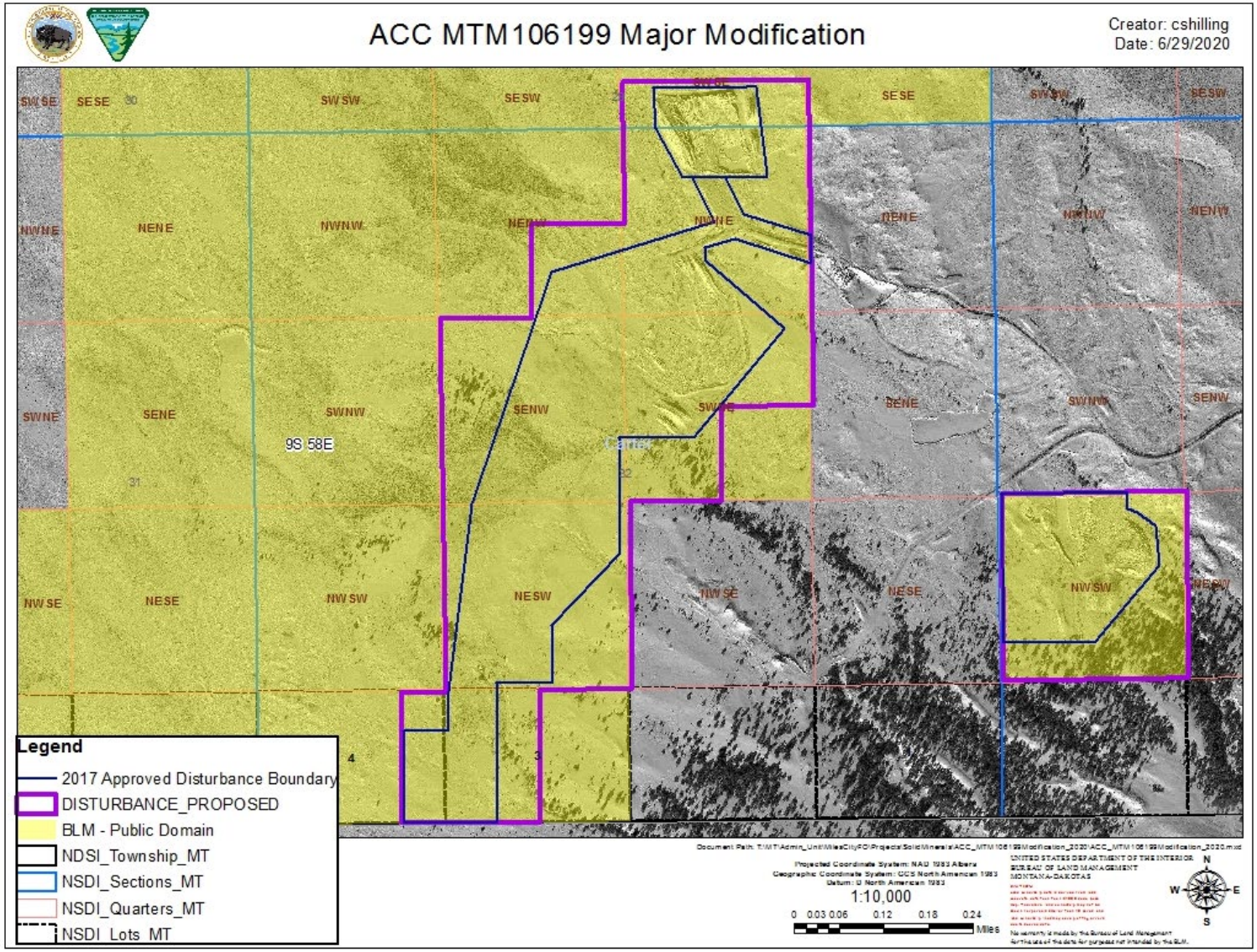
____H-1790-1 National Environmental Policy Act Handbook. Washington D.C.; US Department of the Interior Bureau of Land Management, 2008.

Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. 1994.

Natural Resources Conservation Service (NRCS). 2015. Web Soil Survey. Online at: http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm.

10 Appendix E: Maps

Map 1 ACC Modification to Disturbance Boundary



11 Appendix F: ACC Plan of Operation

American Colloid Company
P.O. Box 2010
Belle Fourche, SD 57717
Phone: 1-605-892-7159
Fax: 1-605-892-3178

BLM Permit MTM106199
Amendment 11 – Merton/TJ
Major Modification

Sections 29, 32, 33 T9S R58E
Carter County, Montana

May 2019

Volume I of I

Approval Date_____

American Colloid Company

P.O. Box 2010
Belle Fourche, SD 57717
1-605-892-7159

Alzada Montana Mining Operations

Storm Water Pollution Prevention Plan

For

Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity

Permit No. MTR000522

February 1, 2018 – January 31, 2023

12 Appendix G: General Permit – Stormwater Discharge

MULTI-SECTOR GENERAL PERMIT
FOR
STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

PERMIT NUMBER MTR000000

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

AUTHORIZATION TO DISCHARGE UNDER
THE MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES)

In compliance with Section 75-5-101 *et seq.*, Montana Codes Annotated (MCA); Administrative Rules of Montana (ARM) 17.30.1101 *et seq.;* 17.30.1301 *et seq.; and* 17.30.601 *et seq.*,, owners and operators (permittees) with authorization under this *Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity* are permitted to discharge storm water resulting from industrial, mining, and oil and gas activity sites to surface waters in accordance with effluent limitations, monitoring requirements, and other conditions set forth herein.

This Permit shall become effective February 1, 2018.

This Permit and the authorization to discharge shall expire at midnight, January 31, 2023.

FOR THE MONTANA DEPARTMENT
OF ENVIRONMENTAL QUALITY

Jon Kenning, Chief
Water Protection Bureau

Issuance Date: January 31, 2018

13 Appendix H: Stormwater Pollution Prevention Permit

American Colloid Company

P.O. Box 2010
Belle Fourche, SD 57717
1-605-892-7159

Alzada Montana Mining Operations

Storm Water Pollution Prevention Plan

For

Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity

Permit No. MTR000522

February 1, 2018 – January 31, 2023

14 Additional Appendix I Spill Prevention Control and Countermeasure Plan

SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN
FOR
American Colloid Company
Belle Field Department
1.5 Miles west of Highway 212 on County Road 3V
Belle Fourche, South Dakota 57717

Date of Current Plan Amendment/P.E. Certification: December 11, 2017

Designated person accountable for spill prevention:
Rodney Raber
Superintendent

CERTIFICATION

I hereby certify that I (or my duly authorized representative) have examined the facility, and being familiar with the provisions of 40 CFR Part 112, attest that this Spill Prevention Control and Countermeasures (SPCC) Plan is adequate for the facility and has been prepared in accordance with good engineering practices, including establishing procedures for required inspections and testing.

Engineer: Christopher Cailles

Signature: Christopher Cailles

Registration Number: 062058280 (IL)

Date: 12/11/17

NOTICE

The statements in this document are intended solely as guidance. This document is not intended and cannot be relied upon to create rights, substantive or procedural, enforceable by any party in litigation with the United States.

SEAL