30-015-33169

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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

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: MEWBOURNE OIL		Lease or Unit Name: ESPERANZA "1" FED	
Type Test: ☑ Initial ☐ Annual ☐ Special		Test Date: 4/14/04	Well No.: 1
Completion Date: 3/13/04	Total Depth: 11910	Plug Back TD: 11858	Elevation: 3192
Unit Ltr - Sec - TWP - Rge: I 1 21S 27E			
Csg. Size: 5 1/2 / Wt.: 17 / d: 4.892 / Set At: 11910	Perforations: From: 11858 To: 11538	County: EDDY	
Tbg. Size: 2 7/8 / Wt.: 6.5 / d: 2.441 / Set At: 10993	Perforations: From: To:	Pool:	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple: SINGLE	Packer Set At: 10981	Formation: MORROW	
Producing Thru: TUBING	Reservoir Temp.: 169	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
10993	10993	0.62	1.049	0.684			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					3500				
1	3.067 X 1.250	390	1	90	3360				1 HRS
2	3.067 X 1.250	400	3	78	2810				1 HRS
3	3.067 X 1.250	408	13	77	2290				1 HRS
4	3.067 X 1.250	412	38	75	1725				1 HRS
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							190
2	TOTAL	FLOW	METER				334
3							702
4							1264
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	0.62	XXXXXXX
Specific Gravity Flowing Fluid	XXXXX	
Critical Pressure	674 P.S.I.A.	P.S.I.A.
Critical Temperature	361 R.	R

P_c 3513.2 P_c^2 12342.6

No.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3373.3	11379	963.6
2		2823.5	7971.9	4370.7
3		2304.5	5310.8	7031.8
4		1743.9	3041	9301.6
5				

(1) $\dfrac{P_c^2}{P_c^2 - P_w^2} = 1.327$ (2) $\left[\dfrac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.308$

$AOF = Q \left[\dfrac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.653$

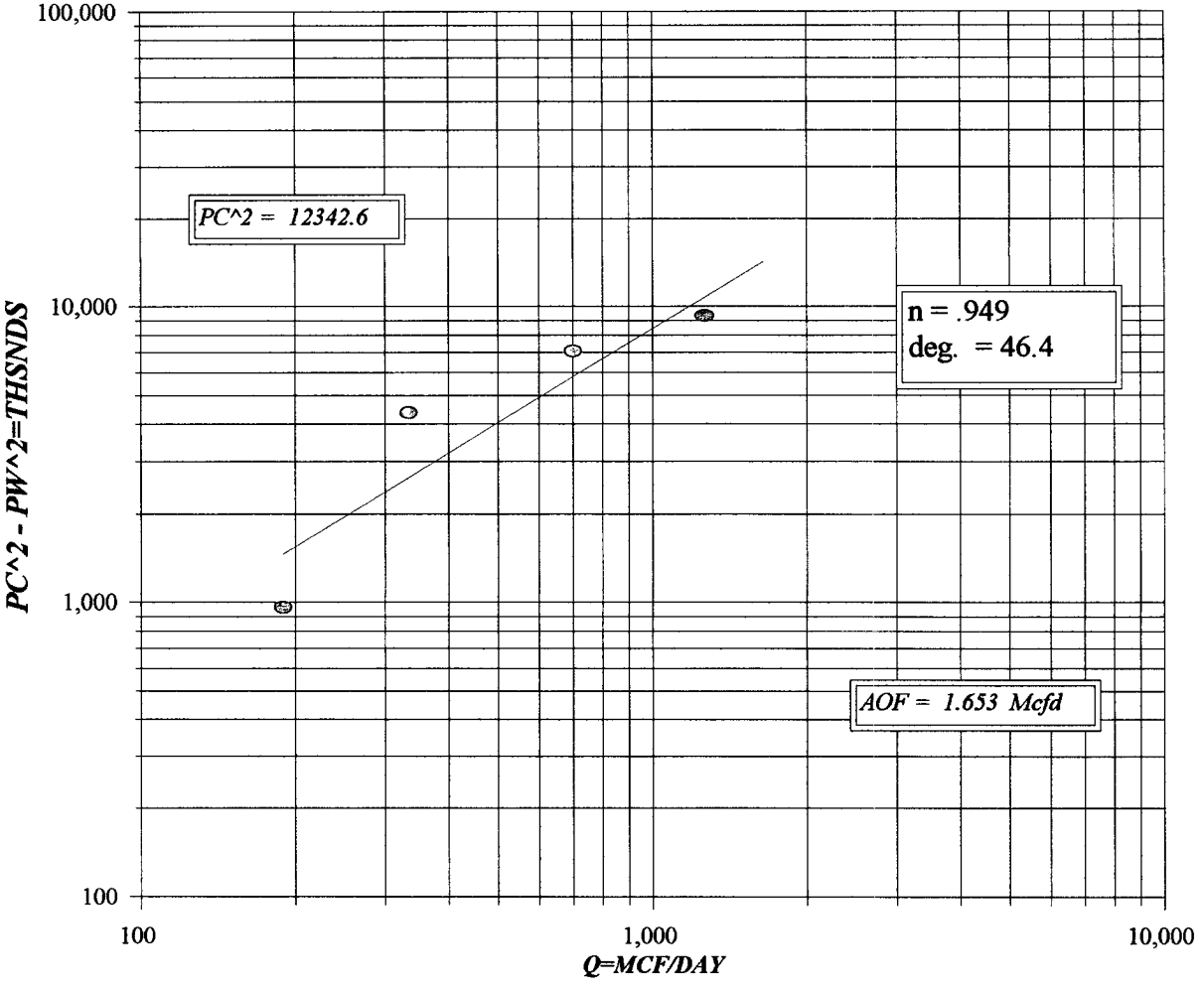
Absolute Open Flow	1.653	Mcfd @ 15.025	Angle of Slope ():	46.47	Slope n: 0.949

