

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 11-29-78	
Company SOUTHERN UNION EXPLORATION		Connection NONE	
Pool WILDCAT		Formation MORROW	
Completion Date		Total Depth 12950	Plug Back TD 12800
		Elevation 4068	
Csg. Size 5 1/2		Wt. 17	Set At 12900
Perforations: From 12676 To 12752		Well No. # 1	
Teg. Size 2 3/8		Wt. N/80	Set At 12600
Perforations: From To		Unit G	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE		Packer set At 12600	Farmer or Lease Name LEA L
Producing Thru TBG.		Reservoir Temp. °F 200 @ 12600	Mean Annual Temp. °F 60°
Baro. Press. - P _a 13.2		State NEW MEXICO	
L 12600	H 12600	G _g .651	% CO ₂ .59
		% N ₂ .43	% H ₂ S
Prover		Meter Run 3"	Tag FIG.

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							3950				72 Hrs.
1.	3	X	1.250	520	4.0	40	3615				1 Hr.
2.	3	X	1.250	600	8.0	70	3120				1 Hr.
3.	3	X	1.250	595	16.0	65	2650				1 Hr.
4.	3	X	1.250	600	32.0	58	2210				1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor F _{sp}	Rate of Flow Q, Mscf/D
1	7.577	48.71	593.2	.9812	1.239	1.055	473
2	7.577	70.04	613.2	.9205	1.239	1.062	622
3	7.577	98.65	602.2	.9952	1.239	1.062	972
4	7.577	140.08	613.2	1.002	1.239	1.068	1407
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	.88	540	1.44	.899	11.381		.651		670	375
2	.92	530	1.41	.887						
3	.91	525	1.40	.886						
4	.92	518	1.38	.877						
5										

P _r 3063.2 P _w 15707.0		$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 1.470$ $(2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.470$	
NO.	P _r	P _w	$ADP = 2 \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.068$
1	3629.9	13176.2	
2	3137.4	9243.3	
3	2670.9	7133.7	
4	2241.0	5022.1	
5			

Actual Open Flow	2.068	Mscf @ 15.005	Angle of Slope °	45°	Stress	1.000
Remarks:						

Designed by	Conducted by	Checked by	Checked by
W. J. ...	TADY ...		