Montana Department of
ENVIRONMENTAL QUALITY

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PRELIMINARY DETERMINATION
ON PERMIT APPLICATION

Date of Mailing: February 13, 2013

Name of Applicant: Garnet USA, LLC

Source: Portable Crushing and Screening facility

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Permit Application Number 4842-00.

Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Resources Management Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by March 15, 2013. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed by the date stated in the Department's Decision on this permit. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620.

For the Department,

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JM:TL
Enclosure

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, MT 59620
(406) 444-3490

DRAFT ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Garnet USA, LLC
P.O. Box 161
Alder, Montana 59710

Montana Air Quality Permit Number (MAQP): 4842-00
Preliminary Determination Issued: February 13, 2013
Department Decision Issued:
Permit Final:

1. *Legal Description of Site*: Garnet USA, LLC (Garnet) proposes to operate a portable crushing/screening facility which will initially be located in Section 9, Township 6 South, Range 4 West in Madison County, Montana. However, MAQP #4842-00 applies while operating at any location in Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana*. An addendum would be required for locations in or within 10 km of certain PM_{10} nonattainment areas.

2. *Description of Project*: The Department received a permit application from Garnet for the operation of a portable crushing/screening facility with a combined maximum rated design process rate of 1,000 tons per hour (TPH) of crushing capacity and 800 TPH of screening capacity. Garnet proposes to utilize a portable diesel-fired engine generator set to supply electrical power to the plant. The application proposed the use of two (2?) diesel-fired generator sets to provide electrical power to equipment with a maximum rated design capacity of 850 horsepower (hp).

3. *Objectives of Project*: The object of the project would be to produce business and revenue for the company through the sale and use of aggregate. The issuance of MAQP #4842-00 would allow Garnet to operate the permitted equipment at various locations throughout Montana (as described above), including the proposed initial site location.

4. *Alternatives Considered*: In addition to the proposed action, the Department considered the "no-action" alternative. The "no-action" alternative would deny issuance of the MAQP to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Garnet demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A listing of the enforceable permit conditions and a permit analysis, including a BACT analysis, would be contained in MAQP #4842-00.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would not unduly restrict private property rights.

7. *The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no action alternative" was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites				X		Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

This permitting action would be expected to have a minor effect on terrestrial and aquatic life and habitats, as the proposed plant would operate within a previously disturbed industrial site in leveled dredge tailings. Furthermore, the air emissions would likely have only minor effects on terrestrial and aquatic life because facility emissions would be well dispersed in the area of the operation (see Section 7.F of this EA) and would have intermittent and seasonal operations. Therefore, only minor and temporary effects to terrestrial and aquatic life and habitat would be expected from the proposed project.

B. Water Quality, Quantity, and Distribution

Water would be required for dust suppression on the mineral processing equipment and surrounding facility area. The water use would be expected to cause minor, if any, impacts to water sources. In addition, the facility would emit air pollutants, and corresponding deposition of pollutants would occur, as described in Section 7.F of this EA. However, the Department determined that, due to dispersion characteristics of pollutants and conditions that would be placed in MAQP #4842-00, any impacts from deposition of pollution on water quality, quantity, and distribution expected would be minor.

C. Geology and Soil Quality, Stability, and Moisture

Only minor impacts from deposition on soil would likely result (as described in 7.F of this EA) and only minor amounts of water would be used for pollution control, and only as necessary, in controlling particulate emissions. Thus, only minimal water runoff would likely occur. Since only minor amounts of pollution would be expected and corresponding emissions would be widely dispersed before settling upon surrounding soil and vegetation (as described in Section 7.D of EA), impacts would be minor. Therefore, any effects upon geology and soil quality, stability, and moisture from air pollutant emissions from equipment operations would likely be minor and short-lived.

D. Vegetation Cover, Quantity, and Quality

Only minor impacts would be expected to occur on vegetative cover, quality, and quantity because the facility will be operating on land that is currently used as an industrial site. During operations, the facility would likely be a relatively minor source of emissions and the pollutants widely dispersed (as described in 7.F of this EA) therefore, deposition on vegetation from the proposed project would be expected to be minor. Also, due to limited water usage (as described in Section 7.F of this EA) and minimal associated disturbance from the application of water and run-off (as described in Section 7.B of this EA), corresponding vegetative impacts would likely by minor.

