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appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Geology, 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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MARALO INC.				Lease or Unit Name SV 16 STATE			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 1-3-96		Well No. 1	
Completion Date 11-27-95		Total Depth 11796		Plug Back TD 6015'		Elevation	
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 11796	Perforations: From: 4340 To: 4350		Unit Ltr. Sec. TWP - Rge. 16-18S-35E	
Tbg. Size 2-3/8	Wt. 4.3	d 1.995	Set At 4232'	Perforations: From: To:		County LEA	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single				Packer Set At 4202'		Pool West Reeves	
Producing Thru tbg		Reservoir Temp. °F 101°		Mean Annual Temp. °F 60°		Formation Queen	
Baro. Press - P _a 13.2		Connection PIPELINE		Meter Run 3.068		Taps FLG	
L 4345	H 4345	Gg .767	% CO ₂ 0.0	% N ₂ 26.9	% H ₂ S	Prover	

FLOW DATA

NO.	Prover Line Size X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
						Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI	24 hrs.					386				
1.					49	377				45 min
2.					49	364				45 min
3.					49	334				60 min
4.					50	280				60 min
5.										

RATE OF FLOW CALCULATIONS

NO.	COEFFICIENT (24 HOUR)	$h_w P_m$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.							91
2.							216
3.							370
4.							505
5.							

RATES TAKEN FROM ELECTRONIC TOTAL FLOW METER

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P. I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature	P.S.I.A.	P.S.I.A.
1.		509			DRY GAS	DRY	.767	DRY	623*	340*		
2.		509						XXXXXX				
3.		509										
4.		510										
5.												

p_c**396.1 p_c² 156.90

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.358$	2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.783$
1.	387.3	150.0	6.9			
2.	372.0	138.8	18.52			
3.	345.5	119.37	37.53			
4.	300.6	90.36	66.54			
5.						

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 900.41$$

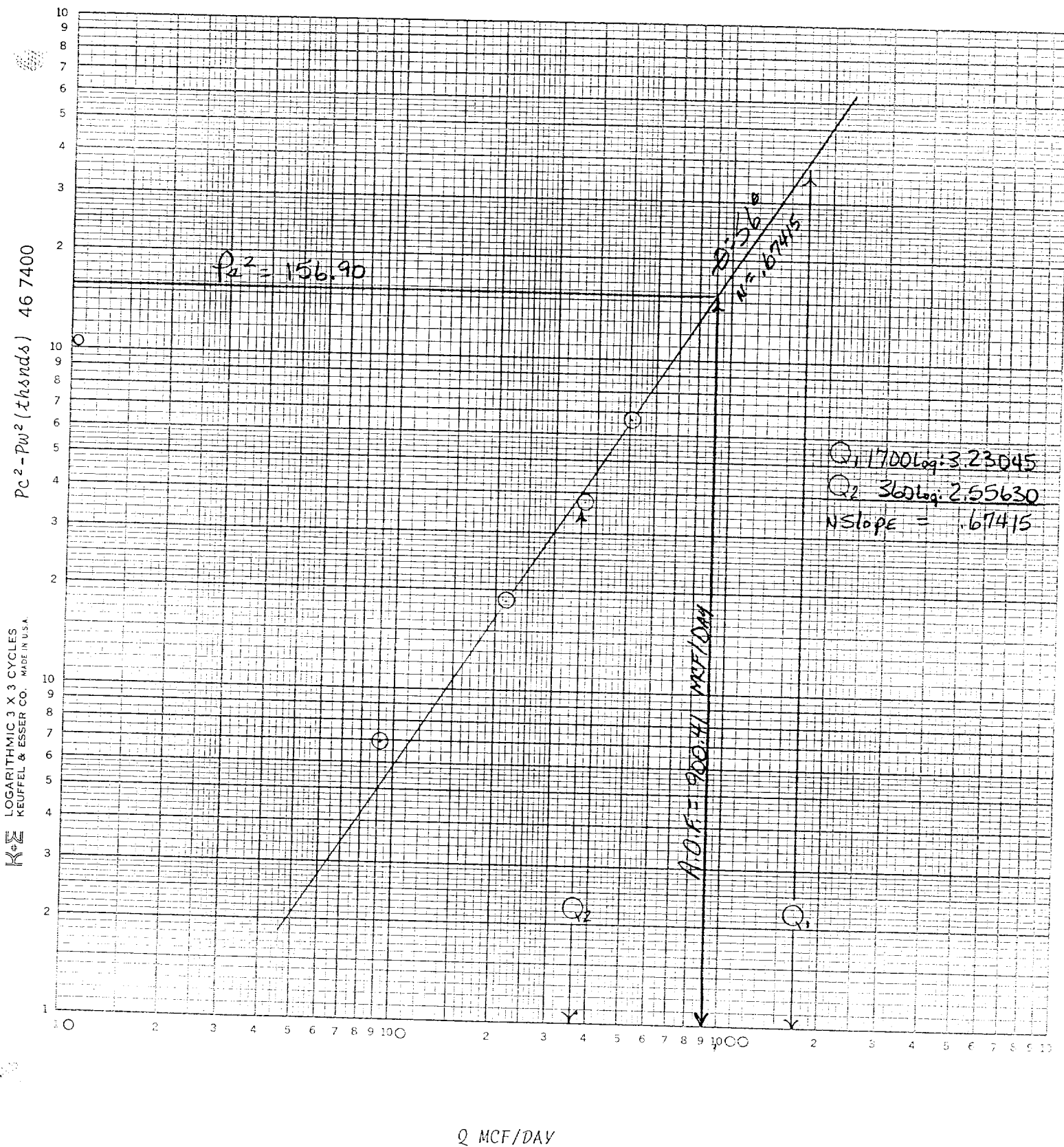
Absolute Open Flow **900.41** Mcfd @ 15.025 Angle of Slope θ **56°** Slope, n **.67415**

