

RECEIVED

Type Test: ☒ Initial 4 POINT ☐ Annual ☐ Special				Test Date: 2-14-83		FEB 18 1983	
Company: DEPCO INC. ✓				Connection: AIR NEW WELL		O. C. D.	
Pool: PECOS SLOPE U.D. / 11.1				Formation: ABO		Unit: ARTESIA, OFFICE	
Completion Date: 2-11-83		Total Depth: 4220		Plug Hole: 4205		Elevation: 3780	
Firm or Lease Name: ROSE FEDERAL COM		Well No. 12					
Produce Size: 4.500	Wt. 10.5	d 4.052	Set At 4219	Perforations: From 3705 To 4175		Unit Sec. Typ. Ayo. C 21 55 25E	
Produce Size: 2.375	Wt. 4.7	d 1.995	Set At 3630	Perforations: From 0 To 0		Unit Sec. Typ. Ayo. C 21 55 25E	
Type Well - Single - (Firedhead - G.O. or G.O. Multiple)				Packer Set At		County: CHAVES	
Producing Thru: TUBING				Reservoir Temp. °F: 105° 3970		Mean Annual Temp. °F: 60	
Baro. Press. - P _g : 13.2				State: NEW MEXICO			
L 3970	H 3970	G _g 0.657	% CO ₂ 0.66	% N ₂ 6.78	% H ₂ S 0	Prover 0	Meter Run 2.1 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. Hg	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							967	57	1126	
1	2.07 X 1.500			435	4.0	75	919	52	1077	13.5/64
2	2.07 X 1.500			440	7.0	62	890	50	1056	21/64
3	2.07 X 1.500			435	16.0	77	810	48	972	25/64
4	2.07 X 1.500			433	22.0	88	730	46	892	30/64
5										

RATE OF FLOW CALCULATIONS							
NO	Coefficient (24 Hour)	$\sqrt{P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor F _{sp}	Rate of Flow Q, Mcfd
1	12.76	42.34	448.2	0.9859	1.2337	1.0357	681
2	12.76	56.32	453.2	0.9981	1.2337	1.0402	920
3	12.76	84.68	448.2	0.9840	1.2337	1.0353	1358
4	12.76	99.08	446.2	0.9741	1.2337	1.0326	1569
5							

NO	P _g	Temp. °R	T _g	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	0.68	535	1.50	0.932		0.657		XXXXXX	661	357
2	0.69	522	1.46	0.924						
3	0.68	537	1.51	0.933						
4	0.68	548	1.54	0.938						
5										

NO	P ₁ ²	P _w ²	R _w ²	P ₁ ² - R _w ²
1	1189	982	964	87
2	1143	963	928	124
3	971	888	789	262
4	819	817	668	383
5				

