

RECEIVED
10/27/87
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10/27/87		NOV 19 '87	
Company MCKAY OIL CORPORATION				Connection AIR				O. C. D.	
Pool WEST PECOS SLOPE <i>11/10</i>				Formation ABO				Unit ARTESIA OFFICE	
Completion Date 10/27/87		Total Depth 4691'		Plug Back TD 4302'		Elevation 4106' GR		Farm or Lease Name INEXCO STATE	
Coq. Size 4-1/2"	Wt. 11.6#	d 4.000	Set At 4373'	Perforations: From 3040' To 4241'		Well No. 7			
Thq. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 2900'	Perforations: From -- To --		Unit Sec. Twp. Rge. I 33 5S 22E			
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single						Packer Set At --		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 90 @ 3640.5		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 3640.5	H 3640.5	Gg .587	% CO ₂ 0.00	% N ₂ 6.249	% H ₂ S 0.00	Prover 2.000	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.		Temp. °F
SI							814		818		SI 72 HR
1.	2.000	.125	307	--	72	793	--	799	--	SI 60 MI	
2.	2.000	.250	152	--	72	755	--	759	--	SI 60 MI	
3.	2.000	.375	125	--	67	679	--	681	--	SI 60 MI	
4.	2.000	.375	173	--	65	555	--	560	--	SI 60 MI	
5.	2.000	.500	103	--	62	398	--	404	--	SI 60 MI	

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor Fpv	Rate of Flow Q, Mcfd
1	.2648	--	320.2	.9887	1.305	1.020	112
2	1.0870	--	165.2	.9887	1.305	1.010	234
3	2.3780	--	138.2	.9933	1.305	1.009	429
4	2.3780	--	186.2	.9952	1.305	1.012	582
5	4.2790	--	116.2	.9981	1.305	1.008	653

NO.	P _t	Temp. °R	T _i	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature	Mcf/bbl. Deq.
1	0.48	532	1.60	.962	--	--	0.587	X X X X X	661	332	X X X X X X X X
2	0.25	532	1.60	.980				X X X X X			
3	0.21	527	1.59	.983							
4	0.28	525	1.58	.977							
5	0.18	522	1.57	.984							

P _c 831.2 P _c ² 690.9		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 7.303$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.744$	
NO.	P _w	P _w ²	P _c ² - P _w ²		
1	812.2	659.7	31.2		
2	772.2	596.3	94.6		
3	694.2	481.9	209.0		
4	573.2	328.6	362.3		
5	417.2	174.1	516.7		

AOOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 876$

Absolute Open Flow 876 Mcfd @ 15.025 Angle of Slope θ 56.42 Slope, n 0.654

Remarks: Extra flow period taken because of insufficient draw-down on first period.

Approved By Division	Conducted By: D. Kelton	Calculated By: C. Sanders	Checked By: P. Stewart
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