

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
OPENCUT MINING PROGRAM**

**ENVIRONMENTAL ASSESSMENT**

**MONTANA AMENDMENT 8**

**PROPONENT:** American Colloid Company

**LEGAL DESCRIPTION:** Sections 5, 6, 7, T9S, R58E

**IMPLEMENTATION DATE:** March 1999

**COUNTY:** Carter

**DATE FOR COMPLETION OF FINAL RECLAMATION:** March 2009

**TYPE AND PURPOSE OF ACTION:** Operator has applied for an amendment to add 490 conterminous acres to Mined Land Reclamation Contract 00297 for the purpose of mining bentonite from about 243 acres within that area. Approximately 84 acres will be disturbed as facility area for mining-related activities, and about 163 acres will remain undisturbed. Upon Amendment 8 approval, the total acreage under Contract 00297 will be 3,686.56.

The Amendment 8 area is a logical extension of ACCO's mining progression to the west. It is bordered on the south and west by Amendments 6 and 7. Operator has submitted all application materials required under the Opencut Mining Act and Rules And Regulations governing that Act. Operator proposes to properly prepare, mine, and reclaim the site in an environmentally responsible manner to a postmining use of rangeland. Operator is legally liable through their contract with the state to reclaim the site and has posted sufficient bond to cover reclamation costs.

**N = Not Present or No Impact will occur.**

**Y = Impacts may occur (explain under Potential Impacts).**

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p><b>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b> Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>N - Location and topography. The site is about 13 miles NNW of Alzada and about 2 miles north of Thompson Creek. The site consists of gently rolling prairie with ephemeral drainages.</p> <p>The various pits within the permitted area will be graded to a stable condition and blended into the surrounding topography. Because disturbed overburden swells enough to offset the removal of the 0 to 6 foot thick bentonite seam, it is anticipated that all areas will be backfilled and reclaimed to a fairly comparable premine topographic condition. A stockwater pond is proposed as a final reclamation feature at the last pit in sequence E. There are no special reclamation considerations.</p> <p>Geologic characteristics. The site is in the sedimentary plains portion of the state. The Belle Fourche Shale overburden thickness ranges from 2 to 50'. The "F" bentonite bed to be mined is 0 to 6 feet thick. Operator mines in a sequence that places the lower, lower quality overburden in the lower portion of the reclaimed pit profile, and the upper, higher quality overburden in the upper portion of the reclaimed pit profile. No significant geological impacts are anticipated. There are no unusual geologic features.</p> <p>Edaphic characteristics. Soils that will be disturbed in the Amendment 8 area include 205.6 acres of the Neldore/Volberg clay soil map unit and 121.4 acres of the Semi-Barren/Vaeda clay soil map unit. The Neldore/Volberg will be salvaged to depths of 6"/0", 9"/0", and 6"/6", depending on location. The Semi-Barren/Vaeda supports minimal vegetation and will not be salvaged. The plan calls for salvaging all available soil material and using it for site reclamation. The replaced soil depth should be about 6" on all disturbed areas. There are no fragile, compactible or unstable soils present.</p>

