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**DIVISION OF  
OIL, GAS & MINING**



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April 21, 1987

Rick Summers  
Utah Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Rick:

Enclosed are the results of the long-term pumping test performed on the Boyer Mine water-supply well last week. Please contact us if you have any questions.

Sincerely,

*Rich*

Richard B. White, P.E.  
Principal Hydrologist

Enclosure

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ANALYSIS OF ACCOMPANYING  
TIME-DRAWDOWN DATA FOR THE  
BOYER MINE WATER-SUPPLY WELL

Type-curve analysis using the type curves for a leaky artesian aquifer without water released from storage in the aquitard and constant-discharge conditions (see Hantush, 1956). Calculations were made using the type curve for  $r/B=0.05$ .

$$T = \frac{Q}{4\pi s} W(u, r/B)$$

where  $T$  = transmissivity (square feet per day)  
 $Q$  = discharge rate (cubic feet per day)  
 $s$  = drawdown (feet)  
 $W(u, r/B)$  = well function for leaky artesian aquifers without water released from aquitard storage, constant-discharge conditions

Critical values:

$$\begin{aligned} Q &= 770 \text{ ft}^3/\text{day} \text{ (4.0 gpm)} \\ s &= 12.0 \text{ ft} \\ W(u, r/B) &= 1.0 \end{aligned}$$

Substituting these values yields:

$$\begin{aligned} T &= \frac{770}{(12.57)(12.0)} (1.0) \\ &= 5.1 \text{ ft}^2/\text{day} \end{aligned}$$

