

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

Form C-122
Revised 9-1-63

RECEIVED BY
AUG 15 1984

CLSF
File

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special						Test Date 8-6-84 ARTESIA OFFICE			
Company SANTA FE ENERGY				Connection TO AIR					
Pool SOUTH CARLSBAD				Formation STRAWN				Unit 1	
Completion Date 9-3-84		Total Depth 12032		Plug Back 11465		Elevation 3108		Farm or Lease Name WEEMS	
Case Size 5.500	Wt. 20.0	d 4.778	Set At 12032	Perforations: From 10510 To 10556		Well No. #1			
Trg. Size 2.375	Wt. 4.7	d 1.995	Set At 10427	Perforations: From 0 To 0		Unit Sec. Twp. Hys. C 27 22S 27E			
Type Well - Single - Drivenhead - G.G. or G.O. Multiple SINGLE						Factor Set At 10434		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 220.0 10533		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 10533	H 10533	Cg 0.630	% CO ₂ 0.24	% N ₂ 0.63	% H ₂ S 0	Provar 0	Motor Run 4.0	Type 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. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	CHOKE	
51							4060.	80	5287.		66.0
1.	4.03 X 2.000			630.	7.0	92	4040.	84	5270.	8/64	1.0
2.	4.03 X 2.000			645.	18.5	75	3975.	83	5255.	13/64	1.0
3.	4.03 X 2.000			660.	44.0	60	3875.	84	5217.	20/64	1.0
4.	4.03 X 2.000			665.	95.0	43	3650.	84	5144.	26/64	1.0
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	19.81	67.10	643.2	0.9706	1.2599	1.0495	1706.
2	19.81	110.35	658.2	0.9859	1.2599	1.0575	2872.
3	19.81	172.11	673.2	1.0000	1.2599	1.0656	4578.
4	19.81	253.83	678.2	1.0168	1.2599	1.0757	6930.
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.96	552.	1.51	0.908	34.6	
2	0.98	535.	1.46	0.894	60.0	
3	1.00	520.	1.42	0.881		
4	1.01	503.	1.38	0.864		
5						

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 16.6751$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 5.3385$
1	27912.	4106.	16863.	123.		
2	27754.	4093.	16755.	231.		
3	27355.	4060.	16483.	503.		
4	26597.	3996.	15967.	1019.		
5						

