

U.S. Department of the Interior
Bureau of Land Management
Little Snake Field Office
455 Emerson Street
Craig, CO 81625-1129

ENVIRONMENTAL ASSESSMENT

EA-NUMBER: CO-100-2008-059 EA

CASEFILE/PROJECT NUMBER/LEASE NUMBER: COC 73016

PROJECT NAME: Cow Camp Exploration License

LEGAL DESCRIPTION: T. 5 N., R. 87 W. of the 6th PM
Sec. 4 All
Sec. 5, lots 2-3, 5-6
Sec. 6, lot 8
Sec 8, SE $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$
Sec 9, ALL
Sec 17, NE $\frac{1}{4}$ NE $\frac{1}{4}$
Sec. 21, NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$
Sec. 22, N $\frac{1}{2}$, W $\frac{1}{2}$ SW $\frac{1}{4}$
Sec. 27, NW $\frac{1}{4}$ NW $\frac{1}{4}$

T. 6 N., R. 87 W. of the 6th PM
Sec 29, SW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, S $\frac{1}{2}$
Sec. 31, E $\frac{1}{2}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$
Sec 32, W $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$, W $\frac{1}{2}$
Sec 33 W $\frac{1}{2}$ SW $\frac{1}{4}$

APPLICANT: Colorado Coal Resources, LLC (Peabody Energy Co. / Twentymile Coal Co.)

PLAN CONFORMANCE REVIEW: The proposed action is subject to the following plan:

Name of Plans: Little Snake Resource Management Plan and Record of Decision

Date(s) Approved: April 26, 1989

Results: The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3). The proposed action is in conformance with the objectives for Management Unit 1.

Remarks: The proposed Cow Camp Exploration License is located within Management Unit 1 (Little Snake Resource Management Plan). This unit is rated as possessing the highest favorability for the occurrence of coal, and oil and gas resources in the Little Snake Resource Area. The objectives of Management Unit 1 are to realize the potential for development of coal, oil, and gas resources.

NEED FOR PROPOSED ACTION: Colorado Coal Company, LLC requires more geologic and technical information to delineate and assess the coal resources for a potential new underground coal mine in the Cow Camp Exploration area before making a financial decision to proceed with a coal lease-by-application.

PUBLIC SCOPING PROCESS: This project has been listed on the NEPA log on the Little Snake Field Office's web site.

BACKGROUND: Colorado Coal Resources (CCR) completed drilling of exploration holes under an exploration plan on Federal Lease COC 0 88199 (Seneca II lease) in November 2007. CCR proposes to conduct additional exploration activities in 2008 and 2009 to obtain geologic and coal quality information needed to assess coal recovery potential and economic feasibility for possible future mining of coal resources associated with the Cow Camp property. The exploration license area is approximately 3,980 acres of federal coal on lands adjacent to Lease COC 0 088199. The surface is privately owned by various entities.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

PROPOSED ACTION: CCR proposes to drill 9 coal exploration holes into federally controlled coal in a 3,980 acre area dominated by private surface ownership over a two year period from 2008 to 2009. Drilling is anticipated to occur between June and October of 2008 and 2009. CCR plans to schedule drilling operations on a 12-hour a day basis, however, CCR requests permission to conduct operations on a 24-hour basis of unforeseen delays cause the project to fall behind schedule. In the event that late fall/early winter drilling is necessary, CCR would coordinate with the CDOW (Colorado Division of Wildlife) to keep gates locked to limit public access, and to avoid areas of critical winter range. CCR would also coordinate exploration activities with CDOW to minimize potential impacts to grouse leks and nesting habitat, as well as active raptor nests during critical use periods.

Access is proposed to use existing Routt County roads, unimproved ranch roads and jeep trails. The attached drill hole location map shows CCR's intention of locating drill sites adjacent to existing access in order to minimize surface disturbance. Minor road maintenance may be required during operations. There may be limited instances where direct access to the proposed drill-site is not possible using the exiting road network. In these circumstances, drilling equipment would be moved overland the short distance between the existing roadway and

proposed exploration pad without constructing a new road. Vehicular travel on other than established, graded and surfaced roads will be limited to that absolutely necessary to conduct the exploration activities. Travel would be confined to graded and surfaced roads during periods when excessive damage to vegetation or rutting of the land surface could result.