Remarks: * NO LIQUID MADE DURING TEST.

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

MEWBOURNE OIL CO.

ESPORANZA "1" FED #1



C122D FORM IMPORTED FROM SYMPHONY ON 9-9-01

COMPANY :	MEWBOURNE OIL		LEASE :	ESPORANZA 1 FED		WELL NO. :	1						
UNIT :	I		SECTION :	1		TOWNSHIP :	21S						
L :	10993	H :	10993	L/H :	1	G/GMIX :	0.620						
%CO2 :	1.049	%N2 :	0.684	H2S :			DATE :	4/14/04					
d :	2.441	Fr :	0.010763	GH :	8197.0		RANGE :	26E					
VOL 1 :	190	PSIA 1 :	3373.2			RESV.TEMP		169.0					
VOL 2 :	334	PSIA 2 :	2823.2										
VOL 3 :	702	PSIA 3 :	2303.2			SHUT-IN PRES =		3513.2					
VOL 4 :	1264	PSIA 4 :	1738.2										
			PCR :	674									
			TCR :	361									

	LINE	RATE 1		RATE 2		RATE 3		RATE 4	
		`1ST	`2ND	`1ST	``2ND	`1ST	`2ND	`1ST	`2ND
1	QM	0.190	0.190	0.334	0.334	0.702	0.702	1.264	1.264
2	TW	534	534	534	534	534	534	534	534
3	Ts	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
4	T	581.5	581.5	581.5	581.5	581.5	581.5	581.5	581.5
	PR (est)	5.00		4.19		3.42		2.58	
5	Z(est)	0.835	0.872	0.814	0.835	0.808	0.812	0.821	0.810
6	TZ	485.5	507.0	473.2	485.3	469.7	472.2	477.5	471.3
7	GH/TZ	16.882	16.168	17.323	16.890	17.453	17.361	17.167	17.393
8	eS	1.883	1.834	1.915	1.884	1.924	1.918	1.904	1.920
9	I-e-S	0.469	0.455	0.478	0.469	0.480	0.478	0.475	0.479
10	Pt	3373.2	3373.2	2823.2	2823.2	2303.2	2303.2	1738.2	1738.2
11	Pt2 /1000	11378.5	11378.5	7970.5	7970.5	5304.7	5304.7	3021.3	3021.3
12	Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763
13	Fc=FrTZ	5.226	5.457	5.093	5.223	5.055	5.082	5.139	5.072
14	FcQm	0.99	1.04	1.70	1.74	3.55	3.57	6.50	6.41
15	L/H(FcQm)2	1.0	1.1	2.9	3.0	12.6	12.7	42.2	41.1
16	Fw	0.4624223	0.4886927	1.3824119	1.4280951	6.0479837	6.0895758	20.030975	19.695501
17	Pw2	11378.9	11379.0	7971.8	7971.9	5310.8	5310.8	3041.4	3041.0
18	Ps2	21431.3	20864.8	15264.3	15018.9	10218.8	10183.6	5789.6	5838.3
19	Ps	4629.4	4567.8	3907.0	3875.4	3196.7	3191.2	2406.2	2416.3
20	P	4001.3	3970.5	3365.1	3349.3	2749.9	2747.2	2072.2	2077.2
21	Pr	5.94	5.89	4.99	4.97	4.08	4.08	3.07	3.08
22	Tr	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61
23	Z	0.872	0.870	0.835	0.834	0.812	0.812	0.810	0.810

Pc =	3513.2	Pc2 =	12342.6
Pt2 =	11378.5	Pw =	3373.3
	7970.5		2823.5
	5304.7		2304.5
	3021.3		1743.9
Pc2-Pw2=	963.6	Pw2 =	11379.0
	4370.7		7971.9
	7031.8		5310.8
	9301.6		3041.0
n =		0.949	
Pc2/(Pc2-Pw2) =		12.808	
		2.824	
		1.755	
		1.327	
[Pc2/Pc2-Pw2]n =		11.246	
		2.678	
		1.706	
		1.308	
AOF= Q		2.137	
		0.895	
		1.197	
		1.653	

FORM C122-D