NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
OCT 2
O. C
ARTES

Type Test: [XX] Initial FOUR POINT [ ] Annual [ ] Special — Test Date: 10-21-82

Company: DEPCO Inc. ✓	Connection: AIR NEW WELL		Unit:
Pool: PECOS SLOPE ~~U.D.~~ Abo	Formation: ABO		
Completion Date: 10-~~18~~-82	Total Depth: 4230	Plug Back T.D.: ~~4178~~ 4156	Elevation: 3821
Farm or Lease Name: ROSE FEDERAL			
Csg. Size: 4.500 / Wt.: 10.5 / d: 4.052 / Set At: 4226	Perforations: From ~~3787~~ 3673 To ~~3953~~ 3834		Well No.: 1
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: ~~3716~~ 3628	Perforations: From OPEN To ENDED		Unit: A / Sec.: 20 / Twp.: 5S / Rge.: 25E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE	Packer Set At: NONE		County: CHAVES
Producing Thru: TUBING	Reservoir Temp. °F: 112 3870	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2
State: NEW MEXICO			
L: 3870 / H: 3870	Gg: 0.650	% CO_2: 0.74	% N_2: 6.87
% H_2S: 0	Prover: 0	Meter Run: 2.0	Taps: FLANGE

FLOW DATA / TUBING DATA / B.H.P. DATA

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.	CHOKE	Duration of Flow
SI							935	77	1036		74.0
1.	2.03	X	1.250	315	2.0	84	901	78	1018	7.5/64	1 HR
2	2.03	X	1.250	320	7.0	89	878	78	998	10/64	1 HR
3	2.03	X	1.250	320	25.0	82	829	76	950	14/64	1 HR
4	2.03	X	1.250	325	47.5	76	767	76	894	19/64	1 HR
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	8.18	25.62	328.2	0.9777	1.2404	1.0242	260
2	8.18	48.29	333.2	0.9732	1.2404	1.0237	488
3	8.18	91.27	333.2	0.9795	1.2404	1.0249	929
4	8.18	126.75	338.2	0.9850	1.2404	1.0263	1300
5							

NO.	P_t	Temp. °R	T_d	Z
1	0.50	544	1.54	0.953
2	0.50	549	1.55	0.954
3	0.50	542	1.53	0.952
4	0.51	536	1.51	0.949
5				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas 0.650 XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 661 P.S.I.A. _____ P.S.I.A.
Critical Temperature 354 R _____ R

P_c 950.2 P_c^2 903.

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	1063	934	872	30
2	1023	916	839	63
3	928	873	762	140
4	823	823	677	225
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.0044$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.0341$

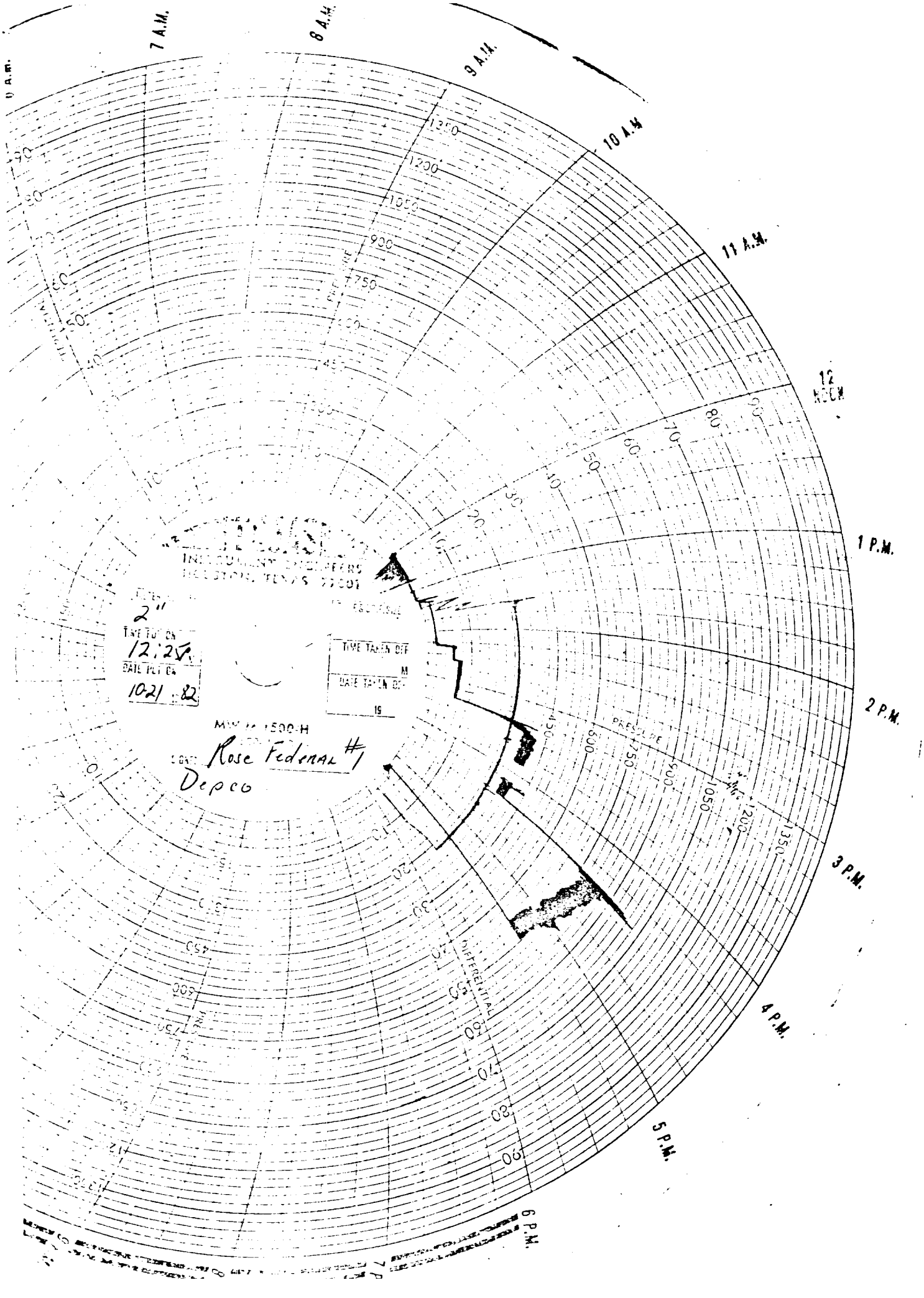
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3943$