E. Aesthetics

The crushing/screening facility would disturb approximately two acres of land. Activity within the facility will create noise while operating at the proposed site. The proposed project is on private land owned by Garnet and public access is not allowed. The application states the nearest home and/or structure is 0.25 miles from the proposed project site, therefore visual and noise impacts would be minor and short-lived. The facility would operate on an intermittent and seasonal basis.

F. Air Quality

Air quality impacts from the proposed project would likely be minor because the facility would be small and operate on an intermittent and temporary basis. MAQP #4842-00 includes conditions limiting the facility's opacity and requiring water and spray bars to be available on site to ensure compliance with opacity standards. These conditions would limit fugitive emissions. Further, Garnet has taken federally-enforceable limitations to remain a minor source of emissions with respect to Title V. Pollutant deposition from the facility would be expected to be minimal because the pollutants are widely dispersed (from factors such as wind speed and wind direction) and exhibit minimal deposition on the surrounding area. Therefore, air quality impacts from operating the facility in this area would be expected to be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program (MNHP) in an effort to identify any species of concern that may be found in the area where the proposed crushing/screening facility will occur. Search results have concluded five animal species of concern in the area and one plant species concern. Area, in this case, will be defined by the township and range of the proposed site, with an additional 1-mile buffer. The known species of concern includes: the Great Blue Heron, the Greater Sage-Grouse (Sensitive), the Bobolink (Sensitive), the Hoary Bat, and the Western Spotted Skunk.

While the Great Blue Heron may be found within the search area, this species is known to inhabit cottonwoods along major rivers and lakes, which are not impacted by the operation of this facility. The Greater Sage-Grouse's preferred habitat is sagebrush with a migration to alfalfa fields or greasewood bottom when forbs on the benches dry out. In Montana, the Bobolink builds nest in tall grass and mixed-grass prairies. The Western Spotted Skunk's habitat is not well known, but they have been found in arid, rocky and brushy canyons and hillsides. Information from other portions of its range suggest that when they are inactive or bearing young, they occupy a den in rocks, burrows, hollow logs, brush piles, or under buildings. Therefore, the proposed project would have minor to no impacts considering its operations will occur in a previously disturbed industrial area. Since the Hoary bat is migratory and only a summer resident in Montana, it is unlikely that the installation of the proposed project in a previously disturbed industrial site would have any impact on these animals.

The plant species, the Ute Ladies' Tresses is found primarily in alkaline wetlands, swales and old, meander channels often on the edge of the wetland or in areas that are dry by mid-summer. MAQP #4842-00 application states there are no potential impacts to wetlands or drainage patterns.

Specific efforts of operating the proposed project in this area would be minor since the project is located partially within an existing construction area. Therefore, the Department determined that any effects upon these species would likely be minor and short-lived.

H. Demands on Environmental Resources of Water, Air, and Energy

Due to the relatively small size of the project, only small demands on environmental resources would likely be required for proper operation. Only small quantities of water are required for dust suppression of particulate emissions being generated at the site. In addition, impacts to air resources would be expected to be minor because the source would be considered a minor industrial source of emissions, with intermittent and seasonal operations, and because air pollutants generated by the facility would be widely dispersed as described in Section 7.F of this EA. Furthermore, Garnet has taken federally-enforceable limitations to remain a minor source of emissions with respect to Title V.

I. Historical and Archaeological Sites

The Department contacted the Montana History Society – State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction and operation. According to their records, there have been several previously records sites within the designated search locales. In addition to the sites, there have been a few previously conducted cultural resource inventories done in the areas.

As long as no disturbance or alteration to structures over fifty years of age, SHPO feels "that there is a low likelihood cultural properties will be impacted". Therefore, it is unlikely that the project would affect any historic or archaeological site and no resulting impacts.

