

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

RECEIVED

C/SF
C-122

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 3-20-82		APR 5 1982	
Company QUANAH PETROLEUM INC.		Connection To Atmosphere		O. C. D.	
Pool Wildcat Bone Springs		Formation Bone Springs		Unit ARTESIA, OFFICE	
Completion Date 3-18-82		Total Depth 9350 7665	Plug Back TD 7597	Elevation 3171 G.L.	Farm or Lease Name HAYAFED.
Ceq. Size 5 1/2"	Wt. 17.0#	d 4.892	Set At 9350 7665	Perforations: From 6871 To 7558	Well No. 1
Tbg. Size none	Wt. -----	c -----	Set At none	Perforations: From none To	Unit D
Type well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE			Packer Set At NONE	County EDDY	
Producing Thru Casing		Reservoir Temp. °F 146 @ 7214.5	Mean Annual Temp. °F 60	Buro. Press. - P _a 13.2	State New Mexico
L 7214.5	H 7214.5	Gg .669	% CO ₂ 1.22	% N ₂ 1.92	% H ₂ S NIL
Prover -----		Meter Run 4"		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							NONE		1900		72 hr.
1.	4" x 1.250			500	2.0"	50			1880	45	1 hr.
2.	4" x 1.250			500	7.0"	50			1740	53	1 hr.
3.	4" x 1.250			500	10.0"	50			1615	57	1 hr.
4.	4" x 1.250			510	12.0"	50			1390	58	1 hr.
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.469	32.04	513.2	1.010	1.223	1.057	312
2	7.469	59.94	513.2	1.010	1.223	1.057	584
3	7.469	71.64	513.2	1.010	1.223	1.057	699
4	7.469	79.24	523.2	1.010	1.223	1.059	774
5.							

NO.	R	Temp. °R	T	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	.76	51	1.37	.895	NONE				2816.71	371
2.	.76	51	1.37	.895						
3.	.76	51	1.37	.895						
4.	.78	51	1.37	.892						
5.										

P _c 1913.2 P _c ² 3660.3					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 48.099$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 6.395$
NO.	P _w	P _w ²	P _c ² - P _w ²		$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.164$	
1	* 1893.2	3584.2	76.1			
2	* 1753.2	3073.8	586.5			
3	* 1628.2	2651.1	1009.2			
4	* 1403.2	1969.1	1691.2			
5						

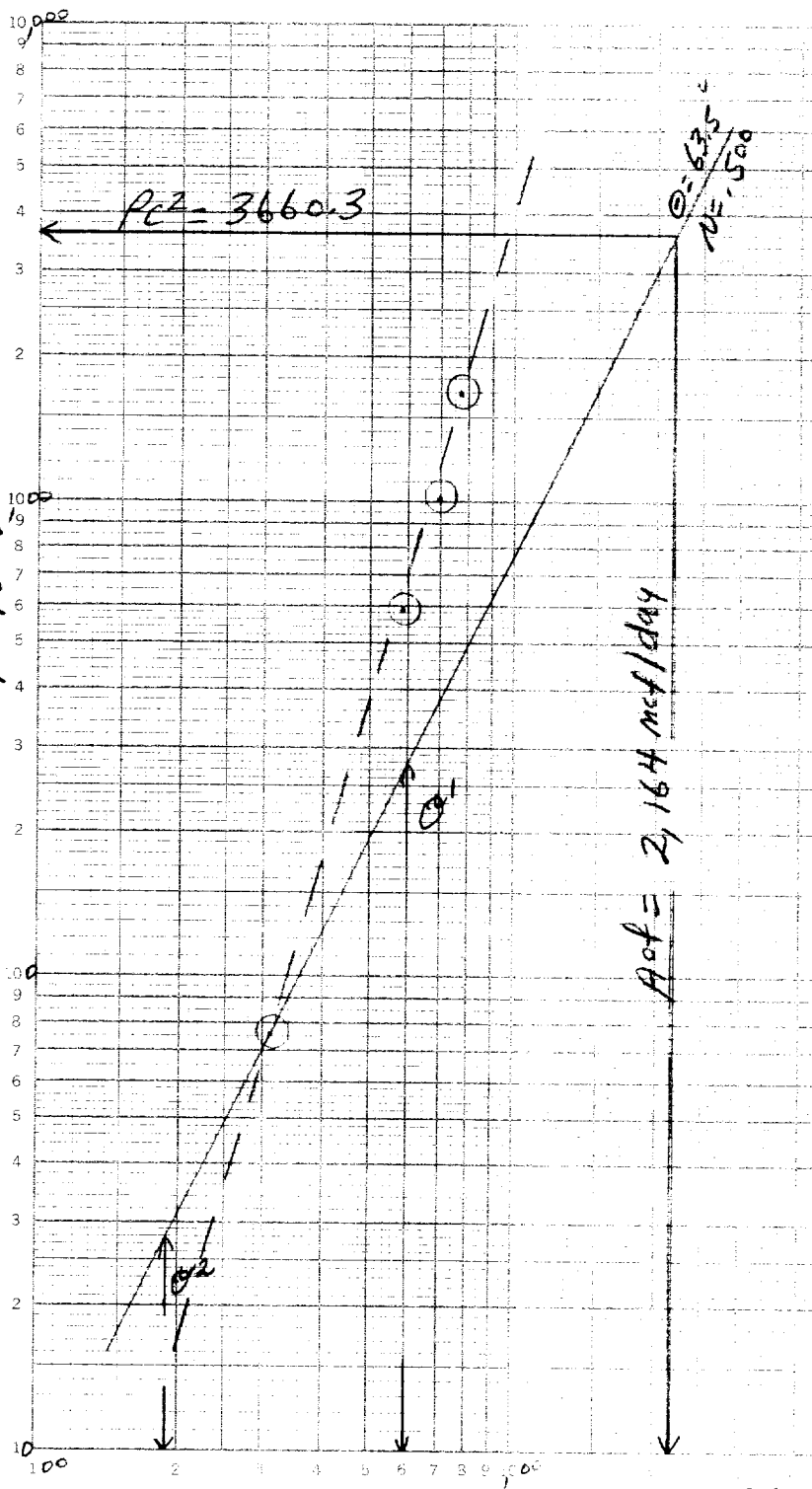
Absolute Open Flow	2,164	Mcfd @ 15.025	Angle of Slope θ	63.5°	Slope, n	.500
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Remarks: *friction calculated on C-122
made no liquid during test

Approved by Division	Conducted By: BABER WELL SERVICE	Calculated By: BOB MCMURRAIN	Checked By: MARK ROWLAND
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Posted ID-2
+ Comp. Book
4-16-82

46,7400
 $P_c^2 - P_w^2$ (1000)



$$Q' = 600; \log = 2.7781$$

$$Q'' = 189.71; \log = 2.2781$$

$$N = .500$$

$Q = \text{mcf/d}$