

**DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ)
Environmental Assessment**

**Permitting and Compliance Division
Water Protection Bureau**

Name of Project: Barretts Minerals Inc. - Dillon Plant facility

Type of Project: Talc Milling and Beneficiation facility

Location of Project: 8625 Highway 91 South
Dillon, Montana 59725
Section 17, Township 08 South, Range 09 West
Beaverhead County

City/Town: Eight miles south of Dillon, Montana

County: Beaverhead

Description of Project: This EA is for a permit renewal in associated with Barretts Minerals Inc (BMI)-Dillon Plant facility located approximately eight miles south of Dillon, Montana. The Dillon Plant is a talc milling and beneficiation facility which has been in production since the early 1950's. The ore is processed into coarse, medium and ultrafine products which are used as functional additives and fillers for use in a number of industrial and healthcare markets. The proposed permit renewal reauthorizes BMI to discharge industrial wastewater, which may include boiler blow-down and boiler lab wastewater, to ground water using an infiltration pond (Outfall 001).

Outfall 001 is approximately 18,850 square feet with an effective volume of approximately 4.11 acre-feet. The outfall is located approximately 500 feet east of the main production building. It is situated in the southeast $\frac{1}{4}$ of Section 17, Township 08 South, Range 09 West, or $45^{\circ} 08' 10''$ North Latitude and $-112^{\circ} 43' 55''$ West Longitude.

The discharge from this outfall is to a shallow unconfined aquifer which is approximately 13 to 21 feet in depth in the immediate vicinity. The receiving water is Class I ground water as defined in ARM 17.30.1006(1).

In addition to the discharges occurring at Outfall 001; the facility also operates an 8.56 acre-foot wet tailing pond/water reclaim facility with an estimated capacity of 40 acre-feet. The tailing ponds are regulated and monitored under the Hard Rock Program Operating Permit #00009 (amendment 5). In addition, BMI maintains a DEQ Air Quality Permit #1995-14, and DEQ Air Quality Operating Permit #OP1995-04.

This checklist Environmental Assessment is specifically targeted at potential water quality impacts due to discharge under MGWPCS permit number MTX000094 and is tiered to Montana Environmental Policy Act (MEPA) analysis and disclosure conducted during permitting and subsequent amendments to the mill’s hard rock program operating permit #00009 for the mill at large. Previous MEPA analyses completed for this facility that this analysis is tiered to include:

- Amendment 001 - October 25, 1990
- Amendment 002 - December 14, 1993
- Amendment 003 - January 21, 2000
- Amendment 004 - October 1, 2001
- Amendment 005 – October 6, 2008

Agency Action and Applicable Regulations: The proposed action is to renew an individual MGWPCS permit that contains effluent monitoring requirements. The permit is issued under the authority of the Montana Water Quality Act 75-5-101 *et seq.* Montana Ground Water Pollution Control System Administrative Rules of Montana (ARM) 17.30.1001-1070, and Montana Numeric Water Quality Standards in the Department Circular DEQ-7 (August 2010).

Summary of Issues: The purpose of this action is to regulate the discharges of pollutants to state waters from the regulated facility. Issuance of an individual permit will require the applicant to implement, monitor, and manage practices to prevent pollution and degradation of groundwater.

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur (explain under Potential Impacts).

N = Not present or No Impact will likely occur.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit. See MEPA analyses for Operating Permit Amendments 001 - 005 for additional analysis more directly related to this resource.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] A 500-foot (length) mixing zone will be reauthorized by the Department. The estimated effluent characteristics self reported by the permittee are not expected to cause a significant impact to water quality outside the mixing zone.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones	[N] The facility currently maintains and is compliant Montana Air Quality OP1995-14. No impacts will likely occur due to renewal of the MGWPCS permit and

IMPACTS ON THE PHYSICAL ENVIRONMENT	
(Class I airshed)?	discharge of wastewater as authorized by the permit.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] The Department believes that this project has a low likelihood of impacting cultural properties. However, should structures need to be altered or if cultural materials be inadvertently discovered during this project the State Historic Preservation Office (SHPO) should be contacted.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit. The discharge structure is currently in existence and is located in a rural setting. They are not expected to be aesthetically inappropriate.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerline or other energy source be needed)	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit. Potential for ground water depletion or excessive demands on other environmental resources is minimal.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit. Please refer to the applicable MEPA documents as listed above in relation to the hard rock program operating permit #00009.

