

NEW MEXICO OIL CONSERVATION COMMISSION
MULTI-POINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED BY Form C-122
 NOV 07 1964
 O.C.D.
 ARTESIA, OFFICE
 1st File

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special				Test Date 10-8-84			
Company SAGE ENERGY ✓				Connection TO AIR			
Pool ANTELOPE UPPER PENN				Formation CISCO			
Completion Date 10-5-84		Total Depth 8500.		Plug Back To 7700.		Elevation 3803.	
Casing Size 5.500		Casing Wt. 17.0		Set At 4.892		Well No. #2	
Perforations From 6169.		To 6326.		Well No. #2			
Tubing Size 2.875		Tubing Wt. 6.5		Set At 6345.		Perforations From 0. To 0.	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packoff Set At 6104.		County EDDY	
Producing thru TUBING		Reservoir Temp. °F 132.6 6248.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
State NEW MEXICO							
L 6248.		H 6248.		Cg 0.630		% CO ₂ 0.61	
				% N ₂ 1.83		% H ₂ O 0.	
Prover Ø		Motor Run 3.1		Taps FLANGE			

FLOW DATA						TUBING DATA		B.H.P. 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.		CHOKES
1	3.07 X 1.000			100.	10.0	74.	856.	90.		8/64	1.0
2	3.07 X 1.000			110.	24.0	60.	835.	88.		10/64	1.0
3	3.07 X 1.000			112.	54.0	60.	800.	89.		12/64	1.0
4	3.07 X 1.000			150.	94.0	56.	742.	85.		14/64	1.0
5											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Compres. Factor, F _{sp}	Rate of Flow Q, Mcfd
1	4.79	33.65	113.2	0.9868	1.2599	1.0094	202.
2	4.79	54.38	123.2	1.0000	1.2599	1.0113	332.
3	4.79	82.22	125.2	1.0000	1.2599	1.0115	502.
4	4.79	123.86	163.2	1.0039	1.2599	1.0153	762.
5							

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
1	0.17	534.	1.48	0.981	0.	0.	0.630	XXXXXX	671.	362.
2	0.18	520.	1.44	0.978						
3	0.19	520.	1.44	0.977						
4	0.24	516.	1.43	0.970						
5										

P _r 870.7		P _c 758.	
NO	P _r	P _w	P _r ² - P _w ²
1	756.	864.	746.
2	719.	844.	712.
3	661.	810.	656.
4	570.	754.	569.
5			

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 4.0082$

LOG = 0 $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1530.$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.0090$

