Canyon Fuel Company, LLC
A Subsidiary of Bowie Resources Partner, LLC

Sufco Mine
Kenneth E May
General Manager
597 South SR24
Salina Utah 84654
(435) 286-4400
Fax (435) 286-4499

March 28, 2016

Permit Supervisor
Utah Coal Regulatory program
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, UT 84114-5801

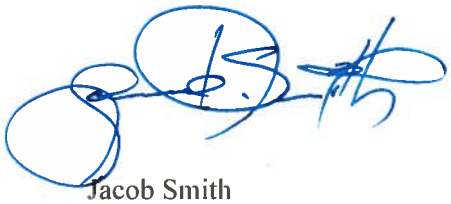
Re: Clean Copies of the Addition of Intense Surface Roughening Techniques to Erosion Control Soil Treatment, Canyon Fuel Company, LLC, Sufco Mine

Dear Sirs:

Please find enclosed with this letter an amendment to the Sufco Mine Waste Rock Disposal Site Permit. We have included the C1 and C2 forms as well as clean text associated with this amendment.

We appreciate your cooperation in completing the review and final approval of this project. If you have questions or need addition information please contact Wyatt Shakespear at (435) 286-4490.

CANYON FUEL COMPANY
SUFCO Mine



Jacob Smith
Technical Services Manager

Encl.

cc: DOGM Correspondence File

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change ☒ New Permit ☐ Renewal ☐ Exploration ☐ Bond Release ☐ Transfer ☐

Permittee: Canyon Fuel Company, LLC
Mine: Sufco Mine **Permit Number:** C/041/0002
Title: Addition of Intense Surface Roughing to Erosion Control Soil Treatment
Description, Include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

☐ Yes ☒ No 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: _ ☐ increase ☐ decrease.
☐ Yes ☒ No 2. Is the application submitted as a result of a Division Order? DO# _____
☐ Yes ☒ No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes ☒ No 4. Does the application include operations in hydrologic basins other than as currently approved?
☐ Yes ☒ No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes ☒ No 6. Does the application require or include public notice publication?
☐ Yes ☒ No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☒ Yes ☐ No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes ☒ No 9. Is the application submitted as a result of a Violation? NOV # _____
☐ Yes ☒ No 10. Is the application submitted as a result of other laws or regulations or policies?
Explain: _____
☐ Yes ☒ No 11. Does the application affect the surface landowner or change the post mining land use?
☐ Yes ☒ No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
☐ Yes ☒ No 13. Does the application require or include collection and reporting of any baseline information?
☐ Yes ☒ No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes ☒ No 15. Does the application require or include soil removal, storage or placement?
☐ Yes ☒ No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☐ Yes ☒ No 17. Does the application require or include construction, modification, or removal of surface facilities?
☐ Yes ☒ No 18. Does the application require or include water monitoring, sediment or drainage control measures?
☐ Yes ☒ No 19. Does the application require or include certified designs, maps or calculation?
☐ Yes ☒ No 20. Does the application require or include subsidence control or monitoring?
☐ Yes ☒ No 21. Have reclamation costs for bonding been provided?
☐ Yes ☒ No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes ☒ No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Kenneth E. May — Print Name
Kenneth E May 3/28/16 — Sign Name, Position, Date

Subscribed and sworn to before me this 28 day of March, 20 16

Notary Public

My commission Expires: _____, 20___ }
Attest: State of _____ } ss:
County of _____

JACQUELYN NEBEKER
Notary Public
State of Utah
My Commission Expires 03/24/2019
COMMISSION NUMBER 681827

For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining

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

Permittee: Canyon Fuel Company, LLC
Mine: Sufco Mine **Permit Number:** C/041/002
Title: Addition of Intense Surface Roughing to Erosion Control Soil Treatment

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	M&RP - WRDS Volume 3
☐ Add	☒ Replace	☐ Remove	Chapter 2, Pages 23 & 24
☐ Add	☒ Replace	☐ Remove	Chapter 3, Pages 10 & 12
☐ Add	☒ Replace	☐ Remove	Chapter 5, Page 12
☐ Add	☐ Replace	☐ Remove	
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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
March 28, 2016	

Form DOGM - C2 (Revised March 12, 2002)

The topsoil and subsoil salvaged and the quantities stockpiled will all be utilized throughout the phases for reclamation, leaving no salvaged soils at final reclamation.

