



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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December 2, 1991

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Jesse Kelley, Reclamation Engineer *JK*

RE: Hidden Valley A-Seam Highwall, TDL Response, Hidden Valley Coal Company, Hidden Valley Mine, ACT/015/007, Folder #2, Emery County, Utah

BACKGROUND

On January 4, 1991, OSM issued Ten-Day Letter (TDL) X91-02-246-1 TV-2, which took issue with the Division's approval of creation of the A-seam diversion at the Hidden Valley site. In the TDL, OSM designated the A-seam diversion a "highwall" and contended that the operator had retained the highwall without demonstrating that the highwall fulfilled the highwall retention criteria of R614-301-553.650.

After some correspondence with OSM, the Division requested, on March 25, 1991, an informal review of the A-seam diversion issue. OSM formally responded to this request in an April 30, 1991 letter. In this letter, W. Hord Tipton of OSM ordered a Federal inspection of the Hidden Valley site and invited the Division to participate in the inspection. Mr. Tipton also stated in the letter that if, during the Federal inspection, both agencies agreed that the A-seam highwall fulfills the criteria of R614-301-553.650, then the Division could provide to OSM a written finding to that effect and the issue would be resolved.

R614-301-553.650 sets forth four criteria that a highwall must meet if it is to be retained as a feature of the postmining topography.

- 1) The "retained" highwall cannot be significantly higher or longer than the dimensions of the existing cliffs in the surrounding area;
- 2) The "retained" highwall must be similar in structural composition to the preexisting cliffs in the area;
- 3) The residual highwall must be compatible with the visual attributes of the area; and

- 4) The residual highwall must be compatible with the geomorphic processes of the area.

Subsequent correspondence between OSM and the Division has established that in order to be in compliance with SMCRA, it is necessary, but not sufficient, that a retained highwall conform to the criteria of R614-301-553.650. A July 18, 1991 letter from W. Hord Tipton to Division Director, Dianne Nielson, states that not only must retained highwalls conform to the criteria of R614-301-553.650, but they must ". . . replace natural cliffs of equivalent length that have been reduced or removed by the mining process" as well.

On October 8, 1991, Mitch Rollings of OSM performed the Federal inspection ordered in the April 30, 1991 letter. Jess Kelley of the Division and Karla Knop of JBR, who superintends the site for the operator, were also present during this inspection.

ANALYSIS

Mr. Rollings' report on the October 8, 1991 inspection concludes that the ". . . highwall must be reclaimed in its entirety." He bases this conclusion on five observations:

- 1) Whereas a retained highwall must replace an existing cliff, this one does not;
- 2) The approved permit does not indicate that a cliff existed here prior to mining;
- 3) Neither regulatory officials nor those who were involved with the initial work at this site can state with any certainty whether or not there was a cliff here prior to mining;
- 4) It is "probable" that there was no cliff and that the talus slope above the highwall originally extended to the edge of Ivie Creek; and
- 5) The highwall is incompatible with the approved postmining land uses of grazing and wildlife habitat.

Observations one through four all have to do with the question of whether or not there was a cliff on the area in question prior to mining. However, the Division's extensive photographic record of this site, which was not examined during the October 8, 1991 Federal inspection, demonstrates that there was indeed a cliff where the alleged highwall now stands. Photograph 1B, which was taken in July of 1979, shows this cliff, the strata of which form a similar cliff some distance down canyon from the site, as mentioned in Mr. Rollings' inspection report. Photograph 1A, taken October 31, 1991, shows the area from approximately the same vantage point.

Photograph 2B shows the A-seam in May of 1980, during creation of the access road (access before this time was by way of a dirt road along Ivie Creek). From the presence of vegetation and talus at the base of the cliff, it is evident that the cliff was present as a natural feature prior to mining. Photographs 3 and 4B, both taken in August of 1986, are closer views of the cliff which further substantiate this view.

As for Mr. Rollings' fourth observation, it is much more likely that, prior to mining, the talus slope extended from the base of the cliff to within about 50 feet of the bank of Ivie Creek. The probable extent of the original talus slope can be estimated from Photograph 1B. While talus slopes along Ivie Creek generally extend to the bank of the creek, it must be noted that this site occupies the outside of a bend in the creek and the creek is always very turbid. The situation of the site and the high sediment load of Ivie Creek have thus combined to create broad benches of fluvial deposit material. These benches, as they existed prior to mining, can be seen in Photographs 1B, 5B, 6B and 7B. The operator used large quantities of this natural fluvial material in reclaiming the site, as can be seen as pre- and postmining views of Photographs 1A and 1B, 5A and 5B, 6A and 6B, and 7A and 7B are compared.

The fifth conclusion -- that the A-seam highwall is incompatible with the postmining land uses of grazing and wildlife -- is simply unfounded. The premining land use was identical to the postmining land use and, as one can see from the photographic record, the highwall is compatible in every way (size, aesthetics, structural composition and geomorphic character) with the surrounding terrain. The large, gently-sloping fills in both seam areas have enhanced the postmining land uses and have compensated for the small area lost to the alleged highwall by creating more grazing area than existed in the steep, rocky, sparsely vegetated slopes that existed prior to mining.

It must be remembered that the A-seam diversion, creation of which required the removal of talus from the toe of the cliff, is neither a mistake nor an afterthought, nor was its creation a result of an oversight on the part of the Division or the operator. Rather, it was constructed in the Fall of 1989, as shown in Photographs 8 and 9, as a conscious effort to halt severe erosion of the A-seam fill by unimpeded runoff from the bare sandstone above the fill. This erosion, as it appeared in May of 1988, is graphically shown in Photograph 10. The diversion has worked very well to the end of preventing a recurrence of such erosion.

According to Division records, OSM has inspected this site three times after final reclamation, which occurred during the winter of 1986-87. OSM Inspector Joe Funk performed a complete inspection of the site on October 21, 1987 and Inspector Rade Orell inspected the site on April 19, 1989 and again on July 5, 1989. The A-seam diversion was not created until the Fall of 1989, but the cliff existed in its present form, absent the diversion, from the winter of 1986-87 on. This can be seen in Photograph 11, which was taken in the spring of 1987. It seems neither OSM inspectors had any problem with the cliff, since neither took exception with it or even mentioned it in any of the respective inspection reports.

SUMMARY

The Division's photographic record demonstrates that all highwalls created by mining in the A-seam portal area have been reclaimed by the operator. Erosive failure of the first reclamation effort required installation of a diversion ditch above the reclaimed site. Construction of this ditch was accomplished by removing talus from the toe of a naturally-occurring cliff. The cliff is not a result of mining. The only mining-related modification of the cliff was removal of talus as required by construction of the diversion ditch.

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