

## ENVIRONMENTAL ASSESSMENT

On an Application for an

### OPENCUT MINING PERMIT or AMENDMENT

This Environmental Assessment (EA) is required under the Montana Environmental Policy Act (MEPA). An EA functions to identify, disclose, and analyze the impacts of a proposed action. This document may disclose impacts that have no legislatively required mitigation measures, or over which there is no regulatory authority.

The state law that regulates gravel mining operations in Montana is the Opencut Mining Act. This law and the rules adopted hereunder place operational guidance and limitations on a project during its lifetime, and provides for the reclamation of land affected by opencut mining operations.

Local governments and other state agencies may have authority over different resources and activities under their regulations. Approval or denial of this Opencut Application will be based on a determination of whether or not the proposed operation complies with the Opencut Mining Act and the Rules adopted hereunder.

**Applicant:** Shumaker Trucking & Excavating Contractors, Inc.      **SITE NAME:** Sawyer Pit

**LOCATION:** Section 7, T19N, R19E      **COUNTY:** Fergus  
Section 8, T19N, R19E

**DATE:** August 2009

**Type and Purpose of Action:** Application for a new opencut mining permit. The proponent proposes to mine 11.8 acres out of the 23.3-acre main permit area, 11.3 acres of which will be undisturbed until bonded. The proponent proposes to mine, crush, screen, stockpile and transport +/- 10,000 cubic yards of sand and gravel. Once mining is complete the site would be reclaimed to dryland agricultural grazing with some mine material stockpile area. An acceptable Plan of Operation would be followed and a reclamation bond held to ensure that reclamation is completed to meet state standards by Fall of 2011.

### IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<b>1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b>	Site Specific descriptions. Set in rolling grassland hills approximately 3 miles north of Christina, MT. <i>Impacts:</i> Irreversible and irretrievable removal of gravel from the site. There will be a small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling activities, but this would not impair the capacity of the soils to support full reclamation. There are no unusual topographic, geologic, soil, or special reclamation considerations that would lead to reclamation failure. The proposed operation is located in sands and gravels of remnant stream terraces and alluvial fans. The site is located on a bench on the south side of the Missouri River, on the west side of Dog Creek, and north of Lewistown. The soils are well drained and are up to 6 inches deep consisting of clay loam and silty clay with gravel texture. Slopes are stable and range from approximately 0 to 25%. Microorganisms should reinvade the site post-mining.
<b>2. WATER QUALITY,</b>	Site specific descriptions. There is no surface water or wells within

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<b>QUANTITY AND DISTRIBUTION</b>	<p>1000 ft of the site. Groundwater is estimated to be greater than 25 feet below ground surface.</p> <p><i>Impacts:</i> The proposed activities would have a minimal effect on the quantity and quality of the groundwater resources. The site will be mined to a depth of 10 feet which is above the existing water table. Fuel storage will be in above ground tanks or tanker trailers. Any permanent fuel tanks will be double walled placed within a bermed containment.</p>
<b>3. AIR QUALITY</b>	<p>Air quality standards are based upon the Clean Air Act of Montana and pursuant rules and is administered by the DEQ Air Resources Management Bureau (ARMB). Its program is approved by the Environmental Protection Agency (EPA). These rules and standards are designed to be protective of human health and the environment.</p> <p>Air quality permits would be required on the processing equipment before installment. Machinery, such as generators, crushers and asphalt plants, are individually permitted for allowable emissions. Best Available Control Technology (BACT) is the usual standard applied.</p> <p><i>Impacts:</i> Air quality standards as set by the federal government and enforced by the ARMB would allow minimal detrimental air impacts.</p>
<b>4. VEGETATION COVER, QUANTITY AND QUALITY</b>	<p><i>Impacts:</i> All vegetation will be lost during soil salvage operations but will be re-established following mining. The operation would be a southerly expansion from the center of the pit area. The expansion is in an area that was previously mined, as well as crop land consisting of alfalfa, wheatgrass, and green needlegrass. An alfalfa crop seed mixture would be seeded on the site after regrading and replacement of soils. No rare plants or cover types were identified during a ground search.</p>
<b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b>	<p>Although the area is used primarily for dryland grazing, it also supports populations of deer, antelope, rodents, song birds, coyotes, foxes, raptors, insects and various other animal species. Population numbers for these species are not known, although populations are likely low due to lack of cover.</p> <p><i>Impacts:</i> The proposed mine is expected to temporarily displace some individual species and it is likely that the site would be re-inhabited following reclamation to similar habitat.</p>
<b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b>	<p>Species of concern identified by the Montana Natural Heritage Program that could possibly populate this area include the Greater Sage-Grouse. <b>Centrocercus urophasianus</b> (Greater sage-grouse) is the largest of Montana's grouse. In Montana, it ranges primarily in the southwestern and eastern portions of the state. This species does not migrate. Sagebrush is its preferred habitat. The opencut operation would disturb a relatively small area. Abundant similar habitat exists in the area.</p> <p><i>Impacts:</i> The Greater Sage-Grouse is not likely to reside onsite due to lack of suitable (preferred) habitat. Also, the disturbance area would be small and large areas of similar or identical habitat surround the site. The possible impact to this species would be minimal due to lack of</p>

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	habitat impacted that supports it.
<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES</b>	<p>The Montana State Historic Preservation Office (SHPO) was supplied with the application materials and stated that there have been no previously recorded sites within the designated search locales. SHPO did not recommend a cultural resource inventory. However, should cultural materials be discovered during the project, SHPO requests that its office be contacted and the site investigated.</p> <p><i>Impacts:</i> If during operations resources were to be discovered, activities would be temporarily moved to another area or halted until SHPO was contacted and the importance of the resource was determined.</p>
<b>8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY</b>	<p><i>Impacts:</i> Impacts to land, water air, or energy would occur. Water would be used for dust abatement, crushing, and screening operations. It is likely a substantial amount of fuel and energy would be used throughout the life of the operation.</p>

<b>IMPACTS ON THE HUMAN POPULATION</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS</b>	This area is not zoned or part of any long range growth plan. It is generally utilized for dryland grazing and other life form production and existence.
<b>10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING</b>	<p>As seen on the aerial photo of the surrounding area this is a rural, non-residential area.</p> <p><i>Impact:</i> This commercial pit is being sited in this area because of the location of the resource, and the need to supply gravel for missile roads. There are no identified residences within 1,000 feet of this proposed pit.</p>
<b>11. AESTHETICS</b>	The site is located away from residences and commercial businesses.
<b>12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT</b>	<i>Impacts:</i> There will likely be temporary employment opportunities generated from this operation. However, it is likely many of the employees could be transferred within the company from other sites.
<b>13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION</b>	<i>Impacts:</i> Agricultural production would be reduced on the site for the life of the permit. There will be a temporary loss of grazing on approximately 24.6 acres of land until the site is successfully reclaimed. Reclamation of portions of the site may occur while mining is ongoing, which would increase pasture/rangeland.
<b>14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME</b>	Local, state and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, etc., from the companies, employees, or landowners benefiting from this operation.
<b>15. DEMAND FOR GOVERNMENT SERVICES</b>	Limited oversight by DEQ officials that are generally conducted in concert with other area activity.
<b>16. HUMAN HEALTH AND SAFETY</b>	Any industrial activity will increase the opportunities for accidental injury. There are agencies that require specific safety measures are in

