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appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Geology, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator CONOCO				Lease or Unit Name LOCKHART B			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-12-93		Well No. 11	
Completion Date 6-21-93		Total Depth 3650		Plug Back TD 3650		Elevation	
Csg. Size 5 1/2	Wt. 15.5	d 1.995	Set At 3660	Perforations: From: 2766 To: 3627		County LEA	
Tbg. Size 2-3/8	Wt. 4.7	d 1.995	Set At 3624	Perforations: From: To:		Pool EUMONT	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single				Packer Set At 2710		Formation	
Producing Thru tbg		Reservoir Temp. °F 110.2 @ 3624		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2	
L 3624	H 3624	Gg .684	% CO ₂ .18	% N ₂ 4.84	% H ₂ S	Prover	Meter Run 4.026
						Taps flg.	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	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									
1.	4 X 2.000		8.5	20.70	75	269		PKR.	
2.	4 X 2.000		8.8	22.40	76	254		"	
3.	4 X 2.000		9.3	23.80	78	239		"	
4.	4 X 2.000		10.3	24.50	79	227		"	
5.						214		"	

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	19.81	21.19	21.7	.9859	1.209	1.003	502
2.	19.81	22.20	22.0	.9850	1.209	1.003	525
3.	19.81	23.14	22.5	.9831	1.209	1.003	547
4.	19.81	24.00	23.5	.9822	1.209	1.003	566
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY GAS	Mcf/bbl.
1.	.03	535	1.43	.995	A.P. I. Gravity of Liquid Hydrocarbons	DRY	Deg.
2.	.03	536	1.43	.995	Specific Gravity Separator Gas	.684	XXXXXXXXXX
3.	.03	538	1.43	.995	Specific Gravity Flowing Fluid	XXXXXX	
4.	.03	539	1.44	.995	Critical Pressure	**662	P.S.I.A. P.S.I.A.
5.					Critical Temperature	**374	R R

P_c 282.2 P_c 79.6

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	1) $\frac{P_c^2}{P_c^2 - P_w^2} = 17.69$	2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.194$
1.		274.0	75.1	4.5		
2.		260.2	67.7	11.9		
3.		249.4	62.2	17.4		
4.		239.4	57.3	22.3		
5.						

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2,105$$

Absolute Open Flow **2,105** Mcfd @ 15.025 Angle of Slope θ **63.5** Slope, n **.499**

Remarks: **NO FLUID PRODUCED DURING TEST**

*=CORRECTED TO 4.84% N₂

Approved By Division	Conducted By:	Calculated By:	Checked By:
	PRO WELL TESTERS	BM	BM

CONOCO

Lockhart B, Well #11

14-21S-36E

Lea County, New Mexico

8-12-93

