

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

4-12-84
Form C-122
Revised 9-1-65

RECEIVED BY
MAR 26 1984
3-19-84 C.C.D.
ARTESIA, OFFICE

Type Test 4-POINT ☒ Initial ☐ Annual ☐ Special										Test Date 3-19-84 C.C.D.	
Company STEVENS OPERATING ✓					Connection TO AIR						
Pool PECOS SLOPE					Formation ABO					Unit	
Completion Date 3-1-84			Total Depth 4906.		Plug Back To 4819.		Elevation 3794.4		Farm or Lease Name RAILROAD STATE		
Casing Size 4.500		Wt. 11.6		Set At 4.052		Perforations From 4217 To 4518		Well No. #1			
Tubing Size 2.375		Wt. 4.7		Set At 1.995		Perforations From 0 To 0		Unit L		Sec. Twp. Rge. 2 8S 26E	
Type Well - Single - Broadhead - G.G. or G.O. Multiple SINGLE					Packer Set At 0			County CHAVES			
Producing thru TUBING		Reservoir Temp. °F 106.4225.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State NEW MEXICO			
L 4225.		H 4225.		G _g 0.654		% CO ₂ 1.85		% N ₂ 4.93		% H ₂ S 0	
								Provd. 2.0		Motor Run 0	
										Tcpe FLANGE	

FLOW DATA						TUBING DATA		B.H.P. DATA		Duration of Flow	
NO.	Provd. 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.		CHOKE
1	2.00 X 0.063			867.	0	62	881.		1004.		315.0
2	2.00 X 0.094			844.	0	64	867.	0	988.	48/64	1.0
3	2.00 X 0.125			805.	0	65	844.	0	961.	48/64	1.0
4	2.00 X 0.188			703.	0	67	805.	0	918.	48/64	1.0
5							703.	0	804.	48/64	1.0

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_{m1}}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Compres. Factor, F _{pv}	Rate of Flow Q, Mcld
1	0.06	0	880.2	0.9981	1.2365	1.0782	75.
2	0.14	0	857.2	0.9962	1.2365	1.0750	160.
3	0.26	0	818.2	0.9952	1.2365	1.0711	285.
4	0.61	0	716.2	0.9933	1.2365	1.0616	567.
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	1.31	522.	1.45	0.860	0	
2	1.28	524.	1.46	0.865	0	
3	1.22	525.	1.46	0.872	0.654	XXXXXX
4	1.07	527.	1.47	0.887	XXXXXX	0.654
5					669.	669. P.S.I.A.
					359.	359. °R

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²
1	1002.	897.	805.	26.
2	949.	873.	763.	68.
3	867.	835.	698.	133.
4	668.	734.	539.	291.
5				

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 2.8503$ (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.3937$

