

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 8/24/89			
Company BTA OIL PRODUCERS				Connection El Paso Natural Gas Co.					
Pool Grama Ridge (Morrow)				Formation Morrow				Unit	
Completion Date 6/7/89		Total Depth 13,500'		Plug Back TD 13,348'		Elevation 3,564' RKB		Farm or Lease Name Grama, 8817 JV-P Com	
Csg. Size 5"	Wt. 23.2	d 4.044	Set At 13,499'	Perforations: From 12,905' To 13,063'		Well No. 1			
Tbg. Size 2 7/8"	Wt. 6.5	d 2.441	Set At 12,818'	Perforations: From To		Unit Sec. Twp. Rge. -C- 16 22-S 34-E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 10,656'		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 195 @ 12984'		Mean Annual Temp. °F 60°		Baro. Press. - P _g 13.2		State New Mexico	
L 12818	H 12818	Gg 0.591	% CO ₂ 0.33	% N ₂ 0.53	% 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	1.750					78	Pkr	78	SI 1850Hrs
1.	4.026	x	1.750	665	1.5	106	5922	80	Pkr		1 Hr.
2.	4.026	x	1.750	670	7	106	5458	81	Pkr		1 Hr.
3.	4.026	x	1.750	670	22	86	4549	81	Pkr		1 Hr.
4.	4.026	x	1.750	675	46	58	3137	80	Pkr		1.25 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	14.93	31.90	678.2	0.9585	1.301	1.041	618
2	14.93	69.15	683.2	0.9585	1.301	1.041	1340
3	14.93	122.60	683.2	0.9759	1.301	1.049	2438
4	14.93	177.92	688.2	1.0020	1.301	1.060	3671
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio 171.188 Mcf/bbl.
1.	1.01	566	1.60	0.922	A.P.I. Gravity of Liquid Hydrocarbons 48.6 @ 60° Deg.
2.	1.02	566	1.60	0.922	Specific Gravity Separator Gas 0.591 XXXXXXXXXX
3.	1.02	546	1.54	0.908	Specific Gravity Flowing Fluid XXXXX
4.	1.02	518	1.46	0.890	Critical Pressure 672 P.S.I.A. P.S.I.A.
5.					Critical Temperature 354 R R

NO.	P _f ²	P _w ²	P _w ²	P _f ² - P _w ²	(1) $\frac{P_f^2}{P_f^2 - P_w^2} = 1.436$	(2) $\left[\frac{P_f^2}{P_f^2 - P_w^2} \right]^n = 1.378$
1		7525.2	56629	6561	$AOF = Q \left[\frac{P_f^2}{P_f^2 - P_w^2} \right]^n = 5059$	
2		7016.2	49227	13963		
3		6013.2	36159	27031		
4		4379.2	19177	44013		
5						

Absolute Open Flow 5,059 Mcfd @ 15.025	Angle of Slope 48.46°	Slope, n 0.886
--	-----------------------	----------------

Remarks: Bottom Hole Pressures measured by Jarrel Services, Inc.

SEP 8 1989

Approved By: Paul Kautz	Conducted By: BTA OIL PRODUCERS	Calculated By: T. J. Williams	Checked By:
--------------------------------	---------------------------------	-------------------------------	-------------

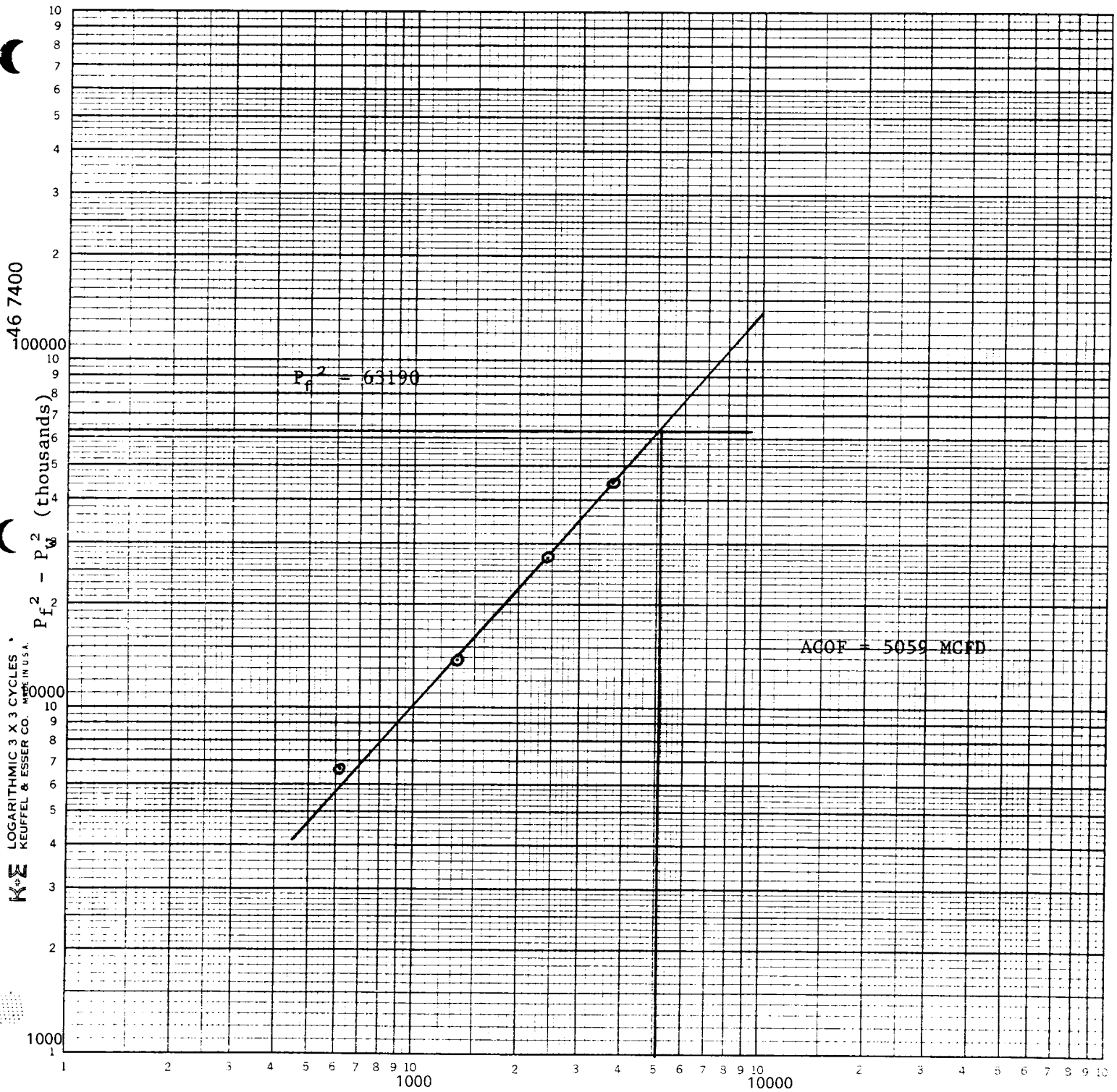
RECEIVED

SEP 7 1989

CCO
HOBBS OFFICE

8817 JV-P Grama #1

8/24/89



Q (MCFD)

AOF = 5059 MCFD

n = 0.886

$\theta = 48.46^\circ$