

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 7-12-87		RECEIVED							
Company MCKAY OIL CORPORATION		Connection AIR		JUL 30 1987							
Pool West Pecos Slope		Formation Abo		Unit O. C. D.							
Completion Date 7-12-87		Total Depth 4301		Plug Back TD. 3700							
Elevation 4250 KB		Perforations: From 2918 To 3067.5		L L & E Federal							
Coq. Size 4-1/2		Wt. 11.6#		Set At 4265							
Perforations: From 2918 To 3067.5		Well No. #5		Unit P 1 6S 22E							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At --		County Chaves							
Producing Thru Tubing		Reservoir Temp. °F 90 @ 3563.25		Mean Annual Temp. °F 60							
Baro. Press. - P _g 13.2		State New Mexico		Prover 2.000							
L 3563.25		H 3563.25		G _g 0.620							
% CO ₂ 0.232		% N ₂ 5.505		% H ₂ S 0.000							
Meter Run		Taps									
FLOW DATA											
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	Duration of Flow
SI							895		898		SI 72 HRS.
1.	2.000	.375	144	--	59	867	59	874	59	60 MIN.	
2.	2.000	.500	157	--	52	837	52	846	52	60 MIN.	
3.	2.000	.875	68	--	44.5	796	44.5	807	44.5	60 MIN.	
4.	2.000	.875	87	--	44	744	44	763	44	60 MIN.	
5.	2.000	.875	116	--	46	673	46	705	46	60 MIN.	
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, Mcd				
1.	2.378	--	157.2	1.0010	1.270	1.013	481				
2.	4.279	--	170.2	1.0078	1.270	1.014	945				
3.	13.000	--	81.2	1.0152	1.270	1.007	1371				
4.	13.000	--	100.2	1.0157	1.270	1.012	1700				
5.	13.000	--	129.2	1.0277	1.270	1.022	2240				
NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcd/Lbl.						
1.	0.24	519	1.49	.975	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2.	0.26	512	1.47	.972	Specific Gravity Separator Gas 0.620 XXXXXXXXXX						
3.	0.12	504.5	1.45	.987	Specific Gravity Flowing Fluid XXXXX						
4.	0.15	504	1.44	.988	Critical Pressure 661 P.S.I.A. P.S.I.A.						
5.	0.20	506	1.45	.978	Critical Temperature 349 R R						
P _c 911.2 P _c ² 830.3											
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.64$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.01$						
1.		887.2	787.1	43.2	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4,506.2$						
2.		859.2	738.2	92.1							
3.		820.2	672.7	157.6							
4.		776.2	602.5	227.8							
5.		718.2	515.8	314.5							
Absolute Open Flow 4,506 Mcd @ 15.025 Angle of Slope @ 54.33 Slope, n 0.72											
Remarks: No liquids produced during test.											
Approved By Division _____ Conducted By: R. Snyder _____ Calculated By: C. Sanders _____ Checked By: P. Stewart _____											