GOR = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1357.$

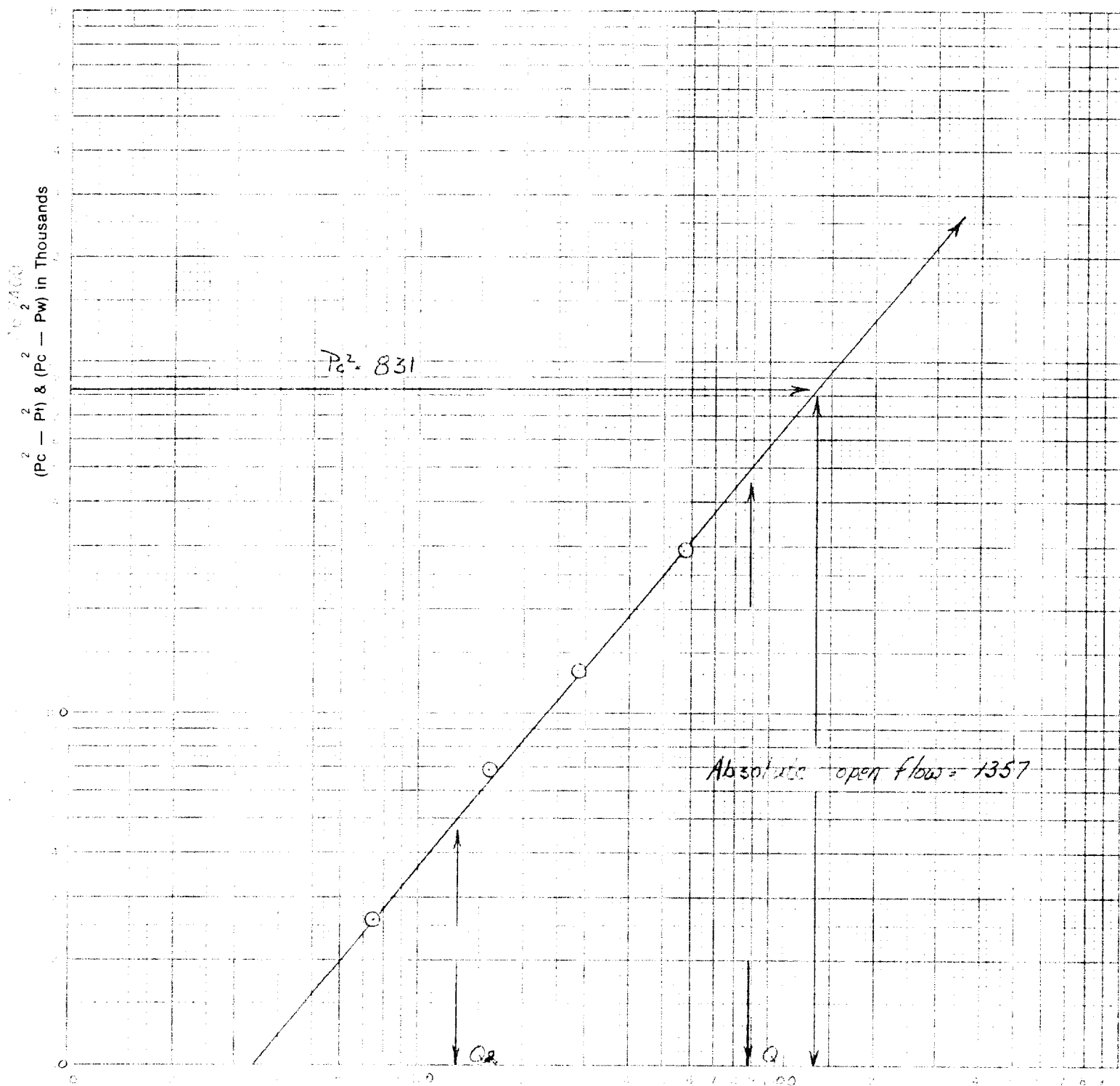
Post ID-2
3-30-84
Camp & BK

Absolute Open Flow	1357.	Mcf/d @ 15.025	Angle of Slope @	50.2	Slope, n	0.833
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS						
Approved By Commission:	Conducted By:	Calculated By:	Checked By:			
	RICHARD TOWNLEY	BENNETT & CATHEY				

BACK PRESSURE CUP

Operator Stevens Operating Lease Fair Road State Well No. 1
 County Chavez Field Three Steps Location 2 85 21E
 Date of Test 3-17-84 Slope "n" 0.833 Angle of Slope 50.2

