



Cyprus Plateau Mining Corporation  
P.O. Drawer PMC  
Price, Utah 84501  
(801) 637-2875

June 23, 1989

Mr. Rick Smith, Permit Supervisor  
State of Utah, Dept. of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

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DIVISION OF  
OIL, GAS & MINING

Dear Rick:

In follow-up to our phone conversation of June 21, 1989, concerning subsidence cracks in Section 18 of the U-North subsidence study area, the following information is submitted:

There is a peninsula of outcrop projecting southward toward the Wattis Seam mining area that forms the north and northeast canyon walls to the Right Fork of the North Fork of Miller Creek. From our observations, it appears that subsidence over the areas mined has resulted in joints opening, and cracks developing, along the regional east-west joint system. It appears the tensional draw-down worked its way northward to a joint or strike-slip fault and opened a two foot wide crack across the ridge of the peninsula. Since this is a bald point, with very little subsoil or weathered rock, it is obvious that there is going to be little or no natural repair of this crack.

The week of June 11, Cyprus Plateau installed metal fence posts, four strands of barbed wire, and signs across the point. This week, we have sent personnel and equipment to the site to artificially close the crack and reduce any potential hazard to individuals or animals. We believe this action to be consistent with commitments made in the Mine Plan, and appropriate due to the accessibility of the site.

The crack of concern developed about 40 feet south of a subsidence monument point, "U2", 150 feet north of longwall extraction, about at the edge of the northern-most development. With the amount of cover in the area, 1095 feet, one would expect to see influences 400 feet north based on a 20° angle of draw, or 1533 feet north based on textbook explanations of subsidence through tension zones of influence. We have registered some movement at station "U4", which is 640 feet north of the longwall rib; although the amount of movement is within the tolerance of the survey instrument.

I believe the data generated from this study is at least exciting from the ground movement standpoint. To me, it demonstrates that the textbook predictive methods may be inappropriate and, in fact, the regional geologic features may constitute total control.

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Filling the crack and replacing the fence should be nearly 100% complete today,  
June 23.

Sincerely,



Robert G. Lauman  
Manager, Technical Services

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