

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 10/27/87	
Company BTA OIL PRODUCERS				Connection El Paso Natural Gas			
Pool Pitchfork Ranch				Formation Morrow		Unit	
Completion Date 7-28-87		Total Depth 15,142		Plug Back TD 15,114		Elevation 3468' GR	
Farm or Lease Name Madera, 8706 JV-P		Well No. 1		Perforations: From 14,934 To 15,014		Set At 15,140	
Csg. Size 5"		Wt. 23.2		d 4.044		Perforations: From To	
Tbg. Size 2-7/8		Wt. 6.5		d 2.441		Set At 14,700	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 14,700'		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 200 @ 14,700		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
State New Mexico		Prover 4.026		Meter Run 4.026		Taps Flange	
L 14,700		H 14,700		G _g 0.583		% CO ₂ 0.59	
% N ₂ 0.18		% H ₂ S 0.0		Prover 4.026		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 1.5000"							80°	Pkr.	80°	SI 5 Hrs
1.	4.026" X 1.5000"			755	10.5	101	5325	75°	Pkr.		60 min
2.	4.026" X 1.5000"			773	25.0	90	4800	77°	Pkr.		60 min
3.	4.026" X 1.5000"			802	48.0	89	4215	80°	Pkr.		60 min
4.	4.026" X 1.5000"			825	74.5	83	3590	85°	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	10.84	89.81	768.2	0.9628	1.310	1.046	1284
2	10.84	140.20	786.2	0.9723	1.310	1.139	2205
3	10.84	197.81	815.2	0.9732	1.310	1.041	2846
4	10.84	249.89	838.2	0.9786	1.310	1.059	3677
5.							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	674	Mcf/bbl.
1.	1.14	561	1.60	0.914	A.P.I. Gravity of Liquid Hydrocarbons	46	Deg.
2.	1.17	550	1.57	0.926	Specific Gravity Separator Gas	0.583	XXXXXXX
3.	1.21	549	1.57	0.923	Specific Gravity Flowing Fluid	XXXXX	
4.	1.25	543	1.55	0.893	Critical Pressure	672	P.S.I.A.
5.					Critical Temperature	350	P.S.I.A.

P _f 7584.8	P _f ² 57530	(1) $\frac{P_f^2}{P_f^2 - P_s^2} = 7.365$	(2) $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 4.236$
NO.	P _s	P _s ²	P _f ² - P _s ²
1	7051.2	49719	7811
2	6452.2	41631	15899
3	5777.2	33376	24154
4	4993.2	24932	32598
5			

$ACF = Q \left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 5330$			
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Absolute Open Flow	5330	Mcf @ 15.025	Angle of Slope	35.89°	Slope, n	.723
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Remarks: Bottom Pressure Measured by Arc Pressure Data Inc.

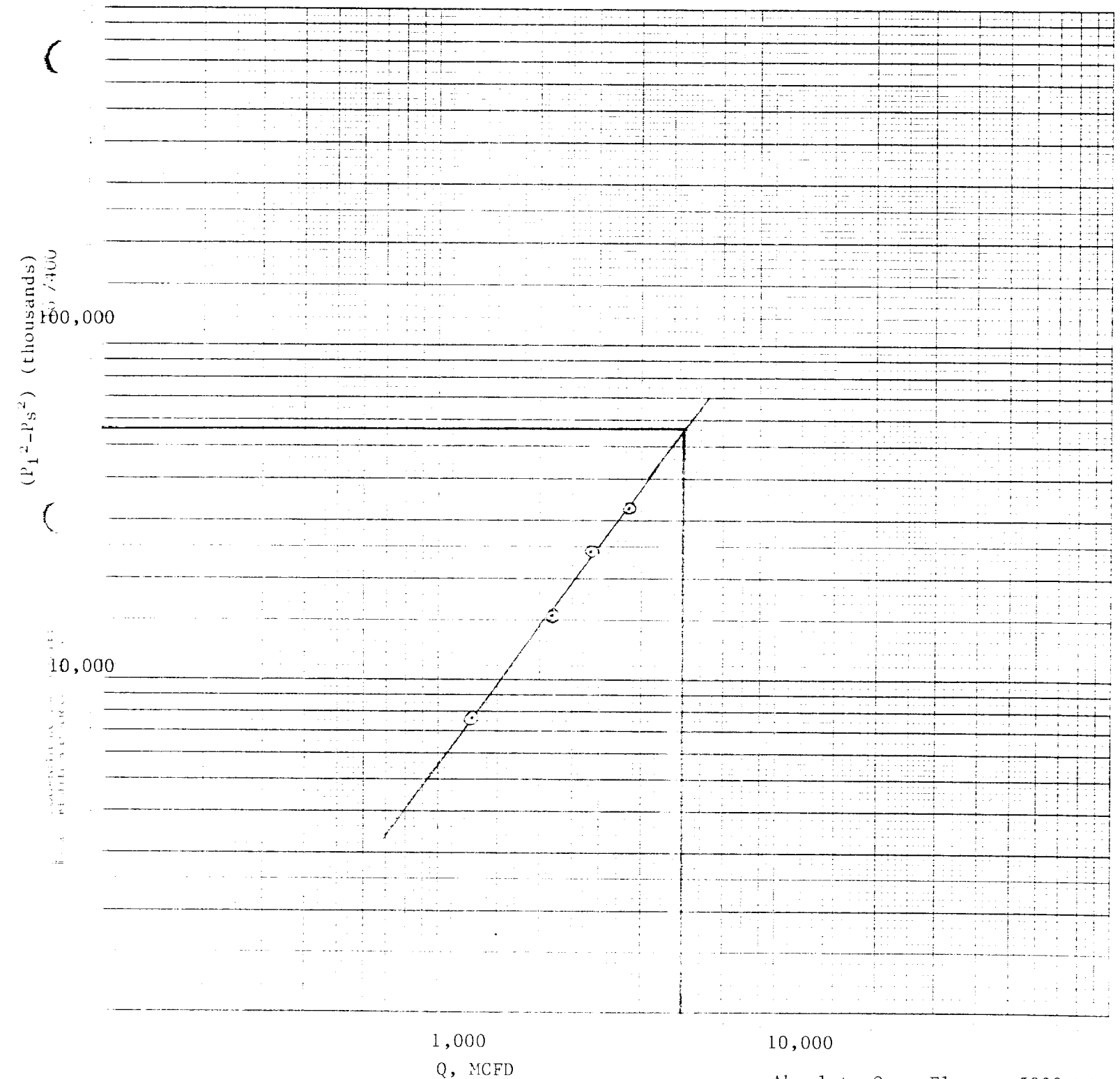
Approved By Commission:	Conducted By:	Calculated By:	Checked By:
NOV 25 1987	BTA OIL PRODUCERS	T. J. WILLIAMS	

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HOBBS OFFICE

BTA OIL PRODUCERS

Madera #1, 8706 JV-P

10/27/87



Absolute Open Flow = 5330 MCFD
n = .723
 θ = 35.89°