



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

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February 1, 2001

To: ~~Internal File~~  
 Thru: Daron R. Haddock, Permit Supervisor *DRH*  
 From: *P* Priscilla W. Burton, Soils Reclamation Specialist  
 Re: Technical Field Visit, PacifiCorp, Cottonwood/ Wilberg Mine, C ~~...~~

**Other Attendees:** Pete Hess, DOGM  
 Dennis Oakley, Energy West

**Date & Time:** January 4, 2001 10:00am - 1:30 p.m.

**PURPOSE:**

To observe reclamation of the access road, fan portal terraces and condition of remaining subsoil stockpile.

Reclamation was completed at the Cottonwood Fan Portal in November of 1998. Energy West has used all the stockpiled topsoil (1061 cubic yards) and 1550 cubic yards of subsoil were used in the reclamation of the terraces. For the access road, another 160 cubic yards of subsoil was used. Topsoil and subsoil were used interchangeably. In an earlier meeting between Robert Davidson, soil scientist with the Division, and Energy West, both materials were determined to have similar physical and chemical characteristics (see 10/14/98 Technical Field Visit report).

**OBSERVATIONS:**

- From a distance the regrading of the access road and terraces blends with the landscape (See figures 1, 2, 3 of Attachment A). The permittee utilized existing boulders and rock outcrops to their advantage, requiring less fill than anticipated. As the terraces become covered with pines, the disturbance will be less noticeable.
- The surface material has remained rough from pocking (See figure 4 of Attachment A). Large plants of Salina Wildrye were seen, as were a couple of young Pinyon pine.
- Many rocks and boulders scattered the surface.
- Water seeps from the rock at several locations (5 or more) and freezes on its way down slope. (See figures 2 and 3 of Attachment A)

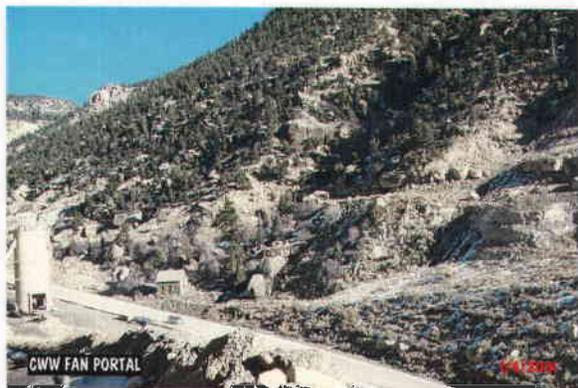
- The Johnson portals were left exposed as per the owners request. The south portal is being vandalized. The stone closure is being chipped away. (See figure 5 of Attachment A)
- There is a cut slope (approximately 15 feet high) at the south end of the first terrace that could not be treated with topsoil or subsoil due to the NW sloping sandstone shelf beneath the cut which would undermine the stability of any added material. Apparently this area has been the topic of much discussion between staff and Energy West and the conclusion has been drawn that the slope is best left to reclaim itself. (See Figure 3 of Attachment A)
- A single large storm passed through the canyon this past year and brought down large amounts of organic matter onto the first terrace, partially filling in some pockets and adding to the layer of straw mulch on the "bench". Some erosion from this storm followed the natural waterway. Approximately 6 inches of soil was washed away from the straight drop in the vicinity of the Johnson Mine. The Permittee is hopeful that vegetation will eventually establish and control the erosion.

#### **RECOMMENDATIONS/CONCLUSIONS:**

- Approximately 7025 cubic yards of subsoil remain in the subsoil pile. The pile has been roughened and revegetated.
- The Permittee and the Division will monitor the erosion at the site.

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Attachment: (FV\_010401A)  
cc: Pete Hess, DOGM  
Dennis Oakley, Energy West  
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TECHNICAL FIELD VISIT MEMO  
COTTONWOOD WILBERG FAN PORTAL  
January 4, 2001  
ATTACHMENT A



**Figure 1** Old Johnson Mine Access Road



**Figure 2** Central portion of Reclamation



**Figure 3** South portion of Reclamation



**Figure 4** Roughness



**Figure 5** Old Johnson Mine Portal