RESERVOIR ANALYSIS PARAMETERS

Horner Analysis
Lewis Fee #1 - DST #5
Sec. 31 - T9S - R37E
Lea County, New Mexico

DST Interval: 12,470' to 12,505'
Formation Thickness (h) = 75 feet
Flow Rate (Q) = 3367 BOPD Flow Period (t) = 1.08 hours
Porosity (Ø) = 5% Viscocity (μ) = 0.8cp
Total Compressibility (Ct) = .00000267
Horner Slop (m) = 28.05 psi/cycle
Extrapolated Pressure (P*) = 4628 psi
Formation Volume Factor (Bo) = 1.15

$$\text{Permeability (K)} = \frac{(162.6)\ (Q)\ (Bo)\ (\mu)}{(m)\ (h)}$$

$$\text{Permeability (K)} = \frac{(162.6)\,(3367)\,(1.15)\,(0.8)}{(28.05)\,(75)}$$

Permeability (K) = 239 millidarcies

$$\text{Radius of Investigation} = 0.029\sqrt{\frac{(K)\ (t)}{(\emptyset)\ (\mu)\ (Ct)}}$$

$$\text{Radius of Investigation} = 0.029\sqrt{\frac{(239)\,(1.08)}{(.05)\,(0.8)\,(.00000267)}}$$

Radius of Investigation = 1624 feet

Drainage Area = 146 acres

Exhibit #6