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From: "Bunnell, Mark" <MBunnell@archcoal.com>
To: "Priscilla Burton" <priscillaburton@utah.gov>
Date: 3/30/2006 12:03:15 PM
Subject: RE: Task 2390

Priscilla:

Attached are revised pages 9-13 which include the following revisions I have discussed with you and Pete:

Page 9, paragraph 5: Added sentence "Topsoil will be sidecast to both sides....."

Page 10, paragraph 2: Drillpad (disturbed area) increased to 100 X 120 ft. to include the topsoil pile. Also added a sentence "A qualified individual will be present....."

Page 11, Fig. 1: Altered to include silt fence around entire disturbed area including topsoil pile. Size of disturbance increased to 100 X 120'. Berm to be constructed of subsoil material.

Page 12, Seed Mix: Non-native species removed from list.

Page 13, table: Site disturbance changed to 100 X 120 ft. Total disturbance now 4.06 ac.

Also attached is a C2 form. Fax copies are on their way as well.

Thanks for your help on this project.

Mark

-----Original Message-----
From: Priscilla Burton [mailto:priscillaburton@utah.gov]
Sent: Wednesday, March 29, 2006 3:50 PM
To: Bunnell, Mark
Cc: Pete Hess; Wayne Hedberg
Subject: RE: Task 2390

Hello Mark,
I have found some information regarding the soils in the location of B-05 and A-05. According the USFS survey, the A horizon soil at B-05 will likely be 10 inches deep. The A horizon at site A-05 will likely be 20 - 30 inches deep. I agree with your suggestion of having a qualified individual at the site during construction to identify the topsoil horizon and direct the salvage.
In addition, I noticed that your seed mix includes yellow sweetclover and alfalfa, both non-native species. This is not accepted practice under the exploration rules. I have asked that you eliminate the non-natives from the seed mix.

Please revise the pages accordingly and send by fax to me, I will forward the revisions to Salt Lake and recommend approval when they are received.
Thanks,

Priscilla Burton
Certified Professional Soil Scientist
Utah Division of Oil Gas & Mining
Price Field Office
455 West Rail Road Ave.
Price UT 84501

priscillaburton@utah.gov
(435) 613-1146 x 207

>>> "Bunnell, Mark" <MBunnell@archcoal.com> Thursday, February 16, 2006 10:34 AM >>>
Priscilla:

Pete and I were discussing drillpad construction today and he forwarded me your email. I wonder if rather than you having to look up soil info we include some words like we did a number of years ago on a drilling project at Skyline. Steve Demczak had me include something like: "a qualified person will be present to define soil A and B horizons during startup of drillpad construction". The wording was better than that...I'll have to look it up...but that's the idea anyway. At any rate when we started each drillsite I actually mapped and logged the soil horizons and worked with the dozer operator so he knew how to differentiate them.

Just thought it might save you some work.

Thanks,

Mark

-----Original Message-----
From: Priscilla Burton [mailto:priscillaburton@utah.gov]
Sent: Wednesday, February 15, 2006 6:17 PM
To: Bunnell, Mark
Cc: Wayne Hedberg
Subject: Task 2390

Pete,
I made progress, but did not finish. (Let's blame Henry Austin for that!)
My main comment will be to define how deep is the A horizon that they will remove (pg. 10). I will look in to the existing soil information and give them an idea of what is to be expected so they can plan accordingly.
I will finish next week when I return.
Priscilla.

CC: <petehess@utah.gov>

APPLICATION FOR COAL PERMIT PROCESSING
Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permittee: Canyon Fuel Company, LLC
Mine: SUFCO **Permit Number:** C/041/002
Title: NOTICE OF INTENT TO CONDUCT MINOR COAL EXPLORATION--SITLA MUDDY TRACT AND UTAH STATE COAL LEASE ML49433-OBA, 2006 Task 2390

Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☐ Add	☒ Replace	☐ Remove	Replace pages 9-13 with the attached pages 9-13--pages revised 2/16/06
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Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.	Received by Oil, Gas & Mining

Form DOGM - C2 (Revised March 12, 2002)

for pumping water to the drill sites. Water will be pumped via 1, 2, and 3 inch HDPE waterline. Some additional water, primarily for road watering, may be pumped from the north and/or south forks of Quitchumpah Creek into 4000 gal. water trucks. All necessary arrangements will be made for water usage, including agreements with water rights owners in each of the drainages and Temporary Water Change approvals from the Division of Water Rights. Copies of approved Temporary Water Changes will be forwarded to the Division prior to project startup. Where not located adjacent to a road, waterlines and pumps will be placed and removed via horseback or on foot.

