

OCT 30 1991

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MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 10-6-91		O. C. D. ARTESIA OFFICE	
Company McKay Oil Corporation		Connection Air		Unit ---	
Pool West Pecos Slope Abo		Formation Abo Sand		Farm or Lease Name McKay Federal	
Completion Date 9-26-91		Total Depth 3165		Plug Back TD 2746	
		Elevation 4260 KB		Well No. 2	
Coq. Size 4.5	Wt. 10.5	d 4.052	Set At 2817	Perforations: From 2646 To 2668	
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 2627	Perforations: From --- To ---	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At ---	
Producing Thru Tubing		Reservoir Temp. °F 90 @ 2657		Mean Annual Temp. °F 60	
		Baro. Press. - P _a 13.2		State New Mexico	
L 2657	H 2657	G _g 0.77	% CO ₂ 15.721	% N ₂ 4.419	% H ₂ S 0
		Prover 2"		Meter Run ---	
		Taps ---			
FLOW DATA			TUBING DATA		CASING DATA
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Temp. °F
1	2.0	0.125	539	65	804
2	2.0	0.125	793	65	780
3	2.0	0.250	296	65	747
4	2.0	0.250	619	65	625
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
1	0.2648		552.2	.9952	1.140
2	0.2648		796.2	.9952	1.140
3	1.087		309.2	.9952	1.140
4	1.087		632.2	.9952	1.140
5					
Super Compress. Factor, F _{pv}					
Rate of Flow Q, Mcfd					
1					175
2					258
3					392
4					826
5					
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio
1	0.76	525	1.40	0.904	---
2	1.10	525	1.40	0.862	---
3	0.43	525	1.40	0.945	---
4	0.87	525	1.40	0.891	---
5					
A.P.I. Gravity of Liquid Hydrocarbons 0.77					
Specific Gravity Separator Gas XXXXX					
Specific Gravity Flowing Fluid XXXXX					
Critical Pressure 727 P.S.I.A.					
Critical Temperature 374 R					
P _c 868.2 P _c ² 753.8					
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	
1		853.2	728.0	25.8	
2		838.2	702.6	51.2	
3		793.2	629.2	124.6	
4		690.2	476.4	277.4	
5					
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.717$					
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.954$					
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.614$					
Absolute Open Flow 1,614 Mcfd @ 15.025				Angle of Slope 56.18	
				Slope, n 0.670	
Remarks: No fluid produced during the test.					

Well: McKay Federal
M-27-5S-21E
Chaves County, N.M.
Test Date: 10-6-91
McKay Oil Corporation

