



Twentymile Coal, LLC

29515 Routt County Road 27
Oak Creek, CO 80467
970.879.3800

Mr. Chad Phillips, Director
Routt County Regional Planning Department
PO Box 773749
Steamboat Springs, Colorado 80477
970.879.2704

April 22, 2016

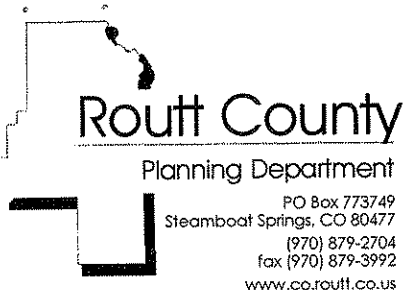
Re: Twentymile Coal, LLC, Administrative Approval Request for 9-East Utility Borehole

Dear Mr. Phillips:

With this submittal, Twentymile Coal, LLC (TC) is requesting County approval, under the established Administrative Approval process, for light-use road construction; construction of a drill-pad; drilling and casing of two utility boreholes; construction of a short powerline extension; use of one of the boreholes to continuously exhaust and monitor atmospheric conditions in the gob and bleeders; use of the other borehole for transfer of grout to the underground workings, power or communications drops, and other utility uses; and reclamation of the boreholes, road, and pad, when they are no longer needed to support ongoing operations. The proposed activities would occur on lands which are owned or controlled (surface and mineral) by TC. It is anticipated that road and pad construction and drilling would be initiated as soon as possible after receipt of permit approvals, with completion of the boreholes in third quarter 2016. It is anticipated that the 9-East Utility Borehole Installation will remain in place for up to three years to support mining operations in the 9-East and 10-East longwall panels. Reclamation of this installation will involve plugging and sealing the boreholes, regrading the pad and road, powerline removal or relocation, soil material replacement, and reseeded.

Environmental baseline studies, including cultural resource surveys and wildlife consultation with Colorado Parks and Wildlife (CPW), have been or are being completed for the proposed borehole pad and light-use road, as documented by the attached cultural resource survey report and a wildlife consultation letter, which will be provided on receipt. The borehole site will be accessed from RCR33 and RCR179 using the existing all-weather mine road to the reclaimed Fish Creek Tipple and reclaimed 18-Right Shaft Facility. From the existing 18-Right Shaft Road, a maximum of approximately 2,300 feet of new light-use road will be constructed to access the borehole location. A new borehole pad (approximately 200 x 200 ft. surface area) will be constructed to support both the initial drilling and borehole completion activities, and subsequent utility and related activities. TC will also construct a 2,370 foot (maximum length) powerline extension to provide power to utility borehole location. It should be noted that TC has identified three potential borehole locations, although only one location will ultimately be developed and completed. The drill pad size would be the same, regardless of location, and TC will permit and bond for the maximum road and powerline disturbance.

The 9-East Utility Borehole Installation will consist of the new light-use road, the new borehole pad; adjacent soil material stockpiles, two cased and grouted boreholes extending into the Wolf Creek Coal Seam mine workings, a surface blower installation, and the powerline extension. The proposed pad and light-use road locations are on a low-gradient side-hill, so upgradient drainage will be limited. The limited amount of drainage from upgradient areas will be intercepted and routed around the borehole pad by a perimeter diversion ditch with rock-lined sediment traps to collect and control run-on and



APPLICATION FORM: LAND USE & ZONING

Activity No. _____	OFFICE USE
Base Fee \$ _____	Receipt No. _____
Received By _____	Date _____
Deemed Complete By _____	Date _____

I. PROJECT NAME Foidel Creek Mine—9-East Utility Borehole Installation

II. TYPE OF REVIEW

This application form must be accompanied by the applicable submittal checklist.

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> Minor Use Permit | <input type="checkbox"/> Administrative Permit | <input type="checkbox"/> Site Plan Review | <input type="checkbox"/> Conditional Use Permit (CUP) |
| <input type="checkbox"/> Sign Permit | <input type="checkbox"/> Water Body Setback Permit | <input type="checkbox"/> Pre-Application Conference | <input type="checkbox"/> Special Use Permit (SUP) |
| <input type="checkbox"/> Special Event Permit | <input type="checkbox"/> Floodplain Development Permit | <input type="checkbox"/> Zoning Amendment/Rezoning | <input type="checkbox"/> Conceptual PUD |
| <input type="checkbox"/> Administrative Amendment to CUP/SUP/PUD/Site Plan | <input type="checkbox"/> Variance | | <input type="checkbox"/> Final PUD |

