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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

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Form C-122
Revised October, 1999

30-015-32930

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: MEWBOURNE OIL		Lease or Unit Name: FREEDOM "36" ST.	
Type Test: ☑ Initial ☐ Annual ☐ Special		Test Date:	Well No.: 1
Completion Date: 12/22/03	Total Depth: 11927	Plug Back TD:	Elevation:	Unit Ltr - Sec - TWP - Rge: I 36 20S 28E
Csg. Size: 5 1/2 / Wt.: 17 / d: 4.892 / Set At: 11927	Perforations: From: 11466 To: 11550			County: EDDY
Tbg. Size: 2 7/8 / Wt.: 6.5 / d: 2.441 / Set At: 11312	Perforations: From: To:			Pool: BURTON FLATS MORROW
Type Well-Single-Bradenhead-G.G. or G.O. Multiple: SINGLE	Packer Set At: 11296			Formation: MORROW
Producing Thru: TUBING	Reservoir Temp.: 181	Mean Annual Temp.: 60	Baro. Press.-P_a: 13.2	Connection: SALES

L	H	Gg	%CO_2	%N_2	%H_2S	Prover	Meter Run	Taps
11312	11312	0.677	6.166	3.496			3.067	FLG

	FLOW DATA				TUBING DATA		CASING DATA		
No.	Prover Line Size x Orifice Size	Press p.s.i.g.	Diff. h_w	Temp.	Press p.s.i.g.	Temp.	Press p.s.i.g.	Temp.	Duration of Flow
SI					2160				
1	3.067 X 1.250	472	11	74	570				24 HRS
2									
3									
4									
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							1182
2	TOTAL	FLOW	METER				
3							
4							
5							

No.	P_r	Temp. R	T_r	Z
1				
2				
3	TOTAL	FLOW	METER	
4				
5				

Gas Liquid Hydrocarbon Ratio: N/A Mcf/bbl.
A.P. I. Gravity of Liquid Hydrocarbons: N/A Deg.
Specific Gravity Separator Gas: 0.677 XXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 689 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 362 R. ____ R

P_c 2173.2 P_{c2} 4722.8

No.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		600.1	360.2	4362.6
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$ 1.083

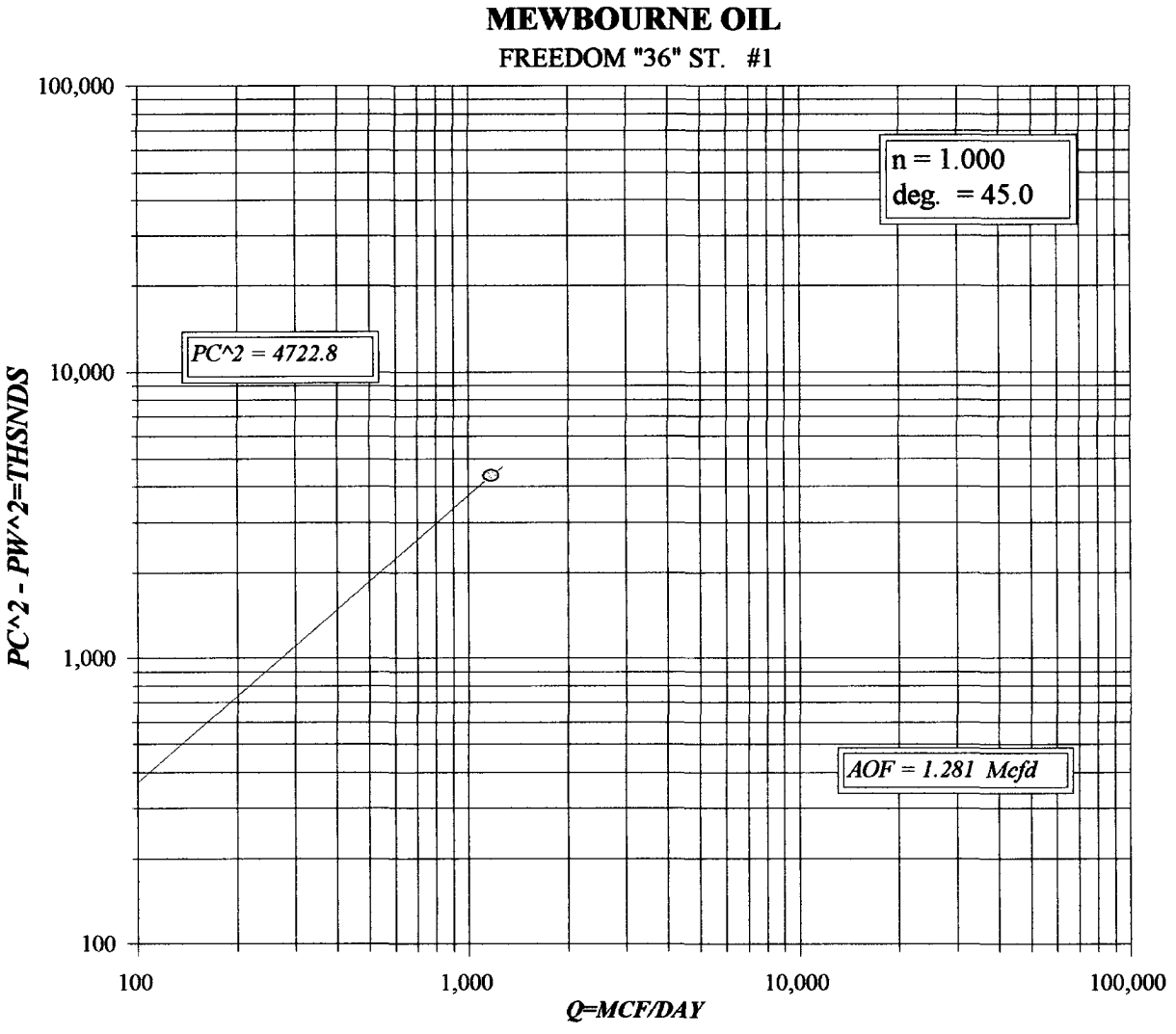
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 1.083