J. Cumulative and Secondary Impacts

The operation of the proposed project would likely cause minor cumulative and secondary impacts to the physical and biological aspects of the human environmental because the facility would generate air emissions. Noise would also be generated from the site. Emissions and noise would cause minimal disturbance because the facility would be expected to operate in areas designated and used for such operations on a temporary and seasonal basis. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #4842-00. Overall, any cumulative and or secondary impacts to the physical and biological aspects of the human environment would be minor.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores			X			Yes
B	Cultural Uniqueness and Diversity			X			Yes
C	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production			X			Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities				X		Yes
G	Quantity and Distribution of Employment			X			Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity			X			Yes
K	Locally Adopted Environmental Plans and Goals			X			Yes
L	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The operation of the proposed project would be expected to cause minor disruption to the social structures and mores in the area because the source would be a minor industrial source in a relatively remote location. The facility would only have intermittent operations. Further, the facility would be required to operate according to the conditions that would be placed in MAQP #4842-00. Therefore, the existing social structures and mores would not be affected as a result of this permitting action.

B. Cultural Uniqueness and Diversity

The impact to cultural uniqueness and diversity of these areas would be minor from the proposed equipment because the site will be located in an area that is an existing industrial side owned by Garnet where access is secure and controlled. Additionally, the facility would be considered a portable source with seasonal and intermittent operations. Therefore, the Department determined that there would be minor effects to cultural uniqueness and diversity.

C. Local and State Tax Base and Tax Revenue

The proposed project would have little, if any impact on the local and state tax base and tax revenue because the facility would be a temporary source and small by industrial standards. Garnet is currently at 14 employees but is planning to increase to approximately 30 employees for full processing and mining activities. The proposed project itself would likely employ two additional employees to the facility. Thus, only minor impacts to the local and state tax case and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be expected to be minor because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The operation of the proposed project would have only a minor impact on local industrial production since the facility would be a minor source of air emissions (by industrial standards). Because minimal deposition of air pollutants would occur on the surrounding land (as described in Section 7.F of this EA), only minor and temporary effects on the surrounding vegetation (i.e. agricultural production) would occur. In addition, the facility operations would be temporary in nature and would be permitted with operational conditions that would minimize impacts upon surrounding vegetation, as described in Section 7.D of this EA.

E. Human Health

MAQP #4842-00 would incorporate conditions to ensure the crushing/screening facility would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F of this EA, the air emissions from the facility would be minimized by the use of water spray and other conditions established in MAQP #4842-00. Therefore, only minor impacts would be expected upon human health from the proposed crushing/screening facility.

F. Access to and Quality of Recreational and Wilderness Activities

Based on the information received from Garnet, no recreational activities or wilderness areas are near the proposed project site. No access to the public is available on the land privately owned by Garnet where the proposed project would be located. Therefore, no impacts to the access to and quality of recreational and wilderness activities would be expected.

G. Quantity and Distribution of Employment

The portable crushing/screening operation would only require a few employees to operate and would have seasonal and intermittent operations. The crushing/screening operation would be considered a portable source and would not be expected to have long-term affects upon the quantity and distribution of employment in any given area of operation. The application states that 2 employees would be employed as a result of the proposed project. Therefore, minor effects upon the quantity and distribution of employment in these areas would be expected.

H. Distribution of Population

The portable crushing and screening operation is a portable industrial facility that would only require a limited number of employees. No individuals would be expected to permanently relocate to this area as a result of operating the crushing/screening facility. Therefore, the proposed project would not likely impact the normal population distribution in the initial area of operation or any future operating site.

I. Demands of Government Services

Minor increases would be seen in traffic on existing roadways in the area while the crushing/screening facility operates. In addition, government services would be required for acquiring the appropriate permits from government agencies. Demands for government services would be minor.

J. Industrial and Commercial Activity

The operation of the crushing/screening facility would represent only a minor increase in the industrial activity in the proposed area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. Therefore, only limited additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

Garnet would be allowed, by MAQP #4842-00, to operate in areas designated by Environmental Protection Agency as attainment or unclassified for ambient air quality. MAQP #4842-00 contains operational restrictions for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards, as a locally adopted environmental plan or goal for operating at this proposed site. Because the proposed crushing/screening facility would be a portable source and would likely have intermittent and seasonal operations, any impacts from the project would be expected to be minor and short-lived.

L. Cumulative and Secondary Impacts

The operation of the facility would cause only minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source would be a portable and temporary source. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility. Further, this facility may be operated in conjunction with other equipment owned and operated by Garnet, but any cumulative impacts upon the social and economic aspects of the human environment would likely be minor and short-lived. Thus, only minor and temporary cumulative effects would be expected to the local economy.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the operation of a portable crushing and screening facility; MAQP #4842-00 provides conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: Tashia Love
Date: January 30, 2013