III. APPLICANT

Name Twentymile Coal, LLC
Mailing Address 29515 RCR27
City Oak Creek State Colorado Zip 80467
Phone 970.879.3800 Email _____

Representative / Primary Contact Jerry Nettleton, Manager Environmental Affairs
Mailing Address Same as above
City Same as above State _____ Zip _____
Phone 970.870.2712 Email jnettleton@peabodyenergy.com

IV. PROPERTY OWNER

Name Sage Creek Land & Reserves, LLC—C/O Twentymile Coal, LLC (PIN 945114001, 600 ac, Zoned AF)
Name State of Colorado—State Land Board
Mailing Address 1127 Sherman Street—Suite 300 Attn. Phillip Courtney
City Denver State Colorado Zip 80203
Phone 303.866.3454 X 3313 Email phillip.courtney@state.co.us

V. PROPERTY INFORMATION

Property Address 29515 RCR27
General Location South of 18-Right Shaft Road, approximately 1.65 miles from the intersection of the Fish Creek Tipple Road with RCR179
Legal Description (may be attached) W/2 Section 11, T5N, R86W
Parcel Identification No. (PIN) 945114001/945113001 Property Size (acres) 600/320
Current Use Mining, Rangeland, and Wildlife Zoning AF
Proposed Use Mining and postmining use would be Rangeland/Wildlife

VI. SIGNATURES

This application form must be signed by both the applicant and legal owner of the property. Attach additional pages if necessary.

By signing below, the applicant acknowledges that all information contained on this application form and within accompanying submittals are true and correct and agrees to pay all required fees associated with this application. The base fee is indented to cover the estimated minimum staff hours to process the application. Any additional staff hours will be assessed at \$120 per hour. The applicant signing below is responsible for all additional hourly fees. Failure to pay fees may result in revocation of a permit/approval.

Applicant's Signature

Print/type name of applicant

By signing below, the property owner authorizes the applicant to petition Routt County for approval of the submitted application.



Twentymile Coal, LLC

29515 Routt County Road 27
Oak Creek, CO 80467
970.879.3800

Mr. Jared Ebert, Environmental Protection Specialist
Division of Reclamation, Mining, and Safety
1313 Sherman Street, Room 215
Denver, Colorado 80203
(303) 866-3567 X 8120

