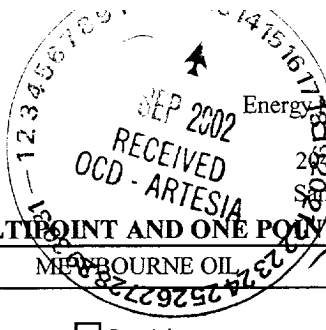


Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122



State of New Mexico
Energy, Minerals and Natural Resources
Conservation Division
2030 South Pacheco
Santa Fe, NM 87505

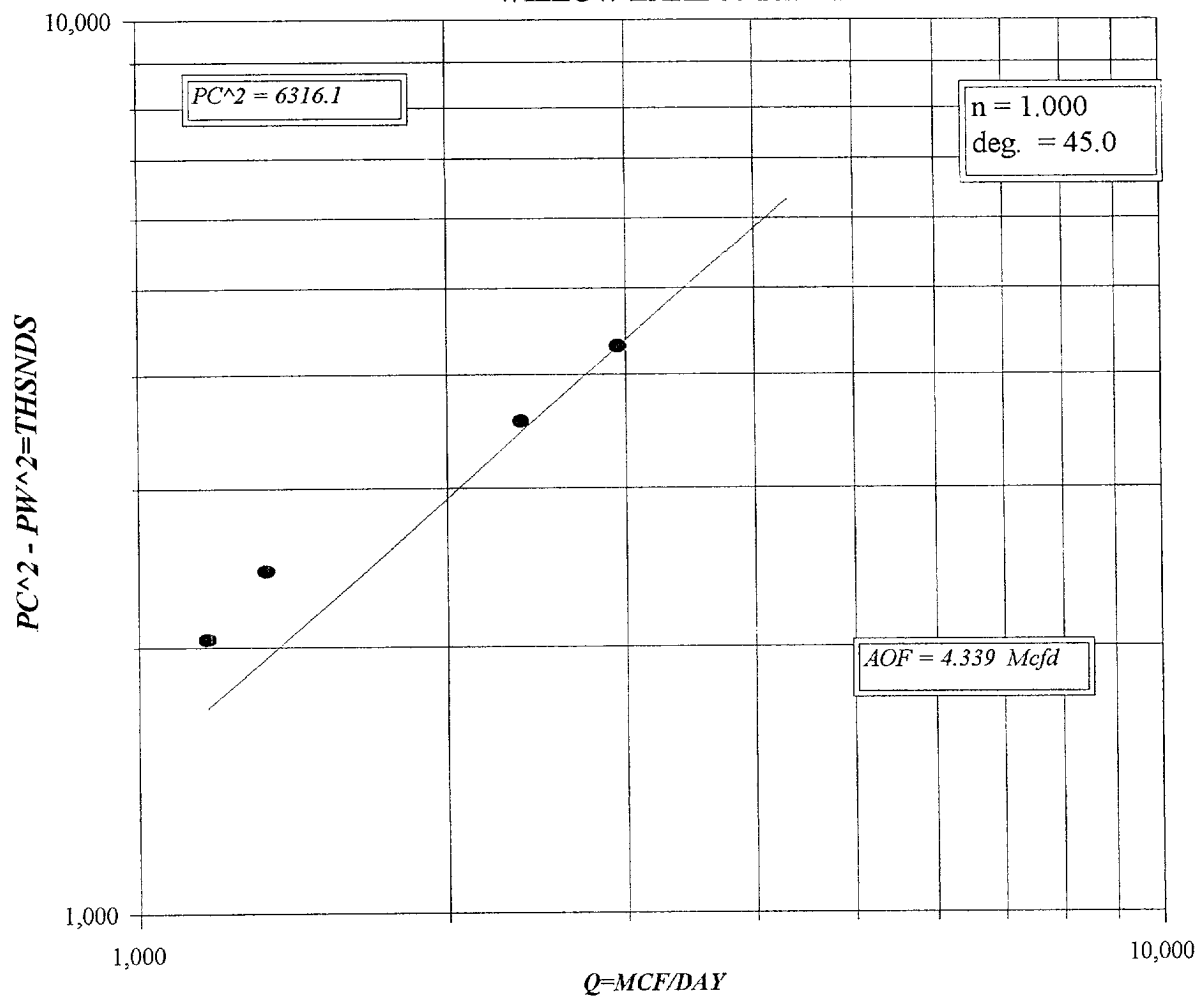
Form C-122
Revised October, 1999

C/SF

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MILBOURNE OIL					Lease or Unit Name WILLOW LAKE 35 FED					
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7/29/02		Well No. 1			
Completion Date 7/12/02		Total Depth 12170		Plug Back TD 12097		Elevation 2971		Unit Ltr - Sec - TWP - Rge 35 24S 28E		
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 12170	Perforations: From: 11940 To: 11954			County EDDY			
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 11641	Perforations: From: To:			Pool SALT DRAW ATOKA			
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11615			Formation ATOKA SANDS			
Producing Thru Tubing		Reservoir Temp. °F 190	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2			Connection SALES			
L 11641	H 11641	Gg 0.593	%CO ₂ 1.472	%N ₂ 0.605	%H ₂ S N/A	Prover N/A	Meter Run 3.068	Taps FLG		
FLOW DATA				TUBING DATA			CASING DATA			
No.	Prover Line Size	Orifice x 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						2500	N/A	PKR	N/A	
1		3.068 X 1.875	320	46	68	2050				1 HR
2		3.068 X 1.875	360	55	67	1950				1 HR
3		3.068 X 1.875	400	65	68	1655				1 HR
4		3.068 X 1.875	460	35	69	1360				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 F _g	Super Compress Factor F _{pv}		Rate of Flow Q. Mcfd	
1									1170	
2									1338	
3	TOTAL		FLOW	METER					2380	
4									2962	
5										
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio N/A Mcf bbl.					
1					A.P. I. Gravity of Liquid Hydrocarbons N/A Deg.					
2					Specific Gravity Separator Gas 0.593 XXXXXXXX					
3	TOTAL	FLOW	METER		Specific Gravity Flowing Fluid N/A XXXXXX					
4					Critical Pressure 677 P.S.I.A. P.S.I.A.					
5					Critical Temperature 349 R. R.					
P _c 2513.2 P _{c2} 6316.1										
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.465}{\quad}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.465}{\quad}$					
