

C-122 F.R.

NL MEXICO OIL CONSERVATION COMMS. N
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 1-30-68	
Company Monsanto Company				Connection None		
Pool Undesignated				Formation Lower Morrow		Unit D
Completion Date 1-23-68		Total Depth 11,026		Play Back TD 10,385		Elevation 3961
Csg. Size 5 1/2		Wt. 17	d 4.892	Set At 10,204	Perforations: From 10,290 To 10,324	
Tbg. Size 2 7/8		Wt. 6.5	d 2.441	Set At 10,204	Perforations: From Open Ended To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G. G.					Packer Set At 10,200	
Producing Thru Tubing		Reservoir Temp. °F 172 @ 10,307		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2
L 10,307		H 10,307	Gg .588	% CO ₂ .63	% N ₂ .59	% H ₂ S 0
				Prover		Meter Run X
						Taps
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
SI						
1.	4.067 x 2.50			450	44	59
2.	4.067 x 2.50			515	74	63
3.	4.067 x 2.50			530	96	63
4.	4.067 x 2.50			620	116	63
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}
1	32.64	142.76	463.2	1.001	1.304	1.036
2	32.64	197.70	526.2	.9971	1.304	1.040
3	32.64	228.31	543.2	.9924	1.304	1.040
4	32.64	271.01	633.2	.9943	1.304	1.048
5						
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 755.5 Mcf/bbl.	
1	.59	519	1.50	.932	A.P.I. Gravity of Liquid Hydrocarbons 54 Deg.	
2	.78	523	1.51	.924	Specific Gravity Separator Gas .588 X X X X X X X X	
3	.80	528	1.52	.924	Specific Gravity Flowing Fluid X X X X X	
4	.94	526	1.52	.911	Critical Pressure by Analysis 674.2 P.S.I.A. 675 P.S.I.A.	
5					Critical Temperature 344.5 R 346 R	
$P_c = 674.2$ $P_c^2 = 452422$ $P_w^2 = 2982.7$ $R_w^2 = 8896$ $P_c^2 - R_w^2 = 461529$						
NO.	P _r ²	P _w	R _w ²	P _r ² - R _w ²	$(1) \frac{P_c^2}{P_r^2 - R_w^2} = 4.355$ $(2) \left[\frac{P_c^2}{P_r^2 - R_w^2} \right]^n = 4.355$	
1		3148.8	9914	1633		
2		3051.2	9310	2237		
3		3025.5	9154	2393		
4		2982.7	8896	2651	$ACF = Q \left[\frac{P_c^2}{P_r^2 - R_w^2} \right]^n = 52351$	
5						
Absolute Open Flow 52351 Mcf @ 15.025				Angle of Slope 45°		Slope, n 1.0
Remarks: Computations were made with Electronic Type Calculator carried to 7 places.						
Approved By Commission:		Conducted By: D. F. Jones		Calculated By: H. L. Hagler		Checked By: