ENVIRONMENTAL ASSESSMENT

On an Application for an

OPENCUT MINING PERMIT

The Montana Department of Environmental Quality (DEQ) prepared this Environmental Assessment (EA) in accordance with requirements of 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 thereunder place operational guidance and limitations on a project during its lifetime, and provide 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 thereunder. The DEQ approval of this application would not relieve the operator from the obligation to comply with any other applicable federal, state, or county statutes, regulations, or ordinances. The operator is responsible for obtaining any other permits, licenses, approvals, etc. that are required for any part of the proposed operation.

APPLICANT: Shumaker Excavating and Trucking Contractors, Inc.

COUNTY: Toole

DATE: March 2011

SITE NAME: Sveum

LOCATION: Section 14, Township 37N, Range 2W

PROPOSAL: The applicant proposes to permit a new, long term gravel pit to mine, stockpile and transport 280,000 cubic yards of sand and gravel from a 17.6 acre site located approximately 10 miles northeast of Sunburst, Montana. The site is approximately 1,800 feet east of Three Mile Rd. Approximately 10% of the proposed site was disturbed under an expired Opencut short form application by this operator. A reclamation bond would be held by DEQ to ensure that final reclamation of the site to cropland would be completed by November, 2020. This application contains all items required by the Opencut Mining Act and its implementing rules. Proponent commits to properly conducting opencut operations and would be legally bound by the permit.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**POTENTIAL IMPACTS AND MITIGATION MEASURES**
1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:	Bedrock geology in this area is the Marias River Formation of the Cretaceous Period. This site is located on a glacial outwash plain west of the Sweet Grass Hills. The topography is gently rolling (2-10% slopes) hills with prairie potholes, swales, and 20 to 40 foot high knobs scattered throughout the landscape. Soils at this site are a complex of well drained deep clay loams over gravel and gravelly sandy loam over very gravelly sand. This area has 13 inches average annual precipitation. *Impacts:* An irreversible and irretrievable removal of gravel from the site would occur. A small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling activities also would occur, 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 prevent reclamation success.

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RESOURCE	**POTENTIAL IMPACTS AND MITIGATION MEASURES**
2. WATER QUALITY, QUANTITY AND DISTRIBUTION	Small ponds area located to the north, west, east and south of the site, with the closest pond located approximately 150 feet south of the access road. Most of the ponds are in excess of 1,500 feet away from the site. *Impacts:* The proposed activities would have a minimal effect on the quantity and quality of the surface and groundwater resources. *Cumulative:* Cumulative impacts for this site would be negligible.
3. AIR QUALITY	Air quality standards are based upon the Clean Air Act of Montana and pursuant rules and are 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. 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. Fugitive dust is that which blows off the pit floor, stockpiles, gravel roads, farm fields, etc. It is considered to be a nuisance but not harmful to health. *Impacts:* Air quality standards as set by the federal government and enforced by the ARMB would allow minimal detrimental air impacts.
4. VEGETATION COVER, QUANTITY AND QUALITY	Approximately 10% of the site has been mined and has no vegetation, and 20% of the site is grassland with 90% cover of wheatgrasses, sage and forbs. The remaining 70% of the site is cropland with 60% cover of wheat or barley stubble. *Impacts:* No long term detrimental impacts to the vegetation would occur.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:	Although the area is used primarily for pasture, it also supports populations of deer, rodents, song birds, coyotes, foxes, raptors, insects and various other animal species. Population numbers for these species are not known. *Impacts:* 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.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:	The Montana Natural Heritage Program (MNHP) lists one species of concern in the vicinity of the site: **Baird's sparrow** *(Ammodramus bairdii)* is a prairie songbird. In summer it is found in Montana, most commonly east of the Continental Divide. It migrates to the Southwestern U.S. and Northern Mexico for winter. This bird depends upon dry, shortgrass prairie habitat with small, scattered shrubs and matted vegetation. *Impacts:* There is one occurrence (confirmed breeding area) of the Baird's sparrow overlapping this site. If suitable habitat does exist on this site, the disturbance area would be small and large areas of similar or identical habitat surrounds the site. The possible impact to these species would be minimal.
7. HISTORICAL AND ARCHAEOLOGICAL SITES	The Montana State Historic Preservation Office (SHPO) was notified of the application. It reported that no sites have been discovered previously on this property. A pedestrian survey of the area by DEQ personnel did not reveal any artifacts or signs of occupation. No signs were evident at depth in the previously

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**POTENTIAL IMPACTS AND MITIGATION MEASURES**
	disturbed area. Due to the low likelihood that cultural properties would be impacted, SHPO did not feel that a recommendation for a cultural resource inventory was warranted at this time. *Impacts:* 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 resources was determined.
8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY	*Impacts:* Negligible impacts to land, water, air, or energy would occur.