1		2063.2	4256.8	2041.2						
2		1963.2	3854.2	2438.3						
3		1668.2	2783	3457.9						
4		1373.3	1885.9	4312						
5					AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{4.339}{\quad}$					
Absolute Open Flow 4.339 Mcfd @ 15.025					Angle of Slope (°): 45		Slope n: 1			
Remarks: * NO LIQUID MADE DURING TEST.										
Approved By Division:			Conducted By: PRO WELL TESTING			Calculated By: MERV BUECKER			Checked By: BM	

MEWBOURNE OIL
WILLOW LAKE 35 FED #1



COMPANY : MEWBOURNE OIL		LEASE : WILLOW LAKE 35 FED WELL		1 : 1		Pc = 2513.2		Pc2 = 6316.1	
UNIT : G		SECTION : 35		TOWNSHIP : 24S		Pt2 = 4256.8		Pw = 2067.6	
L : 11641		H : 11641		L/H : 1		DATE : 7/29/02		1969.2	
%CO2 : 1472		%N2 : 0.605		H2S : 8197.0		RANGE : 28E		1690.6	
d : 2441		Fr : 0.010763						1885.7	
								1415.7	
VOL 1 : 1170		PSIA 1 : 2063.2		RESV.TEMP : 190.0		Pc2-Pw2 = 2041.2		Pw2 = 4274.9	
VOL 2 : 1338		PSIA 2 : 1963.2				3854.2		3877.8	
VOL 3 : 2380		PSIA 3 : 1668.2		SHUT-IN PRESS = 2513.2		3457.9		2858.2	
VOL 4 : 2962		PSIA 4 : 1373.2				4312.0		2004.1	
		PCR : 677				n = 1.000			
		TCR : 349				Pc2/(Pc2-Pw2) = 3.094			
LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		1ST		2ND		1ST		2ND	
1 QM		1.170		1.338		2.380		2.962	
2 TW		534		534		534		534	
3 Ts		650.0		650.0		650.0		650.0	
4 T		592.0		592.0		592.0		592.0	
PR (est)		3.05		2.90		2.46		2.03	
5 Z(est)		0.843		0.841		0.854		0.867	
6 TZ		499.0		497.7		505.3		513.3	
7 GH/TZ		16.426		16.470		16.221		16.396	
8 eS		1.851		1.854		1.837		1.849	
9 i-e-S		0.460		0.461		0.456		0.459	
10 Pt		2063.2		1963.2		1668.2		1373.2	
11 Pt2 /1000		4256.8		3854.2		2782.9		1885.7	
12 Fr		0.010763		0.010763		0.010763		0.010763	
13 Fc=FrTZ		5.371		5.357		5.439		5.525	
14 FcQm		6.28		6.27		7.17		12.94	
15 L/H(FcQm)2		39.5		39.3		51.9		167.6	
16 Fw		18.160665		18.099294		23.818189		23.66658	
17 Pw2		4275.0		4274.9		3878.0		3877.8	
18 Ps2		7914.9		7927.8		7170.1		7191.9	
19 Ps		2813.4		2815.6		2677.7		2681.8	
20 P		2438.3		2439.4		2320.5		2322.5	
21 Pr		3.60		3.60		3.43		3.43	
22 Tr		1.70		1.70		1.70		1.70	
23 Z		0.841		0.841		0.841		0.844	
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