IMPACTS ON THE HUMAN ENVIRONMENT	
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.

IMPACTS ON THE HUMAN ENVIRONMENT	
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit. As this permit is for existing discharging structures, there will not be a significant increase in activity at this facility. The proposed activity will not likely increase the amount of commercial activity in the area.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit. As this permit is for an existing discharging structure there will not be a significant increase in activity at this facility. The discharge from the BWTP is not likely to effect jobs to the area.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit. As a result of this the population is not expected to increase or decrease.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as

IMPACTS ON THE HUMAN ENVIRONMENT	
	authorized by the permit.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
22(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
22(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	[N] No significant impacts will likely occur due to renewal of the MGWPCS permit and discharge of wastewater as authorized by the permit.
22(c). PRIVATE PROPERTY IMPACTS: If the answer to 22(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[N] No significant impacts were identified in 22(b).

23. **Description of and Impacts of other Alternatives Considered:** None

24. **Summary of Magnitude and Significance of Potential Impacts:**

Impacts were assessed with the assumption that the permittee will comply with the terms and conditions of the permit. Violations of the permit could lead to significant adverse impacts to state waters. In preparing permit effluent limits, the Department has taken steps to ensure that beneficial uses of the receiving water are preserved and exceedance of water quality standards will not occur, which includes that the discharge will remain “nonsignificant”, as required by ARM 17.30.subchapter 7 “Nondegradation of Water Quality”. The Department provides assistance to applicants in understanding and implementing the requirements of the permit and conducts periodic inspections of permitted facilities, where potential problems with design or management practices might be identified. If violations of the permit do occur, the Department will take appropriate action under the water quality act (Section 75-5-617, MCA). Enforcement sanctions for

violations of the permit include injunctions, civil and administrative penalties, and cleanup orders.

25. **Cumulative Effects:** The issuance of this individual MGWPCS discharge permit would not have cumulative effects because the permit prohibits pollution and degradation of state waters.
26. **Preferred Action Alternative and Rationale:** The preferred action is to reissue the individual MGWPCS discharge permit. This action is preferred because the permit provides a regulatory mechanism for protecting ground water quality by applying monitoring requirements to the discharged wastewater.

Recommendation for Further Environmental Analysis:

EIS More Detailed EA No Further Analysis

Rationale for Recommendation: An EIS is not required under the Montana Environmental Policy Act because the project lacks significant adverse effects to the human and physical environment.

27. **Public Involvement:** A 30-day public comment period will be held from September 4, 2012 through October 4, 2012. A public hearing has not been held. Public comment documents will be posted on the Department web page: <http://deq.mt.gov/notices/WQnotices.mcp>. For copies of the draft EA or to submit comments, write or call the Montana Department of Environmental Quality c/o Barb Sharpe, P.O. Box 200901, Helena MT 59620-0901, telephone (406) 444-2838.
28. **Persons and agencies consulted in the preparation of this analysis:**
Damon Murdo, Cultural Records Manager, Historical Preservation Society
Montana Bureau of Mines and Geology Web site
Montana Fish and Wildlife Web page, animal species information
Natural Resource Information System, Montana State Library
Natural Resources Conservation Service, National Cooperative Soil Survey

EA Checklist Prepared By:

Chris Boe

August 20, 2012

Approved By:

DRAFT

Jenny Chambers, Chief
Water Protection Bureau

Date