

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY COAL AND URANIUM PROGRAM  
CHECKLIST ENVIRONMENTAL ASSESSMENT  
FOR COAL PROSPECTING PERMIT**

**PERMITTEE:** Coal Mountain Mining, LP

**SITE:** Bearcreek

**PERMIT ID:** Prospecting Permit X2009330

**CITY/TOWN:** Bearcreek

**DATE:** August 30, 2011

**COUNTY:** Carbon

**LOCATION:**

Site #1: T7S, R21E, Section 32; Site #2: T8S, R20E, Section 1; Site #3 – #4: deleted; Site #5: T8S, R21E, Section 7; Site #6: T8S, R21E, Section 17; Site #7: T8S, R20E, Section 13; Site # 8: T8S, R21E, Section 18; Site #9 – #10: deleted; Site #11 - #13: T8S, R21E, Section 16

**PROPERTY OWNERSHIP:**

Federal  State  Private  County  Tribal

**TYPE AND PURPOSE OF ACTION:**

Coal Mountain Mining, LP proposes to conduct prospecting operations to determine the location, quantity, and quality of coal in an area northwest and southwest of Bearcreek, Montana. The proposed operation is adjacent to an area from which coal historically was mined underground by a number of mines. In the second phase of drilling known as Amendment 02, Coal Mountain Mining, LP plans to drill two prospecting holes (one for geotechnical evaluation and one for core) at each of nine locations. Drilling will be to depths approximately between 300 and 1500 feet with an average well depth near 650 feet. There will be approximately 0.1 acre of land disturbed at each site to allow for the drilling and associated activities. Portable mud pits will be used during the operation.

This Environmental Assessment only evaluates potential impacts from the 18 Amendment 02 holes. Previous Environmental Assessments address potential impacts from drilling the original permit and Amendment 01 holes.

**Reclamation Plan:**

This work and reclamation would be done pursuant to Sub-Chapter 10 of the Strip and Underground Mine and Reclamation Act: Prospecting (ARM 17.24.1001 and ARM 17.24.1005). Reclamation is described in the Application and adheres to all applicable regulations. Excavation is not expected; however, if it is needed it will be kept to a minimum (e.g. mud pits). All surface disturbances will be reclaimed and seeded as described in the reclamation plan portion of the Application. Seeding will be done with a grass mixture containing a mix of western wheat grass, green needle grass, bluebunch wheatgrass, slender wheatgrass, and alfalfa. Drill cuttings will be spread over the ground surface to less than one-half inch in thickness and all boreholes will be abandoned pursuant to ARM 17.24.1005. A bond of \$10,000 has been posted for this drilling project.

**IMPACTS ON THE PHYSICAL ENVIRONMENT**

<b>RESOURCE</b>	<b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<p><b>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b> Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?</p>	<p>[N] The proposed locations are along a series of steep to rolling hills that run approximately northwest to southeast. The area ranges in elevation from approximately 4500 ft to 6100 ft (Mean Sea Level Elevation). The hills are dissected by ephemeral drainages, with steep slopes and heavily eroded bedrock outcrops at some locations throughout the area.</p> <p>The predominant geologic unit is the Fort Union Formation. Soils in the area are found in a thin layer over eroded rock or bedrock.</p>
<p><b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION:</b> 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?</p>	<p>[N] The area is dissected by ephemeral drainages which flow in response to precipitation or snowmelt events. The nearest perennial water sources are Bear Creek to the north of all but one proposed drilling location and the Clarks Fork Yellowstone River to the east.</p> <p>Stock and domestic water in the prospecting area are supplied by wells completed in the Tongue River Member of the Fort Union Formation. Deep water wells are completed between 70 and 300 ft deep in sandstone and interbedded shaley sandstone aquifers while shallow wells are completed up to 50 ft deep in Quaternary alluvial deposits. Most water wells are drilled in the bottom of drainages while the proposed prospecting holes are located at the top of hills and ridge lines.</p> <p>No ground water is expected to be intercepted by the prospecting drilling operations. If ground water is encountered appropriate abandonment procedures will be followed. Holes may be appropriately completed and transferred to the landowner if any groundwater source is encountered.</p>
<p><b>3. AIR QUALITY:</b> Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[N] Air quality conditions in the area are considered to be very good although site-specific air quality monitoring has not been done. It is anticipated that the short-term prospecting operations would have minimal impacts on the local air quality. Dust will be produced by vehicle travel and activity related to the drilling and abandonment operations. It is expected that dust formation will be minimized by the limited amount of vehicle (drill rig, water truck, support vehicles, etc.) traffic.</p>
<p><b>4. VEGETATION COVER, QUANTITY AND QUALITY:</b> Will vegetative communities be significantly impacted? Are any rare plants or cover types present?</p>	<p>[N] Native grassland and sagebrush are the dominant vegetation types in the area. No rare plants have been reported in the area.</p>
<p><b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND</b></p>	<p>[N] A search of the Montana Natural Heritage Program database conducted for the operator indicated that four species of special concern had been</p>

