

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
OPENCUT MINING PROGRAM**

**ENVIRONMENTAL ASSESSMENT  
MYERS GRAVEL SITE**

Proponent: Lee Myers

Legal Description: SWNE30, T1S, R25E

Proposed Implementation Date: Spring 1998

County: Yellowstone County

Type and Purpose of Action: Operator has submitted an application to the Department of Environmental Quality (DEQ) for a permit to mine about 100,000 cubic yards of gravel from a 5-acre site. Initially, operator will mine 2 of the 5 acres comprising the permit area and use 1.35 acres as facility area. Operator may post additional bond in the future to expand the mining and facility area within the 5-acre permit area. During the initial phase, mining will go about 6 feet deep. In the future, mining will go to 15 feet.

N = Not present or insignificant impact, Y = Significant impact may occur.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. LOCATION, TOPOGRAPHY, AND GEOLOGY, AND SOIL MATERIAL CHARACTERISTICS AND HANDLING.	<p>N - The topography will be altered by mineral removal, but the site will be graded to blend into the surrounding topography and left in a condition suitable for the postmining land use. Six inches of soil material will be stripped from facility level areas and 1 foot of soil material will be stripped from mine level areas. Soil will be used to build a 6-foot sight and sound barrier along the north side of the site. There are no exceptional topographic, geologic, or edaphic considerations.</p> <p>Location and topography. The site is near the center of Section 30, about a quarter mile south of Neibauer Road. The area is relatively flat pasture land. The nearest residences are along Neibauer Road.</p> <p>Geologic and edaphic characteristics. The site is in the sedimentary plains portion of the state on a low terrace above the Yellowstone River Valley floor. A gravel bar is said to run through the site. The soil over this bar is about 1' thick and gravelly. Soils to either side of the gravel bar are thicker.</p>

2. SURFACE WATER AND GROUNDWATER LOCATION, QUANTITY, QUALITY, AND MANAGEMENT, AND GROUNDWATER, WATER WELL SURFACE WATER, AND SURFACE WATER FEATURE PROTECTION.

N - The operator has committed to protecting surface water and groundwater resources. Exceptional water resource considerations are discussed below.

The nearest wells are about a quarter mile north of the site along Neibauer Road. The department did a pit dewatering analysis for the proposed 5-acre operation assuming total depth of mining of 15' and groundwater drawdown of 10'. The analysis showed that only the well about a half mile to the east-southeast might experience a 2' drawdown. This impact would be insignificant since the well log puts the water table at 7' and the total well depth at 27', and any water right would not be impaired.

The initial mining phase will excavate to about 6' deep. Additional mining will proceed into groundwater. Deeper gravels may be mined with an excavator or dragline or the pit may be dewatered by pumping. Pumped groundwater would be used for irrigation or discharged in a stable manner into the nearby wastewater ditch. If the discharge is used as irrigation water, operator will monitor the extent of surface coverage to ensure that neighboring properties are not adversely affected by surface flow. Before pumping water off site, operator will submit a plan for such pumping to DEQ for approval.

Any irrigation ditches that may be affected are contained on site.

Bulk fuel storage. None anticipated. Operator has a fuel tank at nearby house.

3. AIR QUALITY PROTECTION.

N - Pollutants and particulates will be produced on a temporary basis by mining and reclamation operations. Operators are required to comply with state air quality regulations. Exceptional air quality considerations are discussed below.

Operator will control dust when conditions are such that it may reach nearby residences.

<p>4. PRESENT LAND USE, PAST MINING DISTURBANCE, PREMINE VEGETATION, PROPOSED POSTMINING LAND USE AND VEGETATION, AND WEED CONTROL.</p>	<p>N - The current vegetative cover will be disturbed and the site will be revegetated as approved by DEQ. There are no exceptional land use or vegetation considerations.</p> <p>Vegetation and present land use. The site is irrigated pasture used for livestock grazing.</p> <p>Proposed postmining land use and vegetation. The postmining land use will be a combination of pond, recreation property, and possibly home sites. An alfalfa and smooth brome mix will be seeded on resoiled areas.</p> <p>Rare plants or rare vegetative communities. The Montana Natural Heritage Program (MNHP) reports no element occurrences.</p> <p>Weed control. The Department will notify the county weed control board about the operation. The operator has committed to controlling any on-site noxious weeds.</p>
<p>5. TERRESTRIAL, AVIAN, AND AQUATIC LIFE AND HABITATS.</p>	<p>N - Common species or evidence of their use of the area. The site does not receive significant use by wildlife since it lacks habitat, is an irrigated livestock pasture, and is in an agricultural-suburban area.</p> <p>Rare species or evidence of their use of the area. These items are not apparent. The MNHP reports the following species of concern in or near the project area: bald eagle on the Yellowstone River. No bald eagles or nest sites are on or near the site.</p>
<p>6. UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES.</p>	<p>N - Unique, endangered, fragile, or limited environmental resources within or around the site. None apparent.</p> <p>Threatened, endangered, or special concern species. None apparent.</p> <p>Riparian areas and wetlands. None apparent.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES.</p>	<p>N - If such resources are found, the operator has committed to routing the operation around the site of discovery for a reasonable time until salvage can be made, and to promptly notifying the State Historic Preservation Office.</p> <p>Historical and archaeological resources survey conducted. A DEQ reclamation specialist surveyed the area.</p> <p>Archaeological or historical resources found. None apparent.</p>

