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JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Outgoing
C0070039
OK
#3255

April 7, 2009

Wade Robinson, Mine Geologist
Canyon Fuel Company, LLC
Dugout Mine
P.O. Box 1029
Wellington, Utah 84542

Subject: Notice of Intent to Conduct Minor Coal Exploration, Canyon Fuel Company, Dugout Canyon Mine, C/007/039, Task ID #3255, Outgoing File

Dear Mr. Robinson:

The above-referenced Letter of Intent to conduct Minor Coal Exploration has been reviewed. It is being returned because there are deficiencies that must be adequately addressed prior to your conducting the described Minor Coal Exploration. Please address the following deficiencies before resubmitting your Letter of Intent, which should be accompanied by new C1/C2 forms:

R645-200-230, Prior to conducting minor exploration, the Division must receive concurrence from SITLA.

R645-200-230, Prior to conducting minor exploration, the Division must receive concurrence from SHPO.

R645-202-244, The applicant must remove all materials/waterlines once exploration is finished.

R645-201-100.130 and 202-200.234, The Applicant should provide the Division with updated documents from the Division of Water Rights indicating that the Temporary Change Applications are valid during drilling and water pumping activities.

R645-202-200.236, The Applicant must include in the NOI that they will have on-site with them the MSDS sheets for the drilling fluids, chemicals or other products used in drilling.

R645-202-200.236, In addition to that, since some coal samples have exhibited acid potential, the Division will require that all excess cores not used by the Applicant be disposed of ^{at the} ~~in the~~

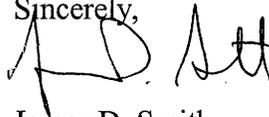


waste rock site, regardless of their acid potential.

R645-202-200.235, 301-731.121, A *minimum* berm of three feet shall be constructed around the drill pad site. Additional sediment controls may be necessary such as hay bales or excelsior logs upon inspection of the drill pad area by the Division.

If you have any questions, please call me at (801) 538-5262 or Stephen J. Demczak at (435) 613-3732.

Sincerely,

A handwritten signature in black ink, appearing to read 'JDS', is written over the word 'Sincerely,'.

James D. Smith
Permit Supervisor

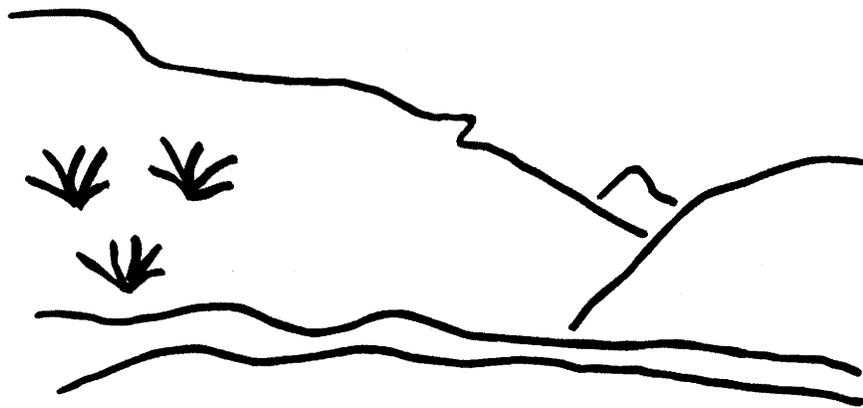
JDS/SD/sqs

Enclosure

cc: Price Field Office

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State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Dugout Canyon Mine
Notice of Intent to Conduct Minor Coal Exploration
C/007/0039
Task ID # 3255
Minor Exploration Analysis and Findings
April 6, 2009

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INTRODUCTION

EXPLORATION TECHNICAL ANALYSIS

INTRODUCTION

On March 23, 2009, Ark Land Company (Applicant), an Arch Coal Inc. subsidiary, submitted a Notice of Intent (NOI) to Conduct Minor Coal Exploration to the Division on behalf of Canyon Fuel Company LLC Dugout Canyon Mine.