Drill sites are located on gentle slopes or bench areas to minimize grading requirements. Maximum drill pad dimensions would be 100 X 200 feet. Prior to earth moving or excavations of any type, the "A" and "B" horizons would be salvaged and stored in an area that would be undisturbed and not subject to excessive wind or water erosion. The underlying subsoil materials would, if necessary, be salvaged and stored in an area separate from the "A" and "B" horizon materials. Immediately upon cessation of operations, the subsoil would be replaced, with the surface left in a roughened condition. The "A" and "B" horizons would then be replaced over the subsoil material. After stripping and stockpiling the topsoil/subsoil materials and minor grading would be completed to establish the drill pad and accommodate the drilling and support equipment. Runoff and sediment contributions from the soil material stockpiles would be controlled with silt fence(s) or berm(s) approximately one foot in height down-gradient from the stockpile.

Mud pits would be constructed within the graded pad area. Generally two or three pits are required, with typical pit dimensions of 10 X 5 feet and 6 feet deep. The size for the required pits is dependent on the anticipated drilling depths and conditions. Materials excavated from the pits would be stockpiled on the margins of the pad area for future uses in backfilling the pits. All drilling fluids would be contained within the mud pits, and all drilling supplies would be contained within the area of the drill pad. Any runoff and associated suspended sediment from the drill pad would be controlled and contained by a perimeter berm or silt fence on the down gradient side(s) of the drill pad. All surface disturbances will be reclaimed to BLM standards.

A rotary drill-rig capable of rotary drilling and spot-coring, would be utilized for general exploration work. The drill-rig would be a truck-mounted, rubber-tired unit, capable of operating in rough terrain. Support equipment for each drill-rig would include, but not be limited to, a water truck, pipe truck and/or pipe trailer, rig-up truck, air compressor, core trailer, and two or three 4 X 4 pickups for drill-crews and company representatives.

NO ACTION ALTERNATIVE: This alternative would deny CCR authorization to drill 9 exploration holes used to better delineate and assess the coal resource of the Cow Camp project area. Lacking the information gained from this project could inhibit CCR from proceeding with an informed decision to submit an LBA.

AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES/MITIGATION MEASURES

CRITICAL RESOURCES

AIR QUALITY

Affected Environment: There are no special designation air sheds or non-attainment areas nearby that would be affected by the proposed action.

Environmental Consequences, Proposed Action: Short term, local impacts to air quality resulting from combustible engine exhaust and dust from surface disturbing operations would result during operations. The emissions from these activities consist of both gaseous and particulate fractions. Gaseous constituents from diesel engine exhaust include carbon dioxide, carbon monoxide, nitric oxide, nitric dioxide, oxides of sulfur and hydrocarbons. Fine particulates of soot from diesel exhaust and fugitive dust from soils would be localized to the project area. The health effects of these emissions are largely from long-term and occupational exposure. The proposed action would not adversely affect the regional air quality.

Environmental Consequences, No Action: Project related impacts to air quality would not occur.

Mitigative Measures: None

Name of specialist and date: Ole Olsen, 7/18/08

AREA OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: Not Present

Environmental Consequences, both alternatives: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: Rob Schmitzer, 5/5/08

CULTURAL RESOURCES

Affected Environment: Cultural resources, in this region of Colorado, range from late Paleo-Indian to Historic. For a general understanding of the cultural resources in this area of Colorado, see *An Overview of Prehistoric Cultural Resources, Little Snake Resource Area, Northwestern Colorado*, Bureau of Land Management Colorado, Cultural Resources Series, Number 20, *An Isolated Empire, A History of Northwestern Colorado*, Bureau of Land Management Colorado, Cultural Resource Series, Number 2 and *Colorado Prehistory: A Context for the Northern Colorado River Basin*, Colorado Council of Professional Archaeologists.

Environmental Consequences, Proposed Action: The proposed project, Cow Camp Coal Exploration License, has undergone a Class III cultural resource survey:

Nelson, Amy and Michael Metcalf: 2008 Twentymile Coal Company, Cow Camp (CCU) 9 Core Hole Locations, Class III Cultural Resources Inventory, Routt County, Colorado (54.3.08)
Metcalf, Sally 2007: Twentymile, Cow Camp 2008 Core Hole and Shaft Location Project (54.2.08)

The survey identified no eligible to the National Register of Historic Places cultural resources. The proposed project may proceed as described in this EA with the following mitigative measures in place.

