

SA A FE, NEW MEXICO 87501

APPLICATION FOR WELLHEAD
PRICE CEILING CATEGORY DETERMINATION

1. FOR DIVISION USE ONLY:

DATE COMPLETE APPLICATION FILED _____

DATE DETERMINATION MADE _____

WAS APPLICATION CONTESTED? YES _____ NO _____

NAME(S) OF INTERVENOR(S), IF ANY: _____

AUG 15 1983

O. C. D.
ARTEGIA, OFFICE

5A. Indicate Type of Lease	
STATE ☐	FEE ☒
5. State Oil & Gas Lease No.	
7. Unit Agreement Name	
8. Farm or Lease Name Rose Federal Com	
9. Well No. 13	
10. Field and Pool, or Wildcat Pecos Slopes Abo	
12. County Chaves	

2. Name of Operator

DEPCO, Inc. ✓

3. Address of Operator

1000 Petroleum Building, 110 16th Street, Denver, CO 80202

4. Location of Well

UNIT LETTER K LOCATED 1980 FEET FROM THE South LINE

AND 1980 FEET FROM THE West LINE OF SEC. 21 TWP. 5S RGE. 25E T14N R10E

11. Name and Address of Purchaser(s)

Transwestern Pipeline Company, P. O. Box 2521, Houston, TX 77001

WELL CATEGORY INFORMATION

Check appropriate box for category sought and information submitted.

1. Category(ies) Sought (By NGPA Section No.) 107(c)(5)

2. All Applications must contain:

- ☒ a. C-101 APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK
- ☒ b. C-105 WELL COMPLETION OR RECOMPLETION REPORT
- ☐ c. DIRECTIONAL DRILLING SURVEY, IF REQUIRED UNDER RULE 111
- ☒ d. AFFIDAVITS OF MAILING OR DELIVERY

3. In addition to the above, all applications must contain the items required by the applicable rule of the Division's "Special Rules for Applications For Wellhead Price Ceiling Category Determinations" as follows:

- A. NEW NATURAL GAS UNDER SEC. 102(c)(1)(B) (using 2.5 Mile or 1000 Feet Deeper Test)
 - ☐ All items required by Rule 14(1) and/or Rule 14(2)
- B. NEW NATURAL GAS UNDER SEC. 102(c)(1)(C) (new onshore reservoir)
 - ☐ All items required by Rule 15
- C. NEW ONSHORE PRODUCTION WELL
 - ☐ All items required by Rule 16A or Rule 16B
- D. DEEP, HIGH-COST NATURAL GAS and TIGHT FORMATION NATURAL GAS
 - ☒ All items required by Rule 17(1) or Rule 17(2)
- E. STRIPPER WELL NATURAL GAS
 - ☐ All items required by Rule 18

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED
HEREIN IS TRUE AND COMPLETE TO THE BEST OF MY
KNOWLEDGE AND BELIEF.

Steven M. Reed

NAME OF APPLICANT (Type or Print)

SIGNATURE OF APPLICANT

Title Manager - Natural Gas Department

Date August 10, 1983

FOR DIVISION USE ONLY

- ☐ Approved
- ☐ Disapproved

The information contained herein includes all
of the information required to be filed by the
applicant under Subpart 8 of Part 274 of the
FERC regulations.

