

ENVIRONMENTAL ASSESSMENT

5/27/99

Project Name: Greenup Site

Proposed Implementation Date: December 15, 1998

Proponent: Ronald Lewis

Type and Purpose of Action: The applicant proposes to mine, crush and haul 10,000 cubic yards of sand and gravel from a 5 acre pit located 1½ miles south of the town of Darby. There will be 3.0 acres mined and 2.0 acres disturbed for facilities and roads. Mining and processing will result in a smooth-bottomed site with gentle backslopes reclaimed to grazing land after grading the backslopes to a 3:1, replacing all topsoil and re-seeding to grass. Final reclamation would be the fall of 2011.

Location: E½ NW¼, W½ NE¼ Section 26, T3N, R21W

County: Ravalli

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>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>[N] The proposed mine is located on a glacial outwash bench that has been re-worked by action of the Bitterroot River. The deposit consists of stratified layers of alluvium and glacial outwash sand, gravel and cobbles that cover the deeper bedrock. The slope/aspect on top is fairly level, with a drop-off that faces northeast, sloping at about 40 degrees.</p> <p>The Bitterroot Valley occupies an intermountain fault basin between the granitic batholith rocks of the Bitterroot Mountains to the west and the granitic Sapphire Range to the east. The 70 to 90 million year old Cretaceous granitic rocks of the Bitterroot Mountains to the west were sculpted into their present profiles by alpine glaciers. The Bitterroot River Valley fills the bottom of the intermountain, fault block basin at the south end of the Rocky Mountain Trench.</p> <p>Up to six inches of fairly well drained, dark, silty sandy loam topsoil overlies the glacial sands and gravels. Local terrace slopes demonstrate reasonably good stability, and ripping after activities are complete should alleviate soil compaction. All soil material will be salvaged and stockpiled away from the affected land. Following mining, grading and ripping, the soils will be replaced, disked and seeded to stabilize the soil and prevent erosion.</p>
<p>2. WATER QUALITY, QUANTITY AND DISTRIBUTION: 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] The depth to groundwater at the site is estimated to be 300 to 400 feet below the floor of the finished mine area. No water is anticipated in the pit area. The nearest major surface water is the Bitterroot River located across Highway 93, ½ mile to the east. The site will be graded and maintained with internal drainage to prevent stormwater from flowing off-site and into state waters.</p> <p>Any accidental spills or major leaks from equipment operating in the pit will immediately be excavated and removed from the site. Therefore, the quality and quantity of the groundwater should not be impacted.</p>
<p>3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[Y] Crushers, dozers, loaders and trucking equipment typically cause dusty conditions in disturbed soil sites and cause odors. Road watering and chemical dust suppressant will be used as necessary. The site is not located within a Class 1 airshed.</p> <p>Applicable federal regulations for air quality which are implemented by the state are the Standards of Performance for New Stationary Sources,</p>

	40 CFR Part 60, Subpart OOO (Nonmetallic Mineral Processing Plants). Subpart OOO sets an opacity limitation on fugitive dust emissions from the gravel crushing and handling operations.
4. VEGETATION COVERS, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?	[Y] Vegetation on the un-disturbed areas consists of Douglas fir, pinegrass, planted pasture grasses including quackgrass, bluegrass, timothy and brome, and all will be stripped off. Vegetation covers 100% of the un-disturbed ground and will be removed and planted with species compatible with the proposed reclaimed use. The disturbed ground where the old landfill has no topsoil and is covered mainly with knapweed. There are no known rare or sensitive plants in the area. Weeds will be sprayed as required by the Ravalli County Weed Board.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[Y] Although the area is used primarily for grazing, it also supports populations of deer, elk, bears, coyotes, rodents, raptors, game and non-game birds, insects and various other animal species. The mine site is frequented by those animals and they will be displaced as the mine expands. Human use of the area has intensified in the past two decades with the increase in residential and commercial activity. There is a regulated elk farm very near the site. The proposed mine is not expected to significantly degrade wildlife populations.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] There are not expected to be any impacts on those species or any unique habitat from the proposed mining operation. The Natural Heritage Program literature search and site evaluations have not revealed any endangered or threatened plant or animal species on site.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] Although there are important cultural values in the general area, this site has been previously disturbed by modern man, thus destroying the integrity of resources that may have existed. A surface reconnaissance did not discover any cultural, historical or archeological resources.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[Y] There will be a deterioration of aesthetics while the operation is under way. However, reclamation will leave the site in a landscape condition that is compatible with the surrounding area. There is and has been an alteration of the viewshed as a result of the old landfill, farming, ranching, homesite development, highway construction and other man made modifiers. The site is slightly visible by traffic along Hwy. 93. Floodlights from dark period operations would increase visibility and awareness of the operation. Noise levels are generally within the range of 60 to 90 decibels measured on-site, decreasing with distance. As a comparison, sound levels for ordinary activities such as close conversation at 60 decibels and music from a radio at 70 decibels are considered to be moderate. Levels above 90 decibels are severe, and prolonged exposure can lead to hearing loss. These impacts are intermittent and of relatively short duration, but can be quite noticeable at times, especially at night.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[N]
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?	[N]

IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[Y] Heavy equipment and facilities including crushers, trucks and loaders, will create hazards, but the operator must comply with all MSHA and OSHA regulations. Trucks pulling out onto Hwy 93 may cause traffic safety problems, but drivers must comply with state and county road rules. This proposed operation is expected to create these impacts sporadically and for short periods; it therefore should not significantly affect human health.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[Y] The acreage listed in the Type and Purpose of Action will be taken out of grazing and wildlife habitat, and put into industrial/commercial use. Upon completion of mining, the land will be reclaimed to grazing.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N]
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	[Y] The operation will require periodic site evaluations by DEQ staff. However, these evaluations are usually performed in conjunction with other area operations.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y] This site has been approved by the Ravalli County Planning Office.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N]
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

22. Alternatives Considered:

- No Action:** The permit would not be approved and the landowner would be deprived of income from his land at this time.
- Approval of Application as submitted:** The pit would be permitted as applied for and regulated under existing laws.

23. Public Involvement, Agencies, Groups or Individuals contacted:

State Historic Preservation Office, Montana Heritage Program, Ravalli County Planning Office and Weed Dept., Solid Waste to check on pre-existing landfill.

24. Other Governmental Agencies with Jurisdiction, List of Permits Needed: Department of Environmental Quality, Permitting and Compliance Division, Air and Waste Management Bureau for air quality permit.

25. Magnitude and Significance of Potential Impacts:

Impacts are unlikely to be significant on the general environment because of the size and location of the project, the lack of rare or unique wildlife species or habitat, and because of special requirements written into the Plan of Operations to protect air and water quality.

26. Regulatory impact on private property: The analysis conducted in response to the Private Property Assessment Act indicates no impact since this Plan of Operations would not require “Special Stipulations” in order to comply with the Opencut Mining Act.

Recommendation for Further Environmental Analysis:

EIS

More Detailed EA

No Further Analysis

EA Prepared By: Rod Samdahl

Title: Reclamation Specialist

Approved By: Jerry Burke

Title: Supervisor, Opencut Mining Program, IEMB

Signature

Date