NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 11-22-75	
Company: Phillips Petroleum		Connection: Phillips Petroleum Company			
Pool: Lusk Morrow		Formation: Morrow		Unit: ---	
Completion Date: 6-16-75 (Connected 10-27-75)	Total Depth: 12520	Plug Back TD: 12485	Elevation: 3587' Gr.	Farm or Lease Name: Lusk Deep Unit A"COM"	
Csg. Size: 5-1/2 / Wt.: 17# 20# / d: 5" / Set At: 12520		Perforations: From 12381 To 12414		Well No.: 13	
Tbg. Size: 2-7/8 / Wt.: 6.5 / d: 2.441 / Set At: 12,010		Perforations: From -- To --		Unit: K / Sec.: 18 / Twp.: 19S / Rge.: 32E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 11960		County: Lea	
Producing Thru: Tubing	Reservoir Temp. °F: 197 @ 12,800	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
12,010	12,010	.681					4"x1.75	Flange

	FLOW DATA					TUBING DATA		CASING DATA		
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	Duration of Flow
SI					60	1480	40	Packer		72 Hrs.
1.	4.026	1.75	520	1.5	61	1319	44			1
2.	4.026	1.75	520	3.1	62	1261	48			1
3.	4.026	1.75	520	4.5	62	1162	50			1
4.	4.026	1.75	520	8.0	62	1029	50			1
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	16.80	28.28	533.2	.9990	1.212	1.062	611
2.	16.80	40.66	533.2	.9981	1.212	1.061	877
3	16.80	48.98	533.2	.9981	1.212	1.061	1056
4.	16.80	65.31	533.2	.9981	1.212	1.061	1408
5							

NO.	P_t	Temp. °R	T_t	Z
1.	.78	521	1.35	.886
2	.78	522	1.36	.889
3.	.78	522	1.36	.889
4.	.78	522	1.36	.889
5.				

Gas Liquid Hydrocarbon Ratio: Trace Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: ____ Deg.
Specific Gravity Separator Gas: .681 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 669 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 385 R ____ R

P_c 1493.2 P_c^2 2229.6

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	1777.4	1333.8	1779.0	450.6
2	1621.0	1277.9	1633.0	596.6
3	1376.4	1181.0	1394.8	834.8
4	1088.3	1054.0	1110.9	1118.7
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{2229.6}{1118.7}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.886$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 2655

Absolute Open Flow: 2655 Mcfd @ 15.025 | Angle of Slope θ: 47.6 | Slope, n: .92

Remarks: Calculation made by Electronic Calculator. Program based on New Mexico Manual for Back-Pressure testing.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
Jerry Sexton	R. E. Lee	D. E. Simpson	W. J. Mueller