

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 3-26-79		APR - 9 1979	
Company H.N.G. Oil Co. ✓				Connection					
Pool Malaga West Morrow				Formation Morrow				Unit O.C.C. ARTESIA, OFFICE	
Completion Date 3-22-79		Total Depth 12,841		Plug Back TD 12,550		Elevation 3033 GL		Farm or Lease Name NM 16 State	
Csg. Size 4 1/2	Wt. 18#	Id 12,841	Set At 10046	Perforations: From 12214 To 12,315		Well No. 1			
Tbg. Size 2 7/8	Wt. 6.5	Id 10046	Set At 10046	Perforations: From 12,341 To 12,492		Unit Sec. Twp. Rge. B 16 24S 28E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 10,046		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 198 @ 12,265		Mean Annual Temp. °F 68		Baro. Press. - P _a 13.2		State New Mexico	
L	H	Gg .592	% CO ₂ 0	% N ₂ 0	% H ₂ S 0	Prover	Meter Run 6.065	Taps 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.	
SI							3983			
1.	6.065	1.25	653.2	11	79	3824	76			60 Min.
2.	6.065	1.25	683.2	20	56	3596	77			60 Min.
3.	6.065	1.25	683.2	30	84	3329	78			60 Min.
4.	6.065	1.25	593.2	70	75	2875	78			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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	7.405	84.77	653.2	.9732	1.300	1.052	835
2	7.405	116.89	683.2	1.004	1.300	1.061	1199
3	7.405	143.16	683.2	.9777	1.300	1.061	1430
4	7.405	203.77	593.2	.9859	1.300	1.047	2025
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.97	539	1.52	.904	None		.592		672	354
2.	1.02	516	1.46	.888						
3.	1.02	544	1.54	.899						
4.	.88	535	1.51	.913						
5.										

NO.	P _c	P _w	P _c ²	P _w ²	P _c ² - P _w ²
1	5052.2	4894.2	25525	23953	1572
2		4670.2		21810	3715
3		4500.2		20252	5273
4		3862.2		14917	10608
5					

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.406$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3239$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.5997$

Absolute Open Flow	3239	Mcfd @ 15.025	Angle of Slope	62	Slope, n	4.5351
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Remarks: PW Substituted for PT Measured with Amerada Instrument No. 34515 0-8500#

Element

Approved By Commission:	Conducted By: Richburg	Calculated By: Spruell	Checked By: Pyle
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