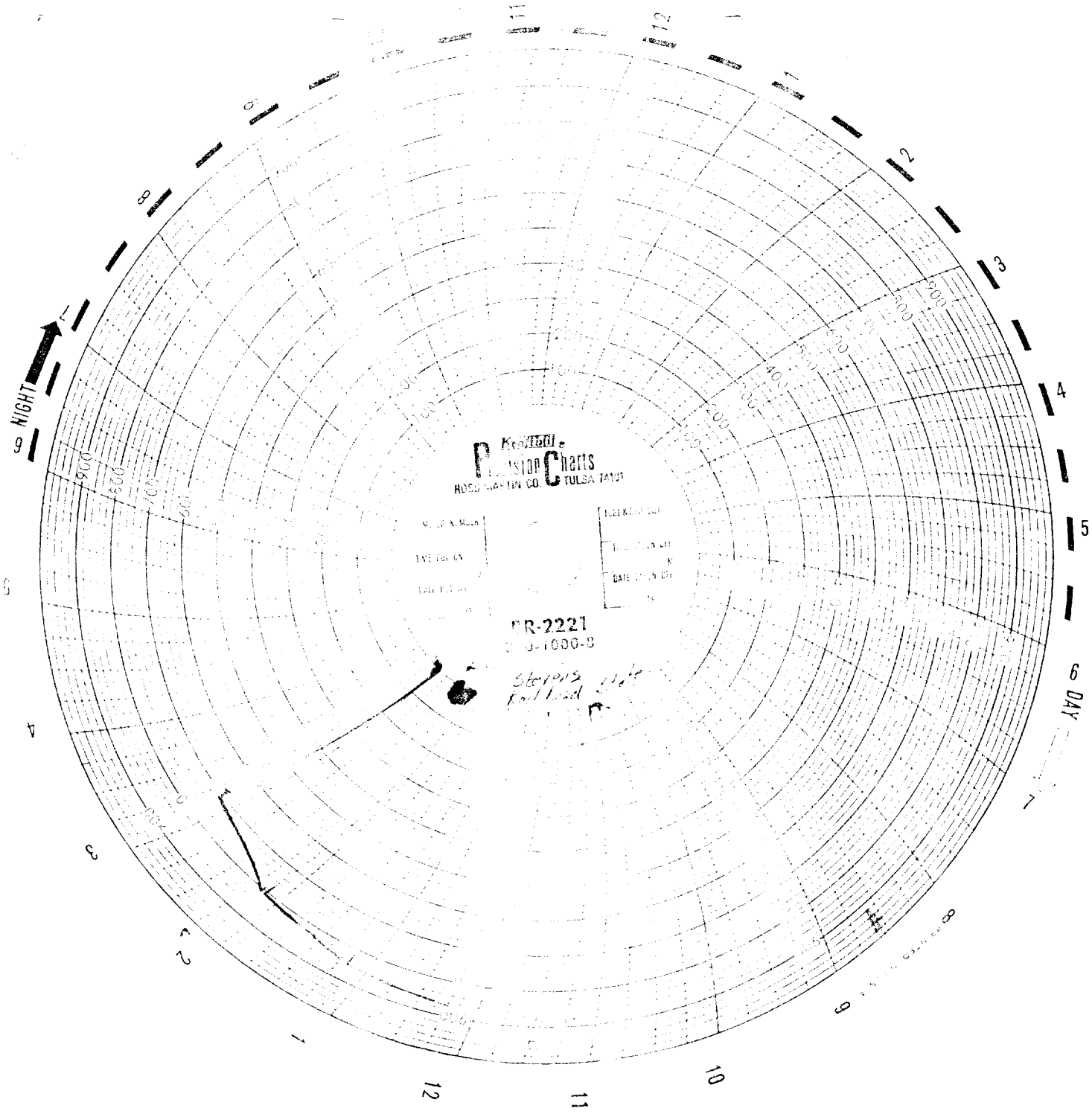
Calc. Abs. Potential 1357 MCF/D



$$\begin{aligned} \overline{\Delta P}_1^2 \quad P_c^2 - P_w^2 &= \underline{500} \\ \overline{\Delta P}_2^2 \quad P_c^2 - P_w^2 &= \underline{50} \\ Q_1 &= \underline{855} \\ Q_2 &= \underline{130} \end{aligned}$$

Q in MCF/Day

$$\begin{aligned} \text{LOG } Q_1 &= \underline{2.9469} \\ \text{LOG } Q_2 &= \underline{2.1139} \\ n &= \underline{0.833} \end{aligned}$$



NAVIGATOR
CHARTS
ROSS-MARTIN CO. TULSA, OKLA.

NAME OF VESSEL
DATE OF USE

DATE OF USE

PR-2221
NO. 1000-8

*Stations
Railroad*

(505) 746-3354 / Artesia, New Mexico 88210

RECEIVED BY

MAR 26 1984

O. C. D.

COMPANY STEVENS OPERATING WELL NAME RAILROAD STATE ARTESIA, OFFICE
DATE OF TEST 3-19-84 FORMATION ABO PAGE 1 OF 1
COMPANY MAN MIKE VOWELL

ELEMENT NUMBER	RPG3#7201	RANGE	3200 LBS.
CLOCK NUMBER	1935	RANGE	12 HOUR
ELEMENT NUMBER	RPG3#37882	RANGE	3500 LBS.
CLOCK NUMBER	B3443	RANGE	12 HOUR
TIME WELL SHUT IN	0800 HOUR	3-6-84	
TIME CLOCK STARTED	0926 HOUR	3-19-84	
DEAD WEIGHT ELEMENT ON SURFACE	894.2 PSIA	SHUT IN	LBS.
TIME ELEMENT REACHED BOTTOM	1052 HOUR	3-19-84	
DEAD WEIGHT ELEMENT ON BOTTOM	894.2 PSIA	SHUT IN	LBS.
ELEMENT SET AT	4390		FEET
TEMPERATURE	4390	FT.	106 °F.
716.2 PSIA	DEAD WEIGHT AT THE END OF	4 HOURS	0 MINUTES

[illegible]