EXAMINER

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Revised 9-1-83

c/sf
File

Type Test ☒ Initial 4-POINT ☐ Annual ☐ Special				Test Date 7-15-83		RECEIVED	
Company DEPCO INC.				Connection AIR NEW WELL		JUL 21 1983	
Pool PECOS SLOPE <i>HD Abo</i>				Formation ABO		Unit O. C. D.	
Completion Date 7-12-83		Total Depth 4260		Plug Hole I. 4140		Elevation 3795 GL 3816	
Casing Size 4.500		Casing Weight 10.5		Casing Depth 4140		Perforations: From 3721 To 3889	
Tubing Size 2.375		Tubing Weight 4.7		Tubing Depth 1,995		Perforations: From 0 To 0	
Type Well - Single - Freedom - G.O. or G.O. Multiple SINGLE				Packer Set At 0		Form or i. (ARTEZIA OFFICE) ROSE FEDERAL COM.	
Producing Thru TUBING		Reservoir Temp. °F 109 3627		Mean Annual Temp. °F 60.0		Base Press. - P _g 13.2	
L 3805		H 3627		Q _g 0.731		Mater Run 2.1	
CO ₂ 0.34		N ₂ 5.82		H ₂ S 0		Prove 0	
Tape FLANGE							
FLOW DATA				TUBING DATA		B.H.P. DATA	
NO.	Prove Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. Hg	Temp. °F	Press. p.s.i.g.
SI							
1.	2.07 X 1.250		480	6.0	108	914	87
2.	2.07 X 1.250		480	13.5	92	889	85
3.	2.07 X 1.250		480	29.0	80	850	83
4.	2.07 X 1.250		480	56.0	72	784	83
5.							
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{P_{wf} - P_{ch}}$	Pressure P _a	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compres. Factor, F _{sp}	Rate of Flow Q, Mscf/d
1	8.12	54.40	493.2	0.9568	1.1696	1.0334	511.
2	8.12	81.60	493.2	0.9706	1.1696	1.0372	780.
3	8.12	119.59	493.2	0.9813	1.1696	1.0408	1160.
4	8.12	166.19	493.2	0.9887	1.1696	1.0433	1628.
5							
NO.	R	Temp. °R	T	Z	Gas Liquid Hydrocarbon Ratio 0 Mol/bbl.		
1	0.71	568	1.54	0.936	A.P.I. Gravity of Liquid Hydrocarbons 0 Deg.		
2	0.71	552	1.50	0.930	Specific Gravity Separator Gas 0.731		
3	0.71	540	1.47	0.923	Specific Gravity Flowing Fluid XXXXX 0.731		
4	0.71	532	1.45	0.919	Critical Pressure 697. P.S.I.A.		
5					Critical Temperature 368. °R		
P ₁ 984.9 P ₂ 970.					(1) $\frac{P_0^2}{P_1^2 - P_0^2} = 3.8779$		
NO.	P ₁	P ₂	R ₁	R ₂	(2) $\left[\frac{R_1^2}{R_1^2 - R_2^2} \right]^n = 2.7495$		
1	1135.	957.	917.	53.	AOF = Q $\left[\frac{R_1^2}{R_1^2 - R_2^2} \right]^n = 4476.$		
2	1084.	936.	877.	93.			
3	1004.	902.	813.	157.			
4	888.	848.	720.	250.			
5							
Absolute Open Flow 4476. Mscf @ 15.025					Angle of Slope 53.3		Slope, n 0.746
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.							
Approved By Commission		Conducted By RICHARD TOWNLEY		Calculated By BENNETT & CATHEY		Checked By	

Post ID-2
7-22-83
Comp + BK

4-POINT BACK PRESSURE TEST CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

797
PSIA

Bryan Printers & Stationers, Inc.

TEST DATE: 7-15-83

TEST DEPTH: 3805 FEET

ELEMENT NO.: RPG3#22749

RANGE: 5051 LBS.

CLOCKS: B-3443

RANGE: 12 HOUR

OPERATOR: RICHARD TOWNLEY

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

DANNY HOKETT

DEPCO, INC.

