

**ENVIRONMENTAL ASSESSMENT**

8/14/97

**Project Name:** Area 19 Site

**Proposed Implementation Date:** August 15, 1997

**Proponent:** Neil Hanson

**Type and Purpose of Action:** The applicant will mine 4.9 acres for gravel from a pit located 1 mile south of the town of Lakeside. Mining will result in a flat area level with the surrounding low land which daylights out toward the highway to the east. The pit will be reclaimed to grass and forest after grading the backslopes to at least a 3:1, replacing all topsoil and planting trees.

**Location:** NE¼ NE¼ Section 19, T26N, R20W

**County:** Flathead

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

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

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
<b>RESOURCE</b>	<b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<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>[Y] The site is located in a very scenic but not unique area. The existing mine is located in steep foothill terrain and is made up of glacial debris left by the last retreating glacier around 10,000 years ago. The deposit consists of stratified layers of alluvium and glacial outwash sand, gravel and cobbles that cover the deeper Precambrian rocks. The billion year old rock of the Belt Series sandstone, mudstone and limestone rocks surround the deposit in towering walls sculpted by alpine glaciers that form an intermountain, fault block basin known as the Rocky Mountain Trench. The Mission Mountain Range to the east and the less dramatic S-alish Range to the west surround this site.</p> <p>Up to eight inches of fairly well drained, clayey sandy loam topsoil overlies the glacial sands and gravels. Local terrace slopes demonstrate reasonable 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 overburden (if any) and soils will be replaced, disked and seeded to stabilize the soil and prevent erosion.</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>[Y] The nearest surface water is Flathead Lake located across Hwy 93, ½ mile to the east. The proposed operation will be mined to a maximum depth of 15 feet, but the pit will rise uphill from a base which is level with the existing drainage out to the east. The water table depth is below the floor of the site and is not expected to be encountered. All fuel, lubricants and chemicals will be kept out of the permit area, and any accidental spills or major leaks from equipment operating in the pit will immediately be excavated and removed from the site. There are two water wells which belong to the applicant within 1,000 feet of the site. The wells draw from a water aquifer at 70 feet and have good flow rates. There should not be any impact to any ground or surface water as a result of this mining.</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] Air quality will be degraded and there will be an increase in particulate matter. Dozers and trucking equipment typically cause dusty conditions in disturbed soil sites, but the operator must abide by state air quality regulations.</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] There are no known rare or sensitive plants in the area. No mining will be done within 100 feet of any live stream, riparian or isolated wetland habitat areas. Native vegetation consists of pine, fir and larch, salmon berry, kinnikinick, oregon grape etc. which lie on a southeast facing slope. Vegetation covers 100% of the ground and will be removed and planted with species compatible with the proposed reclaimed use. Some native seed will remain viable in the salvaged topsoil and will re-generate. Under ideal conditions, native species from undisturbed, adjacent land will re-invade the site. There is a moderate infestation of thistle and spotted knapweed, a legally defined noxious weed. A literature search was done by the Montana National Heritage Program and no rare plants or cover types were identified at this specific site and none were identified during a ground search.</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>[Y] The area supports populations of deer, bear, coyotes, foxes, rodents, 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 by logging in the area. The proposed mine is not expected to significantly degrade wildlife populations.</p>

<p><b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b> Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?</p>	<p>[N] There are not expected to be any impacts on those species from the proposed mining operation. The Natural Heritage Program literature search and site evaluations have not revealed any other endangered or threatened plant or animal species on site that would be significantly impacted.</p>
<p><b>7. HISTORICAL AND ARCHAEOLOGICAL SITES:</b> Are any historical, archaeological or paleontological resources present?</p>	<p>[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. The operator will give appropriate protection to any values or artifacts discovered in the affected area. If significant resources are found, the operation will 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.</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>[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.</p> <p>Noise will increase from present levels when equipment is active. 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.</p> <p>These impacts are intermittent and of relatively short duration but are in addition to the noise and dust created by the increased truck traffic hauling to various projects. Sound will be contained substantially from the lake direction due to the lower elevation of the pit below the highway grade.</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>

<b>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:</b> Are there other studies, plans or projects on this tract?	[N]
<b>IMPACTS ON THE HUMAN POPULATION</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>11. HUMAN HEALTH AND SAFETY:</b> Will this project add to health and safety risks in the area?	[Y] Heavy equipment and facilities including trucks, loaders, and dozers will create hazards, but the operator must comply with all MSHA and OSHA regulations.
<b>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:</b> 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 forest and wildlife habitat and put into industrial/commercial use. Upon completion of mining, the land will be reclaimed to its original use.
<b>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:</b> Will the project create, move or eliminate jobs? If so, estimated number.	[N]
<b>14. LOCAL AND STATE TAX BASE AND TAX REVENUES:</b> Will the project create or eliminate tax revenue?	[N]
<b>15. DEMAND FOR GOVERNMENT SERVICES:</b> 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.
<b>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:</b> Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y] This site has been approved for zoning by the Flathead Regional Development Office.
<b>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:</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 action cause a shift in some unique quality of the area?	[N]
<b>21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</b>	[N]

**22. Alternatives Considered:**

**No Action:** The pit would not be permitted at this time and the landowner would be deprived of development of his resources.

**Approval of Application as submitted:** The pit would be permitted and reclaimed as requested.

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

State Historic Preservation Office, Montana Heritage Program, Flathead County Regional Development, public notice published through the Daily Interlake.

**24. Other Governmental Agencies with Jurisdiction, List of Permits Needed:**

Mine Safety and Health Administration for safety permit; Montana Department of Labor & Industry, Bureau of Safety for safety permit.

**25. Magnitude and Significance of Potential Impacts:**

Impacts are unlikely to be significant on the environment in general because of the lack of critical wildlife or plant species or habitat areas, and the minor residential development in the area.

**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: Program Coordinator, Industrial and Energy Minerals Bureau

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Signature

\_\_\_\_\_  
Date

Montana Bureau of Mines and Geology

08/14/1997

Water Well Log Data

Neil Hanson

Location: 26N 20W 19 AAD  
Site Name: HANSON NEIL  
Depth: 355.0  
Yield: 150.0  
Static Water Level: 70.00  
Pumping Water Level: 230.0

Casing: Top (ft.)	Bottom (ft.)	Diameter (in.)	Type
-2.60	355.00	7.00	

Year drilled: 1969  
Driller: LIBERTY DRILLING

Location: 26N 20W 19 AAD  
Site Name: HANSON NEIL J.  
Depth: 0.0  
Yield: 100.0  
Static Water Level: 0.00  
Pumping Water Level: 0.0

Casing: Top (ft.)	Bottom (ft.)	Diameter (in.)	Type
0.00	0.00	7.00	

Year drilled: 1969  
Driller: LIBERTY DRILLING