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	**POTENTIAL IMPACTS AND MITIGATION MEASURES**
9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS	The site is not zoned.
10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING	As seen on the aerial photo of the surrounding area it is a sparsely populated rural agricultural area. *Impact:* (For commercial pits) This commercial pit is being sited in this area because of the location of the resource, and to service a remedial site cleanup in this area of the county.
11. AESTHETICS	There are no residences in the immediate vicinity of the site. The closest farm home is ½ mile to the northwest. The site is located in a rural agricultural area. There would be a temporary alteration of aesthetics while mining is under way. However, reclamation would return the area to a visually acceptable landscape. This project is considered to be long-term with plans to take 9 years to complete.
12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT	Existing employees would mainly be utilized for this operation. There is low potential that this project would create a significant number of new jobs. *Impacts:* New employment opportunities would be limited.
13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION	The acreage listed in the proposal would be taken out of agricultural use. Upon completion of mining, the land would be reclaimed to crop land. *Impacts:* Agricultural production would be reduced as soil stripping and operations progress across the site. When the entire site is opened up for mining and mine-related actives, all agricultural activities would cease.
14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME	Local, state and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, etc., from the companies, employees, or landowners benefitting from this operation. Following reclamation, it is assumed the tax base would revert to pre-mine levels.
15. DEMAND FOR GOVERNMENT SERVICES	Limited oversight by DEQ Opencut Program personnel would be conducted in concert with other area activity when in the vicinity.

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RESOURCE	**POTENTIAL IMPACTS AND MITIGATION MEASURES**
16. HUMAN HEALTH AND SAFETY	Any industrial activity will increase the opportunities for accidental injury. There are agencies that require specific safety measures are in place. If followed there is no reason to believe that significant safety issues would be present.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES	This activity would not inhibit the use of the identified resources.
18. NATIVE CULTURAL CONCERNS	*Impacts:* None identified.

19. Alternatives Considered:

A. Denial Alternative: The Department would deny an application that does not comply with the Act and Rules. No impacts to the natural or human environment would occur.

B. Approval Alternative: The Department would approve an application that complies with the Act and Rules. Impacts of this application are addressed in the body of the EA.

20. Public Involvement, Agencies, Groups or Individuals contacted: Montana State Historic Preservation Office, Montana Natural Heritage Program.

21. Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction include, but may not be limited to: Toole County Commission (zoning), Toole County Weed Control Board, MSHA and OSHA (worker safety), DEQ ARMB (air quality) and Water Protection Bureau (groundwater and surface water discharge; stormwater), DNRC (water rights), and MDT (road access).

22. Regulatory Impact on Private Property: The analysis done in response to the Private Property Assessment Act indicates no impact. The Department does not plan to deny the application or impose conditions that would restrict the use of private property so as to constitute a taking.

23. Magnitude and Significance of Potential Impacts: This proposal is not likely to create impacts of significance due to mitigation, restrictions, and oversight mandated by the Opencut Mining Act and pursuant rules and the Montana Clean Air Act.

24. Recommendation for Further Environmental Analysis: [ ] EIS [X] No Further Analysis

EA Prepared By: Don Jackson (Name) — Opencut Mining Program Environmental Specialist (Title)

EA Reviewed By: Chris Cronin (Name) — Opencut Mining Program Supervisor (Title)

