

c/sf
file

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date RECEIVED	
Company Hondo Oil and Gas Company		Connection Not Connected	
Pool Turkey Track		Formation Morrow	
Completion Date 8-27-82		Total Depth 10950	
Casing Size 5 1/2"		Well No. 1	
Perforations From 10510 To 10535		Form of Lease Name Hondo Sinclair State	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single		Packer Set At 10430	
Producing Through Tubing		State New Mexico	
Reservoir Temp. °F 169.1		Mean Annual Temp. °F 60.0	
Baro. Press. - P _b 13.2		County Eddy	
L 10430		H 10430	
G _g .6401		% CO ₂ 1.066	
% N ₂ .614		% H ₂ S -0-	
Prover 4"		Meter Run 4"	
Taps Flg.			

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							2885		Pkr.		72 Hrs.
1.	4 x 1.5			457	11	104	2542	78	"		1 Hr.
2.	4 x 1.5			533	18.5	101	2465	78	"		1 Hr.
3.	4 x 1.5			581	33.0	94	2230	78	"		1 Hr.
4.	4 x 1.5			581	69.0	91	1885	78	"		1 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	10.84	71.92	470.2	.9602	1.205	1.034	933
2	10.84	100.52	546.2	.9628	1.205	1.041	1316
3	10.84	140.03	594.2	.9688	1.205	1.045	1852
4	10.84	202.48	594.2	.9715	1.205	1.047	2690
5.							

NO.	P _r	Temp. °R	T _r	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	.70	564	1.53	.935	188.64	59.37 @ 60°F	.6401	X X X X X X X X	673	368
2	.81	561	1.52	.923				X X X X X		
3	.88	554	1.51	.915						
4	.88	551	1.50	.913						
5										

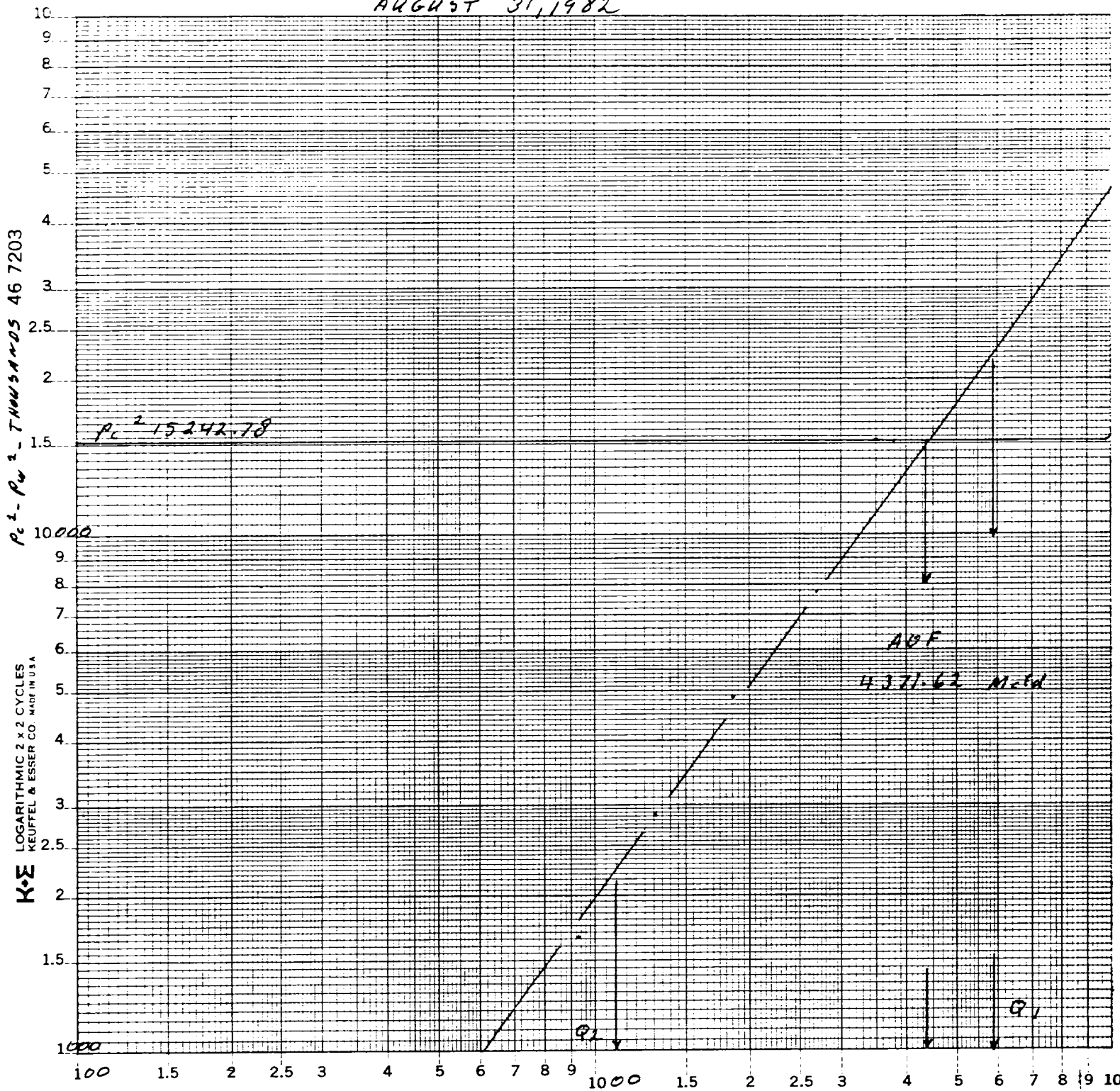
NO.	F ₁	* P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.959259$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.6251382$
1	3684.2	13573.33	1669.45			
2	3528.2	12448.20	2794.58			
3	3218.2	10356.81	4885.97			
4	2786.2	7762.91	7779.87			
5						

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4371.62$

First ID-2 10-15-82 Comp & BK

Absolute Open Flow <u>4371.62</u> Mcfd @ 15.025		Angle of Slope θ <u>54° 10'</u>		Slope, n <u>.722</u>	
Remarks: *BHP measured @ mid perms 10522.5 via bomb.					
Well produced 7.5 bbls. water and 1.5 bbls. condensate during test.					
Approved By Division		Conducted By: Lon Briley		Calculated By: J. Cogburn	
				Checked By: Steve Smith	

HONDO OIL & GAS CO.
 HONDO SINCLAIR STATE #1
 UNIT G 528-T185-R28E
 EDDY COUNTY NEW MEXICO
 AUGUST 31, 1982



$$Q_1 = 5800 \text{ M.cfd}, \text{ LOG } 3.7634280$$

$$Q_2 = 1100 \text{ M.cfd}, \text{ LOG } 3.0413927$$

$$n = .7220353 = 0.722$$