

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

U.S. CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

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JUN 18 1984

Form 122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

O.C.D.
ARTESIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 6/8/84													
Company Hamon Oil Company ✓		Connection Hamon Oil Company													
Pool South Carlsbad		Formation Morrow													
Completion Date 4/29/84		Total Depth 11950' 11,952													
Plug Back TD 11945'		Elevation 3214' GL													
Casing Size 5 5/8" 26.4 4" 13.5		Set At 8930' 8,975 Top 8508' 3,920													
Perforations: From 11858' To 11878'		Well No. 1													
Perforations: Open Ended To		Unit Sec. Twp. Rys. N 25 23s 26e													
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Single		Packer Set At 11800'													
Producing Thru Tubing		Reservoir Temp. °F 198 • 11830'													
Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2													
State New Mexico		County Eddy													
L 11868'		H -													
Cg 0.5778		% CO ₂ 1.479													
% N ₂ 0.146		% H ₂ S -													
Prover		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. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow				
SI							2205	80	PACKER		91.75 hrs				
1.	3	8/64	1.250	640	5	92	2010	78			1.0 hr				
2.	3	9.5/64	1.250	650	10	80	1863	78			1.0 hr				
3.	3	11/64	1.250	660	18	77	1645	78			1.0 hr				
4.	3	14/64	1.250	680	32	78	1255	78			1.0 hr				
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 _{uv}	Rate of Flow Q, Mcfd								
1	7.577	57.15	653.2	0.9706	1.316	1.038	574.13								
2	7.577	81.44	663.2	0.9813	1.316	1.041	829.55								
3	7.577	110.08	673.2	0.9840	1.316	1.043	1126.53								
4	7.577	148.94	693.2	0.9831	1.316	1.044	1524.27								
5															
NO.	R _g	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry Gas _____ Mcf/bbl.										
1	0.96	552	1.62	0.929	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.										
2	0.98	540	1.58	0.923	Specific Gravity Separator Gas 0.5778 XXXXXXXXXX										
3	0.99	537	1.58	0.920	Specific Gravity Flowing Fluid XXXXX										
4	1.02	538	1.58	0.917	Critical Pressure 679 P.S.I.A. _____ P.S.I.A.										
5					Critical Temperature 340 °R _____ °R										
F _c 2810.2 P _c ² 7897.2					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.890$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.620$										
NO.	P _t ²	P _w *	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2177$										
1		2590.2	6709.1	1188.1											
2		2422.2	5867.1	2030.1											
3		2183.2	4766.4	3130.8											
4		1790.2	3204.8	4692.0											
5															
Absolute Open Flow 2173 Mcfd @ 15.025					Angle of Slope 54° 39'		Slope, n 0.709								
Remarks: * BOTTOM HOLE PRESSURE @ (-8654) USED FOR PRESSURE CALCULATIONS, Depth 11868'															
4 1/2" Liner Top @ 8508'															
Approved By Division		Conducted By: Jarrel Well Testing Inc.		Calculated By: Joe A. Coleman		Checked By: PE #2208 Joe A. Coleman									