Environmental Consequences, No Action: The project would not go forward and cultural resources would not be affected.

Mitigative Measures:

The following standard stipulations apply for this project:

1. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the authorized officer (AO) at (970) 826-5000. Within five working days, the AO will inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places;
- The mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again; and
- Pursuant to 43 CFR 10.4(g) (Federal Register Notice, Monday, December 4, 1995, Vol. 60, No. 232) the holder of this authorization must notify the AO, by telephone at (970) 826-5000, and with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

2. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

Name of specialist and date: Robyn Watkins Morris, 6/20/08

ENVIRONMENTAL JUSTICE

Affected Environment: The proposed action is located in an area of isolated dwellings. Ranching and farming are the primary economic activities.

Environmental Consequences, both alternatives: The project area is relatively isolated from population centers, so no populations would be affected by physical or socioeconomic impacts of either alternative. Neither alternative would directly affect the social, cultural or economic well-being and health of Native American, minority or low-income populations.

Mitigative Measures: None

Name of specialist and date: Louise McMinn, 05/01/08

FLOOD PLAINS

Affected Environment: The proposed coal exploration activity will primarily occur along ridges and gentle hill slopes. Floodplain areas have been avoided.

Environmental Consequences, both alternatives: None

Mitigative Measures: None

Name of specialist and date: Ole Olsen, 7/18/08

INVASIVE, NONNATIVE SPECIES

Affected Environment: Downy brome (cheatgrass), purple mustard, houndstongue, hoary cress (whitetop), Canada thistle, and other biennial thistles are known to occur in this area. There is the potential for noxious weeds, such as dalmatian and yellow toadflax, leafy spurge, knapweeds, perennial pepperweed and others, to exist and spread in these areas.

Environmental Consequences, Proposed Action: The surface disturbing activities and associated traffic involved in the proposed coal exploration drilling program would create an environment and provide a mode of transport for invasive species and other noxious weeds to become established. Construction equipment and any other vehicles and equipment brought onto the site can introduce these weed species. Wind, water, hunting vehicles, livestock and wildlife would also assist with the distribution of weed seed into the newly disturbed areas. The disturbed sites will be vulnerable to invasion by invasive annual plants like cheatgrass, purple mustard and other locally established annuals. Establishment of perennial grasses and other seeded plants is expected to provide the necessary control of invasive annual weeds within 2 or 3 years. Additional seeding treatments of the disturbed areas may be required in subsequent years if initial seeding efforts have failed. However, the detection of invasive and noxious weeds and their control measures will ultimately be between the private land owners and the coal

exploration company. All principles of Integrated Pest Management should be employed to control noxious weeds.

Environmental Consequences, No Action: Impacts to invasive, non-native species would not occur.

Mitigative Measures: None

Name of specialist and date: Ole Olsen, 7/18/08

MIGRATORY BIRDS:

Affected Environment: Native plant communities in the proposed action area are comprised of sagebrush/grass, mountain shrub and aspen woodlands. CRP grasslands and croplands are also abundant. These plant communities provide nesting and/or foraging habitat for the following USFWS Birds of Conservation Concern (2002): Brewer's sparrow, sage sparrow, Virginia's warbler, northern harrier and golden eagle. Scattered aspen stands may provide habitat for some cavity nesting species. Several golden eagle nests occur in the vicinity of the proposed action.

Environmental Consequences, Proposed Action: The Proposed Action would remove approximately four acres of migratory bird habitat throughout the project area. This disturbance would be minimal within the larger landscape and would be unlikely to degrade nesting or foraging habitat. If drilling activities occur during the nesting season, there could be negative impacts to migratory bird species through nest destruction or increased stress leading to nest abandonment. As this would impact less than four acres of habitat, impacts would be minimal. Mitigation to protect nesting Columbian sharp-tailed and greater sage grouse would help to protect nesting migratory bird species (See T&E Section). Although there are golden eagle nests scattered within the project area, none of the drill sites are in close enough proximity to disturb nesting golden eagles.