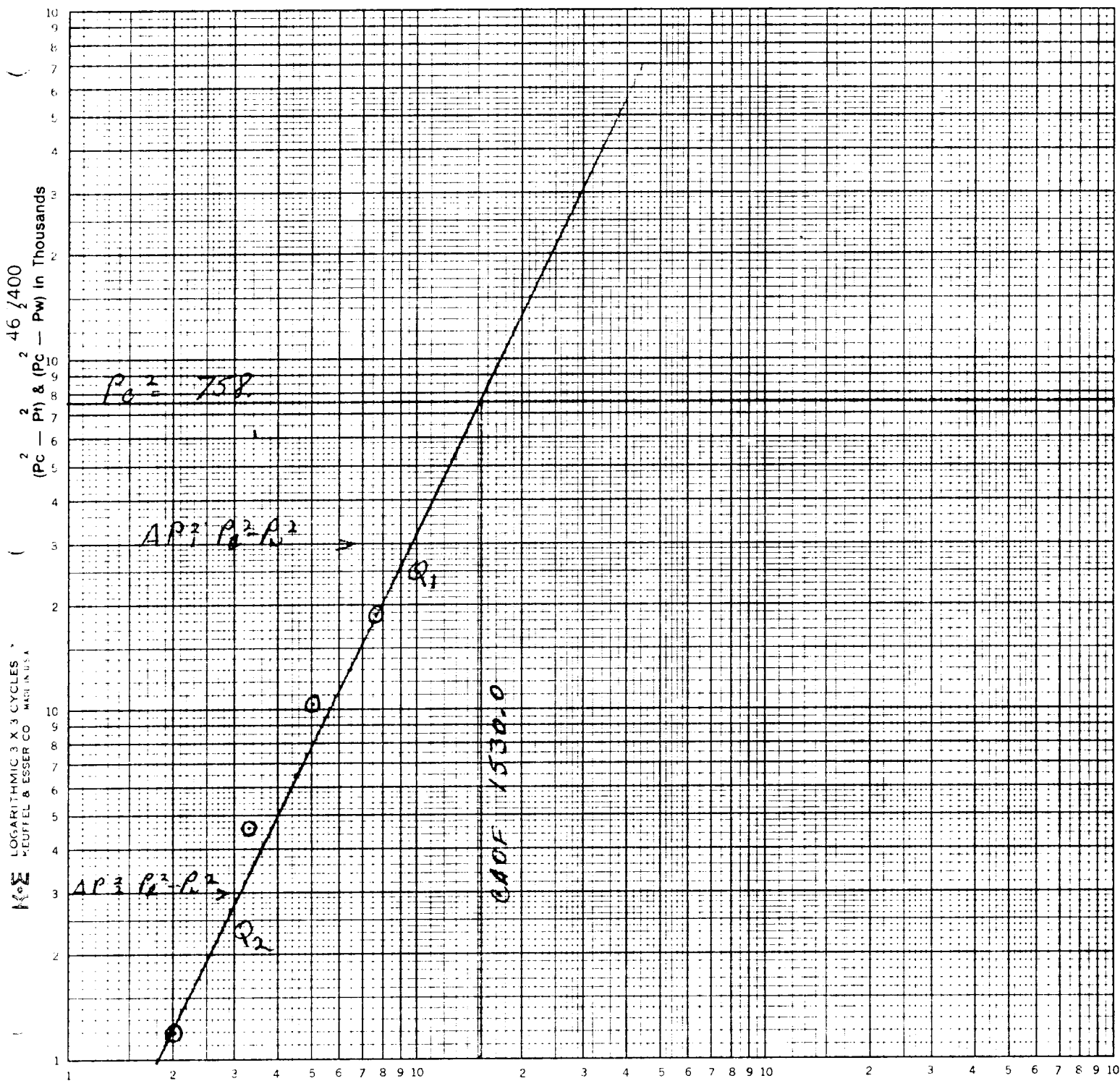
Fast ID-2
11-30-84
Comp. & BK

Absolute Open Flow	1530.	Mcf @ 15.025	Angle of Slope °	63.3	Slope, n	0.503
Remarks:						

Approved By Commission	Conducted By RICHARD TOWNLEY	Calculated By BENNETT & CATHEY INC.	Checked By
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DENNETT & CARMEL PRODUCTION TESTING BACK PRESSURE CURVE

Operator Sage Lease Analoge Unit Well No. 2
 County Eddy Field Analoge Upper Permian Location K 18 19S 24E
 Date of Test 10-8-84 Slope "n" .503 Angle of Slope 63.3
 Calc. Abs. Potential / MCF/D



$$\begin{aligned} \overline{\Delta P}_1 \quad P_c^2 - P_w^2 &= 300 \\ \overline{\Delta P}_2 \quad P_c^2 - P_w^2 &= 30 \\ Q_1 &= 986.3 \\ Q_2 &= 310.0 \end{aligned}$$

Q in MCF/Day

$$\begin{aligned} \text{LOG } Q_1 &= 2.994 \\ \text{LOG } Q_2 &= 2.491 \\ n &= .503 \end{aligned}$$