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 1.281

Absolute Open Flow 1.281 Mcfd @ 15.025 | Angle of Slope (): 45 | Slope n: 1

Remarks:

Approved By Division:	Conducted By:	Calculated By:	Checked By:
	PRO WELL TESTING	MERV BUECKER	BM


MEWBOURNE OIL
FREEDOM "36" ST. #1
n = 1.000
deg. = 45.0
PC^2 = 4722.8
AOF = 1.281 Mcfd
100,000
10,000
1,000
100
100
1,000
10,000
100,000
PC^2 - PW^2=THSNDS
Q=MCF/DAY

C122D FORM IMPORTED FROM SYMPHONY ON 9-9-01

COMPANY :	MEWBOURNE OIL CO.	LEASE :	FREEDOM "36" ST.			WELL NO. :	1
UNIT :	I	SECTION :	36			TOWNSHIP :	24S
L :	11312	H :	11312	L/H :	1	G/GMIX :	0.677
%CO2 :	6.166	%N2 :	3.496	H2S :		DATE :	
d :	2.441	Fr :	0.010763	GH :	8197.0	RANGE :	28E

VOL 1 :	1182	PSIA 1 :	583.2	RESV.TEMP	181.0
VOL 2 :		PSIA 2 :			
VOL 3 :		PSIA 3 :		SHUT-IN PRE(=	2173.2
VOL 4 :		PSIA 4 :			
		PCR :	689		
		TCR :	362		

Pc =	2173.2	Pc2 =	4722.8
Pt2 =	340.1	Pw =	600.1
	0.0		#DIV/0!
	0.0		#DIV/0!
	0.0		#DIV/0!
Pc2-Pw2=	4362.6	Pw2 =	360.2
	#DIV/0!		#DIV/0!
	#DIV/0!		#DIV/0!
	#DIV/0!		#DIV/0!
n =	1.000		
Pc2/(Pc2-Pw2) =	1.083		
	#DIV/0!		
	#DIV/0!		
	#DIV/0!		
[Pc2/Pc2-Pw2]n =	1.083		
	#DIV/0!		
	#DIV/0!		
	#DIV/0!		
AOF= Q	1.280		
	#DIV/0!		
	#DIV/0!		
	#DIV/0!		

	LINE	RATE 1		RATE 2		RATE 3		RATE 4	
		`1ST	`2ND	`1ST	``2ND	`1ST	`2ND	`1ST	`2ND
1	QM	1.182	1.182	0.000	0.000	0.000	0.000	0.000	0.000
2	TW	534	534	534	534	534	534	534	534
3	Ts	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
4	T	587.5	587.5	587.5	587.5	587.5	587.5	587.5	587.5
	PR (est)	0.85		0.00		0.00		0.00	
5	Z(est)	0.914	0.904	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	TZ	537.2	531.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7	GH/TZ	15.260	15.437	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8	eS	1.772	1.784	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	l-e-S	0.436	0.439	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
10	Pt	583.2	583.2	0.0	0.0	0.0	0.0	0.0	0.0
11	Pt2 /1000	340.1	340.1	0.0	0.0	0.0	0.0	0.0	0.0
12	Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763
13	Fc=FrTZ	5.781	5.715	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
14	FcQm	6.83	6.76	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15	L/H(FcQm)2	46.7	45.6	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
16	Fw	20.348834	20.054578	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
17	Pw2	360.5	360.2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
18	Ps2	638.8	642.6	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19	Ps	799.3	801.6	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
20	P	691.2	692.4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
21	Pr	1.00	1.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22	Tr	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62
23	Z	0.904	0.904	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

FORM C122-D