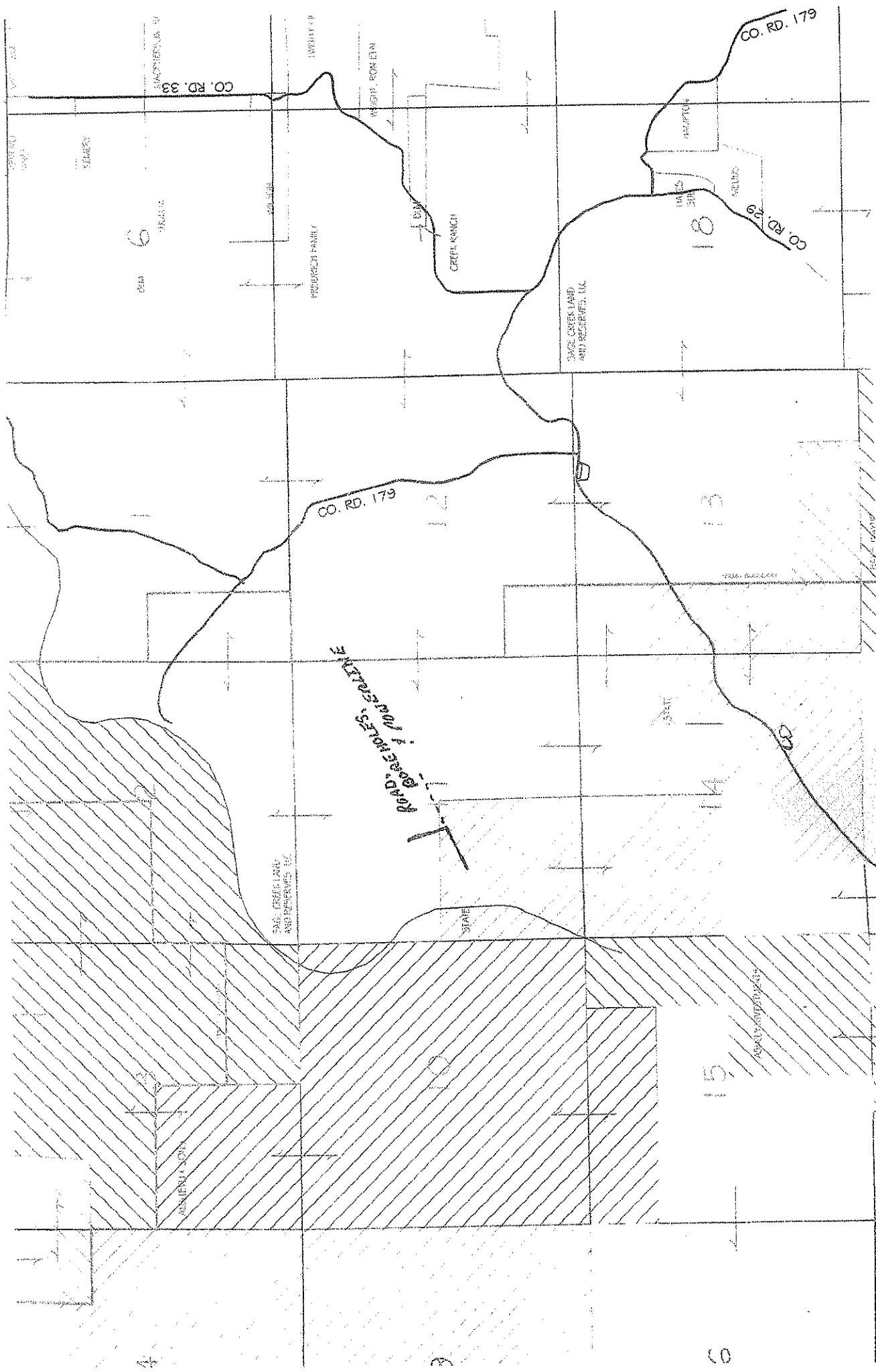
April 19, 2016

**RE: Twentymile Coal, LLC - Foidel Creek Mine (Permit No. C-82-056), Minor Revision
(MR16-296) – 9-East Utility Borehole Installation**

Dear Mr. Ebert:

Twentymile Coal, LLC (TC) requests CDRMS approval of a Minor Revision to our existing approved Permit for installation, operation, and reclamation of two boreholes, one 22 to 30 inches in diameter, and the second 13.75 to 22 inches in diameter to be located over the 9-East Longwall Panel. The larger borehole, which will be cased and grouted to 24 to 32 inches OD, will be a monitoring and control borehole which will allow air to be drawn from the sealed mine areas by an exhaustor unit. The smaller borehole, will be cased and grouted to 16 inches if water is encountered, otherwise two carrier pipes, 6.675 and 3.5 inches in diameter will be grouted in the borehole, with the larger carrier pipe to be a grout or utility pipe, and the smaller carrier pipe for a power drop or communication cable. The boreholes will extend to a maximum depth of approximately 1,090 feet, and will be accessed from County roads RCR33 and RCR179, using the existing established Fish Creek Tipple and 18-Right Shaft roads. From the 18-Right Shaft Road, a maximum of approximately 2,300 feet of new light-use road will be constructed to access the borehole location, as shown on Map 24, and in Exhibit 49EE, with up to five 24-inch culverts installed along the road to pass natural drainage under the road.

In addition to the new road construction road construction previously described, a new borehole pad (surface area approximately 200 x 200 ft.) will be constructed to support the initial borehole drilling, subsequent borehole completion activities, and any future site activities. As shown on Figure EX49EE-F1, TC has identified three potential borehole locations, although only one location will ultimately be developed and completed. The drill pad size would be the same, regardless of location, and TC will permit and bond for the maximum road disturbance. The 9-East Utility Borehole Installation will consist of the new light-use road, the new borehole pad; adjacent soil material stockpiles, two cased and grouted boreholes extending into the Wolf Creek Coal Seam mine workings, a surface blower installation, and a 2,370 foot (maximum length) powerline extension to provide power to the portable skid-mounted blower units. The proposed pad and light-use road locations are on a low-gradient side-hill, so upgradient drainage will be limited. The limited amount of drainage from upgradient areas will be intercepted and routed around the borehole pad by a perimeter diversion ditch with rock-lined sediment traps to collect and control run-on and discharge. Drainage from the borehole pad will be controlled under a Small-Area Exemption, with gravel surfacing on the pad and road to control runoff and sediment, and placement of rigid sediment filter material on the downgradient side of the soil material stockpiles. The 9-East Utility Borehole Installation will remain in place until it is no longer needed to support ongoing operations, and will then be reclaimed. Reclamation will involve plugging and sealing the boreholes, regrading the pad and road, soil material replacement, and reseeding.



