

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

S.F. File 122
Form C-12
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7-10-79		JUL 30 1979	
Company HNG Oil Company ✓				Connection None		O. C. C. ARTESIA, OFFICE	
Pool S. Culobra Bluff Atoka Gas				Formation Atoka		Unit	
Completion Date 7-10-79		Total Depth 13,050		Plug Back TD 13,009		Elevation 3035 GL	
Farm or Lease Name Pardue 34 Com.				Well No. 1			
Csg. Size 4 1/2	Wt. 15#	Set At 13,050	Perforations: From 11756 To 11772		Unit Sec. Twp. Rye. H 34 23S 28E		
Tbg. Size 2 7/8	Wt. 6.4#	Set At 11,060	Perforations: From To		County Eddy		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11.060		State New Mexico	
Producing Thru Tubing		Reservoir Temp. °F 199 @ 10,988		Mean Annual Temp. °F 68		Baro. Press. - P _a 13.2	
L 11,060	H 11,060	Gg .578	% CO ₂ None	% N ₂ None	% H ₂ S None	Prover 6.065	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
1.	6.065	1.50	180	10	82	5409	5255	75			60 min
2.	6.065	1.50	235	22	72	5106	5106	76			60 min
3.	6.065	1.50	270	45	70	4852	4852	77			60 min
4.	6.065	1.50	420	73.5	74	4247	4247	77			60 min
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor Fpv	Rate of Flow Q, Mcf/d
1	10.70	43.95	193.2	.9795	1.315	1.015	615
2	10.70	73.89	248.2	.9887	1.315	1.020	1048
3	10.70	112.89	283.2	.9905	1.315	1.027	1616
4	10.70	178.44	433.2	.9868	1.315	1.034	2562
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	None	Mcf/Lb.
1	.29	542	1.55	.970	A.P.I. Gravity of Liquid Hydrocarbons	None	Dep.
2	.37	532	1.52	.962	Specific Gravity Separator Gas	.578	X X X X X X X X
3	.42	530	1.51	.958	Specific Gravity Flowing Fluid	X X X X X	
4	.64	534	1.53	.936	Critical Pressure	672	P.S.I.A.
5					Critical Temperature	350	R

P _c 6674.2 P _c ² 44545				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.9498$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.0952$	
NO.	P _w	P _w ²	P _c ² - P _w ²	ACF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5368$			
1	6533.2	42683	1862				
2	6375.2	40643	3902				
3	6086.2	37042	7503				
4	5426.2	29444	15101				
5							

Absolute Open Flow		5368	Mcf @ 15.025	Angle of Slope	55.5	Slope, n	683
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Remarks: PW Substituted for PT - Measured with Amerada Instrument No. 38020 - 0 - 13000# Element	
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Approved By Commission:	Conducted By: Spruell	Calculated By: Spruell	Checked By: Richburg
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Protected
 202 + Book
 8-3-79