(1) $\frac{P_g^2}{P_1^2 - R_w^2} = 2.7441$

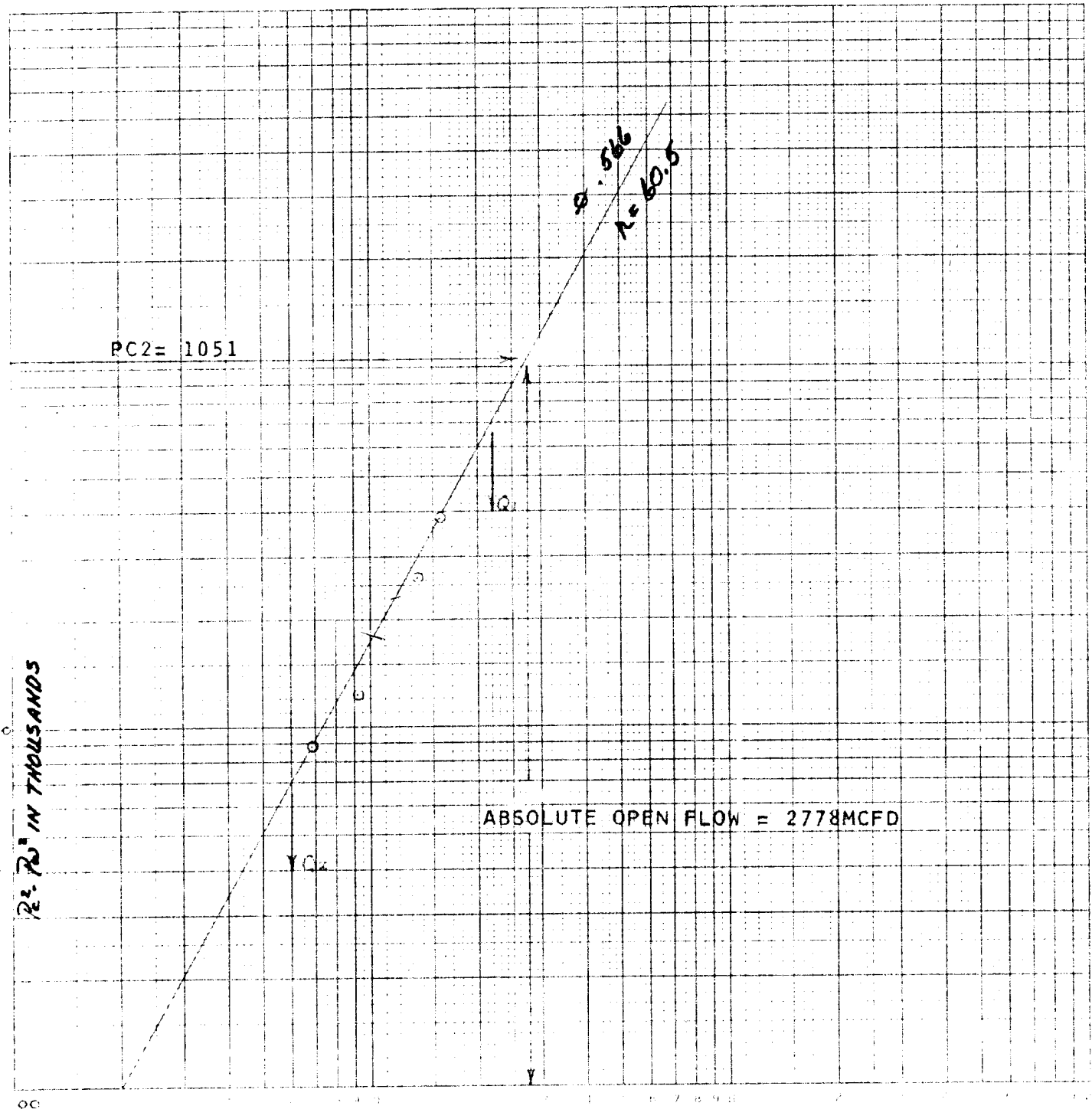
AOF = Q $\left[\frac{R_w^2}{P_1^2 - R_w^2} \right]^n = 2778$

(2) $\left[\frac{R_w^2}{P_1^2 - R_w^2} \right]^n = 1.7706$

Post ID-2
2-25-83
Bennett BR

Absolute Open Flow: 2778 Mcfd @ 15.025	Angle of Slope: 60.5	Slope, n: 0.566
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMARADA PRESSURE ELEMENTS.		
Approved By Commission:	Conducted By: DON BENNETT	Calculated By: BENNETT-CATHEY
Checked By:		

DEPCO INC.
ROSE FED. COM. #1
21 5S 25E
CHAVES COUNTY
NEW MEXICO
2 4 83



$\frac{\Delta P}{\Delta P}$ PC2-PW2 = 700
 $\frac{\Delta P}{\Delta P}$ PC2-PW2 = 70
Q1 = 2209
Q2 = 600

Q, MCFD

LOG Q1 = 3.3442
LOG Q2 = 2.7781

$\lambda = .5661$

AM

AMERICAN METER

CHART NO. 1 M 1500 H.
1500" X 100"

METER 2"

1.5 INCHES

CHART PUT ON

2-14-83

TAKEN OFF

LOCATION

Rice Federal Vess 12

REMARKS

Depth



SINGER

AMERICAN METER DIVISION

NOON

11

1

2

3

4

5

7

6 PM

(505) 748—3354 / Artesia, New Mexico 8210

COMPANY DEPCO WELL NAME ROSE FEDERAL #12
DATE OF TEST 2-14-83 FORMATION ABO PAGE 1 OF 1
COMPANY MAN DANNY HOCKETT

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

ELEMENT NUMBER	RPG3# 7201	RANGE	3200 LBS.
CLOCK NUMBER	1935	RANGE	12 HOUR
TIME WELL SHUT IN	2-11-83 1345	HOUR	
TIME CLOCK STARTED	2-14-83 1326	HOUR	
DEAD WEIGHT ELEMENT ON SURFACE	980.2 PSIA	SHUT IN	LBS.
TIME ELEMENT REACHED BOTTOM	1442	2-14-83	
DEAD WEIGHT ELEMENT ON BOTTOM	980.2 PSIA	SHUT IN	LBS.
ELEMENT SET AT	3940		FEET.
TEMPERATURE	3940	FT.	105 °F.
DEAD WEIGHT AT THE END OF	N/A	HOURS	MINUTES.

