



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

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May 10, 2010

Eric Klepfer
Klepfer Mining Service, LLC
13058 Sherwood Court
Hayden Lake, ID 83835

Dear Eric:

The Department of Environmental Quality (Department) has made its decision on the Montana Air Quality Permit application for Timberline Resources Corporation – Butte Highlands Project. The application was given permit number 4449-01. The Department's decision may be appealed to the Board of Environmental Review (Board). A request for hearing must be filed by May 25, 2010. This permit shall become final on May 26, 2010, unless the Board orders a stay on the permit.

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 before the final date stated above. 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, Montana 59620.

Conditions: See attached.

For the Department,

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-9741

Ed Warner
Environmental Engineer
Air Resources Management Bureau
(406) 444-2467

VW:EW
Enclosure

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
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(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Timberline Resources Corporation

Montana Air Quality Permit Number: 4449-01

Preliminary Determination Issued: April 22, 2010

Department Decision Issued: May 10, 2010

Permit Final:

1. *Legal Description of Site:* The TRC BHP will be located in Sections 31 and 32, Township 1 North, Range 7 West, in Silver Bow County.
2. *Description of Project:* The TRC BHP is an underground exploration project consisting of drifting, ore recovery for bulk sampling, and development rock removal and storage. The objective of this project is to operate a diesel engine/generator to supply electricity to the facility.
3. *Objectives of Project:* The objective of the BHP is for TRC to update the equipment inventory of their existing MAQP to include a primary diesel engine/generator up to 1,000 hp. TRC had been permitted to use a specific model of generator engine that they were unable to obtain; therefore, their MAQP needed to be modified to allow for a different engine/generator. The permit modification will change the equipment inventory to more de minimis-friendly language that will allow TRC to operate any make or model engine that does not exceed 1,000 hp but is certified to EPA nonroad compression-ignition engine standards. The emergency backup generator has also been redesignated as a secondary generator which allows for more annual hours of operation for that unit.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because TRC 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 list of enforceable conditions, including a BACT analysis, would be included in MAQP #4449-01.
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 that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do 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 have a minor effect on terrestrial and aquatic life and habitats in the project area from pollutant deposition. The engine/generator would be located on private land owned by TRC. The current land use is agricultural. The Department has determined that any impacts from emissions or deposition of pollutants would be minor due to dispersion characteristics of the pollutants, the atmosphere, and the conditions that would be placed in MAQP #4449-01.

B. Water Quality, Quantity and Distribution

Adding the engine/generator to this facility would not cause an increase in water consumption. There would be no additional impacts to water resources and therefore, no surface and groundwater quality impacts would be expected.

C. Geology and Soil Quality, Stability and Moisture

The project would have a minor affect on the geology and soil quality, stability, and moisture from pollutant deposition. Only minor amounts of pollution would be generated from the diesel engine/generator. The project would be entirely located on patented private land owned by TRC.

D. Vegetation Cover, Quantity, and Quality

The project would have a minor affect on the local vegetation. The impacts from emissions or deposition of pollutants would be minor due to dispersion characteristics of the pollutants, the atmosphere, and the conditions that would be placed in MAQP #4449-01.

E. Aesthetics

The project would have a minor affect on the local aesthetics. The engine/generator would be visible and would create additional noise. Noise from the generator may be audible to passersby from the Fish Creek road and the Highlands road, but there are no houses close enough that would be a disturbance. The proposed engine/generator is similar in aesthetic impact to other engines that have been permitted for this source.

F. Air Quality

The Department determined that the facility would remain a minor source of emissions as defined under the Title V Operating Permit Program because the source's PTE would be less than the major source threshold level of 100 tons per year for any regulated pollutant. The area surrounding the facility is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria air pollutants. The site location is not within the Butte PM₁₀ nonattainment area. The Department believes that concentrations of the criteria pollutants in the area are at or near background levels and well below any NAAQS levels. Emissions of air pollutants would occur as a result of the current permit action. MAQP #4449-01 contains conditions requiring the diesel engine/generator to be compliant with EPA nonroad compression-ignition engine emission standards. If the facility operates in compliance with all applicable permit requirements, then the effects would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The addition of the diesel engine/generator would impact the unique endangered, fragile, or limited environmental resources because emissions of PM₁₀, NO_x, CO, VOC, and SO_x could increase in the area. However, the Department believes that any impacts would be minor due to the relatively small amount of the above listed pollutants emitted, dispersion characteristics of the pollutants and the atmosphere, and conditions placed in MAQP #4449-01, including, but not limited to, BACT requirements discussed in Section V of the permit analysis for this permit.

