

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

Form C-122
Revised 9-1-65

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 2-7-80	
Company: TENNECO OIL COMPANY ✓				To: AIR	
Pool: UNDESIGNATED				MORROW	
Completion Date: 2-7-80		Total Depth: 11,640'		Perforations: 11,480'	
Casing Size: 5 1/2"		Casing Weight: 17#		Casing Depth: 4,892'	
Tubing Size: 2 7/8"		Tubing Weight: 6.5#		Tubing Depth: 2,441'	
Type Well - Single - Brazenhead - G.G. or G.O. Multiple: SINGLE				Packer Set At: 11,196'	
Producing Through: TUBING		Reservoir Temp. °F: 188 @ 11,351'		Mean Annual Temp. °F: 60	
Baro. Press. - P _a : 13.2		State: NEW MEXICO		County: EDDY	
L: 11,351	H: 11,351	G _g : .707	% CO ₂ : 2.364	% N ₂ : 1.039	% H ₂ S: 6" POSITIVE CHOKES

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	6" POS. CHOKES						3231				44 HRS
1.			8/64	2965		57	2965				1 HR
2.			10/64	2765		64	2765				1 HR
3.			12/64	2352		68	2352				1 HR
4.			14/64	1845		71	1845				1 HR
5.											

RATE OF FLOW CALCULATIONS							
NO.	Efficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _a	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor F _{pv}	Rate of Flow Q, Mcfd
1	.2618		2978.2	1.003	1.189	1.201	1117
2	.4173		2778.2	.9962	1.189	1.205	1655
3	.6101		2365.2	.9924	1.189	1.220	2077
4	.8419		1858.2	.9896	1.189	1.218	2242
5							

NO.	F _t	Temp. °R	T _f	z	Gas/Liquid Hydrocarbon Ratio	DRY	Mcfd/bbl.
1	4.46	517	1.32	.693	A.P.I. Gravity of Liquid Hydrocarbons		Deq.
2	4.16	524	1.34	.689	Specific Gravity Separator Gas	.707	X X X X X X X X
3	3.54	528	1.35	.672	Specific Gravity Flowing Fluid	X X X X X	
4	2.78	531	1.35	.674	Critical Pressure	668	P.S.I.A. P.S.I.A.
5					Critical Temperature	392	R R

P _c 3313.8	P _c ² 10,981.3		
NO.	P _c ²	P _w ²	P _w ² - P _c ²
1	3146.6	9901.1	1080.2
2	2948.7	8694.8	2286.5
3	2510.5	6302.6	4678.7
4	2057.4	4232.9	6748.4
5			

$$\frac{P_c^2}{P_c^2 - P_w^2} = 10.166$$

$$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.188$$

$$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.561$$

Absolute Open Flow: 3,561	Mcfd @ 15.025	Angle of Slope: 63.5	Slope, n: 500
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Remarks: POINT ALIGNMENT TOO STEEP, A SLOPE OF 63.5° WAS DRAWN THROUGH LOW RATE OF FLOW, BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE GAUGE

Approved By Commission:	Conducted By: W.S.	Calculated By: R.R.	Checked By: J.W.
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