Environmental Consequences, No Action Alternative: There would be no impacts to migratory birds from this alternative.

Mitigative Measures: None

Name of Specialist and Date: Desa Ausmus, 7/21/08

NATIVE AMERICAN RELIGIOUS CONCERNS

A letter was sent to the Uinta and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Ute Tribal Council on May 5, 2008. The letter listed the FY08 and FY09 projects that the BLM would notify them on and projects that would not require notification. A followup phone call was performed on June 16, 2008. No comments were received (Letter on file at the Little Snake Field Office). This project requires no additional notification.

Name of specialist and date: Robyn Watkins Morris, 6/20/08

PRIME & UNIQUE FARMLANDS

Affected Environment: Not Present

Environmental Consequences, both alternatives: None

Mitigative Measures: None

Name of specialist and date: Ole Olsen 7/18/08

T&E AND SENSITIVE ANIMALS

Affected Environment: According to the latest species list from the U. S. Fish and Wildlife Service, the following Federally listed and candidate species may reside, have habitat, and/or be impacted by actions occurring in Moffat and Routt Counties: Canada lynx, black-footed ferret, Mexican spotted owl, western yellow-billed cuckoo, razorback sucker, Colorado pikeminnow, bonytail chub, humpback chub and Ute ladies'-tresses orchid.

Sagebrush/mountain shrub communities within the project area provide habitat for Columbian sharp-tailed grouse and greater sage grouse, both BLM sensitive species. Several sharp-tailed and sage grouse lek are located in the general vicinity of the project, and all drill sites provide nesting habitat for both grouse species. The area is also mapped as winter habitat for sharp-tailed grouse.

Environmental Consequences, Proposed Action:

Due to a lack of suitable habitat and no species occurrence records, the Proposed Action would have "No Effect" to any federally listed species.

Columbian Sharp-tailed and Greater Sage Grouse:

The Proposed Action would impact approximately four acres of grouse habitat. This disturbance would be scattered throughout the 3,980 acre project area and would be minimal within the larger landscape. Although the small amount of habitat modification would have little impacts to grouse, activities associated with drilling could potentially impact grouse reproduction. Noise and increased human activity could disrupt breeding and disturb nesting grouse. To prevent these impacts, activities associated with the Proposed Action should not be permitted from March 1 to June 30. This timing limitation would prevent accidental nest destruction, nest and lek abandonment and displacement into less suitable habitat.

Environmental Consequences, No Action Alternative:

The No Action Alternative would have "No Effect" to any federally listed species.

Columbian Sharp-tailed and Greater Sage Grouse:

There would be no impacts to sharp-tailed or sage grouse from the No Action Alternative.

Mitigative Measures: No drilling activities allowed from March 1 to June 30 to protect nesting grouse.

Name of specialist and date: Desa Ausmus, 7/21/08

T&E SPECIES - SENSITIVE PLANTS

Affected Environment: There are no BLM sensitive plant species within or in the vicinity of the proposed project area.

Environmental Consequences, both alternatives: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim, 5/2/08

WASTES, HAZARDOUS OR SOLID

Affected Environment: If an unexpected release does occur, the environment affected would be dependent on the nature and volume of material released. If there are no releases, there will be no environmental impact.

Environmental Consequences, Proposed Action: Consequences would be dependent on the volume and nature of the material released. In most every situation involving hazardous materials, there are ways to remediate the area that has been contaminated. Short-term consequences would occur, but they can be remedied, and long-term impacts would be minimal.

Environmental Consequences, No Action: No project-related releases would occur.

Mitigative Measures: None

Name of specialist and date: Jennifer Maiolo, 5/5/08

WATER QUALITY - GROUND

Affected Environment: Tertiary strata where groundwater movement is fracture controlled.

Environmental Consequences, both alternatives: None

Mitigative Measures: None

Name of specialist and date: Marilyn Wegweiser, 4/29/08

WATER QUALITY - SURFACE

Affected Environment: Small ephemeral tributaries to Scotchman Gulch and Grassy Creek are present in the affected area. Scotchman Gulch is an intermittent tributary to Grassy Creek which is a perennial tributary to the Yampa River. The water quality of these stream segments is presently supporting the classified uses designated for each.

