

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

Copy 6.51
Form O-122-122
Rev. and 6-1-55

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-25-75		JUL 2 1975	
Company Monsanto Company			Connection None			O.C.C.	
Well Burton Flat			Formation Morrow			Unit ARTEZIA, OFFICE M	
Completion Date 6-25-75		Total Depth 11,610		Plug Back TD 11,540		Elevation 3212 Gr	
Well No. 5 1/2		Casing Size 17"		Set At 11,605		Perforations: From 11,328 To 11,338	
Well No. 2 7/8 EUE		Casing Size 6.5		Set At 11,112		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11,112		County Eddy	
Pressing Thru Tubing		Reservoir Temp. °F 164 @ 11,333		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico		Meter Run X		Tape			
L 11333		H 11333		G _g .591		% CO ₂	
				% N ₂		% H ₂ S	
				Prover			

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.	
1	7 Days						2917	82		
2	4.0		1.5	490	7	106	2245	79		1 Hr
3	4.0		1.5	495	18	88	1933	80		1 Hr
4	4.0		1.5	500	28	91	1701	82		1 Hr
5	4.0		1.5	500	44	92	1400	83		1 Hr

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, Mgd
1	10.84	59.349	503.2	.9585	1.3008	1.030	826
2	10.84	95.643	508.2	.9741	1.3008	1.033	1357
3	10.84	119.873	513.2	.9715	1.3008	1.035	1700
4	10.84	151.871	524.2	.9706	1.3008	1.035	2151

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Vel/Vol.
1	.75	566	1.60	.942	A.P.I. Gravity of Liquid Hydrocarbons	None Produced
2	.76	548	1.55	.938	Specific Gravity Separator Gas	.591
3	.76	551	1.56	.934	Specific Gravity Flowing Fluid	X X X X X
4	.76	552	1.56	.934	Critical Pressure	672 P.S.I.A.
5					Critical Temperature	354 R

NO.	P _w	P _w ²	P _c ² - P _w ²
1	2259.3	5104	3482
2	1945.5	3785	4801
3	1719.4	2956	5630
4	1432.8	2053	6533

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{8586}{6533}$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2827$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.31425$

AOF = 2827	Mgd @ 15.025	Angle of Slope @ 45°	Slope, n 1.00
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Remarks:

Approved by Commission	Conducted by R G Roberson	Calculated by H L Hagler	Checked by:
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WEST TEXAS CONSULTING SERVICE, INC.