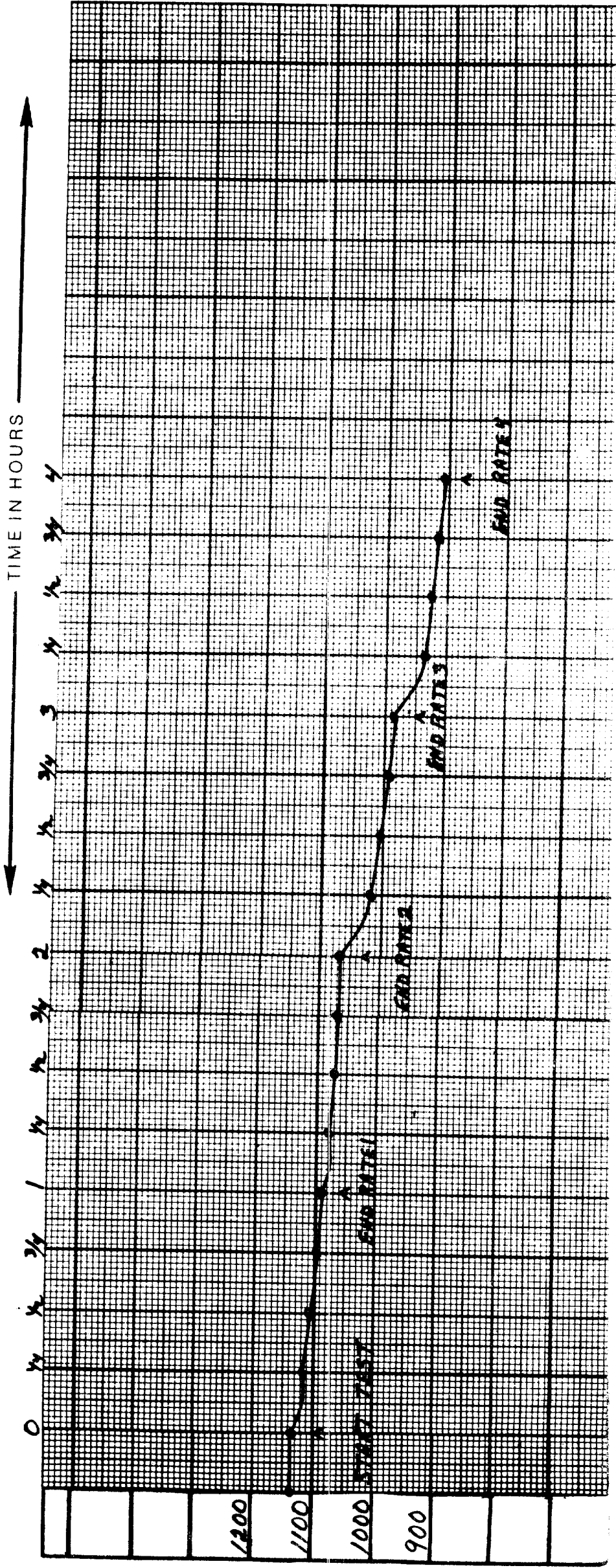
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TEST DATE: 2-14-83
TEST DEPTH: 3940 FEET
ELEMENT NO.: RPG3# 7201
RANGE: 3200 LBS.
CLOCKS: 1935
RANGE: 12 HOUR
OPERATOR: BOB HERREN

Note: See Attached Sheet for Tabulation of Pressure
And Time.

