

ENVIRONMENTAL ASSESSMENT

PROPONENT: Pumco, Inc.
LOCATION: Section 21, T20N, R6W

SITE NAME: Zimmer Borrow Area
COUNTY: Lewis and Clark

TYPE AND PURPOSE OF ACTION: Proponent has submitted a permit application to the Opencut Mining Program for a 6.8-acre, 40,000 cubic yard, gravel mine site. The application is being requested to complete U.S. Route Highway 287 repair. The site is currently pastureland. The proposed mine would consist of 5.7 acres of mine-level area, 1 acre of Facility Level Area, and .1 acre of access road (access from U.S. Highway 287 via Airport Road). An existing two track farm road would be improved and used as a short haul road for the proposed borrow pit. Using scrapers and a dozer, the first excavation would occur along U.S. Highway 287 Right-of-Way and progress West. Mining would occur for approximately 6 weeks to facilitate U.S. Highway 287 construction. When mining activities are completed, the pit would be closed and reclaimed to pasture with a 3:1 slope. The operator would be responsible for replacing the amount of topsoil and overburden that are currently present on site (as reflected in the submitted Plan of Operations). The estimated date for the completion of final mine site reclamation work is Fall 2008. The permit application contains all items required under the Opencut Mining Act and the Rules and Regulations thereunder, including adequate reclamation bond. Proponent commits to properly conducting opencut operations and would be legally bound by their permit to reclaim the site to a postmining land use of pasture land.

A = significant unavoidable impacts. B = insignificant as a result of conditioned mitigation. C = insignificant as proposed.

	POTENTIAL IMPACTS AND MITIGATIVE MEASURES					
	A	B	C	LONG TERM	SHORT TERM	EXPLANATION
PHYSICAL ENVIRONMENT						
1. <u>TOPOGRAPHY</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site is located in an agricultural valley. It appears that the original topography was an alluvial deposit. Topography would be slightly altered with a maximum depth of mining from ground surface of 6 feet. Upon removal of borrow material, slopes would be created. At the time of completion of the operation, all surfaces are proposed to be blended into the surrounding topography.
2. <u>GEOLOGY</u> : stability	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The Department reviewed potential impacts due to the removal of mine material and determined that the site can be reclaimed to a stable condition.
3. <u>SOILS</u> : quality, distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The average soil thickness is 1.5 inches and the average overburden thickness is 4.5 inches. Soil and overburden would be stripped from all mine-level areas and placed on areas prepared for resoiling or stockpiled for later reclamation use. Soil stripped from facility-level areas would be evenly replaced on those areas.
4. <u>WATER</u> : quality, quantity; distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ground water is not expected to be encountered. There is an irrigation ditch north of the borrow area. The operator has proposed interception ditches for stormwater control to mitigate any potential impact.
5. <u>AIR</u> : quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There would be some degradation of air quality while operations are in progress. Proponent must comply with state air quality regulations. The site is remote with few residences nearby. Impacts on U.S. Highway 287 would be minimal in spite of close proximity as the highway would be under construction for the duration of the proposed pit.
6. <u>UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The Montana Natural Heritage Program reports the occurrence of two species of Longspur and Great Basin Downingia (a vascular plant), sensitive species of concern, in the area of the

						proposed pit. The proposed operation would have little effect on any of the above listed species as abundant similar habitat exists in the area.
BIOLOGICAL ENVIRONMENT						
1. <u>TERRESTRIAL, AVIAN, AND AQUATIC SPECIES AND HABITATS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Some deer migrate through the area. The proposed operation would have minimal effect as abundant similar habitat exists in the area.
2. <u>VEGETATION</u> : quantity, quality, species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Some spotted knapweed was observed in the right-of-way during the pre-mine site inspection (3/28/2008 by J. Ludwig). The Lewis and Clark County Weed District has certified that the proposed operation complies with their requirements and a five-year weed plan is on file with the County.
3. <u>AGRICULTURE</u> : grazing, crops, production	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Cow pasture would be temporarily out of production. This would not substantially impact local agriculture. The site would be reclaimed to use for cropland.
HUMAN ENVIRONMENT						
1. <u>SOCIAL</u> : structures, mores	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Remote site; minimal impacts anticipated.
2. <u>CULTURAL</u> : uniqueness, diversity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Remote site; minimal impacts anticipated.
3. <u>POPULATION</u> : quantity, diversity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Remote site; minimal impacts anticipated.
4. <u>HOUSING</u> : quantity, distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Remote site; minimal impacts anticipated.
5. <u>HUMAN HEALTH & SAFETY</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Remote site; minor impacts on humans anticipated.
6. <u>COMMUNITY & PERSONAL INCOME</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Small and short-term site; minimal impacts anticipated.
7. <u>EMPLOYMENT</u> : quantity, distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Small and short-term site; minimal impacts anticipated.
8. <u>TAX BASE</u> : local, state tax revenue	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Small and short-term site; minimal impacts anticipated.
9. <u>GOVERNMENT SERVICES</u> : demand	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Small and short-term site; minimal impacts anticipated.
10. <u>INDUSTRIAL, COMMERCIAL, & AGRICULTURAL ACTIVITIES</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Small and short-term site; minimal impacts anticipated.
11. <u>HISTORICAL AND ARCHAEOLOGICAL</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No resources were identified during the premine inspection. In a letter dated April 10, 2008 the Montana Historical Society stated that there is a "low likelihood cultural properties will be impacted" and that "a cultural resource inventory is unwarranted at this time". Should any cultural materials be discovered in the course of the proposed operation, the operator would follow state and federal guidelines.
12. <u>AESTHETICS</u> : noise, visual	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The site is near U.S. Highway 287. During the operation of the proposed pit, the highway would be under construction. As a result, the visual impact would be minimal.
13. <u>ENVIRONMENTAL PLANS AND GOALS</u> : local, regional	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The proposed operation complies with county zoning regulations.
14. <u>DEMANDS ON ENVIRONMENTAL RESOURCES</u> : land, water, air, energy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Small and short-term site; minimal impacts anticipated.
15. <u>TRANSPORTATION</u> : networks,	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The operator would use local roads to transport mine material to projects. This activity, in and of

traffic flows						itself, would minimally affect local traffic.
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ALTERNATIVES CONSIDERED: The Department would deny an incomplete application or one that does not comply with the Act and Rules. The proponent could then submit a modified application or submit an application for another site.

PUBLIC INVOLVEMENT: Agencies and individuals involved in the process included the Montana Natural Heritage Program, State Historic Preservation Office, local zoning authority, county weed control board, and landowner.

OTHER GROUPS OR AGENCIES CONTACTED OR WHICH MAY HAVE OVERLAPPING JURISDICTION: DEQ's Air Resources Management Bureau regarding air quality, DEQ's Water Protection Bureau regarding water discharge, DNRC's Water Rights Bureau regarding water rights, and MSHA regarding mine safety.

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.

RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS: No further analysis

INDIVIDUALS OR GROUPS CONTRIBUTING TO THIS EA: None

Approved By: _____ Date: _____
 (Signature)

Prepared by: Jamie Ludwig 04/08