

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 10-17-75		OCT 30 1975		
Company Mobil Oil Corporation				Connection Llano Inc..				D.C.C.	
Pool Burton Flat				Formation Morrow				Unit ARTESIA, OFFICE 320	
Completion Date 3-20-75		Total Depth 11,500		Plug Back TD 11,448		Elevation 3208-GL		Farm or Lease Name Federal 00	
Coil Size 5 1/2	Wt. #/ft 17	d 4.892	Set At 11,500	Perforations: From 11,193 To 11,410			Well No. 2		
Tub. Size 2 3/8"	Wt. #/ft 47	d 1.995	Set At 11,190	Perforations: From - To -			Unit Sec. Twp. Rge. C - 18 - 21S - 27E		
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single					Packer Set At 11,168		County Eddy		
Producing Thru Tubing		Reservoir Temp. °F 199 @ 11,300		Mean Annual Temp. °F 60°		Haro. Press. - P _a 13.2		State New Mexico	
L 11,190	H 11,193	G _g 0.579	% CO ₂ 1.02	% N ₂ 0.23	% H ₂ S -	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							3298				72 hr SI
1.	4" X 1.75			762	10	54	2852	60	0.0	60	24
2.	4" X 1.75			820	29	50	2611	60	0.0	60	24
3.	4" X 1.75			826	47	45	2403	60	0.0	60	24
4.	4" X 1.75			840	67	45	2176	60	0.0	60	24
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	14.93	88.04	775.20	1.0058	1.3141	1.0655	1851.4
2	14.93	155.44	833.20	1.0097	1.3141	1.0725	3303.2
3	14.93	198.60	839.20	1.0147	1.3141	1.0760	4255.0
4	14.93	239.09	853.20	1.0147	1.3141	1.0773	5128.6
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	1.14	514	1.47	0.880	2423	47.5	0.579	XXXXXX	676	349
2	1.23	510	1.46	0.869						
3	1.24	505	1.44	0.863						
4	1.26	505	1.44	0.861						
5										

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.033$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.359$ (2.033)
1	8209.3	2883.8	8316.7	2647.2		
2	6886.4	2687.1	7220.7	3743.2		
3	5838.0	2526.5	6383.5	4580.5		
4	4792.5	2360.7	5573.1	5390.8		
5						

$P_c = 3311.2$ $P_c^2 = 10964.0$
 $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{12,099.6}{(10,426.4)}$

Absolute Open Flow (10,426.4) NMOCC Manual II B 1 12,145.0 (3 pt. avg.) Mcfd @ 15.025		e (4) (a) Angle of Slope $\theta = 39.593$		Slope, n = 1.209	
---	--	---	--	------------------	--

Remarks: First test resulted in a valve of n = 1.209. Retest was not made.
 Valves in parenthesis were calculated assuming an "n" valve equal to 1.00 at the final flow rate of 5128.6 MCFPD. All other calculations are

Approved By Commission:	Conducted By: D. R. Oliver	Calculated By: K. W. Lewis	Checked By: by computer. J. C. Gordon, Jr.
-------------------------	-------------------------------	-------------------------------	---