Supply trailers will carry drill steels, coring equipment, drilling additives, cutting and welding equipment, and other supplies to the staging area and drillsites. Also located at the staging area will be a double-lined diesel fuel tank for the drill rig and support equipment, an 18,000 gal. frac tank and pump, construction equipment, and other supplies such as waterline, etc. Support vehicles such as pickup trucks and a geophysical logging truck will be parked at the drillsites and staging area.

The only coal to be removed during exploration activities will be cores. Cores will nominally be 2.4 inches (HQ) in diameter. Given an approximate projected thickness of 7 ft. for the Upper Hiawatha seam and 12 ft. for the Lower Hiawatha seam, approximately 30 to 60 lbs. of coal will be removed.

Temporary road construction is planned for this project. Forest Trail 025 is a two track ATV trail. In 2001 Canyon Fuel Company temporarily widened the trail and removed water/barrier bars for drilling of three previous exploration boreholes on Big Ridge (see C/041/002 – EX99F, Outgoing File). Upon completion of drilling, the road was pulled back to ATV trail width, the water bars replaced, and the edges reseeded. Canyon Fuel is planning to use the same methods during the 2006 project. Forest Trail 025 would be widened to approx. 12 ft. and water bars/vehicle barriers would be temporarily removed. Temporary access roads will be constructed from FT 025 to sites A-05 and B-05 as shown on map 2. Trail 025 will be widened for a distance of 11,980 ft. Temporary access route construction distance will be 4705 ft. Access to the staging area will be via U.S. Forest Service roads 007 and 044 (Map 2).

Regulations cited in R645-202-232 relative to roads will be followed. The planned access routes are “ancillary” roads rather than primary roads. Access routes will exist for the duration of the drilling project only. Disturbance to wildlife will be minimized by utilizing the existing disturbed route along Forest Trail 025. New route construction to sites A-05 and B-05 will not occur until a site specific raptor survey has been completed and approved by the Division and the USFS. No wetlands or riparian are known along the proposed routes. Roads will be maintained during the project by grading as needed. Spot placement of gravel may be necessary depending on weather conditions and USFS stipulations. Topsoil will be sidecast to both sides for easy replacement and revegetation. Roads will not be located within the channel of a perennial or intermittent stream. Proper temporary sediment controls will be installed or constructed to minimize downstream sedimentation. No utility or support facilities are present in the area. Temporary road grades will be maintained such that drilling and construction equipment can safely be moved to and from the drillsites. The drill rig(s) and other heavy equipment will be

dozer-assisted if necessary on steep grades along Forest Trail 025 and the constructed access routes.

Reclamation of the temporary access routes to sites A-05 and B-05 and narrowing of Trail 025 will occur as soon as possible upon completion of drilling operations. Reclamation will include scarifying, ripping, replacement of topsoil and reseeding the disturbed surface with the USFS-approved seed mix. Any temporary cut and fill slopes will be reshaped to approximate original contour. No damage to public or private property will occur.

Drillpads will be constructed at sites A-05 and B-05 (Map 2). Drillpads will be approx. 100 ft. X 120 ft. and will include a mudpit appox. 40 ft. long, 10 ft. wide, and 8 ft. deep. Topsoil "A" horizon will be removed and stockpiled for reclamation. A separate stockpile will be created for material below the "A" horizon if necessary to make a level drillsite and to store material excavated from the mudpit. A qualified individual will be present at the site during construction to identify the topsoil horizon and direct material salvage. A 1 to 3 ft. berm will be constructed around the perimeter of the pad to ensure no runoff from the pad. The pad will be constructed such that fluids will drain toward the mudpit. Mudpits will be lined. Figure 1 shows a sketch of the planned drillpads. The only materials disposed of at the the drillsites will be cuttings, excess drill core, and used drill foam/mud which will be placed in the mudpits and buried at a depth greater than 4 ft. The pit liner will be removed and hauled away. No drilling fluids, oil and grease, or diesel fuel will be allowed to contact the topsoil. Mudpits will be pumped out and/or allowed to dry before being reclaimed. Pumped fluids will be transported to an approved disposal site off USFS lands. Mudpits will be fenced when unattended to prevent wildlife from possible entry.

