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See Rule 401 & Rule 1122

State of New Mexico
Energy, 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

JUN 6 1995

clsf

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MEWBORNE OIL COMPANY						Lease or Unit Name PECOS SLOPE 34 FEDERAL					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5-25-95					
Completion Date		Total Depth 4350		Plug Back TD 4300		Elevation		Unit Ltr. - Sec. - TWP - Rge. 34-5-25			
Csg. Size 5 1/2	Wt. 17#	d 4.892	Set At 4350	Perforations: From: 3732 To: 3761				County CHAVES			
Tbg. Size 2-3/8	Wt. 4.7	d 1.995	Set At 3661	Perforations: From: To:				Pool Pecos Slope Also			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single						Packer Set At 3661		Formation ABO			
Producing Thru TBG		Reservoir Temp. °F 102		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection PIPELINE			
L * 3850	H 3850	G _g .669	% CO ₂ .10	% N ₂ 27.04	% H ₂ S	Prover	Meter Run 2.067	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.	
SI							325			
1.	2.067	X	1.00	90	1	54	325		PKR	
2.	2.067	X	1.00	90	2	54	320			
3.	2.067	X	1.00	90	10	56	305			
4.	2.067	X	1.00	95	36	57	280			
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.	4.946	10.16	103.2	1.006	1.223	1.012	63
2.	4.946	14.37	103.2	1.006	1.223	1.012	88
3.	4.946	32.13	103.2	1.004	1.223	1.012	197
4.	4.946	62.41	108.2	1.003	1.223	1.012	383
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.16	514	1.42	.977	DRY GAS	
2.	.16	514	1.44	.977	A.P. I. Gravity of Liquid Hydrocarbons DRY	
3.	.16	516	1.44	.977	Specific Gravity Separator Gas .669	XXXXXXXXXX
4.	.16	517	1.44	.977	Specific Gravity Flowing Fluid DRY	XXXXXX
5.					Critical Pressure *658 P.S.I.A.	P.S.I.A.
					Critical Temperature *358 R	R

P_c **352.9** P_c² **124.54**

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		345.4	119.30	5.24
2.		337.8	114.11	10.43
3.		323.1	104.39	20.15
4.		297.0	88.21	36.33
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{6.18065}{P_c^2 - P_w^2}$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 908$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.61068$

Absolute Open Flow 908	Mcf/d @ 15.025	Angle of Slope Θ 50°	Slope, n .83911
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Remarks: * CORRECTED TO F% N² ** BHP INST. HANGING @ THIS DEPTH
CALCULATED FROM KNOWN BHP'S

