

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT / ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
 Revised 9-1-65

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 E-122 file

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-29-78		FEB 2 1979	
Company Robert N. Enfield ✓				Connection Unconnected		D. C. C. ARTESIA, OFFICE	
Pool Wilcox Undesignated				Formation Atoka		Unit	
Completion Date 12-13-78		Total Depth 9930 9945		Plug Back TD 9854		Elevation 3304 KB	
Crg. Size 4 1/2		Wt. 11.6		Set At 9928		Perforations: From 9201 To 9482	
Thq. Size 2 3/8		Wt. 4.7		Set At 9075		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9075		Farm or Lease Name No. Lake McMillan 4X	
Producing Thru Tubing		Reservoir Temp. °F 161 9060		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 9342		H 9342		G _g 0.894		% CO ₂ % N ₂ % H ₂ S	
				Prover Pos. ck.		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	210 hrs.			2008			2008		Pkr.	-	
1.	2" X 8/64"			1664		64	1664	64	-	-	60
2.	2" X 9/64"			1487		64	1487	64	-	-	60
3.	2" X 11/64"			1273		64	1273	64	-	-	60
4.	2" X 14/64"			1076		65	1076	65	-	-	60
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	0.2618		1677.2	0.9962	1.058	1.486	687.7
2	0.3346		1500.2	0.9962	1.058	1.492	789.4
3	0.5090		1286.2	0.9962	1.058	1.451	1001.2
4	0.8419		1089.2	0.9952	1.058	1.374	1326.6
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcft/bbl.
1	2.53	524	1.15	0.453	A.P.I. Gravity of Liquid Hydrocarbons	Dry Gas	Deg.
2	2.27	524	1.15	0.449	Specific Gravity Separator Gas	0.894	X X X X X X X X
3	1.94	524	1.15	0.475	Specific Gravity Flowing Fluid	X X X X X	
4	1.64	525	1.16	0.530	Critical Pressure	662	P.S.I.A.
5					Critical Temperature	454	R

$P_f = 2673.2$ $P_s = 7146$ $P_s - P_f = 4472.8$				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.5750495$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.543201$		
NO.	P _r ²	P _s ²	P _s ² - P _r ²	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2,047.2$				
1		2212.2	4894	2252				
2		1969.2	3878	3268				
3		1781.2	3173	3973				
4		1615.2	2609	4537				
5								

Absolute Open Flow		2047.2	Mcfd @ 15.025	Angle of Slope	46° 19'	Slope, n	0.955033
Remarks:							
Approved By Commission:		Conducted By:		Calculated By:		Checked By:	
		Tefteller, Inc.		F. Tefteller			