



State of Utah
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DIVISION OF OIL, GAS AND MINING

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January 14, 2000

TO: Internal File

THRU: Daron Haddock, Permit Supervisor *DRH*

FROM: Robert Davidson, Soils Reclamation Specialist *RAD*

RE: Culvert Removal on Out Slope of #1 Mine Access Road, Lodestar Energy Inc., White Oak Mine, ACT/007/001-99B

SUMMARY:

White Oak's 98C amendment has been approved for removing the half-round culvert that extends down the hillside below the Belina Haul Road. This half-round culvert has a long history of maintenance problems, resulting in erosion problems below and alongside the culvert. Sediment has been deposited at the toe of the slope below the culvert. This amendment is for repairing and reclaiming the damaged hillside after the culvert has been removed.

TECHNICAL ANALYSIS:

OPERATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Following removing the half-round culvert that extends down the hillside below the Belina Haul Road, the hill slope will be repaired and reclaimed. The amendment is divided into the following sections:

- Smallest Practicable Area Disturbance

Surface disturbance will be kept at a minimum to help maintain slope stability. Surface preparation will be done by hand without heavy machinery traffic.

- Planting and Seeding Methods

The depression left by half-round culvert will not be filled with replaced topsoil because of the following reasons:

1. The depression is armored with rock mixed with soil along the majority of the slope.
2. There is a lack of soil resources for repairing the eroded and damaged hill slope. No soil was salvaged during installation of the half-round culvert.
3. Replaced soil would be unstable and easily erode from the extremely steep slope.

The half-round culvert depression and adjacent area will be roughened using hand tools. However, soil and rock will be needed at the top of the slope where the outlet of C-23-24 drops into the half-round culvert. Soil and rock will be taken from the small topsoil stockpile located at the mine site.

Hydroseeding will be used to apply seed, mulch (2,000 lbs/acre), and tackifier (50 lbs/acre). Seed mixed with a small amount of mulch will be applied first, followed by a second application for the mulch and tackifier sprayed over the seed layer. The roughened surface and application of the second layer of hydromulch with tackifier will help add soil stability to the replaced topsoil and loosened soils on the remained of the slope.

Currently there is sediment deposited at the toe of the half-round culvert slope. White Oak plans on leaving this sediment in place, since removal would require additional disturbance to the area to gain access. It is doubtful that sediment removal from the toe of the slope would create any safety hazard for the hill. A portion of this sediment has been deposited from an undisturbed drainage ditch which is located west of the half-round culvert on the same slop; this sediment deposition will likely continue. The sediment area will be roughened with hand tools and then planted with the approved seed mix. After seeding, willow seedlings or cuttings will be planted.

Findings:

Information provided in the application is considered adequate to meet the requirements of this section of the regulations.

RECOMMENDATION:

Based on R645-301-200, Soils, this portion of the amendment should be approved for soil placement, and soil stabilization and interim reclamation of the half-round culvert slope.

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