The minor coal exploration will consist of one drill hole planned for 2009 within the Dugout Canyon Mine Permit Boundary and on private surface owned by Canyon Fuel Company and the coal will be leased through Utah State Coal Lease (ML-42648).

The exploration area is located approximately 20 miles NE of Wellington, Utah. The proposed exploration hole is located north of Pace Canyon and will be accessed via a county road.

The drill core will be obtained to determine coal seam thickness and associated strata. The applicant will use rubber tire drilling equipment for the minor exploration project. The coal recovery will be less than 250 tons of coal.

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INTRODUCTION

SUMMARY OF OUTSTANDING DEFICIENCIES

SUMMARY OF OUTSTANDING DEFICIENCIES

The Technical Analysis regarding the proposed permit changes is not complete at this time, pending submittal of additional information by the Permittee and further review by the Division, to address outstanding deficiencies in the proposal. A summary of those outstanding deficiencies is provided below. Additional comments, concerns, and deficiencies may also be found within the analysis and finding make in the Draft Technical Analysis, which have not been presented in this summary. Upon finalization of this review, any outstanding deficiencies will be evaluated for compliance with the regulatory requirements. Such deficiencies may be conditioned to the requirements of the permit issued by the Division, result in denial of the proposed permit changes, or may result in other executive or enforcement actions as deemed necessary by the Division at that time to achieve compliance with the Utah Coal Regulatory Program.

Accordingly, the permittee must address those deficiencies as found within this Draft Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

R645-202-244, The applicant must remove all materials/waterlines once exploration is finished.

R645-201-100.130 and 202-200.234, The Applicant should provide the Division with updated documents from the Division of Water Rights indicating that the Temporary Change Applications are valid during drilling and water pumping activities.

R645-202-200.236, The Applicant must include in the NOI that they will have on-site with them the MSDS sheets for the drilling fluids, chemicals or other products used in drilling.

R645-202-200.236, In addition to that, since some coal samples have exhibited acid potential, the Division will require that all excess cores not used by the Applicant be disposed of at the waste rock site, regardless of their acid potential.

R645-202-200.235, 301-731.121, A *minimum* berm of three feet shall be constructed around the drill pad site. Additional sediment controls may be necessary such as hay bales or excelsior logs upon inspection of the drill pad area by the Division.

SUMMARY OF PERMIT CONDITIONS

As determined in the analysis and findings of this Technical Analysis, approval of the plan is subject to the following Permit Conditions. The applicant is subject to compliance with the following Permit Conditions and has committed to comply with the requirements of these conditions as referenced in the approved Permit.

Accordingly, the permittee has committed to comply with the requirements of the following Permit Conditions, as specified, and in accordance with the requirements of:

R645-200-230, Prior to conducting minor exploration, the Division must receive concurrence from SITLA.

R645-200-230, Prior to conducting minor exploration, the Division must receive concurrence from SHPO.

SUMMARY OF OUTSTANDING DEFICIENCIES

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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.

Analysis:

Ark Land Company has proposed to conduct minor exploration by drilling one drill hole on Lease ML-42648 in the year 2009.

The Applicant has committed to comply with the requirements of R645-200 through R645-203.

This minor coal exploration will be conducted on Utah State Coal Lease ML-42648 and the Canyon Fuel Company is the surface landowner; therefore, 43 CFR Part 3480-3487 does not apply.

Findings:

The Applicant has met the minimum requirements of this section.

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:

Coal Rule R645-201-221 requires the applicant to give name, address, and telephone number of the applicant's representatives, who will be present at and responsible for conducting the exploration operations. This information has been submitted in the Notice of Intent, Page 3.

R645-100-400, R645-200-100, R645-200-200, and R645-201-100; Ark Land Company has given a Notice of Intention to Conduct Minor Coal Exploration with a narrative and maps describing the exploration area and indicating where the exploration will occur. This information is on Page 4 and 6 of the Letter of Intent.

SUMMARY OF OUTSTANDING DEFICIENCIES

The Applicant will use rubber tire equipment on existing roads to gain access to the drill site.

The minor exploration project is scheduled to start on July 2009 and be completed by October 31, 2009.

