

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

c15r
Form O-122
Revised 9-1-83
File

Type Test: ☒ Initial ☐ Annual ☐ Special										Date: 3-21-83		RECEIVED	
Company: Gulf Oil Explor. & Prod.						Direction: Air				MAR 28 1983			
Field: White Lake Perm.						Formation: Marrow				O. C. D. ARTESIA, OFFICE			
Completion Date: 3-17-83		Total Depth: 11,700		Perforation Depth: 11,659		Elevation: 3297		Name of Lessee: Marquardt Fed.					
Case Size: 5"	WT.	d	Set At: 11,659	Perforation: From 11,652 To 11,658		Well No.: 3							
Tub. Size: 2-3/8"	WT.	d	Set At: 11,182	Perforation: From To		Unit: K		Sec: 12	Twp: 25s	Rge: 26e			
Type Well - Single - Perforated - G.G. or G.O. Multiple						Packer Set At: 11,182		County: Eddy					
Producing Tbr: Tbg.		Reservoir Temp. °F: 186 @ 11,182		Mean Annual Temp. °F: 60		Baro. Press. - P _a : 13.2		State: N.M.					
L: 11,182	H: 11,182	Gg: .5766	% CO ₂ : 1.200	% N ₂ : .337	% H ₂ S:	Prover:	Meter Run: 4"	Flg.					

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	of Flow
51							3500				72 hrs
1.	4 x 2.250			600	10.5	82	3360				1 hr
2.	4 x 2.250			560	20.0	88	3250				1 hr
3.	4 x 2.250			620	36.0	88	3080				1 hr
4.	4 x 2.250			660	75.0	82	2560				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 Comp. Factor, Fpv	Rate of Flow Q, Mgd
1	25.64	80.24	613.2	.9795	1.316	1.043	2766
2	25.64	107.07	573.2	.9741	1.316	1.038	3653
3	25.64	150.98	633.2	.9741	1.316	1.041	5166
4	25.64	224.70	673.2	.9795	1.316	1.047	7775
5.							

NO.	P _r	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.	.91	542	1.55	.920			.5766			
2.	.85	548	1.57	.929						
3.	.94	548	1.57	.922						
4.	1.00	542	1.55	.912						
5.										

dry										
$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 3.279$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.044$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 15.893$										
NO.	P _c	P _w	P _c ² - P _w ²	P _c ²						
1	3412.9	11647.9	694.7							
2	3333.2	11110.2	1232.4							
3	3236.0	10471.7	1870.9							
4	2929.0	8579.0	3763.6							
5										

Absolute Open Flow: 15,893		Angle of Slope: 59		Slope: .602	
Remarks: Produced 1 BBL of H ₂ O during the test					
Approved By: Commission		Conducted By: Davis Services, Inc. Rick Pagan		Checked By:	

Post ID-2
4-1-83
Camp & BK