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NE MEXICO OIL CONSERVATION COMMS N
MULTIPOINT AND ONE POINT BACK PRESSURE TEST .OR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-28-80		JUL 7 1980	
Company Southland Royalty Company				Connection Northern Natural Gas		O. C. D.	
Pool Undesignated				Formation Atoka		Unit ARTESIA, OFFICE	
Completion Date 6-24-80		Total Depth 11,700'		Plug Back TD 11,065'		Elevation 4104'	
Csg. Size 4 1/2"		Wt. 11.6#		Set At 11,699'		Perforations: 2 JSPF From 10,763' To 10,773'	
Tbg. Size 2 3/8"		Wt. 4.7#		Set At 10,509'		Perforations: From 0 To 0	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10,509'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 160 @ 10,765'		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
L 10,765'		H 10,765'		G _g 0.636		% CO ₂ 0.12	
				% N ₂ 0		% H ₂ S 0	
				Prover 0		Meter Run 2.1	
						Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							3710	80			24.0
1.	2.07 x 1.500			315	3.5	83	3290	80	0	0	1.0
2.	2.07 x 1.500			315	13.0	81	2758	80	0	0	1.0
3.	2.07 x 1.500			315	18.0	86	2385	80	0	0	1.0
4.	2.07 x 1.500			315	23.5	81	1920	80	0	0	1.0
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}	Rate of Flow Q, Mcfd
1	12.76	33.89	328.2	0.9786	1.2539	1.0286	546
2	12.76	65.32	328.2	0.9804	1.2539	1.0291	1054
3	12.76	76.86	328.2	0.9759	1.2539	1.0279	1234
4	12.76	87.82	328.2	0.9804	1.2539	1.0291	1418
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcl/bbl.
1.	0.49	543	1.47	0.945	A.P.I. Gravity of Liquid Hydrocarbons 55.4 Deg.
2.	0.49	541	1.46	0.944	Specific Gravity Separator Gas 0.636 X X X X X X X X
3.	0.49	546	1.48	0.946	Specific Gravity Flowing Fluid X X X X X 0.636
4.	0.49	541	1.46	0.944	Critical Pressure 671 P.S.I.A. 671 P.S.I.A.
5.					Critical Temperature 370 R 370 R

NO.	P _c	P _w	P _c ²	P _w ²	P _c ² - P _w ²
1	3697.1	13669	10911	3278	10744
2			7680	2752	7571
3			5751	2383	5676
4			3737	1926	3709
5					

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.3723$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1812$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2781$

Absolute Open Flow 1812 Mcfd @ 15.025		Angle of Slope θ 52.2	Slope, n 0.775
Remarks:			

Approved By Commission:	Conducted By: B. J. Well Service	Calculated By: Ray F. Nokes	Checked By: Don R. Craig
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