Remarks: * CORRECTED TO 26% N₂ NO FLUID MADE DURING TEST

** CALCULATED FROM KNOWN BHP'S *** DEPTH OF BHP INSTS.

Approved By Division
Conducted By: PRO WELL TESTER
Calculated By: KS
Checked By: BM

MARALO, INC.
 SV 16 STATE, WELL # 1
 16-18S-35E
 LEA COUNTY, NEW MEXICO
 1-3-96



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

FORM C-122F

COMPANY: MARALO INC.

UNIT

L

4345

LEASE : SV 16 ST. WELL NO. : 1

DATE 01-03-96

SECTION : 16

TWN: 18

RANGE : 35

H : 4345

L/H : 1

G/GMIX : 0.7670

CO2 : 0

N2 : 26.9

H2S :

GH : 3332.6

PCR : 623

TCR : 340

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)	577.5	577.5	577.5	577.5	577.5	577.5	577.5	577.5
3	$T = (Tw + Ts / 2)$	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7
4	Z (EST.)	0.993	0.928	0.927	0.930	0.931	0.933	0.936	0.939
5	TZ	552	516	515	517	517	519	520	522
6	GH/TZ	6.037	6.461	6.466	6.448	6.443	6.426	6.404	6.390
7	eS(TABLE XIV)	1.254	1.274	1.274	1.274	1.273	1.272	1.271	1.271
8	Pf or Ps	437.2	437.2	419.8	419.8	389.7	389.7	338.9	338.9
9	Pf2 or Ps2	191.1	191.1	176.2	176.2	151.9	151.9	114.9	114.9
10	$Pc2 = Pf / eS$ or $Pw2 = Ps2 / eS$	152.4	150.0	138.3	138.4	119.3	119.3	90.3	90.4
11	Pc or Pw	390	387	372	372	345	345	301	301
12	$P = (Pw + Ps / 2)$ or $(Pc + Pf / 2)$	414	412	396	396	368	368	320	320
13	$Pr = (P / Pcr)$	0.66	0.66	0.64	0.64	0.59	0.59	0.51	0.51
14	$Tr(T / Tcr)$	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
15	Z (TABLE XI)	0.928	0.928	0.930	0.930	0.933	0.933	0.939	0.939

PW 1 : 387.3 PW 2 : 372.0 PW 3 : 345.5 PW 4 : 300.6

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

FORM C-122F

COMPANY: MARALO INC.

UNIT

L

LEASE : SV 16 ST. WELL NO. : 1 DATE 01-03-96
SECTION : 16 TOWNSHIP : 18 RANGE : 35
H : 4345 L/H : 1 G/GMIX : 0.7670
CO2 : 0 N2 : 26.9 H2S :
GH : 3332.6 PCR : 623 TCR : 340

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)	577.5	577.5	577.5	577.5	577.5	577.5	577.5	577.5
3	T=(Tw+Ts/2)	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7
4	Z (EST.)	0.992	0.927	ERR	ERR	ERR	ERR	ERR	ERR
5	TZ	551	515	ERR	ERR	ERR	ERR	ERR	ERR
6	GH/TZ	6.044	6.469	ERR	ERR	ERR	ERR	ERR	ERR
7	eS(TABLE XIV)	1.254	1.275	ERR	ERR	ERR	ERR	ERR	ERR
8	Pf or Ps	447.2	447.2	0	0	0	0	0	0
9	Pf2 or Ps2	200.0	200.0	0.0	0.0	0.0	0.0	0.0	0.0
10	Pc2=Pf/eS or Pw2=Ps2/eS	159.4	156.9	ERR	ERR	ERR	ERR	ERR	ERR
11	Pc or Pw	399	396	ERR	ERR	ERR	ERR	ERR	ERR
12	P=(Pw+Ps/2) or (Pc+Pf/2)	423	422	ERR	ERR	ERR	ERR	ERR	ERR
13	Pr=(P/Pcr)	0.68	0.68	ERR	ERR	ERR	ERR	ERR	ERR
14	Tr(T/Tcr)	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
15	Z (TABLE XI)	0.927	0.927	ERR	ERR	ERR	ERR	ERR	ERR

Pc 1 : 396.1 PW 2 : ERR PW 3 : ERR PW 4 : ERR