Historic - The first lift was covered with topsoil from the existing adjacent stockpile.

Expansion - Subsequent lifts will be covered with topsoil/subsoil from the next lift site. Sufficient topsoil/subsoil will be placed in the long term storage stockpile to ensure minimum depth coverage of the final lift and the sediment pond area. The area of the phases of waste rock pile construction are noted in tables on Maps 2A - 2F.

Compaction - To prevent compaction of topsoil, soil-moving equipment will refrain from unnecessary operation over spread soil. When possible to minimize compaction, track-mounted equipment (e.g. bulldozers, trackhoes) will be used to spread the soil.

Erosion - Care will be exercised to ensure the stability of soil on graded slopes to guard against erosion during and after soil application. Erosion control measures will include but not be limited to extreme surface roughening (~~also known as~~ e.g., pocking and gouging, ripping, or other erosion control roughening methods).

242.200 Regrading

Since the site has been disturbed by previous activities and will be used to permanently store coal mine waste, the area will not be returned to the original geometric configuration. Prior to soil redistribution, the disturbed area will be graded to meet the proposed final reclamation topography (Map 8).

The surface of the refuse pile will be left in a roughened state and in addition will be ripped prior to the application of soil. After the 1st lift of subsoil is placed, the surface of the refuse pile will be ripped again to a depth of approximately 12 inches in an effort to promote root penetration and to mix the top layer of the refuse with the subsoil.

The second type of surface consists of roads, perimeter ditches, and operational areas which may be compacted through their use. The surface will be ripped to a depth of approximately

1.5 to 2 feet with a ripper-equipped tractor or other appropriate equipment where possible to reduce surface compaction, to assure soil adherence, and promote root penetration. Following the ripping of the soils and the application of stockpiled soils, extreme roughening techniques will be applied. Extreme surface roughening techniques may include pocking and gouging, ripping, or other erosion control roughening methods. When pocking and gouging, a ~~A~~ backhoe or trackhoe will be used to create microbasins with an approximate depth of 18" and the width of the bucket (30" or less). Soil removed to form the microbasins will be dropped above the microbasin onto the soil surface.

242.300 Topsoil Redistribution on Impoundments and Roads

The sedimentation pond and embankment will be breached and reclaimed with the other surface disturbed areas. Similarly, reclamation of abandoned roads will also follow the same technique as for other disturbed areas.

243 Soil Nutrients and Amendments

Soil nutrients and amendments may be applied to the redistributed soil as necessary, to establish the vegetative cover. Refer ro Section 231.300 for additional detail.

In the event that the topsoil/subsoil piles are moved in conjunction with the pile expansion, organic matter growing on the soil will be incorporated into the piles when the soils are relocated. Nitrogen fertilization will be applied at the rate determined by need.

Serviceberry	
Artemisia tridentata var. pauciflora	0.2
Mountain big sagebrush	
Chrysothamnus nauseosus var. albicaulis	0.5
Whitestem rubber rabbitbrush	
Sambucus caerulea	1.0
Blue elderberry	
Symphoricarpos oreophilus	1.0
Snowberry	
Total	20.9

NOTE. Scientific names are adapted from Welsh et al., 1987. a Utah Flora. Me. Great Basin Naturalist 9: 1-894.

Since the area to be reseeded is relatively flat, the proposed seeding rate of 20.9 lbs per acre seems adequate. Previous experience with reseeding attempts show that similar rates provide good revegetation success. The seed will be drilled where possible and broadcast as necessary on steep slopes or for touch-up effort. When broadcast seeding methods are used the seeding rate will be doubled to 41.8 lbs. per acre.

Method Used for Planting and Seeding - The waste rock pile site will be permanently reclaimed section-by-section. Refer to Chapter 5, Sections 536 and 540 for a discussion of the sequence of the construction and contemporaneous reclamation of the waste rock pile.

