

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

January 10, 2005

TO: Internal File

THRU: D. Wayne Hedberg, Permit Supervisor

THRU: Joe Helfrich, Team Lead

FROM: James D. Smith, Environmental Scientist

RE: South Crandall Lease Revision, Andalex Resources, Inc., Crandall Canyon Mine, C/015/0032, Task #2084

SUMMARY:

Little Bear Spring in Little Bear Canyon, located adjacent to the South Crandall Canyon Tract, is an important source of water for the Castle Valley Special Services District (CVSSD), supplying 65 percent of the culinary water to the residents of Huntington, Cleveland, and Elmo. It is probably the largest and most consistently flowing spring in the region, and the only water-treatment required before use is chlorination. CVSSD has great concerns about protecting this important water supply from mining related damage. The South Crandall Canyon Coal Lease Tract was deleted from the Mill Fork Tract because of concerns that were raised regarding Little Bear Spring.

The South Crandall Canyon area was reevaluated and was leased to Andalex in June 2003 (lease UTU-78953). Access to the South Crandall Canyon Tract will be through new portals (under construction in 2003) on the south side of Crandall Canyon in fee coal (often referred to as the "Dellenbach" lease) owned by IPA and Andalex. The South Crandall Canyon Tract covers 880 acres.

The proposed amendment should not be approved.

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Permittee's Action	Dated	DOGM's Action	Dated
Original submittal	09/16/2003		
		ACR Determination	10/07/2003
		Tech Memo – Geology - Task # 1698	11/07/2003
		TA - Task # 1698	11/25/2003
Response to TA - Task # 1698	01/30/2004		
		Tech Memo - Geology - Task # 1826	03/03/2004
		TA - Task # 1826	03/04/2004
Response to TA – Task # 1826	04/05/2004		
		Tech Memo – Geology - Task # 1903	04/30/2004
		TA - Task # 1903	05/04/2004
Response to TA – Task # 1903			
		Tech Memo – Geology - Task # 1945	06/23/2004
		TA - Task # 1945	08/25/2004
Response to TA – Task # 1945	08/27/2004		
Second Response to TA – Task # 1945	09/10/2004		
		Tech Memo – Geology - Task # 2023	10/22/2004
		TA - Task # 2023	11/03/2004
Response to TA – Task # 2023	09/10/2004		
		Tech Memo – Geology - Task # 2084	

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

Analysis:

Geologic information pertaining to hydrology (Little Bear Spring in particular)

The following discussion and related deficiency are the same as in the previous Tech Memo (10/22/2004) as they were not addressed in the latest submittal.

The clause "(to protect possible water-bearing fracture system.)" in section 5.25.15 directly contradicts the statement at the end of section 5.25.16 that "It should be noted that neither the Little Bear spring, nor its recharge fault system, is located within the subsidence zone of the proposed South Crandall mine, nor are they even located within the South Crandall lease area." The recharge mechanisms for Little Bear Spring are still not fully understood, and a definitive statement such as the second one (section 5.25.16) is not unequivocally supported by the present knowledge regarding Little Bear Spring. The USFS reasonably concludes, based on studies by HAL, Sunshine Engineering, and others, that some of the flow to Little Bear Spring might come from the north and west, particularly along a fault system to the north-northwest. Even though Mayo's volumetric study indicates the flow lost in Mill Fork can account for most of the flow in Little Bear Spring, there is no basis to completely refute the USFS conclusion. For clarity the statement "It should be noted that neither the Little Bear spring, nor its recharge fault system, is located within the subsidence zone of the proposed South Crandall mine, nor are they even located within the South Crandall lease area." at the end of section 5.25.16 should be deleted: removal will have no adverse effect on the MRP.

Findings:

Geologic Resource Information is not sufficient to meet the requirements of the Coal Mining Rules.

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R645-301-122.200, For clarity, the statement “It should be noted that neither the Little Bear spring, nor its recharge fault system, is located within the subsidence zone of the proposed South Crandall mine, nor are they even located within the South Crandall lease area.” at the end of section 525.25.16 should be deleted.

RECOMMENDATIONS:

The proposed amendment should not be approved.