

**ENVIRONMENTAL ASSESSMENT**

9/29/97

**Project Name:** Preeshl Site

**Proposed Implementation Date:** 9/10/97

**Proponent:** Bill Dengel Construction, Inc.

**Type and Purpose of Action:** The applicant proposes to mine, crush and haul 13,000 tons of sand and gravel from a pit located 6 miles north of the town of Gildford. There will be 1.5 acres mined and 1.5 acres disturbed for facilities and roads. The estimated start-up date is September 10, 1997 and will result in a site which is level with the grade of the surrounding grain field. The pit will be reclaimed to crops after grading the backslopes to at least a 5:1 and replacing all topsoil.

**Location:** SW<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub> SW<sup>1</sup>/<sub>4</sub> Section 8, T33N, R11E

**County:** Hill

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

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

| <b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>  |   |
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| <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>[N] Up to twelve inches of fairly well drained gravelly, sandy loam topsoil which 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 overburden and soils will be replaced, disked and seeded to stabilize the soil and prevent erosion. Microbes are expected to re-colonize the soil due to the relatively short time that soils will be in stockpiles.</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] Groundwater is expected to be below the excavation. No potable water is expected to be adversely impacted. There are no water wells within 1,000 feet of the site.</p> <p>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. Therefore, the quality and quantity of the groundwater should not be impacted.</p>   |

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| <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. Crushers, dozers, loaders and trucking equipment typically cause dusty conditions in disturbed soil sites. Crusher production degrades the air quality but the operator must obtain air quality permits and abide by state air quality regulations.</p> <p>Applicable federal regulations for air quality which are implemented by the state are the Standards of Performance for New Stationary Sources, 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.</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>[N] Vegetation will be removed during mining, and the ground will be re-planted with crops when reclaimed. A literature search was done by the Montana National Heritage Program and no rare plants or cover types were identified 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] Although the area is used primarily for crops, it also supports populations of deer, rodents, birds, insects and various other animal species. The mine site is frequented by those animals and they will be displaced as the mine expands. 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] 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. A cultural survey was done and revealed no resources. 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>  |

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| <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. The site is visible by traffic along the county road. Floodlights from dark period operations would increase visibility and awareness of the operation.</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 created by the increased truck traffic hauling to various projects.</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>  |
| <p><b>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:</b> Are there other studies, plans or projects on this tract?</p>   | <p>[N]</p>  |

| <p align="center"><b>IMPACTS ON THE HUMAN POPULATION</b></p>  |  |
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| <p align="center"><b>RESOURCE</b></p>   | <p align="center"><b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b></p>   |
| <p><b>11. HUMAN HEALTH AND SAFETY:</b> Will this project add to health and safety risks in the area?</p>                                | <p>[Y] Heavy equipment and facilities including crushers, trucks and loaders will create hazards, but the operator must comply with all MSHA and OSHA regulations. The operator will employ proper precautions to avoid.</p> |
| <p><b>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:</b> Will the project add to or alter these activities?</p> | <p>[Y] The acreage listed in the Type and purpose of Action will be taken out of farming and put into industrial/commercial use. Upon completion of mining, the land will be reclaimed to its prior use.</p>                 |

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| <p><b>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:</b> Will the project create, move or eliminate jobs? If so, estimated number.</p>   | <p>[N]</p>  |
| <p><b>14. LOCAL AND STATE TAX BASE AND TAX REVENUES:</b> Will the project create or eliminate tax revenue?</p>   | <p>[N]</p>  |
| <p><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?</p>                                    | <p>[Y] The operation will require periodic site evaluations by DEQ staff. However, these evaluations are usually performed in conjunction with other area operations.</p> |
| <p><b>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:</b> Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>  | <p>[Y] This site has been approved for zoning by the Hill County Commissioners.</p>   |
| <p><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?</p> | <p>[N]</p>  |
| <p><b>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:</b> Will the project add to the population and require additional housing?</p>   | <p>[N]</p>  |
| <p><b>19. SOCIAL STRUCTURES AND MORES:</b> Is some disruption of native or traditional lifestyles or communities possible?</p>   | <p>[N]</p>  |
| <p><b>20. CULTURAL UNIQUENESS AND DIVERSITY:</b> Will the action cause a shift in some unique quality of the area?</p>   | <p>[N]</p>  |
| <p><b>21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</b></p>   | <p>[N]</p>  |

**22. Alternatives Considered:**

**No Action:** The pit would not be permitted at this location and impacts would be displaced to another

location. The landowner would be denied development of his minerals at this time.

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

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

State Historic Preservation Office, Montana Heritage Program, Hill County Commissioners.

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

Montana Department of Environmental Quality, Air Quality Bureau for crusher permit; 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 general environment because of the size and location of the project.

**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

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Signature

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Date