The area will be graded to final contours, and then ripped to relieve compaction. Ripping will be completed to a maximum depth of approximately 2 feet. Final ripping depths will be determined by the materials being ripped, to prevent incorporation of less desirable soil/rock into more productive materials.

Following ripping, stockpiled soil will be applied to the ripped surface and left in a extreme roughened state (e.g., pocke~~d~~ing and gouge~~d~~ing, ripping, or other erosion control roughening techniques).

342 Fish and Wildlife

342.100 Enhancement Measures

Enhancement measure to be used during the reclamation and post mining phase of operation to develop terrestrial habitat will include the establishment of vegetation for wildlife food and cover using the seed mix approved by DOGM. The ~~pocking and gouging~~ extreme surface roughening applied to the soils during reclamation will capture moisture for use by wildlife. Historically the sediment pond has collected and provided a water resource for large game species, small mammals and birds. .

The WRDS contains no riparian, wetland or aquatic habitat, however the Skutumpah Reservoir repair and enhancement project completed (2014) by Sufco is in an area adjacent to the WRDS. Details of this project can be reviewed in the Earth Day award nomination package submitted to the Utah Division of Oil Gas and Mining board in 2015.

342.200 Plants Used for Wildlife Habitat

Nutritional Value - The nutritional value will be consistent with that of vegetation in the surrounding areas.

Cover - The goal is to establish plant species, which will provide sufficient cover for the wildlife of the area. There are no water sources within the waste rock pile permitted area to support fish.

Ability to Support and Enhance - Refer to the approved M&RP.

Cropland - Cropland is not a postmining land use.

Residential, Public Service and Industrial Land Use - No residential, industrial or public service use is planned at the present time.

Once the topsoil and subsoil has been removed (Sections 222 and 231), subgrade surface will be scarified and re-compacted to a minimum of 90% maximum density. Densities will be taken on subgrade at a minimum of one per 5000 square yards using a nuclear density gauge. Scarification will be done using earth moving equipment such as a grader, dozer or excavator. Compaction will be done utilizing the same type of equipment by wheel rolling the subgrade surface prior to any waste rock being placed. Water will be added to material as needed to obtain compaction.

Once subgrade has been scarified and compacted, waste rock will be delivered to the site using haul trucks such as 10 wheeled dump trucks and double trailer belly dumps. As the waste pile is being constructed a berm along the outside edge of the pile will be constructed to comply with MSHA regulations. In addition the berm will act as a diversion to direct on site water into the ditches and eventually into the sediment pond. As the waste rock is delivered on site, it will be handled and placed in its final position using earth moving equipment such as loaders, graders and dozers. The waste rock will be placed in +/-1 foot compacted lifts. As each layer is being constructed, it will be keyed into the adjacent slope at a minimum of 1 foot per lift or at a 1:1 keyed in slope (Map 3C). The material will be compacted to 95% of maximum laboratory compaction. To determine compaction, a nuclear density gauge will be used. When necessary due to the hydro carbons in the material, a density of the material may also be determined using a sand cone which will assist the nuclear density gauge results by providing an additional factor. Densities will be taken every 5,000 square yards per lift. Potholing down to each lift will be done if additional layers have been placed prior to density testing.

As the pile is constructed a 1:1 sideslope on the outside of the pile adjacent to the adjoining phases will remain. As the phase is completed, the top of the waste rock pile will be reclaimed by placing the designated depth of topsoil on the top of the pile. Once the topsoil is placed, extreme roughening techniques will be applied. Extreme surface roughening techniques may include pocking and gouging, ripping, or other erosion control roughening methods. When pocking and gouging, equipment will have a maximum bucket width of 30" or less. ~~the surface will be pocked and gouged using equipment with a maximum bucket width of 30 inches wide.~~
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Soil samples will be collected and sent to the laboratory for analysis to determine if amendments are necessary. Soil nutrients are discussed further in Section 243. Nutrients will be applied in a

342 Fish and Wildlife

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