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appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department
APR 15 1994
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-122
Revised 4-1-91

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Mewbourne Oil Company						Lease or Unit Name Illinois Camp 17 State					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-7-94		Well No. 2			
Completion Date 1-15-94		Total Depth 10,578		Plug Back TD 10,578		Elevation 3616 GL		Unit Ltr. - Sec. - TWP - Rge. J 17 18s 28e			
Csg. Size 5 1/2	Wt. 17#	d 4.892	Set At 10,578	Perforations: From: 10,373 To: 10,391				County Eddy			
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 10,104	Perforations: From: Open To: Ended				Pool Illinois Camp Morrow			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 10,104		Formation Morrow			
Producing Thru TBG		Reservoir Temp. °F 153 @ 10382		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection Transwestern			
L 10382	H 10382	Gg .654	% CO ₂ .59	% N ₂ .58	% H ₂ S	Prover		Meter Run 3	Taps FLG		

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							2420		PKR		72 Hrs.
1.	3	x	1.500	400	2.00	72	2250		"		1 Hr.
2.	3	x	1.500	420	5.00	67	2000		"		1 Hr.
3.	3	x	1.500	420	8.00	74	1850		"		1 Hr.
4.	3	x	1.500	440	12.00	74	1750		"		1 Hr.
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, F _{pv} .	Rate of Flow Q, Mcfd
1.	11.13	28.75	413.2	.9887	1.237	1.041	407
2.	11.13	46.54	433.2	.9933	1.237	1.044	665
3.	11.13	58.87	433.2	.9868	1.237	1.044	835
4.	11.13	73.75	453.2	.9868	1.237	1.045	1047
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	.61	532	1.41	.922	A.P.I. Gravity of Liquid Hydrocarbons	Dry	Deg.
2.	.64	527	1.40	.918	Specific Gravity Separator Gas	.654	XXXXXXXXXX
3.	.64	534	1.42	.918	Specific Gravity Flowing Fluid	XXXXXX	
4.	.67	534	1.42	.915	Critical Pressure	670 P.S.I.A.	P.S.I.A.
5.					Critical Temperature	375 R	R

** p_c 2483.1 p_c² 6165.8

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.	**	2233.8	4989.9	1175.9
2.	**	2025.0	4100.6	2065.2
3.	**	1900.5	3611.9	2553.9
4.	**	1764.3	3112.8	3053.0
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{2.020}{\quad}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{2.020}{\quad}$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{2,115}{\quad}$

Absolute Open Flow	2,115	Mcf @ 15.025	Angle of Slope θ	45	Slope, n	1.000
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Remarks: * BHP instrument set at this depth. ** = Cal. from known BHPs

No fluid produced during test.

Approved By Division	Conducted By: Mewbourne Oil Company	Calculated By: Bob Murray	Checked By: Bob Murray
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