ROSE FEDERAL #13

BENNETT-CATHEY WIRE LINE SERVICE
Box 787
Artesia, N.M. 88210

505/746-3281

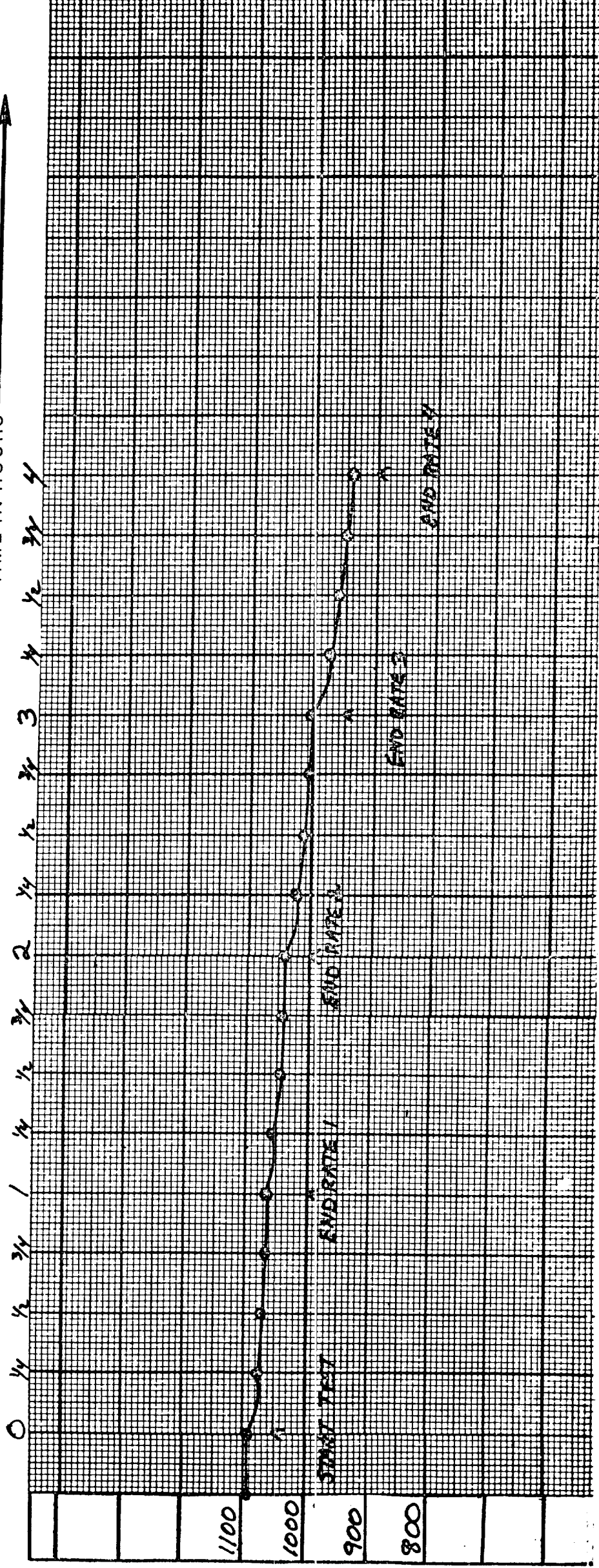
Drawn By

Scale: As Shown

BENNETT-
CATHEY
WELL SERVICES

4 POINT BACK PRESSURE TEST

TIME IN HOURS