4 POINT BACK PRESSURE TEST

DANNY HOCKETT	
DEPCO	
ROSE FEDERAL NO. 12	
BENNETT-CATHEY WIRE LINE SERVICE	
Box 787	Artesia, N.M. 88210
Drawn By	Scale: As Shown
505/746-3281	



BENNET - CATHEY
(505) 748-3354 / Artesia, New Mexico 8210
SUBSURFACE PRESSURE MEASUREMENTS

COMPANY DEPCO INC. WELL NAME ROSE FEDERAL WELL NO. 12
DATE OF TEST 2-11-83 TO 2-14-83 FORMATION ABO PAGE 1 OF 2
COMPANY MAN DANNY HOCKETT

72 HOUR BUILD-UP TEST

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

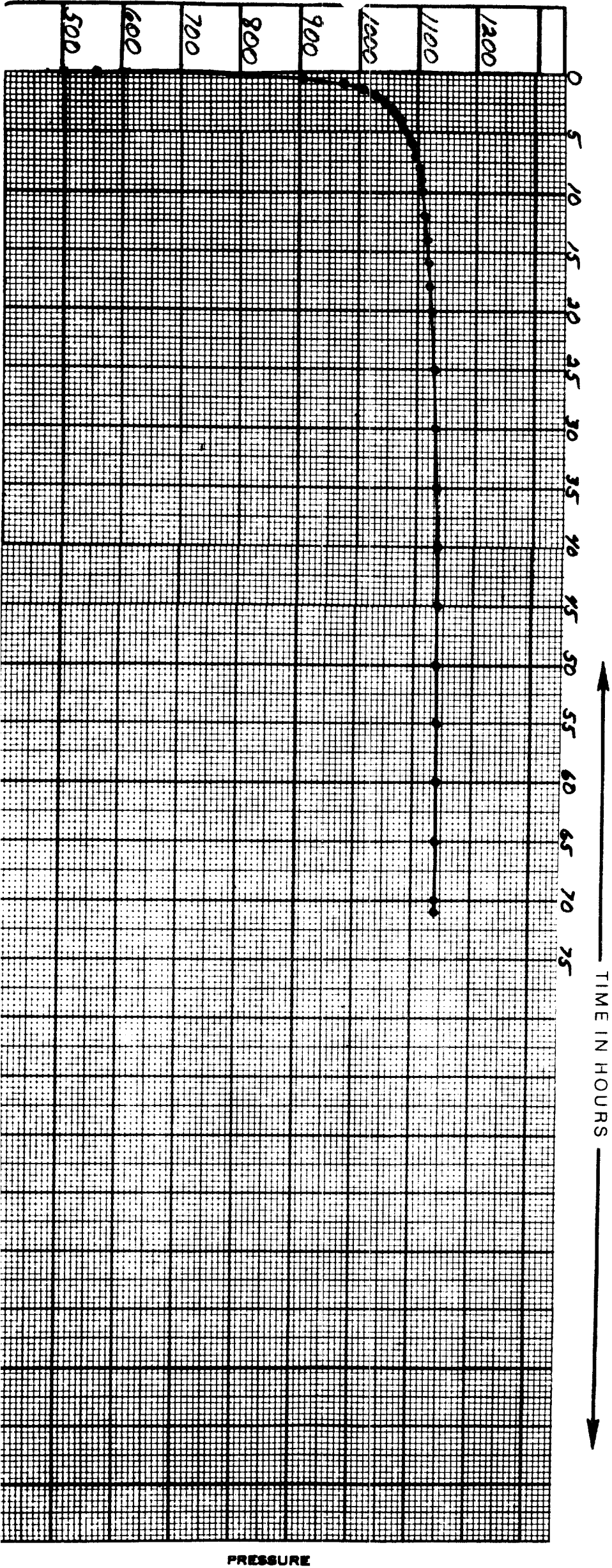
ELEMENT NUMBER RPG3# 7201 RANGE 3,200 LBS.
CLOCK NUMBER G 2522 RANGE 72 HRS.
TIME WELL SHUT IN 1345 2-11-83
TIME CLOCK STARTED 1258 2-11-83
DEAD WEIGHT ELEMENT ON SURFACE 813.2 PSIA SHUT IN LBS.
TIME ELEMENT REACHED BOTTOM 1321 2-11-83
DEAD WEIGHT ELEMENT ON BOTTOM 142.2 PSIA SHUT IN LBS.
ELEMENT SET AT 3940 FEET.
TEMPERATURE 3940 FT. 105 °F.
PSIA 980.2 DEAD WEIGHT AT THE END OF 74 HOURS 11 MINUTES.