Findings:

The Applicant has met the minimum requirements of this section.

COMPLIANCE DUTIES

Regulatory Reference: 30 CFR 772.13; R645-202.

Analysis:

The Applicant stated to have a copy of the Notice of Intent to Conduct Minor Coal Exploration for review by an authorized representative of the Division upon request.

Findings:

The Applicant has met the minimum requirements of this section in the R645 Coal Rules.

OPERATIONAL STANDARDS

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

Analysis:

Biology

Vegetation

Appendix C of the NOI includes vegetation information as well as threatened or Endangered Species information, which includes a vegetation survey from Mt. Nebo Scientific described below.

- Patrick Collins of Mt. Nebo Scientific Inc conducted a survey in August of 2008 for vegetation of the DUG 07, R02, DUG 08, DUG 09, DUG 10 and H 01 Drill sites and the corresponding reference areas. The survey consisted of vegetation sampling and sensitive plant species survey at each drill site with 100ft. buffer as well as each chosen reference site. (Some drill sites do not have reference areas due to previous disturbances. In these instances, other standards have been

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selected and approved.) Pat Collins collected qualitative and quantitative data including Cover, composition, woody species density, and photographs.

Results:

~ Drill Site DUG-07/R-02: This site included a Sagebrush/Mountain Brush community with the dominant understory of mountain big sagebrush, snowberry and grasses and an overstory of Utah serviceberry and Douglas Fir. Total living cover was estimated at 51% consisting mostly of shrubs. The woody species density was estimated at 3679/ acre.

The sagebrush/ mountain brush reference area had a significantly higher living cover and woody species density than the proposed drill site area. Therefore, the report recommends that the overstory cover value be excluded and use only the understory cover value for the success standard. Futhermore, it suggests that a lower density value should be used such as 2000 or the current density of the drill site which is 3680. Taking those recommendations into account, the understory cover for the reference area was 57 % and consisted primarily of shrubs.

~ Drill Site DUG-08: This site was a pre-disturbed site of an aspen/conifer community. It was dominated by big sagebrush, Kentucky bluegrass, hound's tongue (a Utah Noxious weed), and snowberry. Total living cover was 56% consisting mainly of shrubs. The total woody species density was 6138/ acre.

Since this drill site was previously disturbed, the report recommends non-reference area standards. These standards are suggested as follows: Total living cover should be 57% and composition must not include weedy species. Woody species density should be 2000/ acre and no diversity standard is suggested.

~ Drill Site DUG-09: This site was a pre-disturbed site of an aspen/ conifer community. It was dominated by hound's toungue and mountain brome. Total living cover was 49% consisting mainly of forbs. Total woody species was 339/acre.

Since this drill site was also previously disturbed, alternate success standards were recommended, these include: Total living cover of 49% consisting of non-weedy species, density of 2000/ acre and no diversity standard.

~ Drill Site DUG-10: This site, including the access road, was a Mountain Brush/sagebrush community consisting of pinyon pine, Utah juniper and Douglas fir. Total living cover for this site was 54% consisting mainly of shrubs. Total woody species was 4923/ acre.

~ Drill site H-01: This site is proposed to be accessed by helicopter and is a Maple/

SUMMARY OF OUTSTANDING DEFICIENCIES

Pinyon- Juniper (Conifer/snowberry) community.

Wildlife

The Applicant states that there are no known Federally or State listed threatened or endangered plant or wildlife species within the exploration drill hole area. Water consumption from flows contributing to the Colorado River system can adversely affect four endangered fish species according to the USFWS. The Applicant states that there is no known groundwater or surface water flows to the Colorado River System that could be impacted by the exploration drilling practices. Page 3-10 of Volume 2 of the Degas Amendment states that the Division of Water Quality determined that there is no data supporting the premise that surface waters associated with the area of the mine operations reached the Price River or Colorado River prior to or since mining disturbance. Also on this page, the water consumption for drilling degas wells is calculated as zero acre feet per year.

Located in the second half of Appendix C of the NOI, Pat Collins of Mt. Nebo Scientific prepared a list of Carbon County's Federally listed Threatened, Endangered and Candidate Species as well as a description of why each species would not be present in the application area. This summary includes habitat exclusions as well as observations during the vegetation survey.