Absolute Open Flow		36996.	Mcf/d @ 15.025	Angle of Slope °	59.2	Slope, n	0.595
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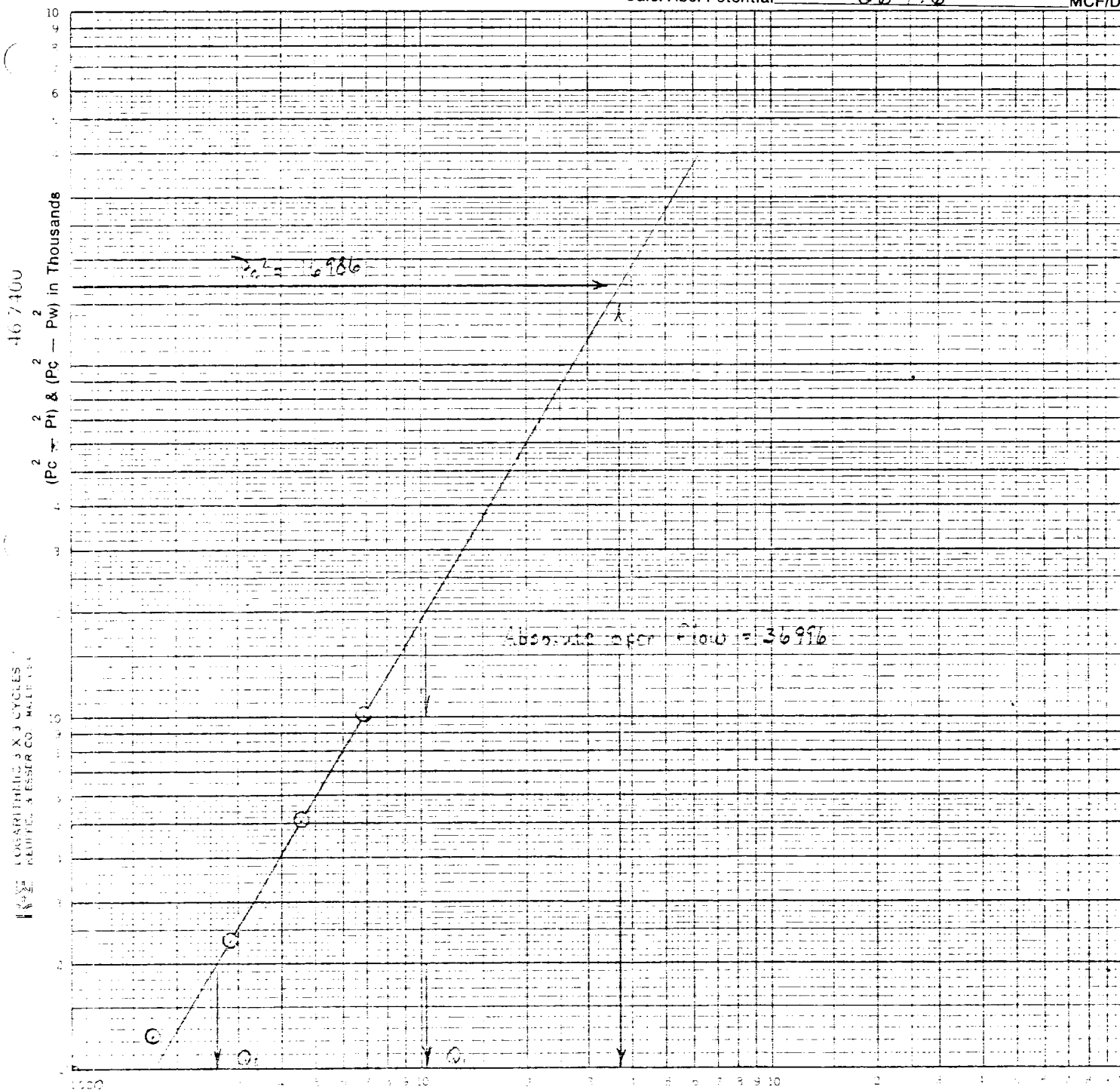
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission	Conducted By RICHARD TOWNLEY	Calculated By BENNETT & CATHEY INC.	Checked By
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BENNETT & CATHEY PRODUCTION TESTING BACK PRESSURE CURVE

Operator Santa Fe Energy Lease Worms Well No. 1
 County Eddy Field South California Location 7 22S 27E
 Date of Test 8-6-84 Slope "n" .595 Angle of Slope 59.2

Calc. Abs. Potential 36796 MCF/D



$$\frac{\Delta P_1^2}{\Delta P_2^2} \frac{P_c^2 - P_w^2}{P_c^2 - P_w^2} = \frac{Q_1^2}{Q_2^2}$$

$$\frac{\Delta P_1^2}{\Delta P_2^2} \frac{P_c^2 - P_w^2}{P_c^2 - P_w^2} = \frac{Q_1^2}{Q_2^2}$$

$$Q_1 = \underline{100}$$

$$Q_2 = \underline{200}$$

Q in MCF/Day

$$\text{LOG } Q_1 = \underline{2.0133}$$

$$\text{LOG } Q_2 = \underline{2.4123}$$

$$n = \underline{0.595}$$

FIELD DATA SHEET

Type Test: FOUR POINT ☒ Initial ☐ Annual ☐ Special		Test Date: 8-6-84		Lease No. or Serial No.	
Company: SANTA FE ENERGY		Connection: TO AIR		Allottee	
Field: SOUTH CARLSBAD		Reservoir: STRAWN		Location: 4 MILES S. CARLSBAD	
Completion Date: 8-3-84		Total Depth: 12302		Plug Back TD: 11465	
		Elevation: 3108		Farm or Lease Name: WEEMS	
Csg. Size: 5.5	Wt. 17	d 4.892	Set At: 12032	Perforations: From 10510	To 10556
1" g. Size: 2.375	Wt. 4.7	d 1.995	Set At: 10427	Perforations: From OPEN	To ENDED
Type Completion (Describe): SINGLE			Packer Set At: 10434		Well No.: 1
Producing Thru: TUBING		Reservoir Temp. F: 60.0		Baro. Press. - P: 13.2	
DATE: 10533		H: 10533		State: NEW MEXICO	
G _g		% CO ₂		% N ₂	
Prover: Ø		Meter Run: 4.026		Taps: FLG	

