

NEW MEXICO OIL & GAS COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 9-1-66

RECEIVED

JUN 13 1974

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 5/29/74			
Company MOBIL OIL CORP				Connection —		O. C. C. ARTESIA, OFFICE	
Pool SOUTH CARLSBAD				Formation MORROW		Unit 320	
Completion Date 4-26-74		Total Depth 12,300'		Plug Back TD 12150		Elevation 3113 G.L.	
Farm or Lease Name MAUDE RICKMAN COMM							
Csg. Size 7"	Wt. 26 1/4	d 6.276	Set At 12,300'	Perforations: From 11,658' To 12,040'		Well No. 1	
Tbg. Size 2 3/8"	Wt. 4.6 1/4	d 1.995	Set At 11,615'	Perforations: From To		Unit Sec. Twp. Rge. L 3, 23-S, 27-E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple DUAL				Packer Set At 11,615'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 195° 12290'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
State NEW MEXICO							
L 11,615'	H 11,847	Gg 0.601	% CO ₂ 2.0	% N ₂ 0.7	% H ₂ S —	Prover —	Meter Run 4"
Taps FLANGE							

FLOW DATA						TUBING DATA		CASING DATA		Duration	
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	of Flow
1.	4 X 1.5			720	7	70	2750	60	—	—	144 HRS
2.	4 X 1.5			730	13	68	1940	60	—	—	1
3.	4 X 1.5			730	14	78	1160	60	—	—	1
4.	4 X 1.5			520	22	80	650	60	—	—	1
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 _{spv}	Rate of Flow Q, mcf/d
1.	10.84	71.64	733.20	0.9905	1.2899	1.0568	1042.5
2.	10.84	98.29	743.20	0.9923	1.2899	1.0584	1443.6
3.	10.84	102.00	743.20	0.9831	1.2899	1.0544	1477.5
4.	10.84	108.30	533.20	0.9813	1.2899	1.0384	1543.2
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/cb.,
1.	1.08	530	1.50	0.895	A.P.I. Gravity of Liquid Hydrocarbons	0
2.	1.09	528	1.50	0.892	Specific Gravity Separator Gas	0.601
3.	1.09	538	1.52	0.899	Specific Gravity Flowing Fluid	X X X X X
4.	0.78	540	1.53	0.927	Critical Pressure	678 P.S.I.A.
5.					Critical Temperature	352 R

P _c 3713.2	P _c ² 13788		
NO.	P _r ²	P _w	P _w ²
1	7635.2	2769.5	7670.5
2	3814.9	1969.4	3878.5
3	1376.3	1202.7	1446.5
4	439.8	722.1	521.5
5			

$$(1) \frac{P_c^2}{P_r^2 - P_w^2} = 2.253$$

$$(2) \left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.527$$

$$AOF = Q \left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1601.5$$

Absolute Open Flow	1601.5	Mcf/d @ 15.025	Angle of Slope @	62.477	Slope, n	0.521
Remarks:						

Approved By Commission:	Conducted By: A.R. ALAMEDDINE	Calculated By: K.W. LEWIS	Checked By: A.R. ALAMEDDINE
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