

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 10-8-73		OCT 23 1973	
Company Mark Production Company				Connection					
Pool Red Lake Penn				Formation Morrow				Unit D.C.G. ARTESIA, OFFICE	
Completion Date 10-8-73		Total Depth 9330' 9385'		Plug Back TD 9330'		Elevation 3290'		Name of Lease Owner Peterson "Com"	
Casing Size 4-1/2"	Wt.	d	Set At 9385'	Perforations: From 9142' To 9251'		Well No. 1			
Tubg. Size 2-3/8"	Wt.	d	Set At 9051'	Perforations: From To		Unit Sec. Twp. Rge. J 7 18S 27E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 9051'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F @ 145		Mean Annual Temp. °F 65		Baro. Press. - P _a 13.2		State New Mexico	
L 9197	H	G _g Est 0.620	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run 4"	Type Flange	

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	of Flow
SI							2868	70			96
1.	4 x 2.500			605	5.5	69	2640	75			1
2.	4 x 2.500			613	15.0	61	2393	77			1
3.	4 x 2.500			613	29.5	61	2065	81			1
4.	4 x 2.500			633	54.0	72	1462	79			1
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	33.480	58.301	618	.9915	1.270	1.056	2596
2	33.480	96.902	626	.9990	1.270	1.059	4359
3	33.480	135.893	626	.9990	1.270	1.059	6113
4	33.480	186.773	646	.9887	1.270	1.056	8291
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 80.321 Mcf/bbl.
1	.92	529	1.45	.897	A.P.I. Gravity of Liquid Hydrocarbons 59 @ 90 or 56 @ 60 Deg.
2	.93	521	1.43	.891	Specific Gravity Separator Gas .620 .620 X X X X X X X X
3	.93	521	1.43	.891	Specific Gravity Flowing Fluid .620 X X X X X .657
4	.96	532	1.46	.896	Critical Pressure 671 P.S.I.A. 670 P.S.I.A.
5					Critical Temperature 365 R 378 R

NO.	P _c	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1	7038	3449	11896	1757		
2	5789	3221	10375	3278		
3	4318	2951	8708	4945		
4	2176	2544	6472	7181		
5						

Absolute Open Flow 14,000 Mcfd @ 15.025				Angle of Slope θ 50°		Slope, n 0.839	
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Remarks: Flowing BHP measured with wireline during test.			
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Approved By Commission:	Conducted By: W. H. Cravey	Calculated By: UCS Time Share	Checked By: Curtis W. Mewbourne
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