ENVIRONMENTAL ANALYSIS REPORT

The proposed 9-East Utility Borehole (9E) activities will result in minimal impact to the environmental resources of the area. The proposed activities include short-duration, localized light-use road and pad construction; drilling and casing of two utility boreholes; construction of a short powerline extension; use of the boreholes to continuously exhaust and monitor atmospheric conditions in the gob and bleeders, transfer of grout to the underground workings, for power or communications drops, and other utility uses; and reclamation of the borehole, road, and pad, when they are no longer needed to support ongoing operations.

Geologic Hazards: There are no known geologic hazards for the proposed borehole pad and road. The general topography of the proposed borehole area is a low-gradient sidehill, sloping to the west. The site lies in the Fish Creek drainage, and Fish Creek is located just west of the borehole site.

Hydrologic Hazards: There are no anticipated hydrologic hazards for the proposed borehole and road. Both the borehole and road lie on a low-gradient sidehill, above the Fish Creek drainage and are well above the Fish Creek floodplain. The borehole completion activities will involve drilling through sandstone units, which may function as aquifers in the area (dependent on recharge, transmissivity, and lateral continuity). On completion of drilling, the borehole will be cased and grouted to minimize the potential for any hydraulic communication between the multiple sandstone units.

Vegetation: Previous vegetation investigations for the existing TC Foidel Creek Mine Permit did not identify any currently listed threatened or endangered plant species as occurring within the project area. The only rare plant species with Federal status that potentially could occur in the project area is the Ute Lady's Tresses orchid (*Spiranthes diluvialis*). The only suitable habitat for this species mapped in Routt County is in the vicinity of the Yampa River along the floodplain, which is several miles north and west of the project area. Several plants regarded as rare by the Colorado Natural Heritage Program (CNHP, <http://www.cnhp.colostate.edu>; accessed 4/10/08) have been located in the Little Snake Resource Area, though mostly at lower elevations and to the west of the project area. The only CNHP rare plant species with some potential for occurrence in the TC area are Harrington beardtongue (*Penstemon harringtonii*) and Autumn willow (*Salix serissima*). Habitat for Harrington beardtongue typically occurs at elevations between 6,800 and 9,200 feet, and while much of the area is within this elevation range, no occurrences of Harrington beardtongue have been identified in this area. Habitat for Autumn willow is defined as occurring between 7,800 and 9,300 feet. While elevations in the area approach 7,500 feet, no occurrences of Autumn willow have been identified in the project area.

Wildlife: The sagebrush, pastureland and mixed brush vegetation types in this area support a variety of wildlife species. Information on wildlife in the vicinity of the Twentymile area was obtained from federal and state agencies, as well as, site-specific studies for adjacent coal properties. The Bureau of Land Management (BLM) and Colorado Parks and Wildlife (CPW), in partnership with CNHP, keep information on area wildlife including big-game and game birds and other species of concern. This includes federal- and state-listed threatened and endangered (T&E) species, and other species considered to be rare or of special interest.

Habitat for the Bonytail, Colorado pike-minnow, humpback chub and razorback sucker does not occur within the project area. Critical habitat for these fish species, which are federally-listed endangered species under the ESA, exists in the Yampa River downstream in Moffat County.

As part of the required consultation process, TC has provided the CPW with mapping and other information on the proposed borehole program for review. Appendix A presents the CPW wildlife consultation prepared for this project. It is not anticipated that the proposed borehole activities will negatively impact existing wildlife species or populations.

Given this information, TC submits that the borehole and reclamation activities described in this application will not jeopardize the continued existence of any threatened or endangered species listed pursuant to Section 4 of the Endangered Species Act of 1973 (16 U.S.C. 1533) or the Nongame, Endangered or Threatened Species Conservation Act (Section 33-8-101 *et seq.* C.R.S. 1973), or result in the destruction or adverse modification of critical habitat for those species.

Soils: Soils within the project area are formed primarily from weathered fine-grained sandstone, siltstone and shale. The dominant soils are Argiustolls, Haplocryolls, and Palecryolls associations, and are moderately-deep to deep, well-drained, and have loam to fine-sandy-loam surface textures (Soil Survey Staff, Natural Resources Conservation Service, U.S. Department of Agriculture. Web Soil Survey. *Custom Soil Resources Report for Routt Area, Colorado, Parts of Rio Blanco and Routt Counties*. <http://websoilsurvey.nrcs.usda.gov/> accessed [04/07/08]).

