

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

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 2/9/78	
Company Shell Oil Company			Connection None		
Pool Undesignated			Formation Morrow		Unit
Completion Date February 9, 1978		Total Depth 13150'		Plug Back TD 13066'	
				Elevation 3680' KB	
Csg. Size 5 1/2"		Wt. 20, 17, 15.5 4.778, 4.892, 4.950		Set At 13150'	
Perforations: From 12781' To 12892'		Well No. 2			
Tbg. Size 2 3/8"		Wt. 4.70		Set At 12725'	
Perforations: From Opened Ended		Unit J			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 12728'		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 191 @ 12711'		Mean Annual Temp. °F 60	
				Baro. Press. - P ₀ 13.2	
L * 12837		H -		G _g 0.6343	
				% CO ₂ 0.227	
				% N ₂ 8.690	
				% H ₂ S 0.000	
				Prover Meter Run X	
				Taps F	

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.	DW _t	Temp. °F	Press. p.s.i.g.	
SI							4253 (2/13/78)				
1.	4" 3/64	1.250		600	4	78	3255		57	Packer	
2.	4" 5/64	1.250		600	9	86	2410		62		
3.	4" 7/64	1.250		600	15	94	1855		64		
4.	4" 8/64	1.250		610	26	98	1425		65		
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	7.469	49.53	613.2	0.9831	1.256	1.041	475.52
2	7.469	74.29	613.2	0.9759	1.256	1.038	705.97
3	7.469	95.91	613.2	0.9688	1.256	1.036	903.05
4	7.469	127.29	623.2	0.9653	1.256	1.035	1193.03
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/tbl.
1	0.93	538	1.57	0.923	A.P.I. Gravity of Liquid Hydrocarbons	-	Deg.
2	0.93	546	1.60	0.929	Specific Gravity Separator Gas	0.6343	X X X X X X X X
3	0.93	554	1.62	0.932	Specific Gravity Flowing Fluid	X X X X X	
4	0.95	558	1.63	0.934	Critical Pressure	658	P.S.I.A.
5					Critical Temperature	342	R

P _c 6026.2 P _c ² 36315.1			
NO.	P _t ²	P _w ²	P _c ² - P _w ²
1	5383.2	28978.8	7336.3
2	4519.2	20423.2	15891.9
3	3750.2	14064.0	22251.1
4	2328.2	5420.5	30894.6
5			

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.285$$

$$ACF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1319$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.869$$

Absolute Open Flow	1319	Mcf/d @ 15.025	Angle of Slope @	53° 18'	Slope, n	0.754
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Remarks: * BOTTOM HOLE PRESSURE @ (-9157) 12837' USED FOR PRESSURE CALCULATIONS

Approved By Commission: <i>John W. Dunbar</i>	Conducted By: JARREL SERVICES, INC.	Calculated By: Joe A. Coleman	Checked By: <i>Joe A. Coleman</i>
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RECEIVED

FEB 23 1978

OIL CONSERVATION COMM.
MOBIL, N. M.