Post FP-2
11-5-82
Temp + BH

Absolute Open Flow 3943 Mcfd @ 15.025 — Angle of Slope θ 51.3 — Slope, n 0.800

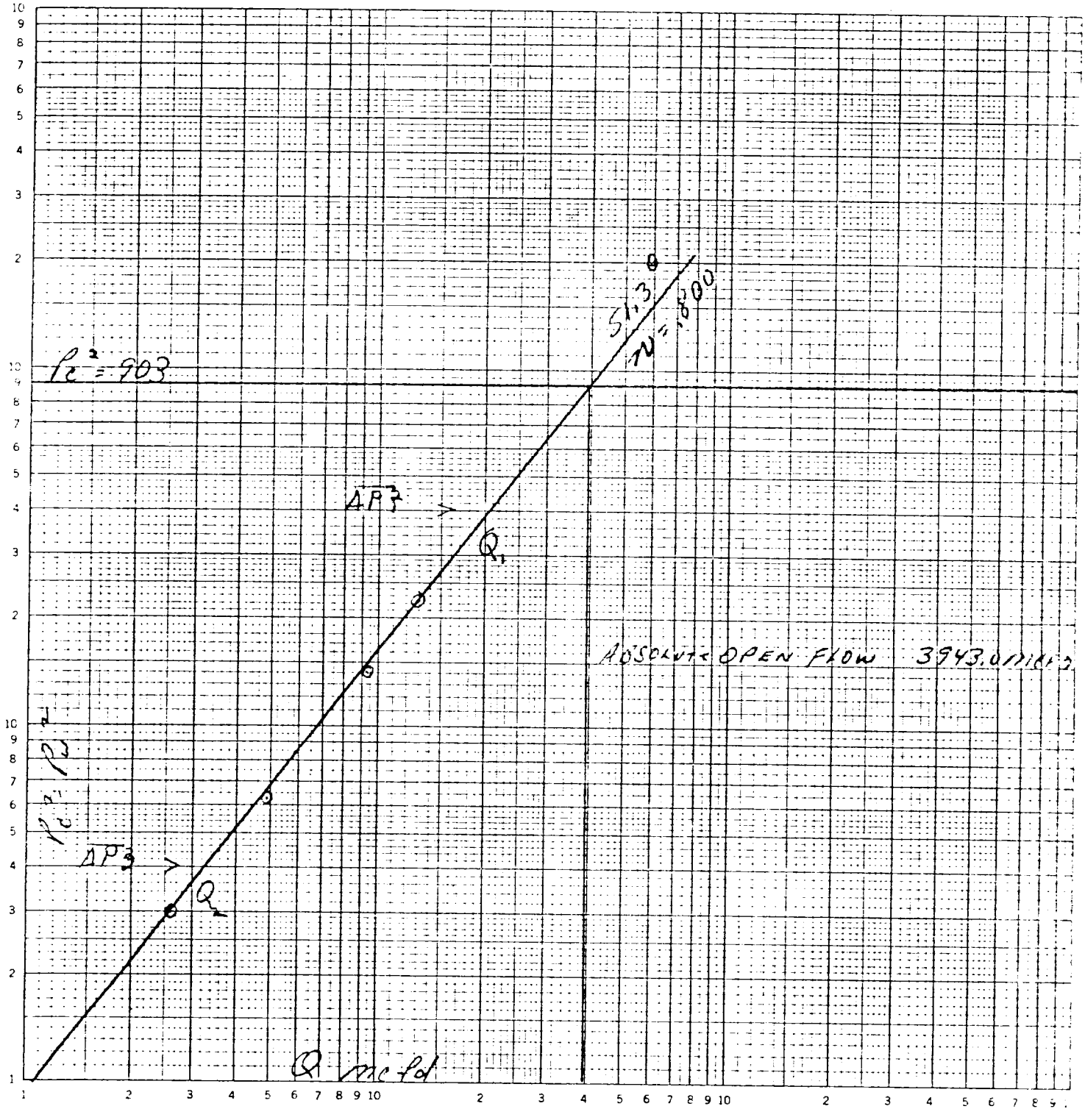
Remarks: BOTTOM HOLE PRESSURE MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	DON BENNETT	BENNETT-CATHEY	


7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
2"
12:25
10/21/82
Rose Federal #1
Depco
DIFFERENTIAL
PRESSURE

Rose Federal
Well No 1
Unit A, S 20, T 5S, R 25E
Chaves County

10-21-82



$\overline{\Delta P}^2_1$ $P_c^2 - P_w^2 = 400$

$\overline{\Delta P}^2_2$ $P_c^2 - P_w = 40$

$Q_1 = 2070.0$ MCFD

$Q_2 = 328.0$ MCFD

$\log Q_1 = 3.3159$

$\log Q_2 = 2.5155$

8000