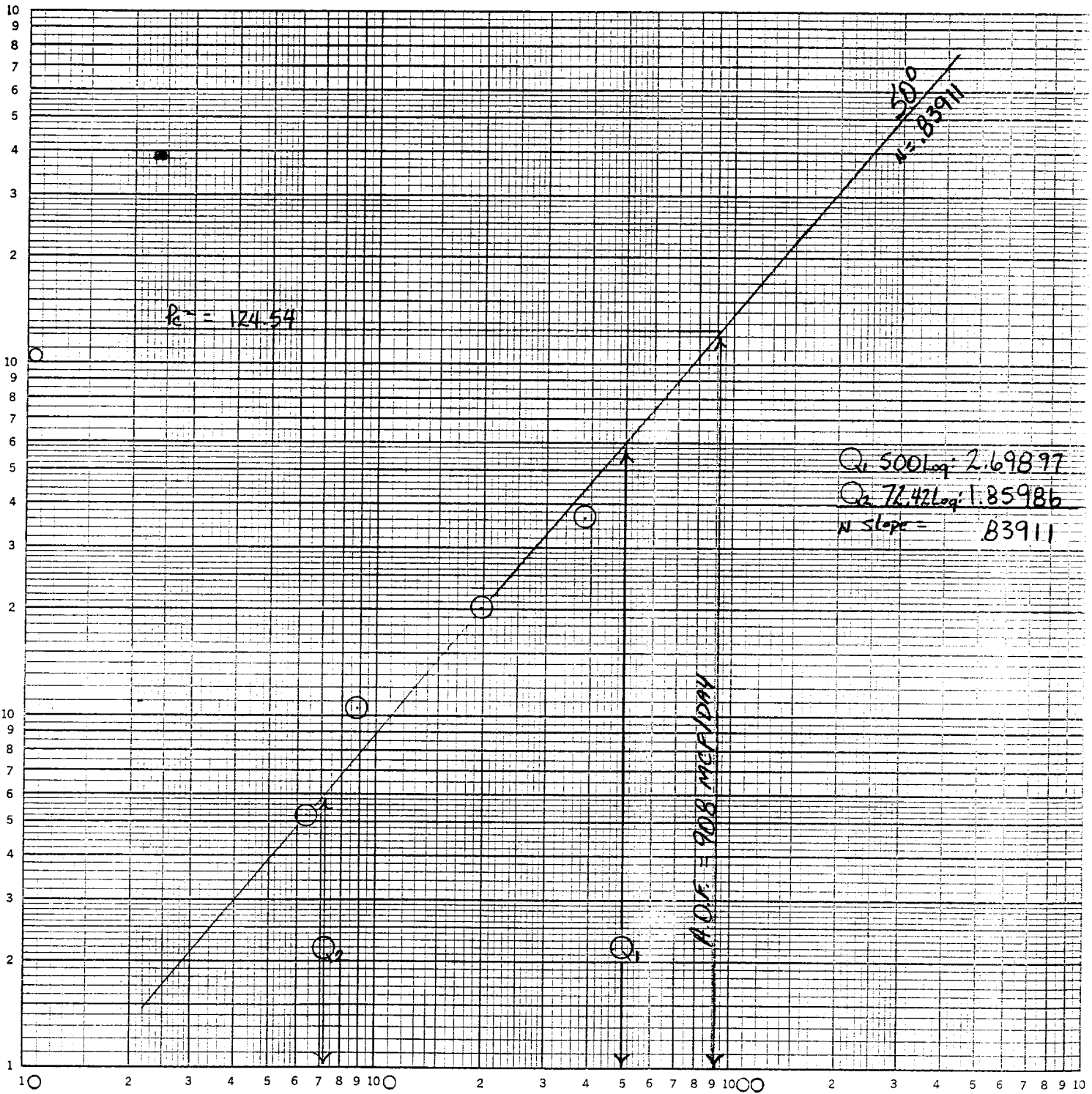
Approved By Division	Conducted By: PRO WELL TESTER	Calculated By: KS	Checked By: BM
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MEWBORNE OIL COMPANY
 PECOS SLOPE 34 FEDERAL, Well # 1

CHAVES COUNTY, NEW MEXICO
 5-25-95

PC² PW² (THSND S) 46 7400

K₀Σ LOGARITHMIC 3 X 3 CYCLES
 KEUFFEL & ESSER CO. MADE IN U.S.A.



Q MCF/DAY

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (Pc or Pw)
FROM KNOWN BOTTOM HOLE PRESSURE (Pf or Ps)

FORM C-122F

COMPANY MEWBOURNE OIL
UNIT
L : 3850

LEASE : P.S.FED.34 WELL NO. : 1
SECTION : TWNSHP :
H : 3850 L/H : 1
CO2 : 0.1 N2 : 7.04
GH : 2575.7 PCR : 658

DATE 05-25-95
RANGE :
G/GMIX : 0.6690
H2S :
TCR : 358

LINE		1	2	3	4	5	6	7	8
1	TW(W.H. R)	534	534	534	534	534	534	534	534
2	Ts(B.H. R)	572.5	572.5	572.5	572.5	572.5	572.5	572.5	572.5
3	$T = (Tw + Ts / 2)$	553.2	553.2	553.2	553.2	553.2	553.2	553.2	553.2
4	Z (EST.)	0.993	0.927	0.926	0.929	0.928	0.931	0.932	0.934
5	TZ	549	513	513	514	514	515	516	517
6	GH/TZ	4.688	5.020	5.026	5.014	5.014	5.003	4.994	4.984
7	eS(TABLE XIV)	1.192	1.207	1.207	1.207	1.207	1.206	1.206	1.205
8	Pf or Ps	379.53	379.53	371.12	371.12	354.89	354.89	326.1	326.1
9	Pf2 or Ps2	144.0	144.0	137.7	137.7	125.9	125.9	106.3	106.3
10	$Pc2 = Pf/eS$ or $Pw2 = Ps2/eS$	120.8	119.3	114.1	114.1	104.4	104.4	88.2	88.2
11	Pc or Pw	348	345	338	338	323	323	297	297
12	$P = (Pw + Ps / 2)$ or $(Pc + Pf / 2)$	364	362	354	354	339	339	312	312
13	$Pr = (P / Pcr)$	0.55	0.55	0.54	0.54	0.52	0.52	0.47	0.47
14	Tr(T/Tcr)	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
15	Z (TABLE XI)	0.927	0.927	0.929	0.929	0.931	0.931	0.934	0.934