The only potential for erosion problems would be associated with the drill-pad and road, however given the very limited size of the pad, limited road length, their location on a low ridgeline with very limited upgradient drainage, and the proposed drainage control measures, this potential is not significant. The borehole installation will remain in place until it is no longer needed to support ongoing or anticipated future mining operations, and the related drainage and sediment control measures will be maintained until the associated disturbance is reclaimed.

RECLAMATION PLAN

The proposed light-use road and borehole pad is located on a low-gradient sidehill to minimize grading requirements. The maximum pad surface dimension will be 200 x 200 feet, and road disturbance will be limited to a 40 foot road corridor, with a typical road width of 25 feet. Construction will be conducted in accordance with Rule 2.02.2(2)(f) and 4.21.4(5) of the Regulations of the Mined Land Reclamation Board for Coal Mining.. Prior to earth-moving or excavations of any type, available soil materials will be salvaged and stored in areas that will be undisturbed and not subject to excessive wind or water erosion. After stripping and stockpiling the soil materials, minor grading will be completed to establish the drill pad and accommodate the drilling and support equipment. Runoff and sediment contributions from the soil material stockpiles will be controlled through placement of straw wattles, a silt fence or rigid silt barrier, a short diversion ditch discharging through a rock-lined sump, or a combination of these measures.

Mud pits may be constructed within the graded pad area. The size of the required pits will be dependent on drilling depths and conditions. Materials excavated from the pits will be stockpiled on the margins of the pad area and used to backfill the pits after the drilling is completed. All drilling fluids will be contained within the mud pits, and all drilling supplies will be contained within the area of the drill pad. Any runoff and associated suspended sediment from the drill pad will be controlled and contained by the diversion ditch on the downgradient side(s) of the drill pad. On completion of drilling, the boreholes will be cased and grouted, the mud pits will be allowed to dry out and will be backfilled, and the pad surface and road will be graded and surfaced with gravel. The pad, road, and associated drainage control measures will be maintained during active use, and all disturbance will be reclaimed when no longer needed to support ongoing or anticipated future mining operations.

Proposed Reclamation Methods: Under the required CDRMS Minor Revision approval, the bond coverage in place with the Mined Land Reclamation Board is adequate to assure that the reclamation obligations are fulfilled. The following sections describe the specific proposed reclamation practices to be used to return areas disturbed by the borehole activities to a stable condition and productive use.

Borehole Plugging, Sealing, and Abandonment: The boreholes will be plugged, sealed, and abandoned. A minimum of 6 cubic yards of cement slurry will be tremied into the boreholes from the bottom of the hole. This will effectively plug and seal all coal beds and potential groundwater aquifers to prevent vertical groundwater migration and hydraulic communication between aquifers.

The remaining open borehole interval will be filled with other suitable plugging material (plug gel or vendor-specific grout compounds) and/or drill cuttings to within 5 feet of the ground surface and the drillhole will be sealed with a surface plug consisting of at least 5 feet of cement. Surface casing will be cut-off at or below grade. The reclaimed borehole locations will be marked with either a steel fence-post or a metal survey cap at or below ground level. The borehole locations will be accurately surveyed, and distinctly numbered, allowing for future identification. Abandonment reports will be prepared and filed, as required by applicable regulations.

Palmer penstemon (Ceder)	0.10
Blue flax (Appar)	0.50
Arrowleaf balsaroot (Native)	0.50
Tailcup lupine (Native)	1.0
Yarrow (Native)	0.10
Pacific aster (Native)	0.10
Chokecherry (Native)	1.0
Serviceberry (Native)	0.50
Mountain snowberry (Native)	0.50
Antelope bitterbrush (Native)	<u>1.0</u>
Total PLS	18.5 (double for broadcast seeding)

The rangeland seed mixture has been used to seed mine disturbance areas, and lends itself to rapid and long-term surface stabilization, ease of establishment, maximum use of native species, high levels of utility for livestock and wildlife, good forage production potential, compatibility with naturally regenerating native species present in replaced topsoil and the ability to be self-sustaining. CPW has requested that TC add mountain big sagebrush (*Artemisia tridentate* Ssp. *vaseyana*) in the rangeland seed mixture (0.25 PLS/acre).

