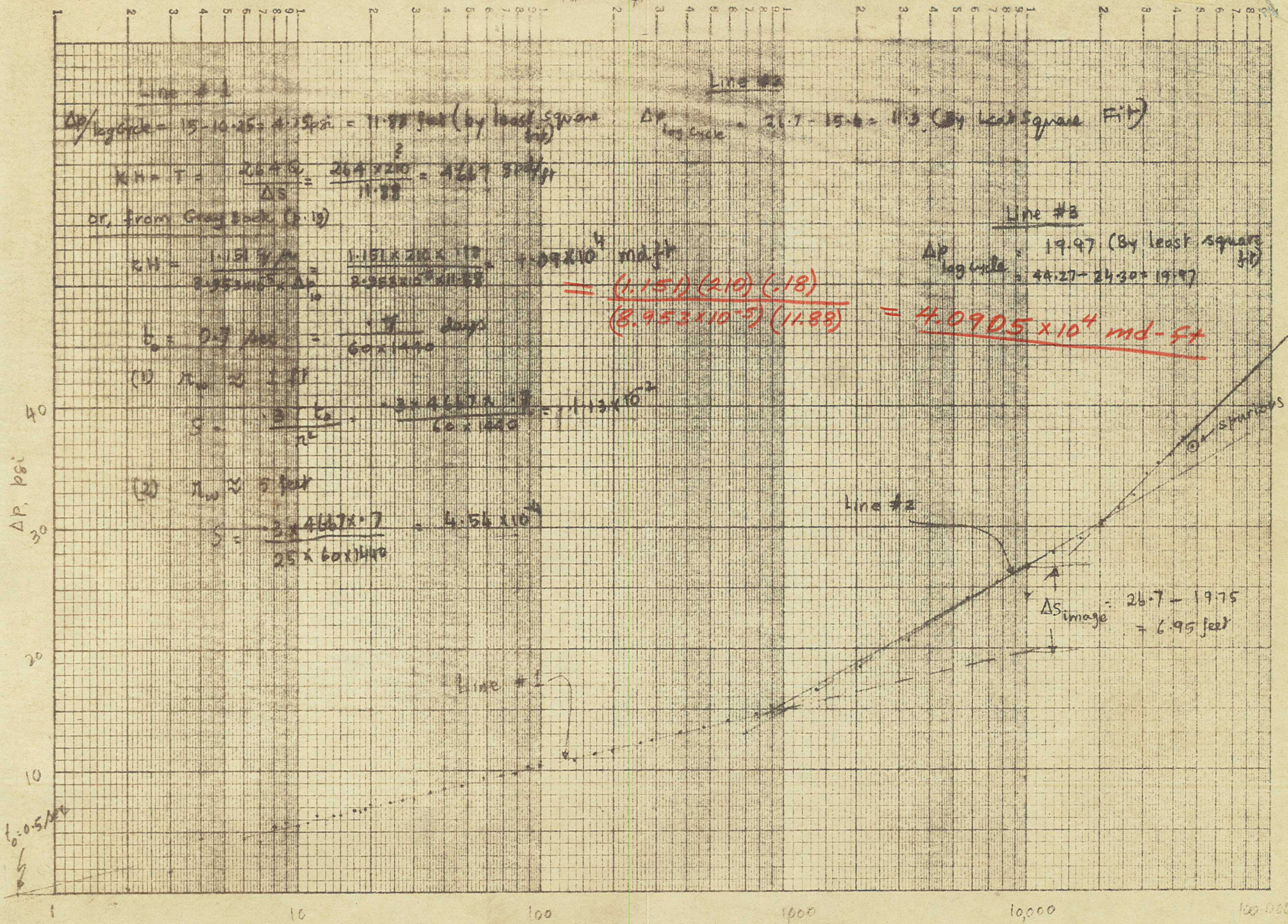


RRGE #2

Drawdown



Line #1  
 $\Delta P / \log t_{cycle} = 15 - 14.25 = 0.75 \text{ psi} = 11.88 \text{ feet (by least square fit)}$

Line #2  
 $\Delta P / \log t_{cycle} = 26.7 - 15.6 = 11.1 \text{ (By Least Square Fit)}$

$$KH = T = \frac{2649}{\Delta S} = \frac{2649 \times 2.10}{11.88} = 4727 \text{ md-ft}$$

or, from Gray Book (2.10)

$$KH = \frac{1.151 \times 2.10}{8.953 \times 10^{-5} \times \Delta P} = \frac{1.151 \times 2.10 \times 10^5}{8.953 \times 10^{-5} \times 11.88} = 2.9 \times 10^4 \text{ md-ft}$$

Line #3  
 $\Delta P / \log t_{cycle} = 19.97 \text{ (By least square fit)}$   
 $= 44.27 - 24.30 = 19.97$

$$= \frac{(1.151)(2.10)(-18)}{(8.953 \times 10^{-5})(11.88)} = 4.0905 \times 10^4 \text{ md-ft}$$

$$b_0 = 0.7 \text{ psi} = \frac{7}{60 \times 1440} \text{ days}$$

(1)  $r_w \approx 1 \text{ ft}$

$$S = \frac{3 \times 4667 \times 10^3}{25 \times 60 \times 1440} = 1.13 \times 10^{-2}$$

(2)  $r_w \approx 5 \text{ feet}$

$$S = \frac{3 \times 4667 \times 7}{25 \times 60 \times 1440} = 4.56 \times 10^{-2}$$

$\Delta S_{\text{image}} = 26.7 - 19.75 = 6.95 \text{ feet}$

$b_0 = 0.5 \text{ psi}$

CALCULATION OF DISTANCE TO BOUNDARY

$T = 4667 \text{ GID/ft} \quad Q = 210 \text{ GPM}$

$\Delta s_i \text{ at } t = 10,000 \text{ sec} = 6.95 \text{ feet}$

$\therefore W(u) = \frac{T \Delta s_i}{114.6 Q} = 1.3478$

$u = \frac{1.87 \pi_i^2 S}{T t} = 0.1721$

$\therefore \pi_i = \sqrt{\frac{u T t}{1.87 S}} = \sqrt{\frac{.1721 \times 4667 \times \frac{10,000}{60 \times 1440}}{1.87 S}}$

$= \sqrt{\frac{49.7122}{S}} = \frac{7.0507}{\sqrt{S}}$

i) If  $S = 1.13 \times 10^{-2}$

$\pi_i = 66 \text{ feet}$

or Distance to boundary  $\approx 33 \text{ feet}$

ii) If  $S = 4.54 \times 10^{-4}$ ,

$\pi_i = 331 \text{ feet}$

or Distance to boundary  $\approx 165 \text{ feet}$

RRGE-2  
Short Term Test  
Drawdown  
9/12 - 9/13/75

