

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

Form C-122
 Revised 9-1-65

*clsf
 F.1e*

RECEIVED

Type Test: ☒ Initial ☐ FOUR POINT ☐ Annual ☐ Special						Test Date: 9-23-82		OCT 12 1982	
Company: SANDERS OIL & GAS ✓				Connection: AIR NEW WELL					
Pool: <i>Und. A.D.</i> PECOS SLOPE U.D.				Formation: ABO				Unit: G.C.D. H: ARTESIA, OFFICE	
Completion Date: 9-17-82		Total Depth: 4058		Plug Hole: 3804 3757		Elevation: 3590		Farm or Lease Name: BITTERLAKE FEDERAL	
Casing Size: 4.500	Wt.: 9.5	d: 4.090	Set At: 3805 3757	Perforations: 3609 From 3495 To 3533		Well No.: 1			
Tub. Size: 2.375	Wt.: 4.7	d: 1.995	Set At: 3470	Perforations: From OPEN To ENDED		Unit: H	Sec.: 24	Twp.: 8S	Rge.: 24E
Type Well - Single - (Nodenshead - G.O. or G.O. Multiple)						Packer Set At: NONE		County: CHAVES	
Producing thru TUBING		Reservoir Temp. °F: 105 @ 3513		Mean Annual Temp. °F: 60°		Base Press. - P _g : 13.2		State: NEW MEXICO	
L: 3513	H: 3513	G _g : 0.681	% CO ₂ : 0.13	% N ₂ : 16.21	% H ₂ S: 0	Prover: 2.0	Meter Run: -	Tape: 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. in. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	CHOKE
51							893	70		273-1/2HR
1	2.00	X	0.188	65	0	56	851	67	0	1 HR
2	2.00	X	0.188	190	0	53	790	60	0	1 HR
3	2.00	X	0.188	360	0	55	636	58	0	1 HR
4	2.00	X	0.188	330	0	55	460	55	0	1 HR

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{P/P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mscf
1	0.61	0	78.2	1.0039	1.2119	1.0060	58
2	0.61	0	203.2	1.0068	1.2119	1.0162	153
3	0.61	0	373.2	1.0048	1.2119	1.0295	284
4	0.61	0	343.2	1.0048	1.2119	1.0272	261

NO.	P _g	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio _____ Mol/bbl.
1	12	516	1.52	0.988	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	32	513	1.51	0.968	Specific Gravity Separator Gas 0.681
3	58	515	1.52	0.943	Specific Gravity Flowing Fluid XXXXX
4	54	515	1.52	0.948	Critical Pressure 641 P.S.I.A.
5					Critical Temperature 339 °R

NO.	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉	P ₁₀	P ₁₁	P ₁₂	P ₁₃	P ₁₄	P ₁₅	P ₁₆	P ₁₇	P ₁₈	P ₁₉	P ₂₀
1	905.0	819																		
1	747	864	746	73																
2	645	804	646	173																
3	421	650	423	396																
4	224	475	225	594																