**IMPACTS ON THE PHYSICAL ENVIRONMENT**

<b>RESOURCE</b>	<b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>HABITATS:</b> Is there substantial use of the area by important wildlife, birds or fish?	documented in the area. Greater sage grouse, loggerhead shrike, greater short-horned lizard, and common sagebrush lizard have been observed in the vicinity of the proposed operation. Mule deer, pronghorn, a variety of songbirds and raptors are expected to use the area on a seasonal or yearlong basis. Due to several factors, e.g. the amount of new disturbance that is proposed (approximately 1.0 acre), vehicle travel will be along established roads and trails, and the disturbance will be conducted outside the breeding and nesting season for the two bird species, it is anticipated that minimal impacts to the wildlife inhabiting the area will occur.
<b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b> Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] There are no federally listed threatened or endangered species or identified habitat known in the area. There were no wetlands observed during the site visit (8/25/2011). As noted above, there are species of special concern known to inhabit the vicinity of the proposed drilling activity.
<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES:</b> Are any historical, archaeological or paleontological resources present?	[N] Coal Mountain Mining, LP contracted Ethnoscience, Inc. to conduct a Class III survey of the proposed drilling sites on and access routes through state land (T8S R21E Section 16). The survey did not identify any cultural sites in the areas to be disturbed. An archaeological survey is not required and was not done for areas of disturbance on private property.  During the site inspection conducted in August 2011 no historical, archaeological, or paleontological resources were noted near the proposed observed drill sites.
<b>8. AESTHETICS:</b> 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] Most of the proposed drilling activity would take place along the top of major ridges and hills over 3 miles from the nearest town of Bearcreek. The drilling operations would not be visible from the town or the nearby highway. One site, 82001-1C, is approximately 1000 ft from Highway 308 and would be visible from highway west of Bearcreek. However, the visible drilling disturbance is limited to a very short duration during the drilling operation. Some localized noise would be associated with drilling activities but would not be excessive. Prospecting activities will be conducted during daylight hours and artificial lighting will not be required.
<b>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:</b> Will the project use resources that are limited in the area? Are there other	[N] Project work will not use any resources which are considered limited in the area. This work will not place any demands upon the resources of land, water or air. Field inspection of the area by the Department confirmed that ranching is the primary activities occurring in the area.

### IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
activities nearby that will affect the project?	
<b>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:</b> Are there other activities nearby that will affect the project?	[N] The project area is remote and used for ranching and hunting. All land, with the exception of the state owned area (T8S R21E Section 16), is owned by Sunlight Ranch. Coal Mountain Mining, LP has agreed to refrain from drilling operations between Oct. 1 and Dec. 1, unless an exception is explicitly granted by Sunlight Ranch in order to minimize impacts on hunting activities. These drilling timeline limitations are not expected to greatly affect the project.

### IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<b>11. HUMAN HEALTH AND SAFETY:</b> Will this project add to health and safety risks in the area?	[N] The prospecting area is remote and no additional human health and safety risks are expected; there are typical health and safety risks associated with the actual operation of the prospecting equipment and other vehicles. No harmful chemicals or materials would be used during the prospecting activities.
<b>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:</b> Will the project add to or alter these activities?	[N] The prospecting area is remote and with the exception of livestock grazing there are no industrial or commercial activities near the proposed prospecting area. Increased traffic and activity at the drill sites may temporarily disturb nearby livestock, but this disturbance is expected to be minimal.
<b>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:</b> Will the project create, move or eliminate jobs? If so, estimated number.	[N] The project will not result in any additional local jobs nor will it result in the elimination of any jobs. Drilling will require approximately 3 - 5 workers associated with a drilling company. Besides the workers operating the drill rig, other support jobs will include operation of heavy equipment (e.g. semi tractor trailers, water truck), and geological and geophysical logging of each borehole. Upon completion of the drilling activities employment will return to pre-project levels.
<b>14. LOCAL AND STATE TAX BASE AND TAX REVENUES:</b> Will the project create or eliminate tax revenue?	[N] Employment taxes will be paid to the employees, generating some additional tax revenues.
<b>15. DEMAND FOR GOVERNMENT SERVICES:</b> Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] The proposed work will not add substantial traffic to existing roads. The project work will be self sufficient and no public services would be required.

## IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<p><b>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:</b> Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>	<p>[N] No locally adopted environmental plans and goals are in effect.</p>
<p><b>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:</b> Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?</p>	<p>[N] Wilderness, recreational areas, public parks or historic sites are not nearby or accessed through the proposed prospecting area. Work in the proposed prospecting area would not adversely affect any publicly owned park or places included in the national register of historic sites. Impacts to private hunting contracts within the area will be minimized through an agreement between the private land owner, Sunlight Ranch, and Coal Mountain Mining, LP to cease drilling between Oct. 1 and Dec. 1.</p>
<p><b>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:</b> Will the project add to the population and require additional housing?</p>	<p>[N]. Field inspection by the Department confirmed that there are no buildings and very few manmade structures near or within the proposed prospecting area. Additional housing would not be required; drilling personnel will lodge in nearby towns such as Red Lodge, MT.</p>
<p><b>19. SOCIAL STRUCTURES AND MORES:</b> Is some disruption of native or traditional lifestyles or communities possible?</p>	<p>[N] Disruption of lifestyles is not expected since there is minimal human activity within or near the proposed prospecting area.</p>
<p><b>20. CULTURAL UNIQUENESS AND DIVERSITY:</b> Will the action cause a shift in some unique quality of the area?</p>	<p>[N] Field inspection by the Department confirmed that the area is remote and the proposed work will not affect or shift any unique quality of the area.</p>
<p><b>21. PRIVATE PROPERTY IMPACTS:</b> 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.</p>	<p>[N] The proposed project area is privately and state owned. Carbon County Holdings, LLC has provided access agreements from each of the private surface and mineral owners and from the Department of Natural Resources and Conservation. Thus, the landowners and mineral owners have agreed to the proposed action.</p>
<p><b>22. PRIVATE PROPERTY IMPACTS:</b> Does the proposed regulatory action restrict the use of</p>	<p>[N] The proposed action would not restrict the use of the regulated person's private property.</p>

<b>IMPACTS ON THE HUMAN POPULATION</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
the regulated person's private property? If not, no further analysis is required.	
<b>23. PRIVATE PROPERTY IMPACTS:</b> 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.	[Y] The Department has a level of discretion in its permitting decisions.
<b>24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</b>	[N]

**25. Alternatives Considered:**

- a) No Action: The prospecting permit for Amendment 02 would not be issued and no prospecting activity would be conducted. The mineral owners, as well as a potential mine developer, would not have the additional information on the location, quality, and quantity of the coal resource they would like to develop; therefore, this would probably preclude any development of the coal resource until such information is gathered. The potential use of this coal reserve would not be realized. There were no issues identified during the analysis that would require the Department to deny the application.
- b) Approval: This proposed exploration work would begin under the authority of Prospecting Permit X2009330 and would be subject to requirements of that permit, including, but not limited to, access, drilling, borehole plugging and abandonment, reclamation, and bonding. The application was complete and the environmental analysis indicated that the permit application could be approved.
- c) Approval with Modification: The Department found no need to modify the permit from what was presented in the application; therefore, this alternative was not pursued.

**26. Public Involvement:** The Notice of Application was published for 1 week in the Carbon County News (August 26, 2011) with a 10-day comment period following the final date of publication.

**27. Other Governmental Agencies with Jurisdiction:** None

**28. Magnitude and Significance of Potential Impacts:** None Expected

**29. Cumulative Effects:** None

**Recommendation for Further Environmental Analysis:**

**EIS**

**More Detailed EA**

**No Further Analysis**

**EA Checklist Prepared By:** Emily Hinz