<p>8. AESTHETICS.</p>	<p>N - Visibility from surrounding area. Since the area is flat, roads border all sides of the section, and residences are within a quarter mile, the site is visible from almost any direction; however, there is at least the quarter-mile buffer between the nearest residences and the roads and operation. Operator has committed to building a 6' sight and sound berm along the entire north side of the permit area.</p> <p>Visibility from populated or high use areas. See above. This is an agricultural-suburban area.</p> <p>Facilities to be on site. A small 60 ton/hour crusher will occasionally operate on site.</p> <p>Excessive noise or light. The operator has committed to mining and processing operation hours of 7AM to 5PM Monday through Saturday. These hours of operation will reduce any light or noise the operation may produce.</p>
<p>9. DEMANDS ON LIMITED ENVIRONMENTAL RESOURCES.</p>	<p>N - It does not appear that there will be a significant demand or impact on limited environmental resources.</p>
<p>10. OTHER ENVIRONMENTAL OR OPERATIONAL CONFLICTS, IMPACTS, OR COMMITMENTS. Road construction and reclamation, mineral stockpiles, waste disposal, site protection and management, date of final reclamation, bond, boundary markers, and special commitments.</p>	<p>N - It does not appear that other environmental or operational conflicts or impacts will be affected by the proposed operation. Additional commitments are discussed below.</p> <p>Operator has established an access road from Neibauer Road, south along their fence line to the northwest corner of the site. No additional roads are proposed. Operator plans to leave the road in place after mining. Operator intends to sell all mined mineral thus leaving no stockpiles upon final reclamation. No waste will be disposed of on site. Reclaimed areas will be marked or fenced to prevent their disturbance until vegetation establishes. The date of final reclamation is 11/08. Operator has posted sufficient bond to guarantee reclamation. The main contract area is marked with brightly painted metal fenceposts on the SW, SE, and NE corners.</p> <p>Hours of operation for mining and processing operations will be 7AM to 5PM Monday through Saturday. The date of final reclamation is 11/08.</p>

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY. Will this 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/landowner manages the site in a responsible manner. Operator is required to comply with OSHA and MSHA regulations.
12. INDUSTRIAL, COMMERCIAL, AND AGRICULTURAL ACTIVITIES AND PRODUCTION. Will the project add to or alter these activities?	N - Industrial, commercial, or agricultural activities in the area will not be significantly affected by the project.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT. Will the project create, move, or eliminate jobs?	N - The quantity or distribution of employment in the project area will not be significantly affected by the project.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES. Will the project create or eliminate tax revenue?	N - Local and state tax revenues have not been significantly affected by similar operations in the state.
15. DEMAND FOR GOVERNMENT SERVICES. Will substantial changes in road use occur? Will other facilities and services be affected or needed?	N - Government services: The operator will use county roads to haul his product. No government services should be significantly affected.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS. Are federal, state, county, city, tribal, or private zoning or management plans in effect?	N - The author is not aware of any other environmental plans or goals. The local zoning authority has been contacted and clearance obtained.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES. Are recreational or wilderness areas nearby or accessed through this tract? Is there recreational potential within the tract?	N - Access to or the quality of recreational lands and activities on site and in the area will not be affected by the project. There is minimal recreation potential within the tract.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING. Will the project add to the area's population and require additional housing?	N - Population or housing density and distribution will not be significantly affected by the project.
19. SOCIAL STRUCTURES AND MORES. Is some disruption of native or traditional lifestyles or communities possible?	N - The local social structure or mores will not be significantly affected by the project.
20. CULTURAL UNIQUENESS AND DIVERSITY. Will the action cause a shift in some unique quality of the area?	N - The local cultural uniqueness or diversity will not be significantly affected by the project.
21. OTHER SOCIAL AND ECONOMIC CIRCUMSTANCES.	N - Other significant social or economic circumstances are not apparent.

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: Montana Natural Heritage Program, county weed control board, State Historic Preservation Office, and local zoning authority.

24. Other Governmental Agencies with Jurisdiction, List of Permits (that may be) 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: Negative impacts during mining should be insignificant and 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 5/18/98

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

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Date

Signature