

RRUE-1

$$T' = \frac{Q}{A} [1.3] [2159 - 264 \log 5r^2 + 264 \log t]$$

$$Q = 880 \text{ gpm}$$

$$A = 792 \text{ ft}$$

$$S = 0.0005$$

$$t = 16000 \text{ min} = 11.1 \text{ days}$$

$$T' = \frac{880}{792} [1.3] [2159 - 264 \log (0.0005) 5 + 264 \log 11.1]$$

$$T' = 9811 \text{ gpd/ft} = \underline{9800 \text{ gpd/ft}}$$

$$Q/A = 1.11 \text{ gpm/ft}$$

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$$T \approx 10,000 \text{ gpd/ft}$$

$$T = \frac{Q}{4\pi A} W(u) \quad S = \frac{4TbM}{r^2}$$

~~A AT 5 YRS~~

$$u = \frac{S r^2}{4Tb}$$

$$u = \frac{(0.0005)(100 \text{ ft})^2}{4(10000 \text{ gpd/ft})(1000 \text{ ft})(0.13368 \frac{\text{ft}^3}{\text{g}})}$$

$$u = 5.1236647 \times 10^{-11} \quad W(u) = 23.1220$$

$$A = \frac{Q (W(u))}{4\pi T} = \frac{800 \text{ gpm} (23.1220)}{(10000 \text{ gpd/ft})(4) \pi (1440 \text{ ft})}$$

$$A = \underline{212 \text{ ft}} \left(\frac{1 \text{ mi}}{5280 \text{ ft}} \right) = \underline{85 \text{ mi}}$$