DATE	ELAP. TIME	WELLHEAD WORKING PRESSURE			METER OR PROVER				REMARKS		
		Thg. Psig	Csg. Psig	Temp. F	Pressure Psig	Diff.	Temp. F	Orifice	(Include liquid production data: Type - API Gravity - Amount)		
	SIP	4060									
		WARM UP PRODUCTION TEST UNIT								START GAUGE 3'11"	2'11"
									124	113	
1055	START								START 11BBLs OIL	113 BBLs H2O	
1110	0.250	4050			630	7.0	90	2.000	1628 MCFD	8/64	
1125	0.500	4040			630	7.0	96	"	1620 MCFD	8/64	
1140	0.750	4040			630	7.0	92	"	1626 MCFD	8/64	
1155	1.000	4040			630	7.0	92	"	1626 MCFD	8/64	
									FLUID P/H 0 BBL OIL 0 BBL H2O		
									TOTAL FLUID 0 BBL OIL 0 BBL H2O		
1210	1.250	3975			645	18.5	75	2.000	2715 MCFD	13/64	
1225	1.500	3975			645	18.0	75	"	2678 MCFD	13/64	
1240	1.750	3975			645	20.0	74	"	2826 MCFD	13/64	
1255	2.000	3975			645	18.5	75	"	2678 MCFD		
									FLUID P/H 6 BBL OIL 0 BBL H2O		
									TOTAL FLUID 6 BBL OIL 0 BBL H2O		
1310	2.250	3875			660	44.0	62	2.000	4288 MCFD	20/64	
1325	2.500	3880			660	42.0	60	"	4197 MCFD	20/64	
1340	2.750	3875			660	44.0	60	"	4296 MCFD	20/64	
1355	3.000	3875			660	44.0	60	"	4296 MCFD	20/64	
									FLUID P/H 4 BBL OIL 0 BBL H2O		
									TOTAL FLUID 10 BBL OIL 0 BBL H2O		
1410	3.250	3675			665	89.0	46	2.000	6218 MCFD	26/64	
1425	3.500	3650			665	94.0	45	"	6397 MCFD	26/64	
1440	3.750	3650			665	95.0	44	"	6437 MCFD	26/64	
1455	4.000	3628			665	97.5	43	"	6528 MCFD	26/64	
									FLUID P/H 9.5 BBL OIL 0 BBL H2O		
									TOTAL FLUID 19.5 BBL OIL 0 BBL H2O		
1510	4.250	3980			650	21.0	72	2.000	2912 MCFD	11/64	
1525	4.500	3985			650	20.0	73	"	2839 MCFD	11/64	
1540	4.750	3985			650	20.0	73	"	2839 MCFD	11/64	
1555	5.000	3985			650	20.0	73	"	2839 MCFD	11/64	
									FLUID P/H 2.5 BBL OIL 0 BBL H2O		
									TOTAL FLUID 22 BBL OIL 0 BBL H2O		
1610	5.250	3985			650	20.0	74	2.000	2837 MCFD	11/64	
1625	5.500	3985			650	20.0	74	"	2837 MCFD	11/64	
1630	5.750	SHUT WELL IN							MCFD		
	6.000								MCFD		

