

W 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 9-11-74		SEP 23 1974	
Company Champlin Petroleum Company				Connection El Paso Natural Gas Co.			O. C. C.	
Pool Undesignated				Formation Morrow			Unit ARTESIA, OFFICE	
Completion Date 9-11-74		Total Depth 12,000'		Plug Back TD 11,697'		Elevation 3114 GL		Farm or Lease Name Reeves-Federal
Csg. Size 7"	Wt. 23 & 26	d 6.276	Set At 12,000'	Perforations: From 11,430' To 11,682'			Well No. 1	
Tbg. Size 2-7/8"	Wt. 6.5	d 2.441	Set At 11,375'	Perforations: From To			Unit Sec. Twp. Rge. B 35 21S 27E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11,371'			County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 186 ⁰ 11,556'		Mean Annual Temp. °F 60 ⁰ (E)		Baro. Press. - P _a 13.2		State New Mexico
L 11,375	H 11,375	Gg .586	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run 4"	Taps Flg.

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							3629				19 hrs.
1.	4"		1.5"	600	3.0	72	2543	75 (E)			1 hr.
2.	4"		1.5"	570	6.5	78	2075	75 (E)			1 hr.
3.	4"		1.5"	490	16.0	78	1724	75 (E)			1 hr.
4.	4"		1.5"	540	19.0	81	1381	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	10.84	42.891	613.2	.9887	1.306	1.048	629
2	10.84	61.569	583.2	.9831	1.306	1.044	895
3	10.84	89.728	503.2	.9831	1.306	1.038	1297
4	10.84	102.522	553.2	.9804	1.306	1.040	1480
5							

NO.	P _r	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 _____ .586 _____ X X X X X X X X
3					Specific Gravity Flowing Fluid _____ X X X X X _____
4					Critical Pressure _____ 671 _____ P.S.I.A. _____ P.S.I.A.
5					Critical Temperature _____ 354 _____ R _____ R

P _c 3642.2 P _c ² 13265.6			
NO.	P _t ²	P _w	P _w ²
1		2557.2	6539.3
2		2090.5	4370.2
3		1742.7	3037.0
4		1403.1	1968.7
5			

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.174$$

$$ACF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1738$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.174$$

Absolute Open Flow _____ 1738 _____ Mcfd @ 15.025	Angle of Slope θ _____	Slope, n _____ 1.000 _____
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Remarks: P_w calculated by time-share program using stepwise procedure.
The slope of the back pressure curve was greater than 1.000, therefore,
a slope of 1.000 was drawn through the highest rate included in the test.

Approved By Commission:	Conducted By: Joe Ragan	Calculated By: J. K. Adair, Jr.	Checked By: Donald C. Condie
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