

ACT/007/018-87A
File # 2



SOLDIER CREEK COAL CO.

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FILE COPY

August 11, 1987

Mr. David Darby
Engineering Geologist
Utah Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

RECEIVED

AUG 14 1987

DIVISION OF OIL
GAS & MINING

Re: Subsidence Monitoring
Soldier Canyon Mine
ACT/007/018

Dear Dave:

I have enclosed eight copies of the subsidence monitoring plan that the Division requested on July 21, 1987. The plan includes the additional points that we discussed on July 28, 1987 and we will begin the monitoring during the middle of this month.

If there are any questions concerning this matter please contact me.

Sincerely,

SOLDIER CREEK COAL COMPANY

Christopher P. Allen
Mine Engineer

CPA:pep
Enclosures

Monitoring {784.20(d)}

Subsidence monitoring will be carried out on an annual basis and will entail direct surveys and visual surveys of the mine permit area. The major concern of the subsidence monitoring will be the renewable resources, perennial streams, perennial springs and gas line within the permit area. The methods to be used for monitoring will be ground surveys of monuments and visual surveys during water monitoring or any other surface activities. Initial subsidence monitoring will begin in 1987 and will continue throughout the life of mine. Annual reports will be sent to the Regulatory Authority detailing all subsidence monitoring activities.

Monitoring will entail the establishment of surface control monuments within and adjacent to the permit area. The initial monuments that will be surveyed during 1987 are shown on Drawing D214. This survey will provide the Applicant with a base network which will be expanded each progressive year to obtain subsidence information over the permit area. The expanded network will cover the expected development for each progressive year. Each monument will have horizontal and vertical control determined during each survey. This information will be used as a comparison tool for all future monitoring.

Annual resurveys of the mine permit area will produce horizontal and vertical control at the same sites as the previous year (i.e. the base network and all expanded networks). Information on each site will continue to be produced annually while the area underlying the site is being actively mined or is still unstable and subsiding. The subsiding areas which show no change for two consecutive years will be considered stable and will be omitted from further annual surveys.

If mining within the dropped sites happens to occur, then the sites will, again, be added to the annual surveys. Also, during random years, some of the dropped sites will be monitored as a check on their stability and any showing a significant change will be included in the following years monitoring.

In addition to the ground surveys, aerial photogrammetric methods will be included in the surveys when the areas become too large to feasibly handle with ground surveys. This method will be added to enhance the ground surveys and to cover larger areas as our mine expands to the boundaries. Visual checks for subsidence will be made during all surface activities, especially during water monitoring activities. These visual surveys will be used to detect surface irregularities, surface cracks, and as a check on the direct surveys or any future aerial surveys. Each year a subsidence monitoring report will be sent to the Regulatory Agency. The report will include; all times and dates of surveys, person or persons involved, methodology used, results obtained, any mitigative action taken to correct subsidence caused effects. This report will also include changes in the monitoring plan that may be made owing to economic conditions or technical advancement in the art of subsidence monitoring.