

N MEXICO OIL CONSERVATION COM. ON
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

35
File
122 Form C-122
Revised 9-1-65

RECEIVED

Test Type: ☒ Initial ☐ Annual ☐ Special				Test Date: 12-5-79		DEC 10 1979	
Company: <u>Hondo Oil & Gas Company</u>				Connection: <u>Not Connected</u>		<u>O. C. C.</u>	
Pool: <u>South Empire Morrow Gas</u>				Formation: <u>Morrow</u>		Unit: <u>ARTESIA, OFFICE</u>	
Completion Date: <u>11/30/79</u>		Total Depth: <u>10929</u>		Play Bank To: <u>10860 10870</u>		Elevation: <u>3671 G.L.</u>	
Csg. Size: <u>5.5</u>		Int. d: <u>4.892</u>		Set At: <u>10929</u>		Perforations: From <u>10612</u> To <u>10682</u>	
Tq. Size: <u>2.375</u>		Int. d: <u>4.7</u>		Set At: <u>10557</u>		Perforations: From <u>10560</u> To <u>10563</u>	
Type Well - Single - Brodenhead - G.G. or G.O. Multiple				Packoff Set At: <u>10557</u>		County: <u>Eddy</u>	
Producing Thru: <u>Tbg.</u>		Reservoir Temp. °F: <u>162 @ 10647</u>		Mean Annual Temp. °F: <u>60°</u>		State: <u>New Mexico</u>	
L: <u>10557</u>		H: <u>10557</u>		Gg: <u>0.673</u>		% CO ₂ : <u>0.52</u>	
				% N ₂ : <u>0.57</u>		% H ₂ S: <u>-</u>	
				Prover: <u>-</u>		Meter Run: <u>4"</u>	
						Taps: <u>Flg.</u>	

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							2241		Pkr.		113.5
1.	4" x 2.500			360	3	98	2209	70			1 Hr.
2.	4" x 2.500			460	9	91	2165	71			1 Hr.
3.	4" x 2.500			641	21.5	79	2010	71			1 Hr.
4.	4" x 2.500			838	53.0	81	1424	66			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 Fg	Super Compress. Factor Fpv	Rate of Flow Q, Mhd
1	32.64	33.46	373.2	0.9653	1.219	1.031	1325
2	32.64	65.26	473.2	0.9715	1.219	1.041	2626
3	32.64	118.60	654.2	0.9822	1.219	1.062	4922
4	32.64	212.40	851.2	0.9804	1.219	1.082	8965
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NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio: <u>35.393</u> Mcf/bbl.
1.	0.56	558	1.48	0.940	A.P.I. Gravity of Liquid Hydrocarbons: <u>52.1</u> Deg.
2.	0.70	551	1.46	0.923	Specific Gravity Separator Gas: <u>0.673</u>
3.	0.97	539	1.43	0.887	Specific Gravity Flowing Fluid: <u>0.757</u>
4.	1.27	541	1.43	0.854	Critical Pressure: <u>672</u> P.S.I.A.
5.					Critical Temperature: <u>378</u> °R

$P_c = 3178.2$ $P_c^2 = 10101.0$				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 8.2430$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.4523$
NO.	P _w	P _w ²	P _w ² - P _c ²		
1	3161.2	9993.2	107.8		
2	3143.2	9879.7	221.3		
3	3094.2	9574.1	526.9		
4	2979.2	8875.6	1225.4		
5					

Absolute Open Flow: <u>39915</u> Mhd @ 15.025				Angle of Slope: <u>54.7°</u>		Slope, n: <u>0.708</u>	
Remarks: <u>BHP measured at 10647 (mid point of perfs.) 21 bbls. of condensate and no water produced. API gravity of condensate 52.1 @ 60°</u>							

Approved By Commission:	Conducted By: <u>C. Johnson</u>	Calculated By: <u>J. Cogburn</u>	Checked By: <u>L.C. Hudry</u>
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