

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: Pumco Inc.

SITE NAME: Tarkio-Managhan

LOCATION: Section 32, T15N, R24W

COUNTY: Mineral

DATE: September 2011

PROPOSAL: The proponent has submitted an application to permit a new, short-termed gravel pit to mine and transport 67,000 cubic yards of gravel from 5.3 acres of forested land adjacent to Old Highway 10 West between Tarkio and Alberton (See [FIGURE 1 – AREA MAP](#)). The site would be mined as a borrow site for the nearby MDOT Highway project.

A reclamation bond would be held by DEQ to ensure that final reclamation of the site to a residential building site would be completed by October 2013. As part of the permit application, the proponent has submitted a Plan of Operation that provides baseline information, operation plans, and plans for reclamation that would replace soils and plant grasses on the finished slopes, and prepare the affected lands for a building site. Reclamation is required by the Opencut Mining Act and the operator must comply with that statute and the rules and regulations promulgated under it.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:	<p>This site is located in steep, glaciated terrain adjacent to Old Highway 10 as it parallels Interstate 90 through a fault-controlled river valley between the Ninemile Divide of the Coeur d'Alene and the Bitterroot Mountain Ranges, 30 miles west of Missoula (See FIGURE 2 – SITE MAP). The material is most likely Quaternary alluvium deposited by glacial activity and influenced by fluvial activity from Clark Fork River and Glacial lake Missoula. Soils generally average 6 inches deep.</p> <p><i>Impacts:</i> Mining this area will result in irreversible and irretrievable removal of aggregate material from the site and will create a small</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
	impact to the quantity and quality of soils from salvaging, stockpiling, and re-soiling activities, but this would not impair the capacity of the soils to support full reclamation. There are no unusual topographic, geologic, soils or special reclamation considerations that would lead to reclamation failure.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION	The nearest surface water is a small intermittent stream that flows along the west side of the site but seeps into the ground before it reaches the Old Highway 10. The Clark Fork River flows westerly about 1100 feet south of the site. Significant vegetation and elevation differences preclude the potential for runoff into that water body. No fuel will be stored and no recycled materials will be stockpiled or processes at this site. Groundwater is greater than 85 feet from the surface and will not be impacted by this activity. The site receives approximately 20 inches of precipitation a year.
3. AIR QUALITY	<p>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.</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. 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.</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>
4. VEGETATION COVER, QUANTITY AND QUALITY	The general area is forested land. During soil stripping operations, all vegetation will be removed. Some vegetative seed will remain viable in the soil and could assist in regeneration of those species when soils are replaced. The applicant will re-seed the area to species compatible with the post-mine land use of a homesite with grassy slopes on the north and east sides. Silt fences, wattles and other Best Management practices will be used to prevent storm runoff from entering the intermittent stream or from running out onto the paved road.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:	<p>Since the site is primarily forest, it supports populations of deer, elk, rodents, song birds, coyotes, foxes, black bears, raptors, insects and various other animal species. Population numbers for these species are not known.</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 grassland.</p>
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:	The Montana Natural Heritage Program has indicated that large animals including the Great Blue Heron, Westslope Cutthroat Trout, Fisher, Wolverine, are potential animal species that could be present in the region.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
	<i>Impacts:</i> These species have not been found on this site. Even if suitable habitat did exist at this specific location, the mining disturbance area would be small and large areas of similar or identical habitat surround the site. The possible impact to these species would be minimal.
7. HISTORICAL AND ARCHAEOLOGICAL SITES	The Montana State Historic Preservation Office (SHPO) has not identified any sites that have been previously discovered on this property although there was one paleopoint discovered within non-specific lithic scatter presumably from Prehistoric Paleo-Indian times reported on MDOT land within the NW4 of Section 32. A walkover of the area by DEQ personnel did not reveal any artifacts or signs of occupation. <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 resources was determined.
8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY	Energy in the form of diesel fuel for dozers, loaders and trucks would be consumed while this site is operated and material is hauled to the highway project. Water in minimal amounts will be utilized as necessary for dust control.

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS	Mineral County has confirmed that this site is not zoned.
10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING	None of these resources will be affected.
11. AESTHETICS	This site is slightly visible from Interstate 90 and highly visible along Old Highway 10. The site is adjacent to the old highway and sits uphill from the roadway. Work would begin at the bottom of the site next to the roadway and mining will progress uphill toward the north. Dozers, loaders and trucks will be noticeable to the general public but will be seen as a part of the larger highway improvement project. No crushing or other processing facilities will be used, which will further eliminate odors, dust and noise. Hours of operation will be 7:00 a.m. to 7:00 p.m., Monday through Friday. <i>Impacts:</i> There would be mining and hauling activity at this site during normal work hours in the summer, which could be noticeable to some. These impacts would be short-termed and minimal.
12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT	<i>Impacts:</i> No impact on employment; the same crews will be utilized for all operations.
13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION	This will be an industrial site with periods of stripping, mining and hauling during the summer until the project is completed. <i>Impacts:</i> This site would be taken out of forest land during the project and would be reclaimed to a homesite upon project completion.

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
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.
15. DEMAND FOR GOVERNMENT SERVICES	Minimal oversight from DEQ, MDT, MSHA, and OSHA.
16. HUMAN HEALTH AND SAFETY	Industrial activities are inherently more dangerous than non-use of an area. The OSHA and MSHA regulations provide specific regulation and oversight to ensure safety is paramount.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES	This site is not used to access any recreational or wilderness resources.
18. NATIVE CULTURAL CONCERNS	<i>Impacts: None.</i>

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 and Mineral County Weed District.

21. **Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction:** Required: Mineral County Planning Department, Mineral County Weed Control Board, MSHA and OSHA regarding mine safety.

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:** Insignificant as proposed because of restrictions and oversight mandated by the Opencut Mining Act and the Montana Air Quality Act.

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

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FIGURE 2 – SITE MAP



PRIVATE 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.