ENVIRONMENTAL ASSESSMENT
May 17, 1999

Project Name: Expressway site **Proposed Implementation Date: project is underway**
Proponent: Johnson Brothers Contracting

Type and Purpose of Action: The proponent has applied for a Mined Land Reclamation Contract (Permit) that, if approved, would result in the mining, crushing, stockpiling, and transportation of 125,000 cubic yards of sand and gravel or related products from a 4.82-acre site to supply the local market. The proponent would operate a crusher and a screen. The proposed site is located 1000 feet northwest of the intersection of Reserve Street North and Expressway Lane in Missoula. Final reclamation would be approximately December 2004. The mine would operate year-round, generally from 7:30 a.m. to 5:30 p.m. from Monday to Friday. The site has been stripped and a screen is located on-site but activities are on hold pending approval of this permit. The reclaimed use would be a flat, graveled, commercial lot with side slopes graded to angles of at least 3:1 or flatter. The slopes surrounding the finished site will be topsoiled and seeded to grass with poplar trees along the Grant Creek side.
Location: SE¼ Section 6, T13N, R19W **County: Missoula**

Changes in the Draft Environmental Assessment are in Italics.

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**
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactable or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?	**[N] The proposed mine is located in a gently south-sloping alluvial fan deposited from the Grant Creek drainage within the Clark Fork River Valley. The deposit consists of stratified layers of water-worked outwash sand and gravel that covers the deeper bedrock. The site is currently a low lying, dry pasture located between Expressway Lane and Westview Trailer Park.** **Topsoil consists of a dark, organic layer of silty sandy loam that varies from 4 to 6 inches in depth, all of which would be stripped and stockpiled. Berms of topsoil would be left along the north side of the site to provide sight and sound barriers. The topsoil stockpiles would be seeded with grasses using the approved seed mixture and rate. In addition to grasses, trees would also be planted along the slope next to Grant Creek. Following mining and re-grading, topsoil would be replaced, disked and seeded on the slopes of the graded pit walls.** **There are no fragile, compactable or unstable soils or unusual geologic features. The reclamation of the site poses no special reclamation considerations.**
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?	**[Y] The nearest surface water is Grant Creek located adjacent to the east side of the pit. The creek would not be affected by mining.** **The site would be mined to a depth of 23 feet but will stay above groundwater, estimated to be 52 feet below the surface in the proposed pit area. The sands and gravels in this area display high permeability. There are three water wells close by the site drilled from 116 to 300 feet deep that yield 90 to 600 gallons per minute and have static water levels of 60 to 52 feet.**

	Special precautions would be taken to minimize possible contamination of surface and groundwater. A berm will be constructed along the east side of the site to prevent sediment from entering Grant Creek. All bulk fuel and lubricants would be brought in daily to the site. If plans for fuel storage in the pit change in the future, a proper fuel containment structure would be engineered and plans submitted to the DEQ for approval, in advance of installation. Portable equipment with fuel tanks such as loaders, trucks, crusher and screen would be operating in various places within the facility. Any accidental spills or leaks from equipment would be excavated and disposed of. No waste or trash would be disposed of at the site. With these precautions, the quality and quantity of the groundwater should not be adversely impacted.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	**[Y] The site is not located within a Class I Airshed. Air quality would be degraded during operations somewhat and there would be an increase in particulate matter and odor. Dozers, loaders, crushers and trucking equipment typically cause dusty conditions in disturbed soil sites and operating equipment typically emits odors that may be offensive to some people. However, crushers are regulated for dust emissions, and the equipment used must be tested and approved by DEQ. The proponent must also comply with any additional requirements of the Missoula City/County Health Dept. Spray bars will be used on the crusher and transfer points, and water would be applied within the site as needed to reduce dust.**
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?	**[N] There are no known rare or sensitive plants in the site area. Vegetation covers 100% of the ground and consists mainly of brome, bluegrass, quack grass and knapweed.**
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	**[N] Although the area is used primarily for pasture and commercial businesses, it also supports populations of small mammals, song birds, raptors, insects and various other animal species. Population numbers for these species is not known. There are rookeries of blue herons and nesting sites of ospreys and bald eagles along the Clarks Fork River valley, but none were identified at or near the site.** **Human use of the area has intensified in the past three decades with residential and commercial activity. The proposed mine is not expected to significantly degrade wildlife populations. Site evaluations have not revealed any other plant or animal species on site that would be significantly impacted.**
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] The Natural Heritage Program and site evaluations have not revealed any endangered or threatened plant or animal species that would be directly affected. There are no wetlands or species of special concern identified on the site or by the Natural Heritage Program.**
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	**[N] Although there are 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. The operator would give appropriate protection to any values or artifacts discovered in the affected area. If significant resources were found, the operation would be routed around the site of discovery for a reasonable time until salvage can be conducted. The State Historical Preservation Office will be promptly notified.**