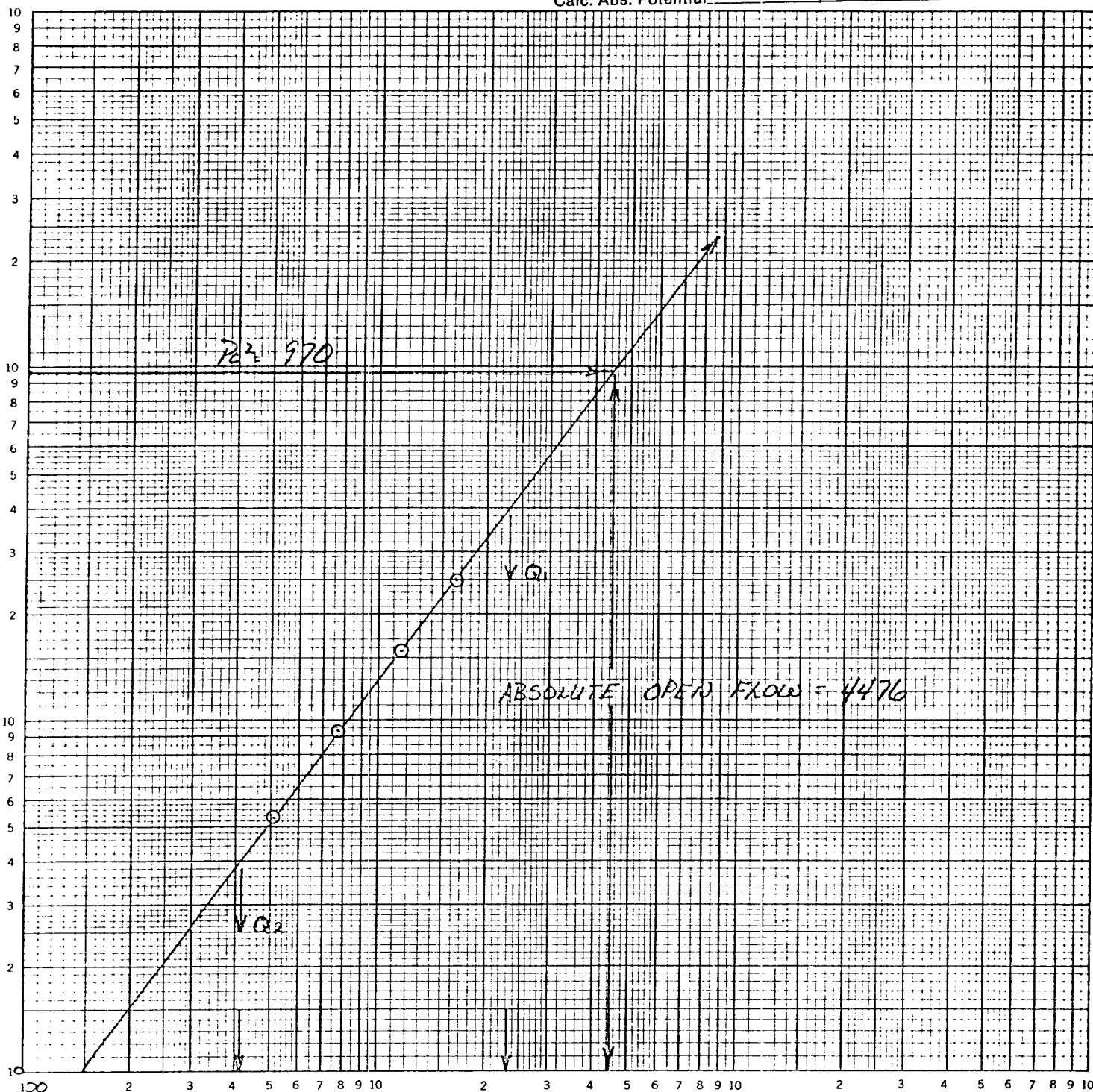


BACK PRESSURE CURVE

Operator DEPCO Lease ROSE FEDERAL Well No. 13
 County CHAVES Field PECOS SLOPE UD Location 21 55 25E
 Date of Test 7-15-83 Slope "n" 0.746 Angle of Slope 53.3

