

NEW 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 8-24-74		SEP 16 1974	
Company Champlin Petroleum Company				Connection El Paso Natural Gas Co.		O. C. C.	
Pool Undesignated				Formation Morrow		Unit ARTESIA, OFFICE	
Completion Date 8-24-74		Total Depth 12,044'		Plug Back TD 11,971'		Elevation 3102 GL	
Farm or Lease Name State "36"							
Csg. Size 7"	Wt. 23 & 26	d 6.276	Set At 12,041'	Perforations: From 11,542' To 11,673'		Well No. 1	
Tbg. Size 2-7/8"	Wt. 6.5	d 2.441	Set At 11,450'	Perforations: From To		Unit Sec. Twp. Rge. L 36 21S 27E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Dual				Packer Set At 11,450'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 180° ± 11,500		Mean Annual Temp. °F 60 (E)		Baro. Press. - P _a 13.2	
State New Mexico							
L 11,450	H 11,450	Gg .589	% CO ₂	% N ₂	% H ₂ S	Prover 2"	Meter Run 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	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							3722	60 (E)			48 hr.
1.	2 x 1.50			22		49	3164	75 (E)			1 hr.
2.	2 x 1.50			31		45	2712	75 (E)			1 hr.
3.	2 x 1.50			37		45	2312	75 (E)			1 hr.
4.	2 x 1.50			41		46	1750	75 (E)			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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	42.11		35.2	1.011	1.303	1.003	1959
2	42.11		44.2	1.015	1.303	1.005	2474
3	42.11		50.2	1.015	1.303	1.005	2810
4	42.11		54.2	1.014	1.303	1.005	3030
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Dry _____ Deg.
2.					Specific Gravity Separator Gas .589 X X X X X X X X
3.					Specific Gravity Flowing Fluid X X X X X .589
4.					Critical Pressure 671 P.S.I.A. 671 P.S.I.A.
5.					Critical Temperature 355 R 355 R

F _c 3735.2 P _c ² 13951.7					(i) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.661$	(ii) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.913$
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²		
1		3184.5	10141.0	3810.7		
2		2738.2	7497.7	6454.0		
3		2343.9	5493.9	8457.8		
4		1791.9	3210.9	10740.8		
5						

Absolute Open Flow 3748 Mcfd @ 15.025			Angle of Slope θ _____ °		Slope, n .500	
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Remarks: P _w calculated by time-share program using stepwise procedure			
The slope of the back pressure curve was less than .500, therefore, a slope of .500 was drawn through the lowest rate included in the test.			
Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Joe Ragan	J. K. Adair, Jr.	Donald C. Condie