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ACT/007/018
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December 8, 1986

TO: File

FROM: David W. Darby, Geologist DWD

RE: In-mine Water Monitoring Plan, Soldier Canyon Mine, Soldier Creek Coal Company, ACT/007/018, Folders 2, 3 and 4, Carbon County, Utah,

Summary

On November 21, 1986 I met with Dave Spillman, Mine Engineer for Soldier Creek Coal Company (SCCC) to discuss modifications to their in-mine water monitoring plan and the transition from their baseline operating procedures to an operational mode.

The meeting was established to discuss the potential for SCCC converting to an operational mode for their in-mine monitoring plan. We discussed the present sources of water within the mine and developed the senerio for its occurance in relationship to the geology and mine structure. We also discussed the water balance within the mine and the parameters that had been monitored and those that need to be analysed during operational monitoring.

After reviewing SCCC's baseline monitoring plan and the status of the in-mine water balance I determined that SCCC had collected sufficient baseline data and could be allowed to implement an operational in-mine monitoring plan.

A site specific operational plan was developed that would not place a burden on the operator in obtaining costly and excessive water samples, yet provide a guide to obtaining sufficient data to describe ground water movement and quality characteristics adjacent to the mine. The plan is intended to be dynamic in nature and will allow the operator flexability in monitoring. As mining progressed the operator will monitor sites that sustain a measurable flow over a 30 day period. Areas where mining has been discontinued will not need to be monitored if data has been presented that shows the water characteristics for that area.

Conclusion

SCCC will be required to submit an annual report to the Division that summarizes the balance and quality of ground water contacted throughout the year. A map will be submitted that illustrates the source areas of sustained flow and the areas mined during the year. The geologic nature of all sustained and anomaly flows will be calculated by the operator. The Division will review the annual report for details and make any necessary comments.

Baseline monitoring will be modified for the operational mode. SCCC will submit a complete suite of parameters listed on Table 3. of the Hydrologic Monitoring Guidelines for all new monitoring sites. A modified suite of paramaters listed on Table 3. will be submitted on an annual basis for previously monitored sites. Field measurements will be required on a quarterly basis for all monitoring sites.

Wet areas in the mine that accumulate and produce a measurable flow in the mine will be measured for flow. A represenative annual sample and quarterly field samples will be taken from one of the sources.

Recommendations

A review of the current monitoring plan revealed that some monitoring sites yielding low flows could be eliminated from the in-mine monitoring plan. Those sites are UG-3W, UG-2N2E, UG-3N, UG-3N belt, SC-1 and SC-8.

jvb
cc: Charles Durrett
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1033R