Calc. Abs. Potential 4476 MCF/D

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



$$\Delta P_1: P_c^2 - P_w^2 = 400$$

$$\Delta P_2: P_c^2 - P_w^2 = 40$$

$$Q_1 = 2312$$

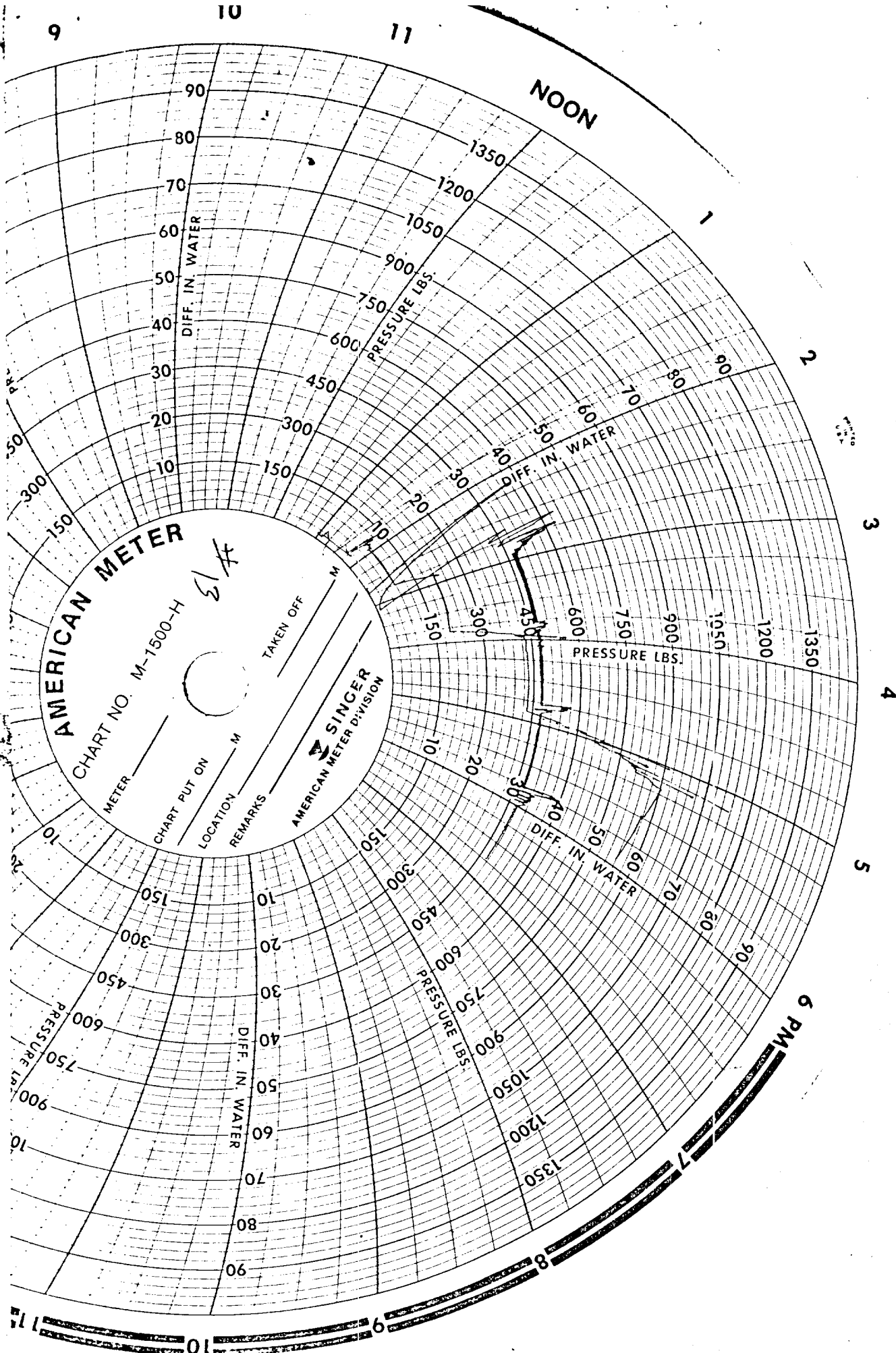
$$Q_2 = 415$$

Q in MCF/Day

$$\log Q_1 = 3.3640$$

$$\log Q_2 = 2.6180$$

$$n = 0.746$$



AMERICAN METER

CHART NO. M-1500-H

METER

CHART PUT ON

LOCATION

REMARKS

TAKEN OFF

SINGER
AMERICAN METER DIVISION

NOON

6 PM

7

8

9

10

9

10

11

3

4

5

BENNET - CATHEY

305) 748-3354 / Artesia, New Mexico 210

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY DEPCO INC. WELL NAME ROSE FEDERAL #13
 DATE OF TEST 7-12-83 TO 7-15-83 FORMATION _____ PAGE 1 OF 1
 COMPANY MAN DANNY HOKETT

