



State of Utah
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL, GAS AND MINING

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May 6, 2002

TO: Internal Files

THRU: Daron R. Haddock, Permit Supervisor *DRH*

FROM: Stephen J. Demczak, Sr. Reclamation Specialist/Engineering, Team Lead *sgp/ryan*

RE: Exploration Federal Leases U-63214 & U-7619, Canyon Fuel Company, SUFCO Mine, C/041/002-EX02C

SUMMARY:

Arch Coal Inc. is submitting a Notice of Intent to conduct Minor Coal Exploration on behalf of Canyon Fuel Company, LLC-SUFCO Mine. The permittee is proposing to drill three drill holes into the coal seam on coal lease U-63214 and U76195. The coal is under the jurisdiction of the United States Bureau of Land Management. The United States Forest Service is the surface owner.

The exploration will take place on Coal Leases U-63214 and U-76195, six miles from the town of Emery. The permittee will remove approximately a total of 285 lbs. of coal from the three drill holes.

The permittee plans to start drilling the second week of July 2002. It is planned that the project will take eight weeks from start to finish, including the reclamation of the drill site. This may vary due to weather conditions.

COAL EXPLORATION

Regulatory Reference: R645-200.

SCOPE AND RESPONSIBILITIES

Regulatory Reference: 30 CFR 772.1; 30 CFR 772.10; 30 CFR 772.11; R645-100-400; R645-200-100; R645-200-200; R645-201-100.

TECHNICAL MEMO

Analysis:

Ark land Company has submitted information to address 43 CFR 3482 (a)(1) thru 43CFR 3482.1(a)(3)(iii), which equates to regulations R645-200 through R645-203 of the State Regulatory Program.

Findings:

The information that was submitted is complete and adequate.

REQUIREMENTS FOR NOTICE OF INTENTION TO CONDUCT MINOR COAL EXPLORATION

Regulatory Reference: 30 CFR 772.10; 30 CFR 772.11; R645-100-412; R645-201-200.

Analysis:

The permittee has submitted the following information: name, address, and telephone number of the applicant's representatives, who will be present at and responsible for conducting the exploration operations. This information was within the Coal Exploration Plan.

The Coal Exploration Plan incorporates a narrative and map describing the exploration area and indicates where the exploration will occur.

The permittee will transport all drilling equipment, materials, and personnel by rubber tire equipment, except a D-8 cat will be used for road work and to level off the drill site. The access to the drill sites will be by using existing U.S. Forest Service development roads. A short access road will be constructed from U.S. Forest Service development road #007.

The drill site will be approximately 0.23 acres of disturbance. The total disturbed area for all drill holes including the road improvements to wheel track road is 2.46 acres. Earth excavation for the drill site will be by using a D-8 Cat dozer. Additional work will be done using a rubber-tired backhoe. The excavation will include removal and storage of the soil A-horizon. Material below the A-horizon will be stored separately. One of the two mud pits will be below the A-horizon.

The exploration will take place on Coal Leases U-63214 and U76195, six miles from the town of Emery. The permittee will remove approximately 285 lb. of coal from the three drill holes. This will be achieved by drilling a 3-3/16 inch diameter hole. Upon completion, the drill holes will be sealed with cement/bentonite from the bottom of the hole to ground level.

The permittee plans to start drilling the second week of July 2002. It is planned that the project will take eight weeks from start to finish, including the reclamation of the drill site. This may vary due to weather conditions.

Findings:

The applicant has given all of the necessary information.

COMPLIANCE DUTIES

Regulatory Reference: 30 CFR 772.13; R645-202.

Ark Land Company will disturb the natural land surface while conducting the exploration of the additional drill hole. The drill hole site will be located in an area requiring some leveling. Drilling equipment and material will be brought in by rubber tire equipment to the sites, except for the D-8 Cat dozer. This will be used for 1.77 acres of road construction, and 0.69 acres of drill hole site preparation. The permittee will remove vegetation at the drill site.

The operator has committed in the Coal Exploration Plan to clean-up spills and to scarify and seed all disturbed areas.

OPERATIONAL STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-100.

Analysis:

Biology

Golden eagle nests are located within a half-mile radius of the proposed drill site. Habitat (1997 Habitat Model) for the Mexican spotted owl has been identified within a half-mile radius of the drill site. The U.S. Forest Service will be conducting surveys for the owl in 2002 and 2003. U.S. Forest Service guidelines prohibit drilling before July 15. The U.S. Forest Service will look for sage grouse habitat and conduct goshawk surveys prior to drilling (phone call with Cara Stabb, Manti-LaSal National Forest Service, on April 30, 2002). The Division will look for U.S. Forest Service comments prior to approval of this application.

Threatened, endangered and sensitive plant surveys have not been conducted. Bob Thompson, U.S. Forest Service Botanist, was out of the office for the week when this application was reviewed. Prior to approval, the need for survey work must be reviewed with Mr. Thompson.

TECHNICAL MEMO

Roads

R645-202-232; Ark Land Company will use existing U.S. Forest Service Development Roads to conduct exploration. The roads that will be used are development roads #044 and #007. The permittee will also obtain a Road Use Permit from the U.S. Forest Service. This permit contains a bond in case the roads are damaged.

A short access road will be constructed from FDR #007 to the drill site 02-71-1 as shown on Map 3. The road would be widened to 14 ft. and smoothed. This road will be used for a short period of time. The timetable on Page 6 shows the road will be reclaimed in the eight weeks of the drilling project. Therefore, this road will not be a primary road due to the short life span of the road. The acreage to be disturbed for roadwork will be 1.77 acres. The two other drill hole sites are along existing U.S. Forest Service development roads.

Topsoil

Topsoil will be saved, and protected by silt fences or other types of sediment control measures. The A-horizon will be saved and soils below the A-horizon will be saved during the construction of the mud pits.

Diversions of Overland flows and streams

The surface topography of the exploration area is fairly flat with some low rolling hills and small drainages. The permittee states there will be no diversions of overland flow. Reviewing Map #3 in the Coal Exploration Plan, this reviewer agrees with the permittee that no surface drainages should impact the drill pad area.

Hydrologic Balance

The surface topography of the exploration area is fairly flat with some low rolling hills and small drainages. The drilling area will be reclaimed to the approximate original contour. These areas are small at 0.23 acres and will not affect the hydrologic balance of this area.

Acid- or toxic forming materials

All drilling fluids, cuttings, and mud will be contained on the project site in mud pits or portable containers. An MSDS sheet will be provided for all drilling fluids and mud used. The permittee stated that during past drilling programs that no acid-forming materials were encountered.

The Division of Oil, Gas and Mining would request lab analysis of acid and toxic forming materials above and below the mineable coal seams. This information could help in

determining the quality of ground water after mining has taken place, and in the determination of soil cover needed over refuses piles.

Findings:

Information provided in the proposed Coal Exploration Plan is not considered adequate to meet the requirements of this section. The Division would request the following information.

R645-202-236, The Division feels that the information given for acid and toxic forming materials is incomplete. The Division of Oil, Gas and Mining would request lab analysis of acid and toxic forming materials above and below the mineable coal seams. This information could help in determining the quality of ground water after mining has taken place, and in the determination of soil cover needed over refuses piles.

R645-202-231, Threatened, endangered and sensitive plant and animal surveys information must be provided.

RECLAMATION STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-200.

Analysis:

Approximate original contour

Ark Land Company will scrape off the vegetation and remove the topsoil from the drill site. The total disturbed area, including the upgrade of an existing road and drill pad, is 2.46 acres.

Revegetation

The Division has found that using the extreme surface roughening methods described in The Practical Guide to Reclamation in Utah (ftp://dogm.nr.state.ut.us/PUB/MINES/Coal_Related/RecMan/Reclamation_Manual.pdf) work better for controlling erosion and establishing vegetation than crimping mulch. A surface mulch can be incorporated during the roughening process. Please commit to using this surface preparation and mulching method.

All organic material grubbed from the drill pad will be salvaged to use as a surface mulch during reclamation operations. It is recommended that only materials native to the site be used as mulch. Noxious weed free straw or hay will introduce additional non-noxious weeds.

TECHNICAL MEMO

The seed mixture does not meet the requirements from the Division of Oil, Gas and Mining. The proposed species are not native to the area to be disturbed. The Operator may propose a new seed mixture or the Division will get with the U.S. Forest Service and specify a seed mixture. (Bob Thompson, U.S. Forest Service Botanist was out of the office for the week when this application was reviewed.)

Boreholes

The main drill hole diameter will be 3-3/16 inches diameter. The depth of the hole will be between 1,000 ft. to 1,600 ft.

Upon completion of the drilling, holes 02-12-1 and 02-13-2 will be plugged with cement or cement/bentonite slurry to its full depth. The collar of the monitor well will be identified as to hole number and operator. A brass tag will be placed at the top of the drill hole stating the operator's name, drill hole number, and legal description.

Borehole 02-17-1 may be completed as a piezometers (water monitoring) well. The design of the monitoring well is shown on Figure #1 on Page 5 of the Coal Exploration Plan.

Facilities and Equipment

All drilling equipment and materials will be removed from the drill area once drilling is completed. Sealing will start thereafter, and all equipment and material for sealing the drill hole will be removed, when sealing is completed.

No facilities are to be built during this exploration program.

Findings:

The information provided does not meet the minimum regulatory requirements of this section. The Division requests that the Permittee provide information in accordance with:

R645-202-242.100, The seed mixture does not meet the requirements from the Division of Oil, Gas and Mining. The proposed species are not native to the area to be disturbed. The Operator may propose a new seed mixture or the Division will get with the U.S. Forest Service and specify a seed mixture. Bob Thompson, U.S. Forest Service Botanist and Susan White, Division's Reclamation Specialist, should decide on the proper seed mixture.

PUBLIC AVAILABILITY OF INFORMATION

Regulatory Reference: 30 CFR 772.15; R645-203.

Analysis:

No information is given in the Coal Exploration Plan. This is a decision between the permittee and the Regulator Authority (Bureau of Land Management).

Findings:

This is a decision between the permittee and the Regulator Authority (Bureau of Land Management).

RECOMMENDATION:

Prior to approval, the Division requests the permittee to meet the requirements of R645-202-236, R645-202-231, and R645-202-242.100, as outlined above.