

N MEXICO OIL CONSERVATION COMM. ON DISTRICT
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7-6-87	
Company AMOCO				Connection NONE			
Pool FOWLER SILURIAN				Formation SILURIAN		Unit 	
Completion Date 7/7/87		Total Depth 9900.		Plug Back TD 9740.		Elevation 3264.	
Farm or Lease Name SOUTH MATTIX UNIT							
Csg. Size 7.000	Wt. 23.0	d 6.366	Set At 9900.	Perforations: From 7002. To 7040.		Well No. 15	
Tbg. Size 2.875	Wt. 4.7	d 2.441	Set At 0.	Perforations: From 0. To 3.		Unit Sec. Top. Rps. 22 24 37	
Type Well - Single - Brodenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 6849.		County LEA	
Producing Thru TUBING		Reservoir Temp. °F 129.0 7021.		Mean Annual Temp. °F 60.0		Base Press. - P _g 13.2	
State NEW MEXICO							
L 7021.	H 7021.	G _g 0.718	% CO ₂ 0.21	% N ₂ 3.12	% H ₂ S 0.0	Prover 0.0	Meter Run 4.0
						Taps FLANGE	

FLOW DATA						TUBING DATA		CASING DATA		Description of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							1703.	60.	0.		120.0
1.	4.03 X 1.500			220.	5.0	48.	1590.	48.	0.	0.	1.0
2.	4.03 X 1.500			230.	18.0	50.	1487.	50.	0.	0.	1.0
3.	4.03 X 1.500			230.	52.0	67.	1318.	67.	0.	0.	1.0
4.	4.03 X 1.500			240.	77.0	40.	1122.	40.	0.	0.	1.0
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_{wp}}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
1	10.84	34.15	233.2	1.0117	1.1802	1.0293	455.
2	10.84	36.16	243.2	1.0098	1.1802	1.0303	881.
3	10.84	112.46	243.2	0.9933	1.1802	1.0273	1468.
4	10.84	139.63	253.2	1.0198	1.1802	1.0335	1883.
5.							

NO.	F _g	Temp. °F	F _g	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.35	508.	1.31	0.944						
2	0.37	510.	1.32	0.942						
3	0.37	527.	1.36	0.948						
4	0.38	500.	1.29	0.936						
5.										

NO.	P _o	P _w	P _w ²	P _o ² - P _w ²
1	2570.	1616.	2611.	335.
2	2251.	1511.	2284.	661.
3	1772.	1332.	1774.	171.
4	1289.	1156.	1337.	508.
5.				

(1) $\frac{P_o^2}{P_o^2 - P_w^2} = 1.8312$

(2) $\left[\frac{P_o^2}{P_o^2 - P_w^2} \right]^n = 1.7247$

AOF = Q $\left[\frac{P_o^2}{P_o^2 - P_w^2} \right]^n = 3247.$

Gas Liquid Hydrocarbon Ratio 0.0 Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons 0.0 Deg.

Specific Gravity Separator Gas 0.718 XXXXXXXXXX

Specific Gravity Flowing Fluid XXXXX 0.718

Critical Pressure 662. P.S.I.A. 662. P.S.I.A.