AM

4

7

8

9

10

11

NOON

1

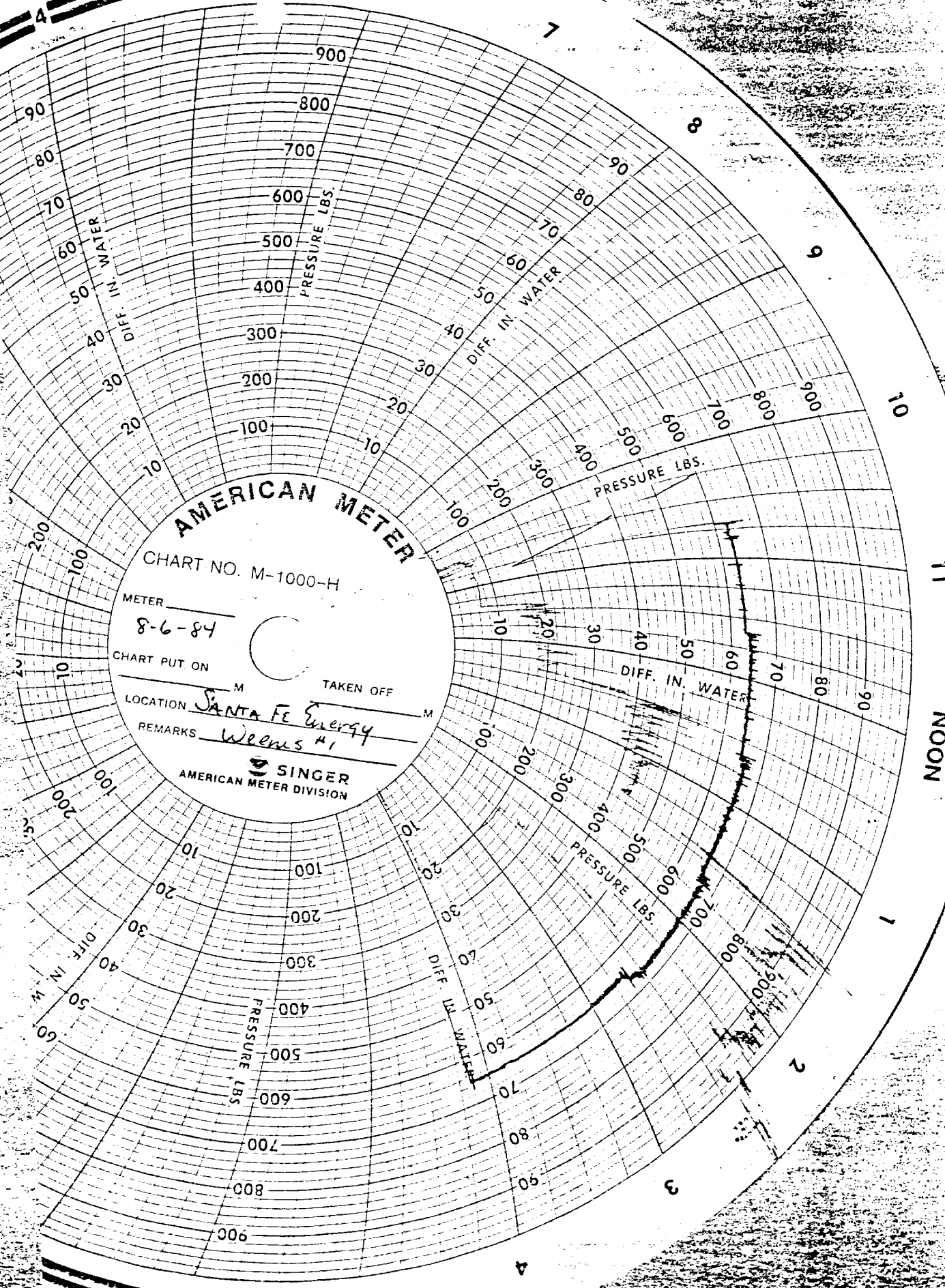
2

3

4

5

6 PM



AMERICAN METER

CHART NO. M-1000-H

METER

8-6-84

CHART PUT ON

M

TAKEN OFF

M

LOCATION

SANTA FE Energy

REMARKS

Weems #1



SINGER

AMERICAN METER DIVISION

NEW-TEX LAB

PHONE 505/393-3561

P. O. BOX 1161

611 W. SNYDER

HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

CLIENT: BEANETT & CATHEY INC
ADDRESS: BOX 757
CITY, STATE: ARTESTA NM 88210

ANALYSIS NUMBER: 3992
DATE OF RUN: 8 4 84
DATE SECURED: 8 3 84

SAMPLE IDENT: SANTA FE - #1 WELLS
SAMPLING PRESS: 600 PSIG
SAMPLING TEMP: 80 DEG F

REMARKS: SOUTH CARLSEAD - EDDY COUNTY - NM

Strawn

***** GAS ANALYSIS *****

	MOLE PERCENT	GAL/ MCF
NITROGEN	0.671	
CARBON DIOXIDE	0.243	
METHANE	89.133	
ETHANE	6.524	1.740
PROPANE	2.013	0.553
ISO-BUTANE	0.398	0.100
NORMAL BUTANE	0.537	0.169
ISO-PENTANE	0.174	0.064
NORMAL PENTANE	0.127	0.046
HEXANES	0.180	0.074
TOTAL	100.000	2.776