Environmental Consequences, Proposed Action: The proposed coal exploration project would only involve minor surface disturbances within the landscape. The amount of soil disturbed within the landscape coupled with the vegetated ephemeral and intermittent draws would not be expected to have any measurable effect on water quality for any of the affected stream segments or their beneficial uses.

Environmental Consequences, No Action: This alternative would not affect surface water quality.

Mitigative Measures: None

Name of specialist and date: Ole Olsen, 7/18/08

WETLANDS/RIPARIAN ZONES

Affected Environment: None of the nine exploration holes and the associated drill pads and pits will be located in riparian areas.

Environmental Consequences, both alternatives: None

Mitigative Measures: None

Name of specialist and date: Ole Olsen, 7/18/08

WILD & SCENIC RIVERS

Affected Environment: Not Present

Environmental Consequences, both alternatives: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: Rob Schmitzer, 5/5/08

WSAs, WILDERNESS CHARACTERISTICS

Affected Environment: Not Present

Environmental Consequences, both alternatives: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: Rob Schmitzer, 5/5/08

NON-CRITICAL ELEMENTS

FLUID MINERALS

Affected Environment: Subsurface rocks of Eocene and older ages, during drilling.

Environmental Consequences, both alternatives: None

Mitigative Measures: None

Name of specialist and date: Jennifer Maiolo, 5/5/08

SOILS

Affected Environment: Soils in the affected environment are derived from sandstones and shales. Sites that are proposed to be used for exploration of the federal coal estate would occupy areas mapped as Yampatika silty clay loam, 25 to 65 percent slopes (4F); Dresher very fine sandy loam, 1 to 6 percent (5A); Bulkley silty clay, 3 to 12 percent slopes (10C); and Bulkley silty clay, 12 to 25 percent slopes (10E). Permeability within the most restrictive layers of the soil profiles is moderately low for the Bulkley soils and low for the Yampatika and Dresher soils. The Bulkley soils are in Hydrologic Group C and the Yampatika and Dresher soils are in Hydrologic Group D which implies that all of the soils have a high to very high runoff rate. The Dresher soils are highly saline and sodic and have a root restrictive layer at a depth of 2 to 3-inches. The soils correspond to the Claypan Range Site, except the Dresher soil which corresponds to the Salt Flat Range Site.

Environmental Consequences, Proposed Action: Topsoil would be salvaged to the appropriate depth, stockpiled and separated from subsoils. Topsoil would also be redistributed back onto the drill pad within a relatively short period following the drill operations. Native rootstock, seed and microbes could likely survive through the stockpiled topsoil phase and remain viable when the topsoil is redistributed onto the disturbed sites. These reclamation techniques would help to facilitate revegetation of the disturbed sites with the same native ecotype vegetation that is presently established.

Two sites (CCU-027, CCU-031) would be constructed on the Yampatika silty clay loam, 25 to 65 percent slopes which exhibits a severe erosion hazard with such disturbance. This hazard is reduced for these two sites because the drill pads would be constructed on ridge areas with reduced slopes likely less than 25 percent. One site, (CCU-012) and possibly a second (CCU-023) would be constructed on the Dresher soil which is characterized as a saline-sodic soil,

having a shallow restrictive layer. Handling of the topsoil and subsoil during salvage and redistribution should alleviate the restrictive layer, but the soil would still be difficult to revegetate due to the saline-sodic properties it exhibits.

Environmental Consequences, No Action: Soils would not be affected.

Mitigative Measures: None

Name of specialist and date: Ole Olsen, 6/28/06

UPLAND VEGETATION

Affected Environment: The proposed project area is dominated by mountain shrub, sagebrush-grass, and aspen woodland plant communities. Cultivated cropland, Conservation Reserve Program (CRP) lands, and reclaimed mine lands are also prevalent. Cultivated croplands are farmed for annual crops, primarily dryland wheat, and CRP lands are retired from cultivation and are dominated by various herbaceous species. Species present in native rangeland communities include big sagebrush, snowberry, serviceberry, Gambel oak, aspen, and numerous perennial grasses.