72 HOUR BUILD UP TEST

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

ELEMENT NUMBER RPG3#23060 RANGE 5225 LBS.
 CLOCK NUMBER 28658 RANGE 72 HOUR
 TIME WELL SHUT IN 1000 HOUR 7-12-83
 TIME CLOCK STARTED 0920 HOUR 7-12-83
 DEAD WEIGHT ELEMENT ON SURFACE 73.2 PSIA FLOWING LBS.
 TIME ELEMENT REACHED BOTTOM 0953 HOUR 7-12-83
 DEAD WEIGHT ELEMENT ON BOTTOM 73.2 PSIA FLOWING LBS.
 ELEMENT SET AT 3805 FEET.
 978 TEMPERATURE 3805 FT. 100 °F.
 PSIA DEAD WEIGHT AT THE END OF 74 HOURS 47 MINUTES.

DATE	HOUR	TIME	DEFLECTION in/inches	CALCULATED PRESSURE psig	CORRECTION P ± PC: psig	CORRECTED PRESSURE psia	PRESSURE AT MID-POINT OF PERFORATIONS psia
7-12-83	0	1000		665	13.2		678.2
	1/4	1015		820	13.2		833.2
	1/2	1030		877	13.2		890.2
	3/4	1045		909	13.2		922.2
	1	1100		922	13.2		935.2
	1 1/4	1115		935	13.2		948.2
	1 1/2	1130		948	13.2		961.2
	1 3/4	1145		958	13.2		971.2
	2	1200		963	13.2		974.2
	2 1/4	1215		968	13.2		981.2
	2 1/2	1230		974	13.2		987.2
	2 3/4	1245		979	13.2		992.2
	3	1300		981	13.2		994.2
	3 1/2	1330		989	13.2		1002.2
	4	1400		994	13.2		1007.2
	4 1/2	1430		999	13.2		1012.2
	5	1500		1003	13.2		1016.2
	6	1600		1010	13.2		1023.2
	7	1700		1015	13.2		1028.2
	8	1800		1020	13.2		1033.2
	9	1900		1024	13.2		1037.2
	10	2000		1027	13.2		1040.2
	12	2200		1032	13.2		1045.2
	14	2400		1036	13.2		1049.2
7-13-83	16	0200		1041	13.2		1054.2
	18	0400		1044	13.2		1057.2
	20	0600		1047	13.2		1060.2
	25	1100		1053	13.2		1066.2
	30	1600		1058	13.2		1071.2
	35	2100		1063	13.2		1076.2
7-14-83	40	0200		1067	13.2		1080.2
	45	0700		1071	13.2		1084.2
	50	1200		1074	13.2		1087.2
	55	1700		1076	13.2		1089.2
	60	2200		1078	13.2		1091.2
7-15-83	65	0300		1080	13.2		1093.2
	70	0800		1082	13.2		1095.2
	72	1000		1083	13.2		1096.2

TEST DATE: 7-12-83 TO 7-15-83
TEST DEPTH: 3805 FEET

ELEMENT NO.: RPG3#23060

RANGE: 5225 LBS.