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 would be a temporary change in aesthetics while the operation is under way. However, reclamation will return the area to a visually acceptable landscape. A temporary topsoil berm would reduce impacts of both noise and light along the north side of the site. The berm would be planted with grass, and maintained in a weed-free condition for aesthetics.** **The site is visible by homes, businesses in the local area and to traffic along the local streets. Hours of operation for the crusher would be 7:30 a.m. to 5:30 p.m., 5 days per week. The amount of product made during the shift depends on the type of product. Mining and other aspects of the operation including hauling from stockpiles or pit-run gravel from the pit could occur at any time. The crusher and screen will be located in the floor of the pit so as to mitigate visual and sound impacts to the nearby residential area.** **On-site noise levels generated by operating equipment at the pit are generally within the range of 60 to 90 decibels, but decrease with distance. As a comparison, sound levels for ordinary activities such as close conversation and music from a radio are 60 decibels and 70 decibels and are considered moderate. Levels above 90 decibels are severe, and prolonged exposure can lead to hearing loss. There is also noise from loaders and truck traffic hauling to various projects. These impacts are intermittent and of relatively short duration.**
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	[Y/N] 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 operating facilities including scrapers, trucks, loaders and crushers would create hazards, but the operator must comply with all MSHA and OSHA regulations. The operator must employ proper precautions to avoid accidents.** **Excessive and prolonged noise could increase stress for nearby residents and induce difficulty sleeping. These effects may be considered harmful to human health if the activities are continuous. This proposed operation should not significantly affect human health and would operate under guidelines set by the Missoula County Department of Health.**
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	**[N] The 4.82 acres listed in the Type and purpose of Action were actually idle land capable (but not used) of being grazed.**

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 would require periodic site evaluations by DEQ staff until such time as the site is successfully reclaimed to the required post-mining use. 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] City/County zoning clearance has been obtained. The Missoula County Commissioners granted approval of Johnson Brothers Contracting's request for Special District Rezoning on September 2, 1998.**
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] The area has generally been used as idle pasture and commercial property including gravel extraction in the past. Locals would notice a change in the site as topsoil berms are created and vegetated, and gravel is extracted. They would notice equipment working and truck traffic coming and going. Upon reclamation, the site would be reclaimed and should improve land values in the area.**
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:

A. Denial: The pit would not be permitted and impacts from future mining would not occur at this location. The owner of the gravel resource would be denied full utilization of his property at this time, and the old minesite would remain unimproved.

B. Approval of the application: The Plan of Operation has been written with mitigating conditions including water - protection, soil salvage, and construction of sight and sound berms.

23. Public Involvement, Agencies, Groups or Individuals contacted: State Historic Preservation Office, Montana Heritage Program, County Weed Control District, County Commissioners for zoning; six completed and signed Resident Notification forms were submitted, and none were opposed to the operation. This Environmental Assessment *was* published and comments were solicited prior to decision making as part of Opencut compliance with MEPA. A Public Notice *was* placed in the Legal Notice Section of the Missoulian newspaper on May 9, 1999, and the public had until 5:00 P.M., Monday May 17, 1999 to submit comments. *No comments were received.*

24. Other Governmental Agencies with Jurisdiction, List of Permits Needed: Montana Department of Environmental Quality for Air Quality (crusher) Permit and Stormwater Discharge Permit; Mine Safety and Health Administration for safety permit; Montana Department of Labor & Industry, Bureau of Safety for safety permit; Missoula County Planning Office for zoning.

25. Magnitude and Significance of Potential Impacts: Impacts are unlikely to be significant on the general environment because of the lack of significant or threatened wildlife or habitat, and because of the measures in the Plan of Operations and conditions placed on the proponent by DEQ. Impacts to surface and groundwater quantity, quality and distribution would be negligible due to the fact that mining would not intercept the groundwater and any spills would be excavated and removed, and protective berms will keep any stormwater and silt on-site. Water used at the site would be extracted from approved water well and water rights would be obtained. Fuel and lubricants would be brought in daily, and if they were to be stored onsite, they would be kept within a sealed storage area that must comply with applicable state and federal regulations.

26. Regulatory impact on private property: The analysis conducted in response to the Private Property Assessment Act indicates no impact.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist prepared By: Rod Samdahl Reclamation Specialist
Name Title

Approved By: Jerry Burke Supervisor, Opencut Mining Program, IEMB
Name Title

Signature Date