(1) $\frac{P_0^2}{P_1^2 - P_0^2} = 2.0676$

AOF = Q $\left[\frac{P_1^2}{P_2^2 - P_1^2} \right]^n = 560.$

(2) $\left[\frac{P_1^2}{P_2^2 - P_1^2} \right]^n = 1.9716$

*Post ID-2
 10-15-82
 Jmp 4AK*

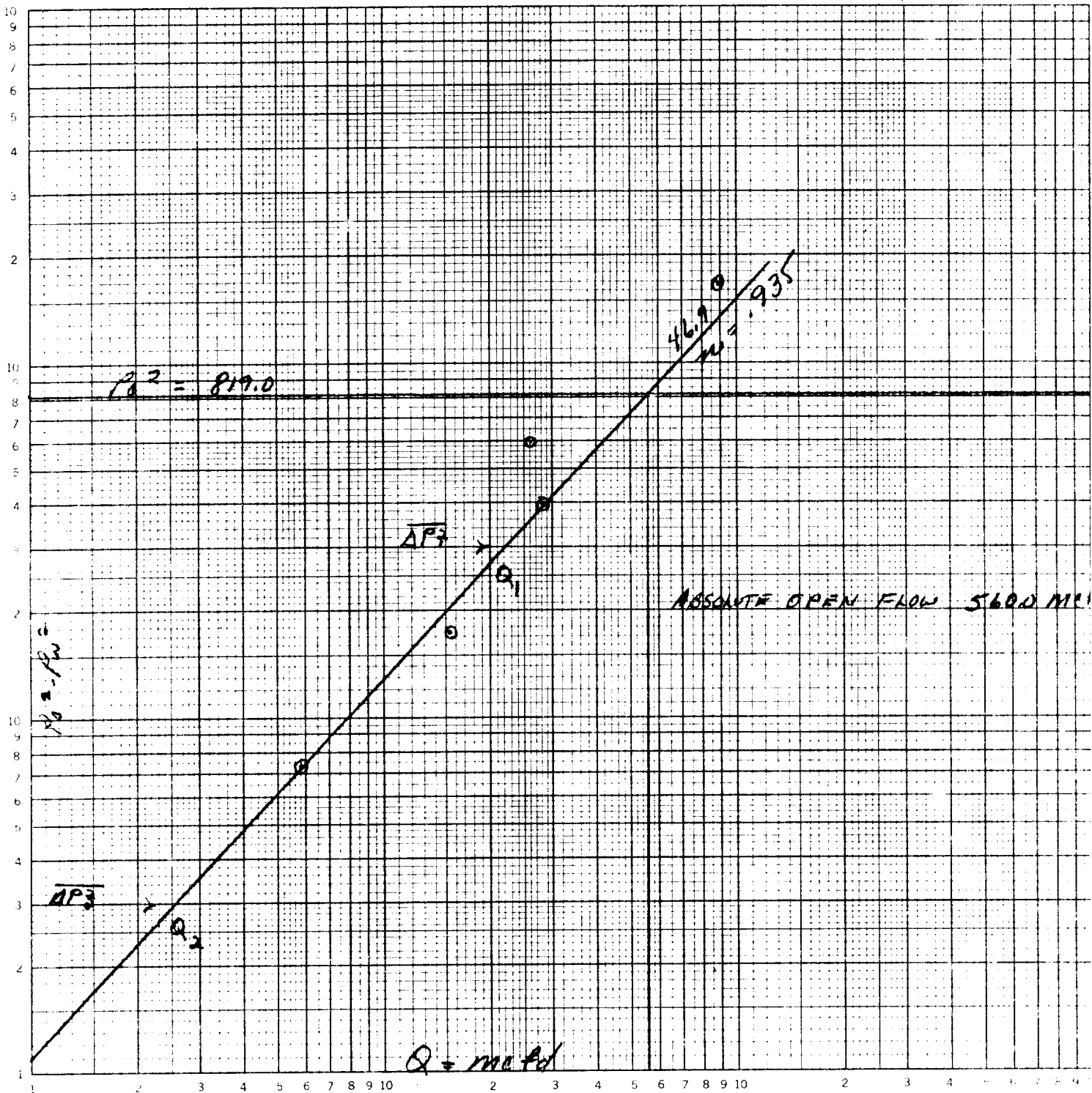
Absolute Open Flow: 560.	Mscf @ 15.025	Angle of Slope: 46.9	Slope, n: 0.935
Remarks:			
Approved By Commission:	Conducted By: DON BENNETT	Calculated By: BENNETT - CATHEY	Checked By:

BITTIE LAKE FEDERAL
WELL No 1
UNIT H, S 24, T 8 S, R 24 E
CHIEFS COUNTY

9-23-82

46 7400

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



$$\Delta P_2 \quad P_0^2 - P_w^2 = 300$$

$$\Delta P_1 \quad P_0^2 - P_w^2 = 30$$

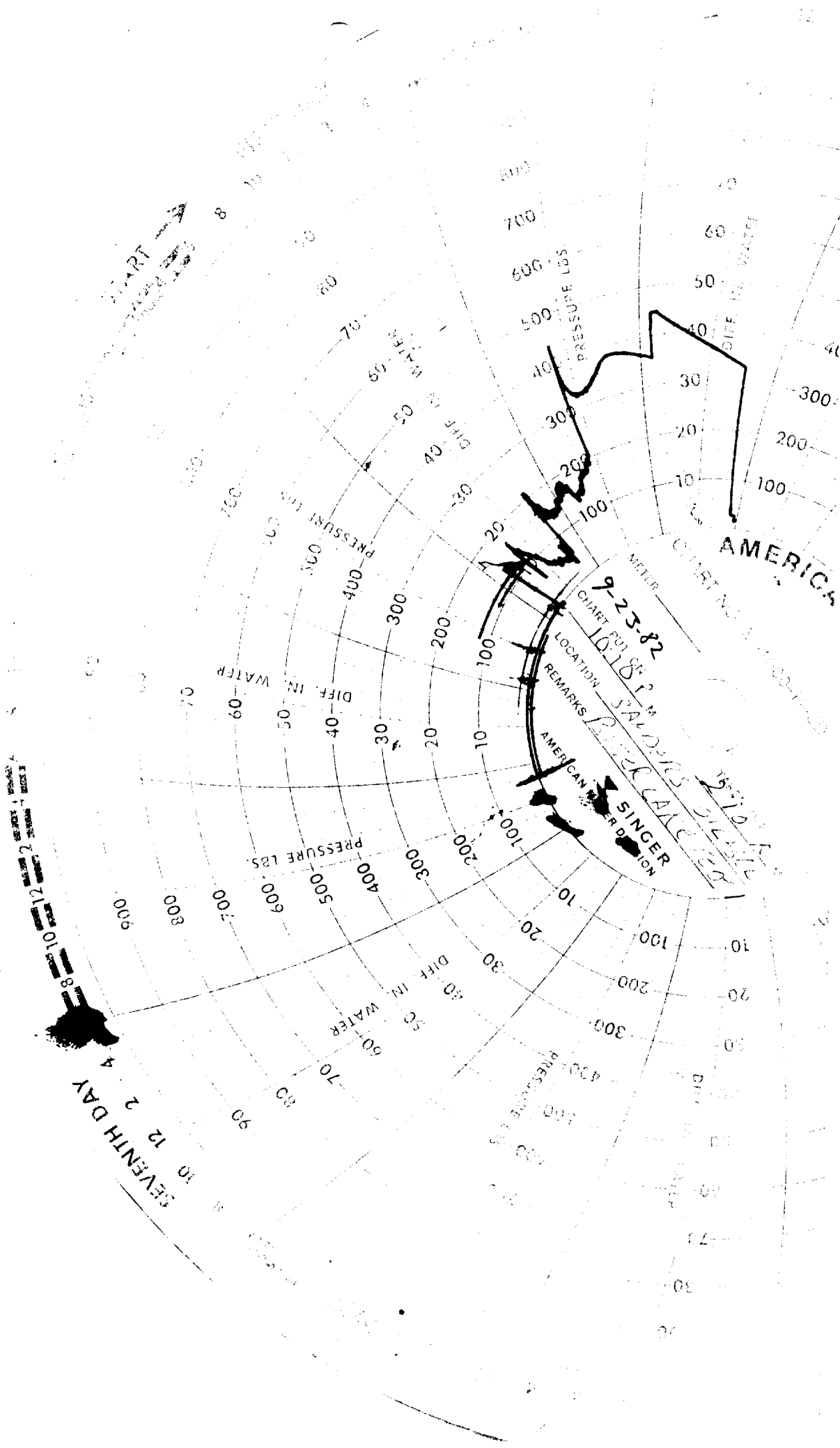
$$Q_1 = 219.5 \text{ mcf/d}$$

$$Q_2 = 25.5 \text{ mcf/d}$$

$$\log Q_1 = 2.3415$$

$$\log Q_2 = 1.4065$$

$$n = .9350$$



AMERICA

9-23-82
10-18

LOCATION
REMARKS

AMERICAN

SINGER
M. S. SINGER

SEVENTH DAY
10 12 2 4