Reclamation is an integral part of the exploration activities and will progress as contemporaneously as practical with the other exploration activities. Upon completion of the hole, all excavations will be filled in to original contour, topsoil replaced, all equipment will be removed, and all trash will be hauled away. An approved seed mix will then be applied to the drill area.

There will be no diversion of overland flows.

It is not anticipated that acid- or toxic- forming materials will be encountered during exploration because none have been encountered previously. Samples of drill core will be analyzed for acid- and toxic-forming materials. These samples will be taken from the 10 ft. interval above and below each seam of minable thickness.

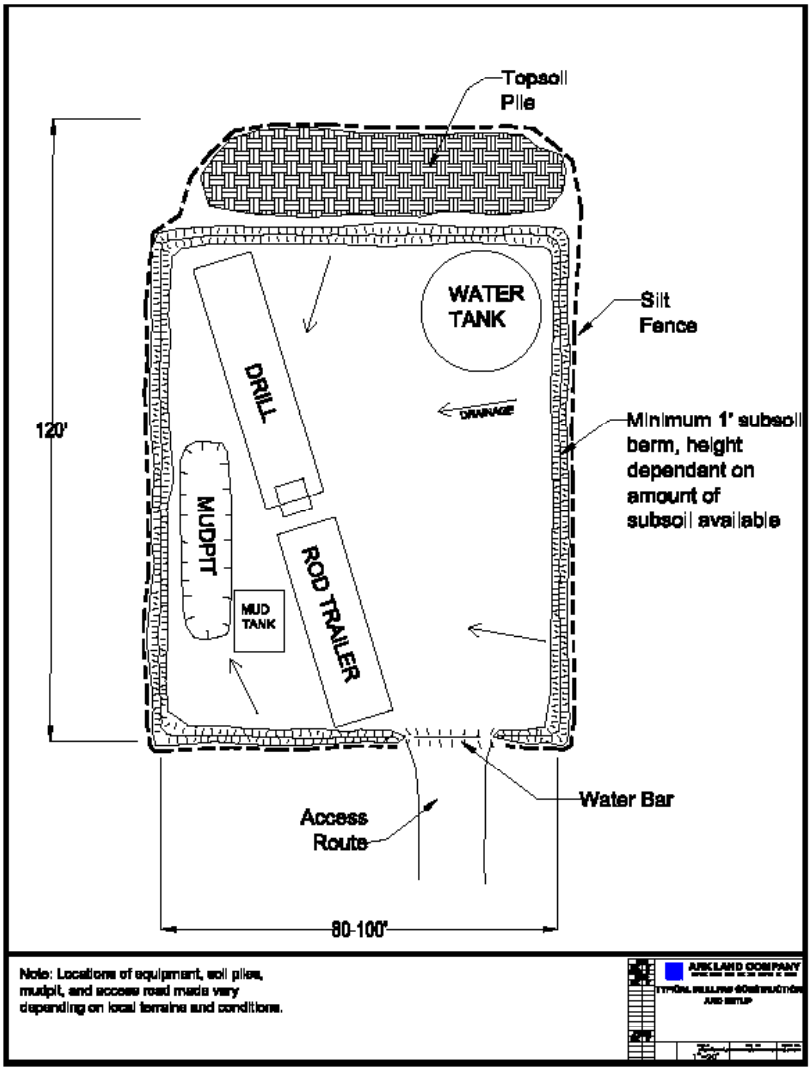

Figure 1. Typical drillpad construction and setup.

The method of revegetation is intended to encourage prompt revegetation and recovery of a diverse, effective, and permanent vegetative cover. The following seed mix has been proscribed by the U.S. Forest Service for reclamation of 2005 Muddy drill holes (the seed mix proscribed by the USFS in 2006 will be utilized):

Seed Mix

		Pounds PLS/acre
Western Wheatgrass	Elymus smithii	2
Basin Wild Ryegrass	Elymus cinereus	1
Intermediate Wheatgrass	Elymus hispidus	2
Blue Leaf Aster	Aster glaucodes	0.25
Lewis Flax	Linum lewisii	0.50
Small Burnet	Sanguisorbia minor	1
Silvery Lupine	Lupinus argentus	1
True Mahogany	Cercocarpus montanus	1
Bitterbrush	Purshia tridentata	1
	TOTAL	9.75

The pure live seed (PLS) rating will be 99% and only seed meeting the State Seed Act will be used. Certification tags will be retained by the permittee. The vegetative cover resulting from this seed mix is considered capable of stabilizing the soil surface from erosion.

