

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5/18/89	
Company BTA OIL PRODUCERS				Connection Phillips 66 Natural Gas			
Pool Antelope Ridge				Formation Atoka		Unit	
Completion Date 4-27-89		Total Depth 13,440'		Plug Back TD 13,404'		Elevation 3,387' RKB	
Farm or Lease Name Brian, 8036 JV-P							
Csq. Size 5"	Wt. 23.2	d 3.919	Set At 13,440'	Perforations: From 12,094' To 12,128'		Well No. 1	
Thq. Size 2 7/8"	Wt. 6.5	d 2.441	Set At 11,997'	Perforations: From To		Unit Sec. Twp. Rge. L 11 23-S 34-E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11,019'		County Lea	
Producing Thru tbg		Reservoir Temp. °F 179° @ 12,111		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
State New Mexico							
L 11,997	H	G _g 0.643	% CO ₂ 0.26	% N ₂ 0.87	% H ₂ S 0	Prover	Meter Run 4.026
						Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration 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	4.026	x	1.250						Pkr	80°	SI HR
1.	4.026	x	1.250	660	2.5	85	2365	85	Pkr		60 min
2.	4.026	x	1.250	795	7	74	2237	84	Pkr		60 min
3.	4.026	x	1.250	805	48	88	1970	84	Pkr		60 min
4.	4.026	x	1.250	815	98	80	1672	83	Pkr		60 min
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	7.469	41.02	673.2	0.9768	1.247	1.058	395
2	7.469	75.22	808.2	0.9868	1.247	1.076	744
3	7.469	198.18	818.2	0.9741	1.247	1.070	1924
4	7.469	284.89	828.2	0.9813	1.247	1.075	2799
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio <u>5</u> Mcf/bbl.
1.	1.00	545	1.47	0.894	A.P.I. Gravity of Liquid Hydrocarbons <u>58° API @ 60°</u> Deg.
2.	1.21	534	1.44	0.864	Specific Gravity Separator Gas <u>0.643</u> XXXXXXXXXX
3.	1.22	548	1.47	0.873	Specific Gravity Flowing Fluid <u>XXXXX</u>
4.	1.24	540	1.45	0.865	Critical Pressure <u>670</u> P.S.I.A. P.S.I.A.
5.					Critical Temperature <u>372</u> R R

P _f <u>3643.2</u>	P _f ² <u>13273</u>			
NO.	P _f ²	P	P ²	P ² - P _w ²
1		3552.2	12618	655
2		3404.2	11589	1684
3		3038.2	9231	4042
4		2596.2	6740	6533
5				

$$(1) \frac{P_f^2}{P_f^2 - P_w^2} = 2.0317$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5687$$

$$(2) \left[\frac{P_f^2}{P_f^2 - P_w^2} \right]^n = 2.0317$$

Absolute Open Flow <u>5687</u> Mcfd @ 15.025	Angle of Slope @ <u>45°</u>	Slope, n <u>1.000</u>
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Remarks:

JUN 15 1989

Approved By Commission: ORIGINAL SIGNED BY JERRY ROBERTSON DISTRICT SUPERVISOR	Conducted By: BTA OIL PRODUCERS	Calculated By: T. J. Williams	Checked By:
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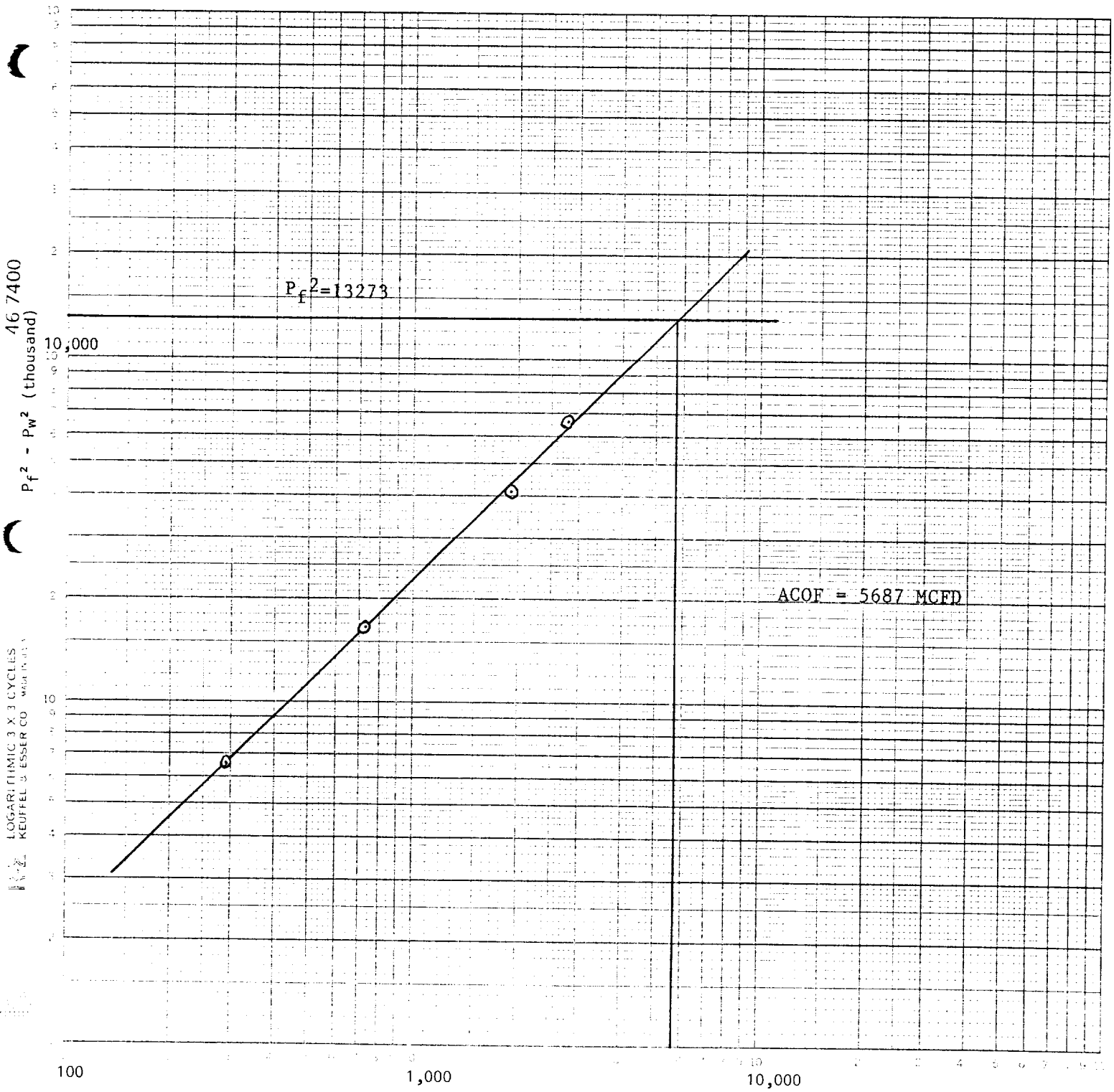
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JUN 14 1989

**OCI
HOBBS OFFICE**

8036 JV-P Brian #1

5/18/89



AOF = 5687 MCFD

N = 1.000

$\theta = 45.0^\circ$