TC will monitor the reclaimed borehole disturbance for noxious weeds and, if necessary, implement treatment to control any noxious weeds in accordance with CDRMS guidelines and the County Weed Management Plan.

APPENDIX A

COLORADO PARKS AND WILDLIFE CONSULTATION LETTER



COLORADO

Parks and Wildlife

Department of Natural Resources

PO Box 775777 • Steamboat Springs
(970) 871-2855 • (970) 871-2853
wildlife.state.co.us • parks.state.co.us

May 2, 2016
Routt County Planning Department
PO Box 773749
Steamboat Springs, CO 80477

Re: PL-16-23

Dear Mr. Goldich,

Thank you for the opportunity to comment on the Amendment to the Special Use Permit for the 9 East utility borehole and associated roads.

The following is Colorado Parks and Wildlife's (CPW) understanding of the proposed events on the property.

- The construction includes the addition of:
 - A drill-pad
 - Drilling and casing of two utility boreholes
 - Construction of a short power line extension
 - Use of one of the boreholes to continuously exhaust and monitor atmospheric conditions in the gob and bleeders
 - Use of one borehole to transfer grout

Existing Wildlife Habitat

The majority of the habitat on site is sagebrush, pastureland, and mixed brush vegetation types.

Wildlife species commonly associated with these habitat types include a variety of bird species including raptors, migratory song birds, elk, deer, pronghorn, and grouse species. Small mammals such as red fox, coyote, skunk, porcupine and raccoon are also found in this habitat.

Potential Impacts

On April 28, 2016, CPW Staff met with Jerry Nettleton to visit the construction site and discuss potential impacts to Columbian Sharp-tailed Grouse habitat. The proposed construction is barely within the current reproduction buffer zones of 2 Columbian Sharp-tailed Grouse leks. Given the topography, CPW staff does not believe the construction will interfere with the lek activities.

CPW staff believes there will be minimal additional disturbances to leks. The proposed drill-pad and power line extension are a minimal distance from an existing gravel road and powerline. CPW staff and Nettleton discussed the potential to minimize off-site noise by constructing topsoil berms. CPW staff recommends that construction and maintenance activities make reasonable efforts to minimize artificial lighting on site.



APPENDIX C
CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

PEABENE-01

LEWISJY

DATE (MM/DD/YYYY)

7/22/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Willis of Tennessee, Inc.
c/o 26 Century Blvd
P.O. Box 305191
Nashville, TN 37230-5191

CONTACT NAME: Willis Certificate Center

PHONE (A/C, No, Ext): (877) 945-7378

FAX (A/C, No): (888) 467-2378

E-MAIL ADDRESS: certificates@willis.com

INSURER(S) AFFORDING COVERAGE

NAIC #

INSURER A: ACE American Insurance Company

22667

INSURED

Peabody Energy Corporation
Attn: Robert Fenley
701 Market Street
Suite 700
St. Louis, MO 63101-1826

INSURER B:

INSURER C:

INSURER D:

INSURER E:

INSURER F:

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD	WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	X		HDOG27396367	08/01/2015	08/01/2016	EACH OCCURRENCE \$ 5,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000
							MED EXP (Any one person) \$ 5,000
							PERSONAL & ADV INJURY \$ 5,000,000
							GENERAL AGGREGATE \$ 6,000,000
							PRODUCTS - COMP/OP AGG \$ 6,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						
	<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						
	OTHER:						
	AUTOMOBILE LIABILITY						
	<input type="checkbox"/> ANY AUTO						COMBINED SINGLE LIMIT (Ea accident) \$
	<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per person) \$
	<input type="checkbox"/> HIRED AUTOS						BODILY INJURY (Per accident) \$
							PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB						EACH OCCURRENCE \$
	EXCESS LIAB						AGGREGATE \$
	DED						
	RETENTIONS						
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						PER STATUTE
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/ MEMBER EXCLUDED? (Mandatory in NH)						OTH-ER
	If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A				E.L. EACH ACCIDENT \$
							E.L. DISEASE - EA EMPLOYEE \$
							E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Twentymile Coal, LLC

It is agreed that Colorado Division of Reclamation, Mining and Safety is included as an Additional Insured as respects to General Liability where required by contract or agreement. Covers operations at Twentymile Coal, LLC including the use of explosives.