The Applicant stated that the drilling of DUG-09 would occur after July 15th, therefore adhering to any applicable wildlife exclusionary periods. The Applicant identifies the Northern Goshawk calling survey located in the confidential binder of the MRP as pertaining to drill site DUG-09. This survey was conducted in July of 2003 by EIS Environmental & Engineering Consulting and encompasses an area around the drill sites DUG0103 and DUG0203. This was the only potential habitat area identified by the DWR.

The Applicant identifies a calling point survey that was conducted within the permit area by EIS consulting. This was the only potential habitat area identified by the DWR. The Applicant also states that, "additional studies by DW Wiley and F. Howe indicate that the habitat for the owls is in the southern parts of Utah, not in the Bookcliff area proposed for exploration drilling."

In a conversation with Vicky Miller on March 30, 2009, Vicky stated that the areas previously surveyed for MSO and Goshawks in 2003 (see reports in Confidential MRP volume 2 of 4) were the only areas identified by the DWR that contained suitable habitat for the MSO or Goshawk. Therefore, areas outside the previously inventoried sites did not need to be surveyed. Furthermore, the vegetation identified in the report (appendix C) is not consistent with either MSO or Goshawk habitat. It is a pre-disturbed area with no dense canopy. Page 3-18 of Chapter 3 of the MRP states that Tony Wright

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of the DWR indicated that a survey should be done only if disturbance is proposed on a dense canopy found in sections 21 and 17. DUG-09 is located in section 14.

Cultural Resource Information

The Division received the archaeological reports on March 11, 2009. The Applicant sent the reports ahead of the official NOI in order to speed up the process of receiving SHPO concurrence. The reports were reviewed by Joe Helfrich as task 3252. The Division notified the Applicant of approval of the reports and forwarded them to SHPO for concurrence on March 24, 2009.

The application includes three class III ground surveys for exploration drill pads and associated access corridors above the Dugout Canyon mine. Each survey includes the appropriate information for the Division to make an effect determination. The survey information includes class III surveys for drill pads G-22, R-01 and their access corridors, pad DUG- H-01 and its access corridor and DUG 04, DUG-01, DUG-08, DUG-09, DUG-07R-02, G-25, G-26, G- 28, G-30, DUG-02 and DUG-05 and their access corridors. These pads and access corridors can be located on the Mount Bartles and Pine Canyon 7.5 minuet Quad maps, Township 13S, R13E, sections 18, 20, 21, 29, and 30 and T13S, R12E sections 12, 13 and 14. Cultural resources were located consisting of two isolated findings. A rusted dinner knife with indented handle and four fragments of purple glass and a tan/ gray mudstone blade knife with a utilized end. These isolates were not recommended for nomination to the National Register of Historic Places. No other cultural resources were located and the Division concurs with the applicant's determination of no effect. Concurrence from the SHPO was received by the Division on -----2009.

The application includes a site map of the areas surveyed for each of the three proposed access and drill pad sites. The maps have been prepared to an appropriate scale and clearly identify the site locations.

Roads

The Applicant will access the site by using County roads in Clark Valley or an alternative route using County and Dugout mine road. No new road construction will be necessary. There is a possibility of grading and minor repair of the road.

Topsoil

Diversions of Overland flows and streams

The Applicant has indicated that no diversions of overland flows, ephemeral,

SUMMARY OF OUTSTANDING DEFICIENCIES

perennial, or intermittent streams will be made in association with the exploration drill hole and that no adverse impact will occur to the stream channel during water pumping activities.

Hydrologic Balance

The Applicant states that the drill pad and the lined mud pit will be constructed in a manner that would minimize the effects of run off. The source for water to be used during drilling activities will be from Dugout Creek and hauled or pumped to the drill site either through a series of water lines and/or stored in water/frac tanks. The application does not specifically state the distance between Dugout Creek and the proposed drill site, however based on a conversation with Vicky Miller the stream is within close proximity to the proposed drill site. The applicant indicates that a berm from one to three feet high will be installed around the drill pad.