PW 1 : 345.4 PW 2 : 337.8 PW 3 : 323.1 PW 4 : 297.0

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (Pc or Pw)
FROM KNOWN BOTTOM HOLE PRESSURE (Pf or Ps)

FORM C-122F

COMPANY MEWBOURNE OIL LEASE : P.S.FED.34 WELL NO. : 1 DATE 05-25-95
UNIT SECTION : TOWNSHIP : RANGE :
L : 3850 H : 3850 L/H : 1 G/GMIX : 0.6690
CO2 : 0.1 N2 : 7.04 H2S :
GH : 2575.7 PCR : 658 TCR : 358

LINE		1	2	3	4	5	6	7	8
1	TW(W.H. R)	534	534	534	534	534	534	534	534
2	Ts(B.H. R)	572.5	572.5	572.5	572.5	572.5	572.5	572.5	572.5
3	T=(Tw+Ts/2)	553.2	553.2	553.2	553.2	553.2	553.2	553.2	553.2
4	Z (EST.)	0.992	0.926	ERR	ERR	ERR	ERR	ERR	ERR
5	TZ	549	512	ERR	ERR	ERR	ERR	ERR	ERR
6	GH/TZ	4.693	5.026	ERR	ERR	ERR	ERR	ERR	ERR
7	eS(TABLE XIV)	1.192	1.207	ERR	ERR	ERR	ERR	ERR	ERR
8	Pf or Ps	387.74	387.74						
9	Pf2 or Ps2	150.3	150.3	ERR	ERR	ERR	ERR	ERR	ERR
10	Pc2=Pf/eS or Pw2=Ps2/eS	126.1	124.5	ERR	ERR	ERR	ERR	ERR	ERR
11	Pc or Pw	355	353	ERR	ERR	ERR	ERR	ERR	ERR
12	P=(Pw+Ps/2) or (Pc+Pf/2)	371	370	ERR	ERR	ERR	ERR	ERR	ERR
13	Pr=(P/Pcr)	0.56	0.56	ERR	ERR	ERR	ERR	ERR	ERR
14	Tr(T/TCr)	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
15	Z (TABLE XI)	0.926	0.926	ERR	ERR	ERR	ERR	ERR	ERR

~~Pw~~ 1 : 352.9 PW 2 : ERR PW 3 : ERR PW 4 : ERR
Pc

Laboratory Services, Inc.

1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR:

Mewbourne Oil Company
Attention: Mr. Greg Milner
P. O. Box 5270
Hobbs, New Mexico 88241

SAMPLE

IDENTIFICATION:

COMPANY:

LEASE:

PLANT:

Pecos Slope "34"

Federal #1

Mewbourne Oil Co.

SAMPLE DATA: DATE SAMPLED: 5-25-95 1:00 PM GAS (XX) LIQUID ()
ANALYSIS DATE: 05-30-95 SAMPLED BY: Greg Milner
PRESSURE - PSIG 100.00 ANALYSIS BY: Vickie Walker
SAMPLE TEMP. °F 56.00
ATMOS. TEMP. °F

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	7.04	
Carbon Dioxide (CO2)	0.10	
Methane (C1)	84.33	
Ethane (C2)	4.31	1.150
Propane (C3)	1.80	0.495
I-Butane (IC4)	0.34	0.111
N-Butane (NC4)	0.69	0.216
I-Pentane (IC5)	0.23	0.083
N-Pentane (NC5)	0.27	0.098
Hexane Plus (C6+)	0.89	0.366
	100.00	2.519
BTU/CU.FT. - DRY	1069	MOLECULAR WT. 19.3593
AT 14.650 DRY	1066	
AT 14.650 WET	1047	
AT 14.73 DRY	1072	
AT 14.73 WET	1053	
SPECIFIC GRAVITY -		
CALCULATED	0.669	
MEASURED		