6 PM 7

5

NOON

1

2

4

8

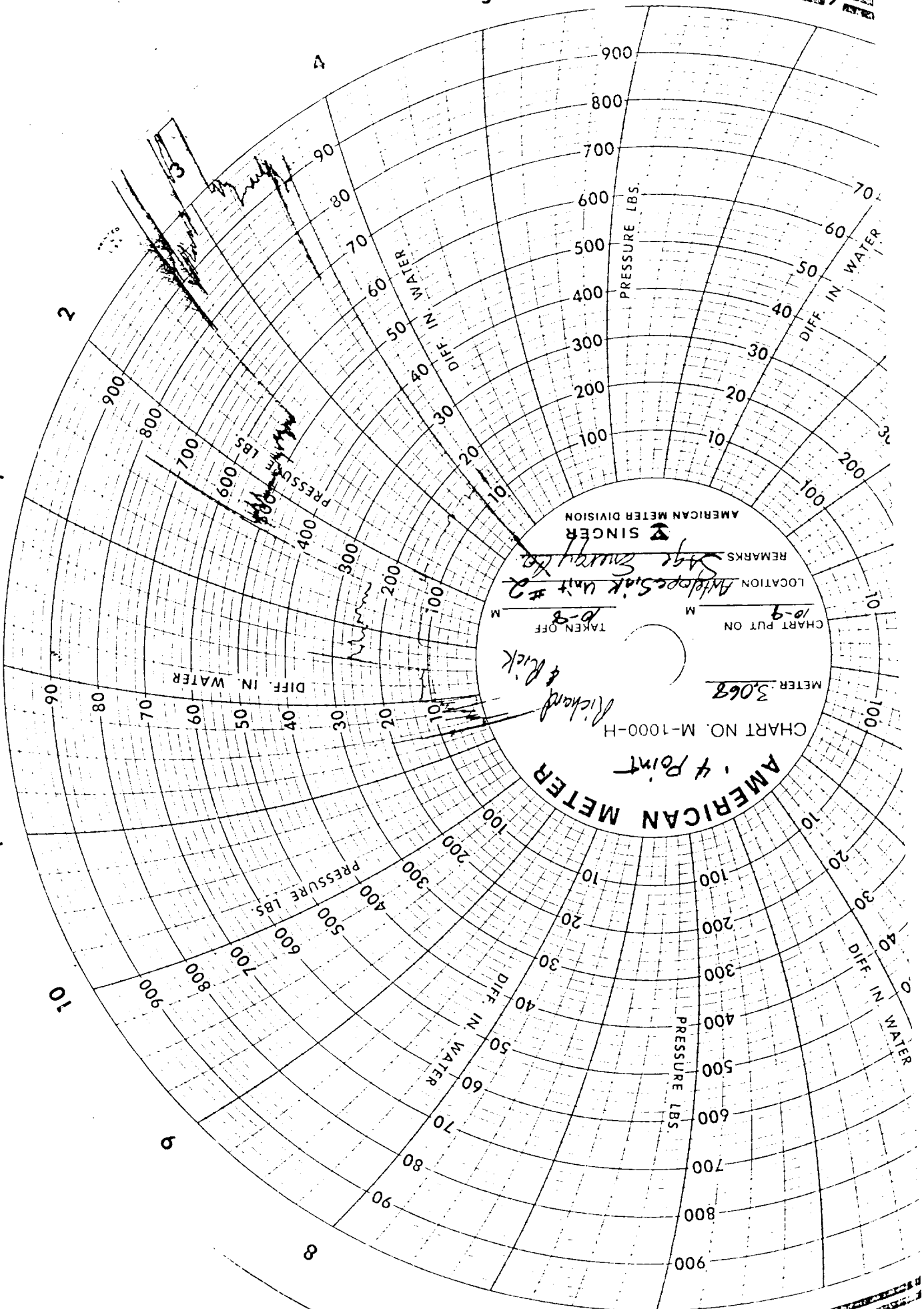
9

10

11

7

5 6 PM 7



AMERICAN METER DIVISION
SINGER
REMARKS
LOCATION
TAKEN OFF
M
M
METER PUT ON
METER NO. M-1000-H
METER 3.068
Richard & Rick
4 Point