Environmental Consequences, Proposed Action: The proposed drill pads would completely remove approximately 4 acres of vegetation in a highly dispersed manner throughout the project area. This disturbance would be minimal within the larger plant communities. Cross country access to sites by heavy equipment would result in crushing of woody species, but overall this impact would be minimal. The re-contouring and reseeding of drill pads would eventually reverse all direct impacts to the plant community.

Environmental Consequences, No Action: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim, 5/2/08

WILDLIFE, TERRESTRIAL

Affected Environment: Native plant communities in the proposed action area are comprised of sagebrush/grass, mountain shrub and aspen woodlands. CRP grasslands and croplands are also abundant. These plant communities provide habitat for a variety of big game, small mammals, birds and reptiles. The project area is mapped as severe winter for elk.

Environmental Consequences, Proposed Action: The Proposed Action would impact approximately four acres of wildlife habitat. This disturbance would be scattered throughout the 3,980 acre project area and would be minimal within the larger landscape. Elk using severe winter range are likely to be disturbed by noise and human activity associated with the Proposed Action. Big game species are often restricted to smaller areas during the winter months and may

expend high amounts of energy to move through snow, locate food and maintain body temperature. Disturbances during the winter can displace big game, depleting much needed energy reserves and may lead to decreased over winter survival. Drilling activities should not be permitted from December 1 to April 30 to minimize impacts to elk using winter habitat in the project area. All wildlife species using the area are likely to be displaced during drilling activities. The surrounding habitat should be sufficient to support mule deer, pronghorn and other terrestrial wildlife that are displaced during drilling in the summer or fall months. Most animals would return to undisturbed areas after construction is complete and human activity has decreased. With the above mitigation measures, the Proposed Action would have minimal impacts to wildlife species.

Environmental Consequences, No Action: There would be no impacts to terrestrial wildlife species or their habitat from this alternative.

Mitigative Measures: No surface disturbing activities between December 1 and April 30 in order to prevent disturbance of big game using critical winter range.

Name of Specialist and Date: Desa Ausmus, 7/21/08

OTHER NON-CRITICAL ELEMENTS:

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Forest Management	JAM 5/5/08		
Hydrology/Ground		MW 4/29/08	
Hydrology/Surface		OO 7/18/08	
Paleontology		JAM 5/19/08	
Range Management		JAM 7/21/08	
Realty Authorizations		LM 05/01/08	
Recreation/Transportation		RS 5/5/08	
Socio-Economics		LM 05/01/08	
Solid Minerals		JAM 5/5/08	
Visual Resources		RS 5/5/08	
Wild Horse & Burro Mgmt	JAM 5/19/08		
Wildlife, Aquatic	DA 7/21/08		

CUMULATIVE IMPACTS SUMMARY:

The following sections assess the cumulative impacts of the alternatives in combination with past, present/current, and reasonably foreseeable future actions. Pursuant to NEPA, the BLM must consider the cumulative effects of the proposed action in conjunction with other activities.

Cumulative impact is the impact on the environment which results from the incremental impact of the proposed action when added to other past, present and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

The following reasonably foreseeable development analysis identifies other actions that have, are, or would cumulatively affect the resources of concern that are addressed in this EA.

The cumulative impacts from drilling these exploration holes would last for the duration of the time it takes to drill and reclaim the site and the time it takes for the vegetation to re-establish. The sites are accessed by existing roads, so new surface disturbance as a result of road building would result. Drilling equipment would be moved overland from existing roads, with no new road building required. Any future drilling activities on public or State lands would be subject to site-specific analysis (e.g., NEPA analysis) by the responsible Surface Managing Agency.

Any land disturbing activity that impacts native vegetation affects soil functions and subsequently leads to some level of erosion and potential sediment yield to stream systems. Erosion control at each drill pad would minimize sediment yield increase. Based on reasonably foreseeable actions, vegetation disturbance and subsequent erosion and sediment yield to drainages within the Little Snake FO planning area is likely to continue to increase due to surface disturbance associated with oil and gas activities, mineral exploration and development, seismic exploration, livestock grazing/management, and recreational activities. As discussed in the previous sections, erosion and sediment yield impacts from the Proposed Action is not expected to have long-term adverse effects on project area floodplains and riparian corridors. Thus, the Proposed Action would cause only negligible cumulative impacts on vegetation, wetlands, floodplains and riparian corridors.