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

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ADDITIONAL REMARKS SCHEDULE

Page 1 of 1

AGENCY Willis of Tennessee, Inc.		NAMED INSURED Peabody Energy Corporation and Subsidiaries Attn: Robert Fenley 701 Market Street Suite 700 St. Louis, MO 63101-1826	
POLICY NUMBER SEE PAGE 1		EFFECTIVE DATE: SEE PAGE 1	
CARRIER SEE PAGE 1	NAIC CODE SEE P 1		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

Description of Operations/Locations/Vehicles:
operating in the noted coverage areas. In addition, those state and county governments with regulatory authority over the covered operations/properties are included as additional insured parties with respect to General Liability, where required by contract or agreement. General liability limits, as noted in the Certificate, apply to each covered operation/property, and are restricted only as designated (i.e.: Each Occurrence or Any One Person). County Governments and/or County Commissioners are identified as Additional Insured parties with respect to the General Liability coverage, however this coverage is limited to their interest(s) in the operations and activities of the Named Insured, and only for such terms and limits which are the lesser of the policies hereon, or the written requirements and/or agreements between the Named Insured and the Certificate Holder(s).

APPENDIX E
WEED MANAGEMENT PLAN

Twentymile Coal, LLC
Administrative Permit for Coal Exploration

Weed Management Plan



October 2011

Management Planning and Scheduling - Effective management and planning are key elements in assuring the effectiveness of TC's noxious weed control program. Any new information collected through the ongoing noxious weed identification and mapping efforts, along with treatment information from prior years is reviewed and evaluated. Based on this information, treatment strategies and schedules are developed during the early spring for the annual weed management program using the following steps:

- For mapped weed infestations, treatment methods are determined based on the weed species present using recommendations provided by the CSU Extension Service. Selection of treatment method(s) takes into consideration proximity to flowing water or water bodies, croplands, any livestock use, and historical response of identified weed species to prior treatment(s), based on review of control effectiveness. Treatment methods may include mechanical controls (tillage, mowing, burning, cutting/pulling), chemical controls (selective herbicides), biological controls (weed-specific insects or pathogens), or combinations of these methods. In general, treatment method(s) will be selected to achieve the most effective control with the resources available. As an example, where multiple weed species are present, the most effective overall control(s) will be applied, although the method(s) may not be optimal for each individual species.
- Scheduling of weed management treatments will also be based on the CSU Extension Service recommendations for specific weed species. For most species, control effectiveness can be significantly enhanced by scheduling treatment at specific stages of vegetative growth (typically spring and/or fall). To the extent possible, based on staff and contractor availability, treatment will be scheduled to optimize effectiveness.
- Priority and responsibilities for weed control are determined based on weed species present and the location and extent of weed infestations. Certain weed species are extremely aggressive, and first priority will be given to their control to prevent establishment and spread. Previously treated areas are second in priority, in order to maximize control effectiveness. Third in priority are any new weed infestations and areas where the weed infestation covers a large area, to prevent further spread. Lowest priority is given to isolated weed infestations of non-aggressive species which have not been previously treated, since these may be addressed by natural vegetative succession and pose a reduced risk of spread. Generally, grazing lessees are responsible for weed control on their lease areas, with TC sharing control costs and providing oversight, under the terms of the lease agreements. TC is responsible for weed control on remaining areas. All weed management activities (both TC and grazing lessee) follow the general priorities, as outlined above.

Application of Selected Control Method(s) - The following summarizes the proposed treatment methods for listed noxious weed species known to occur within the TC permit area. If treatment extends over a longer time period, or if control effectiveness is determined to be lower than anticipated, treatment methods or chemicals may be adjusted to improve long-term effectiveness. Approved or more effective chemicals for targeted weeds may change over time and these modifications will be incorporated, as appropriate.

TABLE 1 – CHEMICAL CONTROL METHODS

SPECIES	HERBICIDE	RATE	TIMING
Black henbane	2,4-D Amine/ Low Vol Ester 6	½ pt./ac	Spring
	Banvel	½ pt./ac	Fall
Bull thistle	2,4-D, Tordon	½ pt./ac	Spring*
	Banvel	½ pt./ac	Fall
Canada thistle	2,4-D, Tordon	½ pt./ac	Spring
	Banvel	½ pt./ac	Fall
	Escort	2 oz./ac	Spring *
Common cocklebur	Grazon P&D	2 pt./ac	Spring*
	2,4,D	½ pt./ac	
Common mullein	Grazon P&D	4 pt./ac + surfactant**	Spring
	Escort 2 oz/A		
Curly cup gum weed	Grazon P&D	2 pt./ac	Spring
	2,4D LV 6	1 lb. /ac	
Curly dock	Grazon P&D	2 pt./ac + surfactant**	Spring
	Tordon		
Dalmatian toadflax	Tordon	2 qt./ac	Spring
	2,4-D	1 lb./ac + surfactant**	
	Escort		
Field bindweed	2,4, D	1 lb./ac	Spring
Kochia	2,4-D	½ pt./ac	Spring
Leafy spurge	Tordon	2 qt./ac	Spring
Perennial pepperweed	Escort	2 oz./ac	Spring
Russian olive	Garlon 4	5%	Stump treatment spring
Russian thistle	2,4 D	½ pt./ac	Spring
Scotch thistle	2,4-D	½ pt./ac	Spring
	Tordon		
	Banvel	½ pt./ac	Fall
Tamarisk, Salt Cedar	Garlon 4	5%	Stump treatment
Yellow toadflax	Tordon	2 qt./ac	Spring
	2,4-D	1 lb./ac + surfactant**	
Whitetop, Hoary Cress	Escort	2 oz/ac	Spring
	2,4-D	½ pt./ac	
Bare ground treatment substations and explosive storage	Arsenal	20 lb/ac Pellets	Spring for total vegetation control per safety regulations.

SPOT TREATMENT MIXING (see label instructions for specific species)

- 1% Solution in 100 Gallons = 1 gallon of Chemical
- 1% Solution if 3 Gallons = 3.8 oz = 11.5 Tbsp = 114 ml
- 1% Solution in 1 Gallon = 1.3 oz = 4 Tbsp = 39 ml
- 2% solution in 1 Gallon = 2.5 oz. 8 Tbsp = 75 ml
- Escort package contains a measuring funnel. Use a ¼% mixture for spot spraying.

2014 5MN UTILITY BOREHOLE EMERGENCY PHONE LIST	
Note: Occasionally cell phone service will become unavailable due to the 'dead-spots' around this area. Drill crew must check cell phone each shift and when moving to a new site.	
Contact Michael Berdine (leave voicemail) at beginning, midday (11am), and end of shift.	
EMERGENCY NUMBERS	
Routt County Sheriff Emergency Dispatch 911 (Routt Phone)	911
St. Mary's Care Flight (Helicopter)	(800) 332-4923
Yampa Valley Medical Center (Hospital in Steamboat Springs)	(970) 879-1322
Twentymile Ambulance / Facility Tech's	ER Direct - (970) 870-1040
Peabody Twentymile Mine - WHELAN SECURITY @ Mine Office	(970) 875-2157, (970) 875-2158
Peabody Twentymile Mine - Mine Office	970-879-3800
TWENTYMILE & SAGE CREEK SAFETY DEPARTMENT	
Mike Crum	(970) 870-2711 (Tmle Office) Cell 970-367-6597
Catherine (Cat) Hegarty	(970) 870-2702 (Tmle Office)
Mark Beauchamp	(970) 875-2792 (Tmle office) Cell 970-367-6047
DRILLERS - WESTERN AMERICAN	
Hydro Resources Holdings, Inc, Mark J Scharenbroich, P.E., Vice President of Business Development, Pending Receiving Crew Contact Information	(775)-293-0724 (Cell)
	(303)-857-7540 (Rocky Mt. Region)
PEABODY TWENTYMILE MINE SITE MANAGERS	
Michael Berdine - Engineer/Site Manager	(970) 846-9686 (Cell)
	(970) 870-2782 (TCC Office)
Jerry Nettleton - Manager Environmental Affairs/Site Manager	(970) 870-2712 (TCC Office)
	(970) 761-0125 (Cell)
	(970) 879-1859 (Home)
ENVIRONMENTAL/PERMITTING ALL WORKSITES	
Jerry Nettleton - Manager Environmental Affairs/Site Manager	(970) 870-2712 (TCC Office)
	(970) 761-0125 (Cell)
	(970) 879-1859 (Home)
PEABODY LANDS DEPARTMENT	
Kendra Quick - Senior Manager Lands West, Peabody Investments Corp.	(307) 685-6704 (Office)
	(307) 660-6156 (Cell)
LANDOWNERS	
Twentymile Coal, LLC	(970) 879-3800
In the case of emergency please contact the Twentymile Facility Technicians (970) 870-2700. Twentymile Emergency Management procedures include mandatory contact with the Twentymile Safety Department and if necessary, contact with the County Sheriff's Department and dispatch of the Twentymile or Yampa Valley Medical Center ambulance or Flight for Life, under cooperative agreement with Routt County Emergency Services.	