

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 06-06-87	
Company MCKAY OIL CORPORATION				Connection AIR		RECEIVED BY JUL -1 1987	
Pool West Pecos Slope				Formation Abo			
Completion Date 06-06-87		Total Depth 3400		Plug Back TD 3060		Elevation O. C. D. 4254.43	
Ceq. Size 4-1/2		Wt. 11.6		Set At 4.000		Perforations: From 2840.5 To 2915	
Thq. Size 2-3/8"		Wt. 4.7		Set At 1.995		Perforations: From -- To --	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single						Packer Set At --	
Producing Thru Tubing		Reservoir Temp. °F 92 @ 2877.75		Mean Annual Temp. °F --		Baro. Press. - P _a --	
L 2,877.5		H 2,877.75		G _g 0.635		% CO ₂ 0.561	
				% N ₂ 7.071		% H ₂ S 0	
				Prover 2.00		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.	Temp. °F	Press. p.s.i.g.	
SI							756		762	
1.	2.000		.250	82	--	86	726	86	732	86
2.	2.000		.375	72	--	76	677	76	683	76
3.	2.000		.500	66	--	74	604	74	610	74
4.	2.000		.625	47	--	73	526	73	531	73
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcd
1	1.087	--	95.2	.9759	1.255	1.006	128
2	2.378	--	85.2	.9850	1.255	1.006	252
3	4.279	--	79.2	.9887	1.255	1.006	423
4	6.473	--	60.2	.9877	1.255	1.005	485
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.14	546	1.57	.989	0	
2	0.13	536	1.54	.988	0	
3	0.12	532	1.53	.989	0.635	XXXXXX
4	0.09	533	1.53	.991	660	XXXXXX
5					348	XXXXXX

NO.	P _i ²	P _w	P _w ²	P _i ² - P _w ²
1	775.2	745.2	555.3	45.6*
2	600.9	696.2	484.7	116.2
3		623.2	388.4	212.5
4		544.2	296.2	304.7
5				

$$(1) \frac{P_i^2}{P_i^2 - P_w^2} = 13.18$$

$$AOF = Q \left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 841$$

$$(2) \left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 6.57$$

Absolute Open Flow	841	Mcd @ 15.025	Angle of Slope @	53.95	Slope, n	0.73
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Remarks: Produced no water during test.

Approved By Division	Conducted By: R. Snyder	Calculated By: C. Sanders	Checked By: P. Stewart
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