

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST, 2 GAS WELL

13.2 file
file
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-23-75 APR 1 1977			
Company Exxon Company USA				Connection None			
Pool Redlake Penn				Formation Morrow Gas			
Completion Date 12-23-75		Total Depth 9360		Plug Back TD 9299		Elevation 3403 KB	
Farm or Lease Name Redlake Fed Com				Well No. 1			
Csg. Size 4 1/2	Wt. 10.5	d 4.052	Set At 9340	Perforations: From 9216 To 9240		Unit Sec. Twp. Rge. L 6 18s 27e	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 9045	Perforations: From open ended		County Eddy	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9044		State New Mexico	
Producing Thru Tubing		Reservoir Temp. °F 142 @ 9000'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 9228	H -	G _g 0.629	% CO ₂ 0.389	% N ₂ 0.275	% H ₂ S 0.000	Prover X	Meter Run F

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							2435		Packer		61.0
1.	4" 7/64	2.5	190	2	42	2385	50				1.0
2.	4" 10/64	2.5	190	5	48	2225	50				1.0
3.	4" 12/64	2.5	190	10	66	1930	50				1.0
4.	4" 14/64	2.5	200	13	76	1785	40				1.0
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 Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	32.64	20.16	203.2	1.018	1.261	1.020	861.6
2	32.64	31.87	203.2	1.012	1.261	1.019	1352.7
3	32.64	45.07	203.2	0.9943	1.261	1.017	1875.8
4	32.64	52.65	213.2	0.9850	1.261	1.018	2172.9
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.	0.30	502	1.39	0.961	Dry Gas	-	-	-	674	361
2.	0.30	508	1.41	0.963						
3.	0.30	526	1.46	0.966						
4.	0.32	536	1.48	0.965						
5.										

P _c 3283.2 P _c ² 10779.4			
NO.	P _t ²	P _w *	P _w ²
1	3163.2	10005.8	773.6
2	3038.2	9230.7	1548.7
3	2832.2	8021.4	2758.0
4	2700.2	7291.1	3488.3
5			

(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 3.090$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 4307$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.982$

Absolute Open Flow 4307	Mcfd @ 15.025	Angle of Slope @ 58° 46"	Slope, n 0.606
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Remarks: * BHP @ (-5825) 9228' used for pressure calculations

Approved By Commission:	Conducted By: Coleman Petr. Engr. Co.	Calculated By: Joe A. Coleman	Checked By: Joe A. Coleman
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