Critical Temperature 387. R 387. R

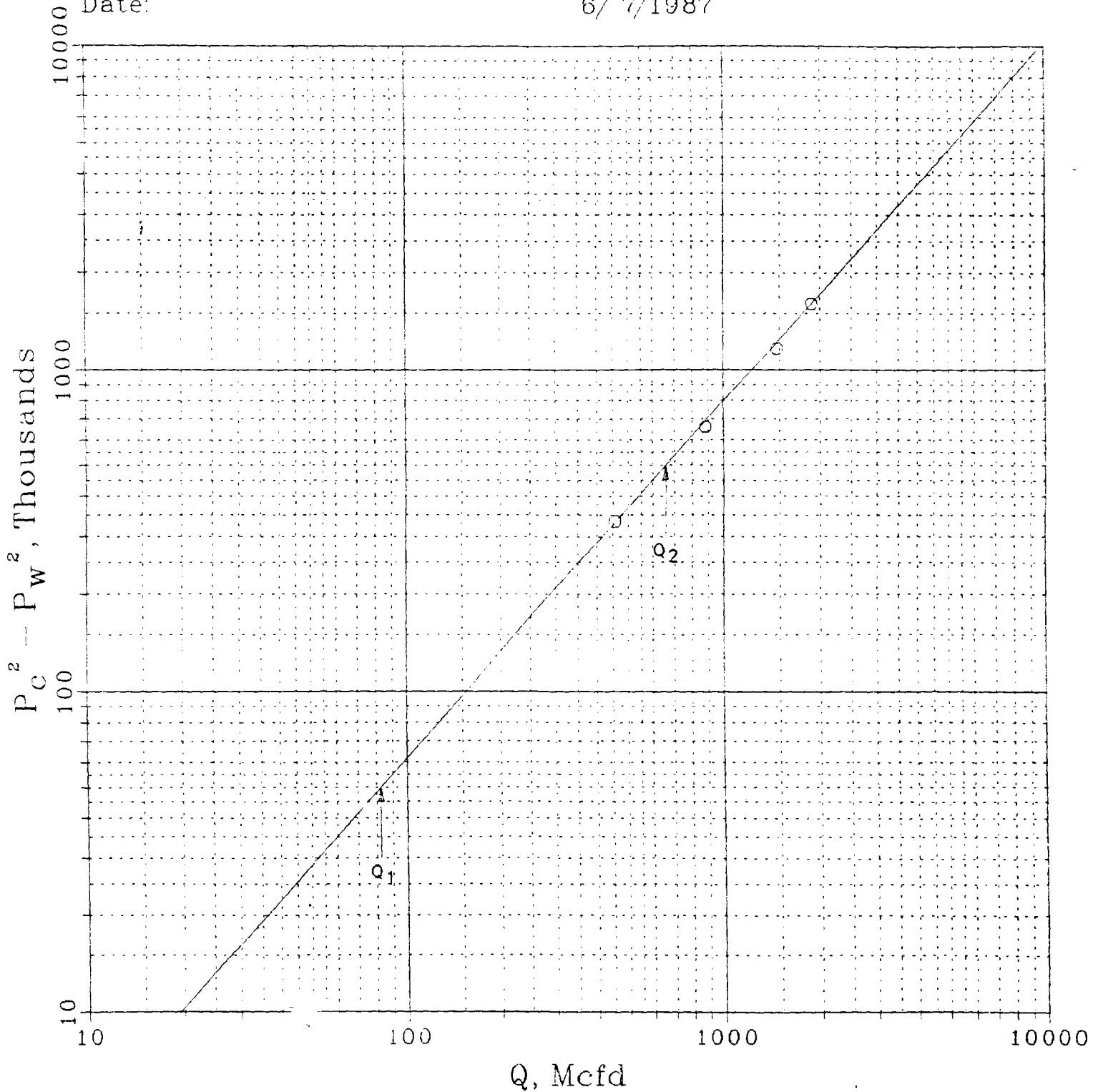
Absolute Open Flow <u>3247.</u> Mcfd @ 15.025			Angle of Slope @ <u>48.0</u>	Slope, n <u>0.901</u>
Remarks:				
Approved By Commission: JUL 10 1987 Conducted By: JOHN WEST Calculated By: BARBARA WAGNER Checked By: STEVE WHITE				

GAS WELL BACK PRESSURE TEST

Company:
Well:
Field/Pool:
County:
Date:

AMOCO
15
FOWLER SILURIAN
LEA
6/ 7/1987

Pool No:
Unit:



$$\begin{aligned}
 Q_1 &= 83. \text{ Mcfd}; & \text{LOG } Q_1 &= 1.91676 \\
 Q_2 &= 657. \text{ Mcfd}; & \text{LOG } Q_2 &= 2.81767 \\
 n &= 0.90091 = 0.901
 \end{aligned}$$