Map 2 shows the location of the proposed drill sites and the Forest Service roads used for access. Equipment access to the exploration area will be via FDR 007 which traverses federal coal leases SLI-062583, U-47080, and U-63214 on both the Fishlake and Manti-LaSal National Forests then FDR 044 to the proposed tank/pump location and staging area/landing zone location.

Upon completion of drilling, the holes will either be plugged with a cement, bentonite, or cement/benton ite slurry to its full depth, or a water monitor well will be constructed. If a monitor well is constructed, the collar of the monitor well will be identified as to hole number and operator. In either case, a brass tag will be placed at the top of the drill hole stating the operator's name, drill hole number, and legal description. If the hole is plugged, the tag will be placed in the cement at ground level.

If either hole is constructed as a water monitor well , a nominal 1.5 to 2 inch well screen and steel casing would be installed to below the deepest mineable coal zone. The screen zone will be sand packed and sealed from overlying strata and the overlying hole annulus will be cemented to the surface. Well casing with a locking lid will be left at the surface extending above the surface approx. 2 ft. As previously mentioned, the wellhead will be properly identified with either a brass marker or a welded-on identification.

The main drill hole diameter will be nominally 3 5/8 inch diameter. Approximately 200 to 300 ft. of surface casing (4 ½ inch) will be set. Estimated depth and other drill hole information is given in the following table. Disturbed area will include the two drillpads and the access roads. Total disturbed area acreage is estimated at 4.06 acres.

Drill Site or ATV Trail	Location	Total Depth (ft)	Disturbance (ft)	Disturbed Area (acres)
Site A-05	SE, NE, 7, T21S, R5E	1700	100 X 120	0.28
Site B-05	SW, SE, 5, T21S, R5E	1700	100 X 120	0.28
Trail to Site A	See Map 2		3218 X 12	0.76
Trail to Site B	See Map 2		3203 X 12	0.54
Widening of 025 *	See Map 2		11977 X 8	2.20
			TOTAL	4.06

- It is assumed that trail 025 already has 4 ft. of disturbance.

There are no occupied dwellings or pipelines located in the exploration area. No trenches will be dug and no structures will be constructed nor debris disposed of in the exploration area. The permittee or his representative will have a copy of this Notice of Intention To Conduct Minor Coal Exploration while in the exploration area available for review by an authorized representative of the Division by request.

R645-203-200

Ark Land Company requests that the Division not make any drilling information available for public inspection relative to coal seam thickness or quality. This information is considered crucial to Ark Land's competitive rights.

R645-202.230

No adverse impacts to stream channels will occur during water pumping or drilling activities. The BLM, USFS and the Division will be notified as to points of diversion. Stream flows will not be pumped dry during pumping activities. In the past, the BLM and USFS have authorized the placement of a water tank at the pump location to allow more gradual pumping and water storage. If, due to drought conditions, stream flow drops too low to pump, water will be hauled from the Sufco minesite. No water will be pumped from Quitchumpah or Muddy Creek without an approved "Temporary Change of Water" from the Division of Water Rights. Approved Temporary Change documents will be forwarded to the Division and USFS prior to startup of drilling operations. It is projected that approx. 2 acre/ft. of water will be utilized during the project.

R645-202-231

A cultural resource survey was conducted in 2005 (U-05-EP-0575f) and is included in Appendix E (confidential file). If additional survey work is required by the B.L.M. or U.S. Forest Service, it will be conducted in late Spring of 2006 and forwarded to the Division prior to startup of drilling activities. Copies of additional recent cultural resource surveys in the area are included in Appendix E (confidential) . Threatened, endangered, and sensitive plant and animal survey information has been developed by the U.S.F.S. during their work relative to Canyon Fuel's 2004 Muddy Tract drilling license application (Appendix B and C, confidential) . No nests were observed at that time. The USFS also conducted baseline studies for the Muddy Tract EIS. Appendix D