The Montana Natural Heritage Program (MNHP) identified occurrences of 12 plant and animal species of concern within the vicinity of the proposed project location. The Canada lynx is a threatened species of concern identified by the MNHP with the remaining species of concern being classified as sensitive or without classification. Sensitive animal species of concern are the Brewer's Sparrow, Westslope Cutthroat Trout, Gray Wolf, and Wolverine. Sensitive plant species of concern are the Sapphire Rockcress, Small-flowered Pennycress, Lemhi Beardtongue, and Hall's Rush. Unclassified animals are the Grasshopper Sparrow and Black Rosy-Finch. The unclassified plant is the Slender Fleabane.

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

The operation of the diesel engine/generator would have a minor impact on the environmental resources of water, air, and energy. Line power is available near the site; however, this line does not have sufficient power to support all the exploration activities. Operation of the diesel engine/generator would create air emissions; however, the Department believes that any impacts would be minor due to the relatively small amount of pollutants emitted.

I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society, State Historical Preservation Office (SHPO) in an effort to identify any historical and archaeological sites that may be present in the area of operation. Search results concluded that there are several previously recorded sites near

the designated project area. The proposed site is in the area of the historic Highland Mine; however, few if any of the original structures remain and the proposed diesel engine/generator would be located near the other surface equipment associated with the BHP.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts from this project on the physical and biological environment in the immediate area would be minor due to the abundant mining activity that has occurred there in the past century. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #4449-01. From an air quality perspective, the potential emissions expected from operating the facility at its maximum throughput on a continuous basis would not violate ambient air quality standards. Therefore, the MAQP is written to reflect the expected emissions from operating continuously at the maximum rate. TRC may be restricted on annual throughput by other government jurisdictions which would limit ore production to a level less than described in the MAQP.

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 addition of the diesel engine/generator would cause no disruption to the local social structures and mores. The property on which the project will occur is private land owned by TRC. While the proposed location is near several historic mine sites, few if any of the original structures remain and the addition of the diesel engine/generator would not change the footprint of the surface activities.

B. Cultural Uniqueness and Diversity

The Department believes that the addition of the diesel engine/generator will have no impact to the cultural uniqueness and diversity of the surrounding area because the project would be located on private land and the addition of the diesel engine/generator would not change the activities taking place with the surface operations.

C. Local and State Tax Base and Tax Revenue

The project would have a minor effect on the local and state tax base and revenue due to the taxes generated from the purchase of supplies and the mine payroll (see Section G – Quantity and Distribution of Employment).

D. Agricultural or Industrial Production

The addition of the diesel engine/generator would not result in any impact to the agricultural or industrial production because it would not change the operations taking place there.

E. Human Health

There would be minor effects on human health due to the slight increase in emissions of air pollutants. However, MAQP #4449-01 incorporates conditions to ensure that the facility would be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health. In addition, the project would occur in a remote area with limited population; therefore, effects on human health would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

The project would not have an impact to the access to recreational and wilderness activities because no road closures will occur and the site would be located on private property. The diesel engine/generator would have a minor impact on the quality of recreational and wilderness activities due to the slight increase in emissions of air pollutants and the noise generated by the engine.

G. Quantity and Distribution of Employment

The addition of the diesel engine/generator would not have an impact on the quantity and distribution of employment because operation of the equipment will not require any new employees.

H. Distribution of Population

The addition of the diesel engine/generator would not have an impact on the distribution of population because operation of the equipment will not require any new employees.

I. Demands for Government Services

Government services would be required for acquiring the appropriate permits from government agencies. In addition, the permitted source of emissions would be subject to periodic inspections by government personnel. Demands for government services would be minor.

J. Industrial and Commercial Activity

The engine/generator would be considered a relatively small industrial source. No additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals. The state standards would protect the proposed site and the environment surrounding the site. The proposed project location is outside of the Butte PM₁₀ nonattainment area and no effects to the nonattainment area are expected from this project.

L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social environment in the immediate area. The proposed permit would not result in an increase in employment in the area, and a slight increase in industrial process in the area. The Department believes that TRC would be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #4449-01.

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 construction and operation of an underground exploration project. MAQP #4449-01 includes conditions and limitations to ensure the facility will operate in compliance with all applicable air quality 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, Montana Department of Environmental Quality – Hard Rock 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, Montana Department of Environmental Quality – Hard Rock Program.

EA prepared by: Ed Warner

Date: April 13, 2010