<p><b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION:</b> Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?.</p>	<p>N - No groundwater is apparent within or around the proposed mine areas. Surface water hydrology consists of ephemeral drainages that flow in response to rain or snowmelt events. There are no intermittent or perennial streams in the proposed area. There are no water retention features on site. Surface water and groundwater resources should not be affected by the operation. There are no wells in the immediate area. Operator has committed to protecting water resources.</p> <p>At least one pond of about 4 acres is planned as a permanent reclamation feature for the landowner to water his stock.</p>
<p><b>3. AIR QUALITY:</b> Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?.</p>	<p>Y - Pollutants and particulates may be produced on a temporary basis by this operation. Operators are required to comply with state air quality regulations. The site is in a remote location and is not in a Class I airshed.</p>
<p><b>4. VEGETATION COVERS, QUANTITY AND QUALITY:</b> Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>Y - Past mining disturbance. None.</p> <p>Present land use and vegetation. The area is used as native rangeland for livestock grazing. ACCO mapped 445.5 acres (91%) of the 490-acre area as Big Sagebrush Shrubland where Western Wheatgrass is the dominant grass. Other vegetative communities making up the remaining 44.5 acres include a Scurfless Saltbush annual community, Prairie Cordgrass in drainageways, relatively barren alkali flats, and barren outcrop area. No rare plants were identified during a ground search.</p> <p>Proposed postmining land use and vegetation. The site will be reclaimed to rangeland consisting of native grasses.</p> <p>Weed control. Operator has committed to appropriate weed control measures. The county weed control board has been notified of the operation.</p>
<p><b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b> Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>N - The proposed area was included in a four-season wildlife baseline information survey conducted by Ecological Consulting Service in 1975. Dominant wildlife include antelope, mule deer, sage grouse, sharp-tailed grouse, mourning doves, and various small mammals, non-game birds, and raptors. ACCO continually monitors wildlife in the area and has committed to conducting its operations in a manner that minimizes impacts on wildlife.</p>
<p><b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b> Are any federally listed threatened or an endangered species or identified habitat present? Any wetlands? Species of special concern?</p>	<p>N - None of the mentioned resources are apparent. The MNHP reports no element occurrences within or near the site.</p>
<p><b>7. HISTORICAL AND ARCHAEOLOGICAL SITES:</b> Are any historical, archaeological or paleontological resources present?</p>	<p>N - In June 1975, the University of Montana Statewide Archaeological Survey conducted archaeological surveys on ACCO mining claims in Carter County. The surveys found that the area is somewhat hostile for human occupation. No archaeological sites or isolated artifacts were found.</p> <p>If cultural resources are found during mining and reclamation operations, operator has committed to promptly notifying the State Historic Preservation Office and routing the operation around the site of discovery for a reasonable time until salvage can be made.</p>
<p><b>8. AESTHETICS:</b> Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?</p>	<p>N - Any aesthetic impact will be temporary. The site is located in a remote area. There are no nearby residences.</p>
<p><b>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:</b> Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?</p>	<p>N</p>
<p><b>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:</b> Are there other studies, plans or projects on this tract?</p>	<p>N</p>

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<b>11. HUMAN HEALTH AND SAFETY:</b> Will the project add to health and safety risks in the area?	N - Health and safety: This project should not increase health and safety risks in the area if the operator and landowner manage the site in a responsible manner. Operator is required to comply with OSHA and MSHA regulations.
<b>12. INDUSTRIAL, COMMERCIAL, AND AGRICULTURAL ACTIVITIES AND PRODUCTION:</b> Will the project alter these activities?	N - Industrial, commercial, or agricultural activities in the area will not be significantly affected by the project.
<b>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:</b> Will the project create, move, or eliminate jobs? If so, estimate number.	N
<b>14. LOCAL AND STATE TAX BASE AND TAX REVENUES:</b> Will the project create or eliminate tax revenue?	N - Local and state tax revenues should remain relatively unaffected as this amendment allows the continuation of long-term mining.
<b>15. DEMAND FOR GOVERNMENT SERVICES:</b> Will substantial changes in road use occur? Will other services (fire protection, police, schools, etc) be needed.	N
<b>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:</b> Are there State, county, City, USFS, BLM, Tribal etc. zoning or management plans in effect?	N - There are tracts of Bureau of Land Management land in the area and the BLM also monitors the effects of mining activities. The author is not aware of any other environmental plans or goals.
<b>17. ACCESS TO AND QUALITY OF RECREATIONAL AREAS:</b> Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	N
<b>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:</b> Will the project add to the population and require additional housing?	N
<b>19. SOCIAL STRUCTURES AND MORES:</b> Is some disruption of native or traditional lifestyles or communities possible?	N
<b>20. CULTURAL UNIQUENESS AND DIVERSITY:</b> Will the project cause a shift in a unique quality of the area?	N
<b>21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</b>	N

**22. Alternatives Considered:** Denial. The owner of the mineral resource would be denied full utilization of his property at this time. The operator may seek another mineral source.

**23. Public Involvement, Agencies, Groups or Individuals contacted:** None

**24. Other Governmental Agencies with Jurisdiction, List of Permits Needed:** Montana Department of Environmental Quality, air quality and storm water discharge permits; United States Department of Labor, safety permit; Montana Department of Labor & Industry, safety permit.

**25. Magnitude and Significance of Potential Impacts:** Any impacts should be temporary or relatively insignificant and confined to the permitted area. Implementation of the Mining And Reclamation Plan should return this area to an aesthetically pleasing and useful condition.

**26. Regulatory Impact on Private Property:** The analysis conducted in response to the Private Property Assessment Act indicates no impact. The Department does not plan to deny the application or impose conditions that would restrict the use of private property.

**RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS:**

EIS     More Detailed EA     No Further Analysis

EA completed by Mark Carlstrom, Mine Reclamation Specialist, on 1/5/99 (Y/N indicators OK above)

EA approved by Jerry Burke, Opencut Mining Program Supervisor: \_\_\_\_\_  
Signature Date