The applicant also applied for a Temporary Change of Water to the Utah Division of Water Rights for Application Nos. 91-5024 and 91-409. These application numbers represent existing water rights held by the Canyon Fuel Company LLC, the company that presently operates the Dugout Mine. Both applications were filed on April 25, 2008. The Utah state engineer approved both applications for a one-year period.

Acid- or toxic forming materials

The Applicant indicates that acid or toxic forming materials are not anticipated during drilling activities. The NOI only addresses excess drill cores exhibiting acid potential will be either removed for off-site disposal or buried beneath four feet of cover. There is no discussion as to how drill cores will be disposed of even if they do not exhibit acid potential.

Findings:

The applicant has not met the minimum requirements of this section.

R645-202-200.235, 301-731.121, The applicant indicated that a one to three foot berm of subsoil will be constructed around the perimeter of the pad to ensure no runoff occurs. Given the close proximity of the stream to the drill pad area, a *minimum* berm of three feet shall be constructed around the drill pad site. The Division reserves the right to conduct a site inspection to evaluate the proximity of the drill site to the stream drainage channel to determine if any water quality impacts to the stream are possible and adequate sediment control measures are in place. Upon inspection of the site, the Division may require additional sediment control measures are implemented, such as hay bales or excelsior logs.

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R645-201-100.130 and 202-200.234, The approval letters issued by the Division of Water Rights f included in the NOI are valid for a one-year period and are due to expire on June 17, 2009. According to the timetable submitted in the NOI, drilling activities are to commence beginning in July 2009. The Applicant should file the necessary extensions with the Division of Water Rights and provide the Division with said documentation showing that the water rights applications are valid while drilling and water pumping is occurring.

R645-202-200.236, During drilling activities, the applicant must include in the NOI that they will have on-site with them the MSDS sheets for the drilling fluids, chemicals or other products used in drilling.

R645-202-200.236, Because some coal samples have exhibited acid potential, the Division requests that all excess cores not used by the Applicant are disposed of at the waste rock site, regardless of their acid potential.

RECLAMATION STANDARDS

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

Analysis:

Approximate original contour

The Applicant has stated the drill pad will be reclaimed to approximate original contour.

Revegetation

Page 9 of the NOI application includes the revegetation description for the drill site. The seed mixture to be used includes Kentucky bluegrass, Mountain Brome, Sandberg Bluegrass, Bluebunch Wheatgrass, Bottlebrush Squirreltail, Rocky Mountain Penstamon, and Wyoming Big Sage. All are native species and are adequate to reclaim the drill site.

In the vegetation survey report (Appendix C), Pat Collins describes the vegetation of drill site DUG-09 and success standards. Since the site was previously disturbed and dominated by a noxious weed, Dr. Collins has suggested that the success standards area as follows: Total living cover should be 49% and woody species density should be 2000/ per acre, also, living cover must be dominated by desirable native non-weedy plant species.

SUMMARY OF OUTSTANDING DEFICIENCIES

Boreholes

The Applicant addresses the procedures to plug the boreholes and the removal of surface casing when possible. The Applicant discusses notifying the Division prior to completion of the abandonment should the Division wish to be on site during the reclamation of the borehole.

Facilities and Equipment

The applicant has stated that water lines may remain after exploration of DUG-09 is completed for possibility of future drilling of exploration or degasification holes see Page 6 in the Letter of Intent.

It is my determination that all facilities, equipment and supplies must be removed after DUG-09 is completed. This is to ensure complete reclamation and met the R645 Coal Rules. By giving permission to leave the water lines in place is open-ended with no end date given by the Applicant.

Findings:

The applicant has not met the minimum requirement in this section.

R645-202-244, The applicant must remove all materials/waterlines once exploration is finished.

PUBLIC AVAILABILITY OF INFORMATION

Regulatory Reference: 30 CFR 772.15; R645-203.

Analysis:

The Applicant has stated to keep coal seam thickness and coal quality kept confidential.

Findings:

The applicant has met the minimum requirements of this section.