The Proposed Action could cumulatively add to short-term, small-scale losses of hunting/foraging habitats, and/or hiding/thermal cover; temporary displacement from habitats; and direct mortality occurring from past, present and future projects in the Little Snake FO. Realistically, Colorado Coal Resources' compliance with protective Federal stipulations regarding timing of project operations and the short-term nature of their project would result in the Proposed Action only causing minimal cumulative impacts throughout the Little Snake FO and having negligible impacts on special status wildlife species.

STANDARDS:

PLANT AND ANIMAL COMMUNITY (animal) STANDARD: The project area provides habitat for a variety of wildlife species. The proposed action would disturb four acres of terrestrial wildlife habitat and would have minimal impacts to terrestrial wildlife. The proposed action would not preclude this standard from being met within the larger landscape.

Name of specialist and date: Desa Ausmus, 7/21/08

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (animal)

STANDARD: The project area provides habitat for two BLM sensitive species, Columbian sharp-tailed grouse and greater sage grouse. The proposed action would have minimal impacts to these species and would not preclude this standard from being met.

Name of specialist and date: Desa Ausmus, 7/21/08

PLANT AND ANIMAL COMMUNITY (plant) STANDARD: While the Colorado Standards for Public Land Health are specific to BLM managed lands within Colorado, the Proposed Action would not preclude this standard from being met within native plant communities on the private and state lands where this project would occur. The small, isolated nature of the disturbance associated with drilling would not adversely impact the ability of the larger plant community to exhibit adequate diversity, composition, and vigor. This standard would be met under either alternative.

Name of specialist and date: Hunter Seim, 5/2/08

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (plant)

STANDARD: There are no federally listed threatened or endangered or BLM sensitive plant species present within or in the vicinity of the proposed project area. This standard does not apply.

Name of specialist and date: Hunter Seim, 5/2/08

RIPARIAN SYSTEMS STANDARD: All of the drilling operations are proposed to occupy private lands. This standard does not apply.

Name of specialist and date: Ole Olsen, 7/18/08

WATER QUALITY STANDARD: All of the drilling operations are proposed to occupy private lands. This standard does not apply.

Name of specialist and date: Ole Olsen, 7/18/08

UPLAND SOILS STANDARD: All of the drilling operations are proposed to occupy private lands. This standard does not apply.

Name of specialist and date: Ole Olsen, 7/18/08

PERSONS/AGENCIES CONSULTED: Uintah and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Tribal Council, Colorado Native American Commission, and the Colorado State Historic Preservation Office.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
EA CO-100-2008-059

Based on the analysis of potential environmental impacts contained in the EA and all other available information, I have determined that the proposal and the alternatives analyzed do not constitute a major Federal action that would adversely impact the quality of the human environment. Therefore, an EIS is unnecessary and will not be prepared. This determination is based on the following factors:

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests, or the locality. The physical and biological effects are limited to the Little Snake Resource Area and adjacent land.
2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.
3. There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplain, areas with unique characteristics, ecologically critical areas, or designated Areas of Critical Environmental Concern.
4. There are no highly controversial effects on the environment.
5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.
6. This alternative does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State, or local natural resource related plans, policies, or programs.
7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.
8. Based on previous and ongoing cultural surveys, and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy.

9. No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, treatments would be modified or mitigated not to have an adverse effect or new analysis would be conducted.

10. This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

DECISION AND RATIONALE:

I have determined that approving this Exploration License is in conformance with the approved land use plan. It is my decision to implement the project with the attached stipulations for plugging of the exploration drill holes and timing stipulation for wildlife. The project will be monitored as stated in the Compliance Plan outlined below.

COMPLIANCE PLAN(S):

Compliance Schedule

Compliance will be conducted during the drilling phase to insure that all terms and conditions specified in the license are followed. After reclamation of the drill pads, an inspection will be performed.

Assignment of Responsibility

Responsibility for implementation of the compliance schedule and monitoring plan will be assigned to the Solid Minerals staff in the Little Snake Field Office. The primary inspector will be the Mining Engineer, but the Natural Resource Specialist may also be involved.

SIGNATURE OF PREPARER:

DATE SIGNED:

SIGNATURE OF ENVIRONMENTAL REVIEWER:

DATE SIGNED:

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED: