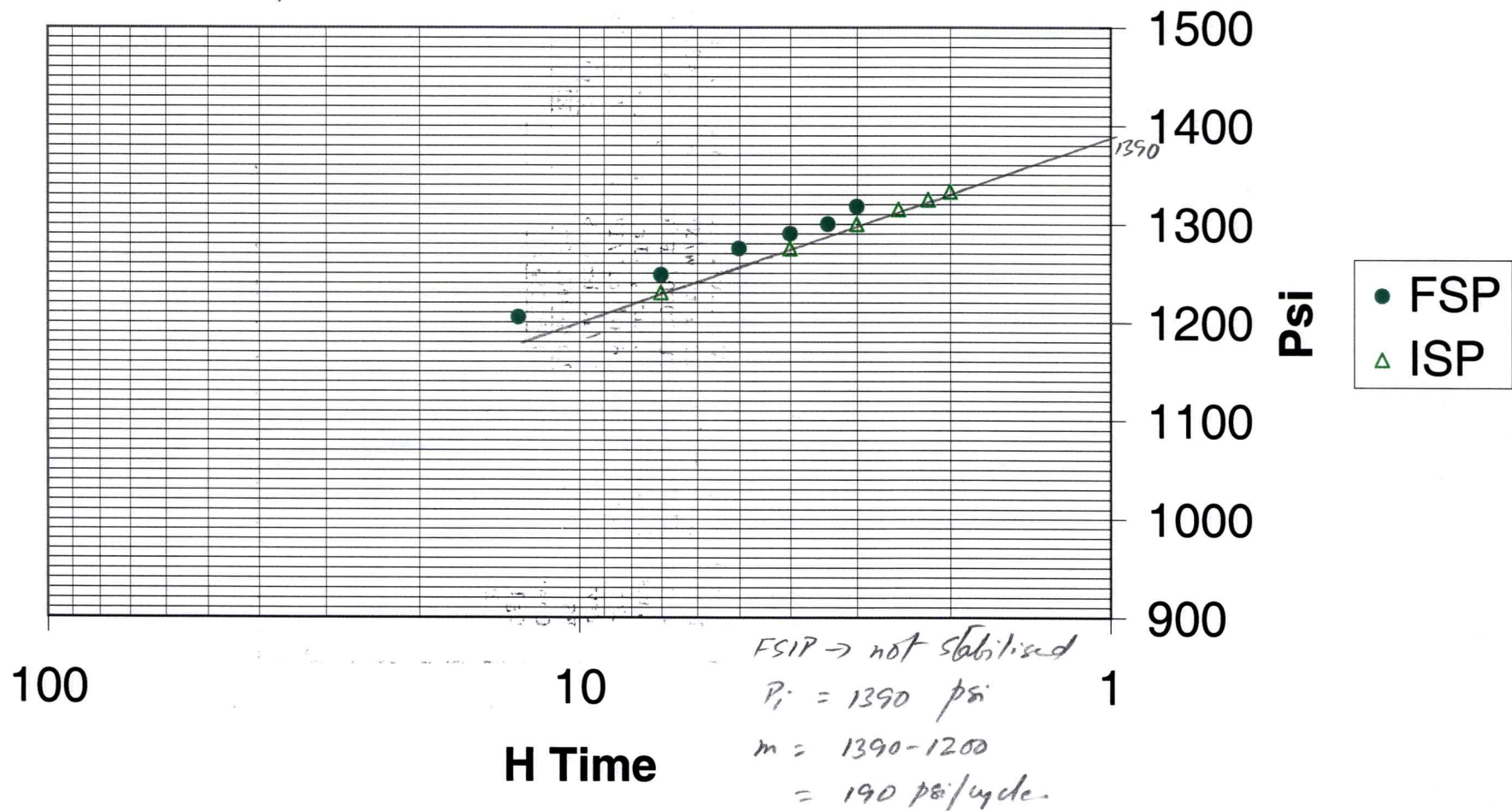


Borger A2 **4398-4410 ft**



Well: **Borger A2**
 DST range: from, ft to, ft thickness, ft
 4398 4410 12

Reservoir gas properties:

Sp gr., Rog = 0.73 gas specific gravity (avg from 3 samples)
 Tpc = 386 R pseudocritical temp
 Ppc = 660 psia pseudocritical pressure

DST analysis - Oil:

Pi = 1390 psi
 m = 190 psi/cycle
 Qo = 533.0 bbl/d
 Qg = Mcf/d
 Pwf = 455 psi (related to Qo - end of second flow)
 P l hr =

Transmissibility:

Kh/Muo = 162.6*Qo*Bo/m
 Bo = 1.03 bbl/STB oil fm vol factor @ BP - Schaben
 Muo = 1.95 cp at BP - Schaben

GOR, Rs = scf/bbl
 API stock tank =
 Sp gr oil, Roo =
 Res temp = F

Bo = 0.972+0.000147*(Rs*(Rog/Roo)^0.5+1.25*T)^1.175
 Bo @ bubble pt = bbl/STB

Kh/Muo = 469.85377 md-ft/cp

Permeability:

h = 12 ft pay

Muo, 1 atm & res temp = cp
 Muo, gas sat. = cp

K = 76.4 md

entered data
 read from correlations
 read from Homer plot
 calculation

GO, ft
 SMO, ft oil %

Production rate calculation:

Liquid recovery:

FO 1048 ft
 MCO 189 ft
 Total = 1199.2 ft Oil % = 80

Drill collar length = 0 feet
 Drill collar ID = 2.25 inch
 Drill pipe ID = 3.95 inch
 Fluid in drill collar = 0 feet
 Fluid in drill pipe = 1199.2 feet

Effective ID = 3.95 inch
 Effective capacity = 0.01516 bbl/ft

Pre-flow recovery:

FFP - end of pre-flow = 278 psi
 FFP - end of main flow = 455 psi

Recovery from pre-flow = 732.7 ft
 Pre-flow volume = 11.1 bbl
 Pre-flow time = 30 min

Pre-flow rate = 533.0 bbl/d

Main-flow recovery:

Recovery from main-flow = 466.5 ft
 Main-flow volume = 7.07 bbl
 Main flow time = 30 mins

Main-flow rate = 339.4 bbl/d