CLOCKS: 28658

RANGE: 72 HOUR

OPERATOR: JOHN IVY

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

72 HOUR BUILD UP TEST

DANNY HOKETT

DEPCO INC

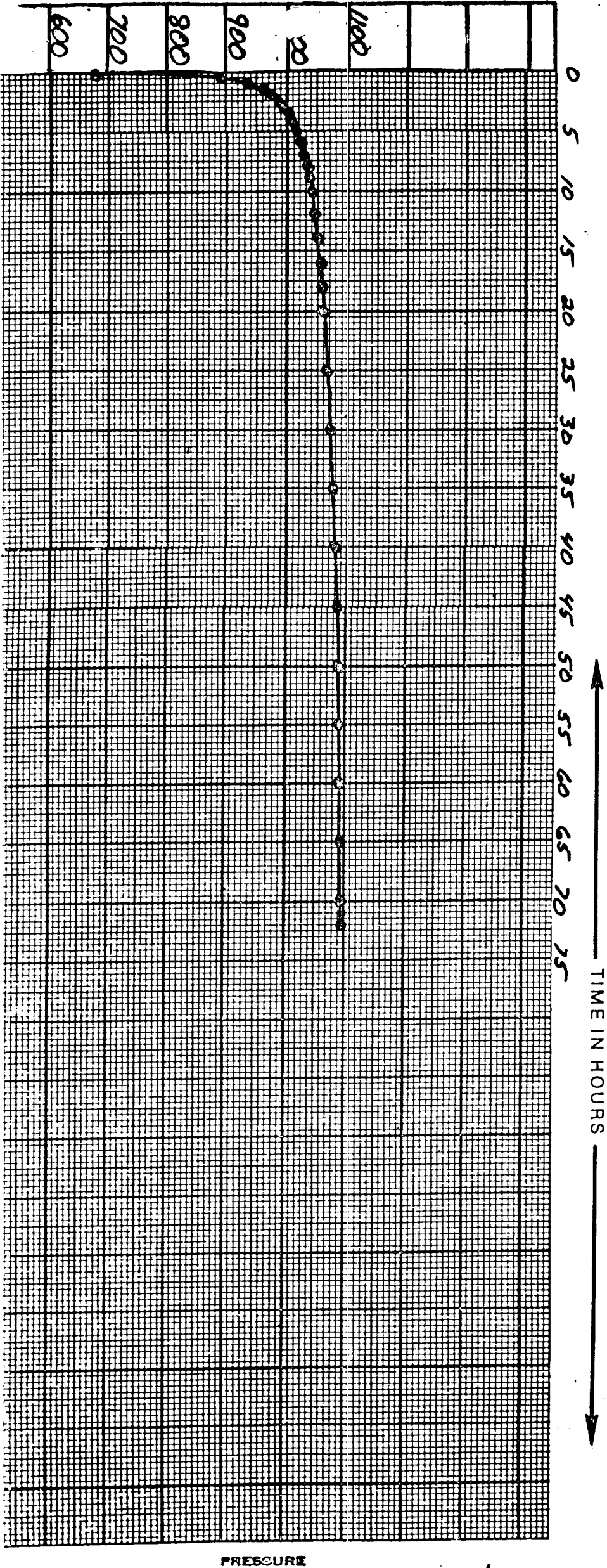
ROSE FEDERAL #13

BENNETT-CATHEY WIRE LINE SERVICE
Box 787
Artesia, N.M. 88210
505/746-3281

Drawn By

Scale: As Shown

BENNETT-
CATHEY
WELL SERVICES





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. #13
POOL FORMATION
DATE 7-15-83 TIME 1247 HOUR
CO. MAN DANNY HOKETT
STATUS SHUT IN TEST DEPTH 3805 FEET
TIME S.I. 1000HR LAST TEST DATE 1ST TEST
7-12-83 BHP LAST TEST
TUB. PRES. 978.2# BHP CHANGE
CAS. PRES. FLUID TOP
DATUM PLANE WATER TOP
DATUM PSIA 1096.2# RUN BY JOHN IVY
TEMP 109° CLOCK # B-3443
PRESSURE RANGE 5225 LBS.
ELEMENT NO. RPG3#23060

DEPTH	PRESSURE	GRADIENT
0	978.2	
1000	1013.2	3.5
2000	1041.2	2.8
3000	1070.2	2.9
3655	1088.2	2.8
3805	1096.2	5.3

TIME B.H.P. MEASURED 1247 HOUR.
LENGTH OF TIME WELL SHUT IN 74HR
47MIN.