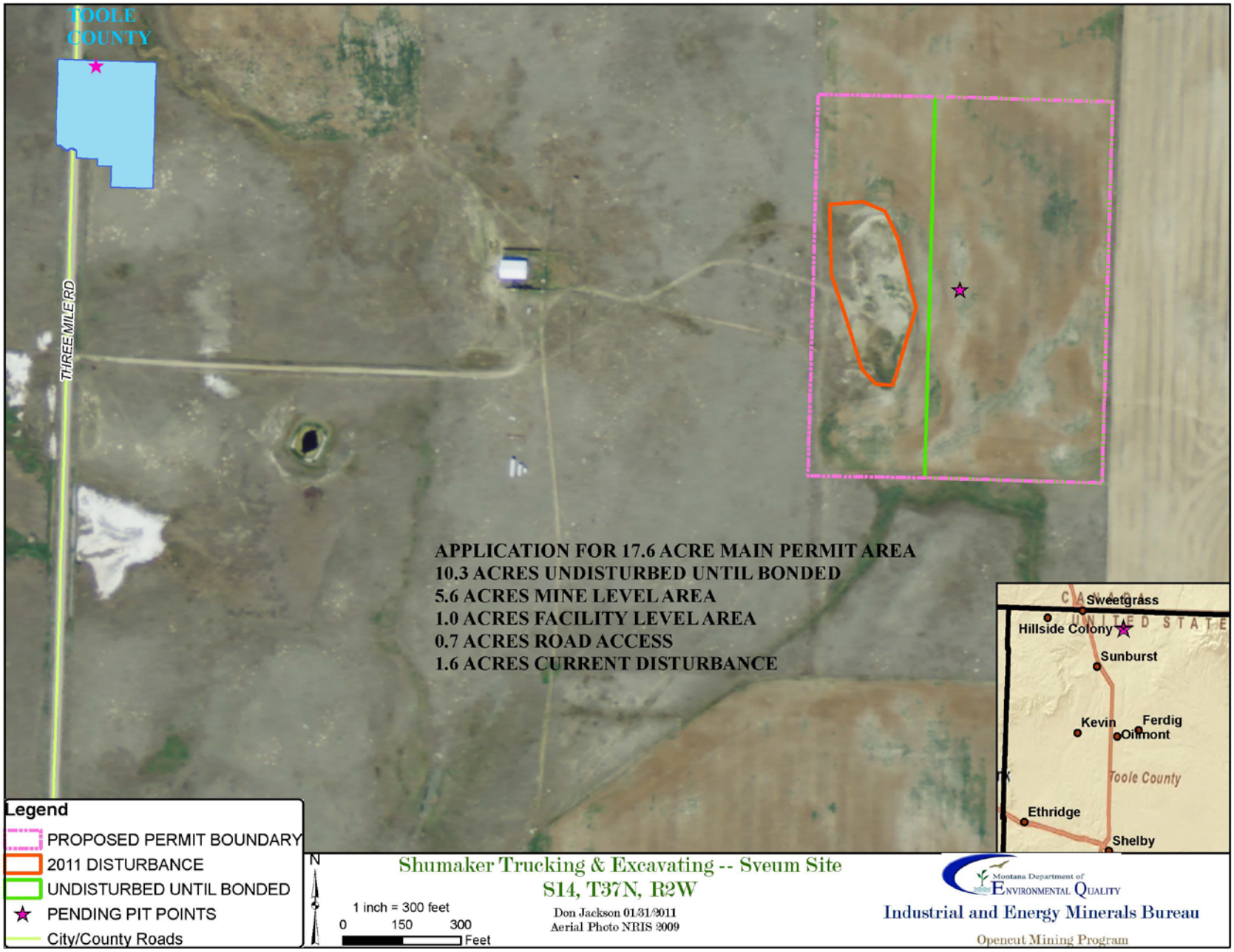
PROPERTY ASSESSMENT ACT (PPAA) CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PPAA?

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deprive the owner of all economically viable uses of the property?
	X	4. Does the action deny a fundamental attribute of ownership?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? (If answer is NO, skip questions 5a and 5b and continue with question 6.)
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property?
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? (If the answer is NO, skip questions 7a-7c)
		7a. Is the impact of government action direct, peculiar, and significant?
		7b. Has the government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
		7c. Has the government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.


TOOLE COUNTY
THREE MILE RD
APPLICATION FOR 17.6 ACRE MAIN PERMIT AREA
10.3 ACRES UNDISTURBED UNTIL BONDED
5.6 ACRES MINE LEVEL AREA
1.0 ACRES FACILITY LEVEL AREA
0.7 ACRES ROAD ACCESS
1.6 ACRES CURRENT DISTURBANCE
Legend
PROPOSED PERMIT BOUNDARY
2011 DISTURBANCE
UNDISTURBED UNTIL BONDED
PENDING PIT POINTS
City/County Roads
N
1 inch = 300 feet
0 150 300
Feet
Shumaker Trucking & Excavating -- Sveum Site
S14, T37N, R2W
Don Jackson 01/31/2011
Aerial Photo NRIS 2009
Montana Department of Environmental Quality
Industrial and Energy Minerals Bureau
Opencut Mining Program
CANADA
UNITED STATE
Sweetgrass
Hillside Colony
Sunburst
Kevin
Ferdig
Oilmont
Toole County
Ethridge
Shelby