DATE	HOUR	TIME	DEFLECTION in/inches	CALCULATED PRESSURE psig	CORRECTION F ± PC psig	CORRECTED PRESSURE psia	PRESSURE AT MID-POINT OF PERFORATIONS psia
2-11-83	0	1345		493	13.2	506.2	556.2
	1/4	1400		763	13.2	776.2	826.2
	1/2	1415		841	13.2	854.2	904.2
	3/4	1430		886	13.2	899.2	949.2
	1	1445		914	13.2	927.2	977.2
	1 1/4	1500		931	13.2	944.2	994.2
	1 1/2	1515		946	13.2	959.2	1009.2
	1 3/4	1530		957	13.2	970.2	1120.2
	2	1545		967	13.2	980.2	1030.2
	2 1/4	1600		975	13.2	988.2	1038.2
	2 1/2	1615		980	13.2	993.2	1043.2
	2 3/4	1630		986	13.2	999.2	1049.2
	3	1645		993	13.2	1006.2	1056.2
	3 1/2	1715		1000	13.2	1013.2	1063.2
	4	1745		1008	13.2	1021.2	1071.2
	4 1/2	1815		1012	13.2	1024.2	1074.2
	5	1845		1018	13.2	1031.2	1081.2
	5 1/2	1915		1023	13.2	1036.2	1086.2
	6	1945		1027	13.2	1040.2	1090.2
	7	2045		1033	13.2	1046.2	1096.2
	8	2145		1038	13.2	1051.2	1101.2
	9	2245		1042	13.2	1055.2	1105.2
	10	2345		1045	13.2	1058.2	1108.2
2-12-83	12	0145		1050	13.2	1063.2	1113.2
	14	0345		1055	13.2	1068.2	1118.2
	16	0545		1057	13.2	1070.2	1120.2
	18	0745		1059	13.2	1072.2	1122.2
	20	0945		1062	13.2	1075.2	1125.2
	25	1445		1067	13.2	1080.2	1130.2
2-13-83	30	1945		1069	13.2	1082.2	1132.2
	35	2445		1072	13.2	1085.2	1135.2
	40	0545		1074	13.2	1087.2	1137.2
	45	1045		1075	13.2	1088.2	1138.2
	50	1545		1075	13.2	1088.2	1138.2
	55	2045		1076	13.2	1089.2	1139.2
2-14-83	60	0145		1076	13.2	1089.2	1139.2
	65	0645		1076	13.2	1089.2	1139.2
	71	1245		1076	13.2	1089.2	1139.2

TEST DATE: 2-11-83 TO 2-14-83
TEST DEPTH: 3940 FEET
ELEMENT NO.: RPG3# 7201
RANGE: 3200 LBS.
CLOCKS: G 2522
RANGE: 72 HOUR
OPERATOR: BOB HERREN
Note: See Attached Sheet for Tabulation of Pressure
And Time.

72 HOUR BUILD UP TEST

DANNY HOCKETT	
DEPCO	
ROSE FEDERAL WELL NO. 12	
BENNETT-CATHEY WIRE LINE SERVICE Box 787 Artesia, N.M. 88210 505/746-3281	
Drawn By	Scale: As Shown





BENTON PORTER WIRE LINE SERVICE

P. O. BOX 787

ARTESIA, NEW MEXICO 88210

Phone (505) 746-3281



BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR DEPCO INC.
LEASE ROSE FEDERAL
WELL NO. 12
POOL FORMATION ABO
DATE 2-14-83 TIME 1442 HRS.
CO. MAN DANNY HOCKETT
STATUS SHUT IN TEST DEPTH 3,940 FEET
TIME S.I. 1345 HR LAST TEST DATE FIRST TEST
2-11-83 BHP LAST TEST
TUB. PRES. 980.2 BHP CHANGE
CAS. PRES. FLUID TOP
DATUM PLANE WATER TOP
DATUM PSIA 1139.2 RUN BY BOB HERREN
TEMP 105 CLOCK #
PRESSURE RANGE 3,200 LBS.
ELEMENT NO. RPG3# 7201

DEPTH	PRESSURE	GRADIENT
0	980.2	
1,000	1011.2	3.1
2,000	1040.2	2.9
3,000	1069.2	2.9
3,480	1083.2	2.9
3,630	1089.2	4.0
3,940	1139.2	16.1

TIME B.H.P. MEASURED 1442 HRS.
LENGTH OF TIME WELL SHUT IN 74 HRS.
11 MIN.

