

**DEPARTMENT OF ENVIRONMENTAL QUALITY
OPENCUT MINING PROGRAM**

**ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED
SHAULES GRAVEL SITE**

PROPONENT: Yellowstone County

LEGAL DESCRIPTION: SWNE4, T1N, R29E

IMPLEMENTATION DATE: Spring 1998

COUNTY: Yellowstone

COMPLETION OF FINAL RECLAMATION: 02/08

TYPE AND PURPOSE OF ACTION: Operator has submitted an application to MDEQ for a permit to surface mine about 120,000 cubic yards of gravel from a 5-acre site. Operator has submitted a Plan Of Operation including a Mining And Reclamation Plan where they commit to the proper preparation, operation, and reclamation of the site. The reclaimed use would be rangeland.

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 GEOLOGIC AND EDAPHIC CHARACTERISTICS. SPECIAL CONSIDERATIONS, POTENTIAL IMPACTS, AND MITIGATION MEASURES.	<p>N - Location and topography. The site is on the east side of the county road on a narrow, steep-sided finger ridge that comes off a high flat bench. Mineral removal will result in the elimination of the ridge and the creation of a long slope. The plan calls for grading the site to a stable condition and blending it into the surrounding topography.</p> <p>Geologic characteristics. The site is in the sedimentary plains portion of the state. No significant geological impacts are anticipated.</p> <p>Edaphic characteristics. The soil is up to 6 inches thick over gravel. The plan calls for salvaging 6 inches of soil material to be used for site reclamation.</p>
2. SURFACE WATER AND GROUNDWATER RESOURCES INCLUDING LOCATION, QUANTITY, QUALITY, STRUCTURES, AND USES. SPECIAL CONSIDERATIONS, POTENTIAL IMPACTS, AND MITIGATION MEASURES.	<p>N - It does not appear that surface water and groundwater resources or structures are present on or near the site. These resources should not be affected by the operation. Operator has committed to protecting these resources. No on-site fuel storage is anticipated.</p>

<p>3. AIR QUALITY. SPECIAL CONSIDERATIONS, POTENTIAL IMPACTS, AND MITIGATION MEASURES.</p>	<p>N - Pollutants and particulates will be produced on a temporary basis by this operation. Operators are required to comply with state air quality regulations. This site is in a remote area; therefore, dust suppression measures are not proposed.</p>
<p>4. PAST MINING DISTURBANCE, PRESENT LAND USE AND VEGETATION, PROPOSED POSTMINING LAND USE AND VEGETATION, AND WEED CONTROL. - SPECIAL CONSIDERATIONS, POTENTIAL IMPACTS, AND MITIGATION MEASURES.</p>	<p>N - Past mining disturbance and present land use. A small portion of the east side county road right-of-way has been mined. Mining occurred in the past on the west side of the road and this area is reclaimed. The site is rangeland used for grazing. The Montana Natural Heritage Program (MNHP) reports no element occurrences within or near the site.</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 spraying weeds as necessary and to controlling any on-site noxious weeds. The county weed control board has been notified of the operation.</p>
<p>5. COMMON AQUATIC, TERRESTRIAL, AND AVIAN HABITATS AND SPECIES. SPECIAL CONSIDERATIONS, POTENTIAL IMPACTS, AND MITIGATION MEASURES.</p>	<p>N - The site rangeland with apparent typical prairie wildlife habitat and use.</p>
<p>6. FRAGILE, RARE, THREATENED, OR ENDANGERED HABITAT AND SPECIES. - SPECIAL CONSIDERATIONS, POTENTIAL IMPACTS, AND MITIGATION MEASURES.</p>	<p>N - None of the mentioned resources are apparent. There are no riparian or wetland areas within or adjacent to the site. The MNHP reports no element occurrences within or near the site.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL - SITES. SPECIAL CONSIDERATIONS, POTENTIAL IMPACTS, AND MITIGATION MEASURES.</p>	<p>N - An MDEQ reconnaissance of the site revealed no archeological or historical resources on site. If such 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>8. AESTHETICS. SPECIAL CONSIDERATIONS, POTENTIAL IMPACTS, AND MITIGATION MEASURES.</p>	<p>N - The site is located in a remote rural area. It's visible from the county road. There will be a gravel screen on site. The aesthetic impact should be minimal.</p>
<p>9. EFFECTS ON OTHER NATURAL - RESOURCES. SPECIAL CONSIDERATIONS, POTENTIAL IMPACTS, AND MITIGATION MEASURES.</p>	<p>N - There should be no impacts on other natural resources.</p>
<p>10. OTHER ENVIRONMENTAL OR OPERATIONAL CONSIDERATIONS SUCH AS ROAD CONSTRUCTION AND RECLAMATION, MINERAL STOCKPILE DISPOSITION, WASTE DISPOSAL, BOND, AND SPECIAL COMMITMENTS.</p>	<p>N - Access is directly from the county road. All wastes will be properly disposed of. The operator is obligated by contract with the state to reclaim the site.</p>

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY. 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.
12. INDUSTRIAL, COMMERCIAL, AND AGRICULTURAL ACTIVITIES AND PRODUCTION. Will the project 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 - The operator will use county roads to haul product. No other 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 AREAS. Will mining and reclamation activities affect the access to or quality of recreation areas?	N - Access to or the quality of recreational areas will not be affected by the project.
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. Will the project cause disruption of native or traditional lifestyles or communities?	N - The local social structure or mores will not be significantly affected by the project.
20. CULTURAL UNIQUENESS AND DIVERSITY. Will the project cause a shift in a 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 6/17/98

EA approved by Jerry Burke, Opencut Mining Program Supervisor: _____

Signature

Date