PROPANE GRM:	0.55	BUTANES GRM:	0.32
ETHANE GRM:	1.74	PENTANES PLUS GRM:	0.13

SPECIFIC GRAV (CALC): 0.6341
MOLE WEIGHT: 18.36

PSI-100/00 FT	PRESSURE (PSIA)	WET	DRY
	14.596	1098	1118
	14.618	1095	1114
	14.730	1101	1120
	14.735	1101	1121

DEANE SIMPSON

Deane Simpson

**NEW-TEX
LAB**

PHONE 505/393-3561

P. O. BOX 1161

611 W. SNYDER

HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

CLIENT: BENNETT & CATHEY INC
ADDRESS: BOX 787
CITY, STATE: ARTESIA NM 88210

ANALYSIS NUMBER: 4006
DATE OF RUN: 8 6 84
DATE SECURED: 8 6 84

SAMPLE IDENT: SANTA FE - WEEMS #1 - STATION #1
REMARKS: TOTAL SULFUR - .21 WT %
REMARKS: API GRAVITY - 56.5 @ 60 DEGREES

PER CENT OVER

TEMPERATURE DEG F

INITIAL BOILING POINT

05

10

20

30

40

50

60

70

80

90

95

END POINT

110

140

172

210

236

266

306

338

436

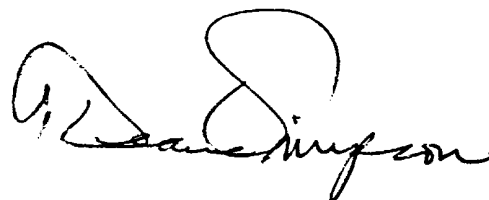
512

604

0

604

RECOVERY 92 %
RESIDUE 4 %
LOSS 4 %



DEANE SIMPSON

COMPANY: SANTA FE ENERGY
LEASE: WEEMS
FIELD: SOUTH CARLSBAD
COUNTY: EDDY
STATUS: FOUR POINT BACK PRESSURE TEST
PERFORATIONS FROM: 10510 ft
DEPTH: 10415 ft

CONTACT: TOMMY FOLSOM
WELL: #1
ZONE: STRAWN
STATE: NEW MEXICO
OPERATOR: RICHARD TOWNLEY
TO: 10556 ft
TEMPERATURE: 220°F

ELEMENT# RPG3#18323
CLOCK# 1935
ELEMENT# RPG3#9526
CLOCK# B3443

ELEMENT RANGE: 8600 psig
CLOCK RANGE: 12 hrs
ELEMENT RANGE: 8100 psig
CLOCK RANGE: 12 hrs

START CLOCK 08/06/84
SET ELEMENT 08/06/84
WELL SHUT IN 08/03/84
TEST ENDED 08/06/84

08:49:00 4060 psig
10:10:00 4060 psig
17:05:00 3952 psig
15:55:00 3628 psig

GAIN= 1
FILE: SANTA#1-2:D701

BIAS= 15 psi
BAROMETRIC PRESSURE= 13.2 psia

BENNETT-CATHEY WIRE LINE SERVICE
 PHONE (505) 748-3354
 ARTESIA, NEW MEXICO, 88210

PRESSURE TRANSIENT TEST DATA

COMPANY: SANTA FE ENERGY
 LEASE: WEEMS
 FIELD: SOUTH CARLSBAD
 COUNTY: EDDY
 STATUS: FOUR POINT BACK PRESSURE TEST

CONTACT: TOMMY FOLSOM
 WELL: #1
 ZONE: STRAWN
 STATE: NEW MEXICO
 OPERATOR: RICHARD TOWNLEY

PERFORATIONS FROM: 10,510.0'
 ELEMENT DEPTH: 10,415.0'

TO: 10,556.0'
 TEMPERATURE: 220.0°F

ELEMENT: RPG3#18323
 CLOCK: 1935
 ELEMENT: RPG3#9526
 CLOCK: B3443

RANGE: 8600 psig
 RANGE: 12 hrs
 RANGE: 8100 psig
 RANGE: 12 hrs

SURFACE PRESSURE MEASUREMENTS

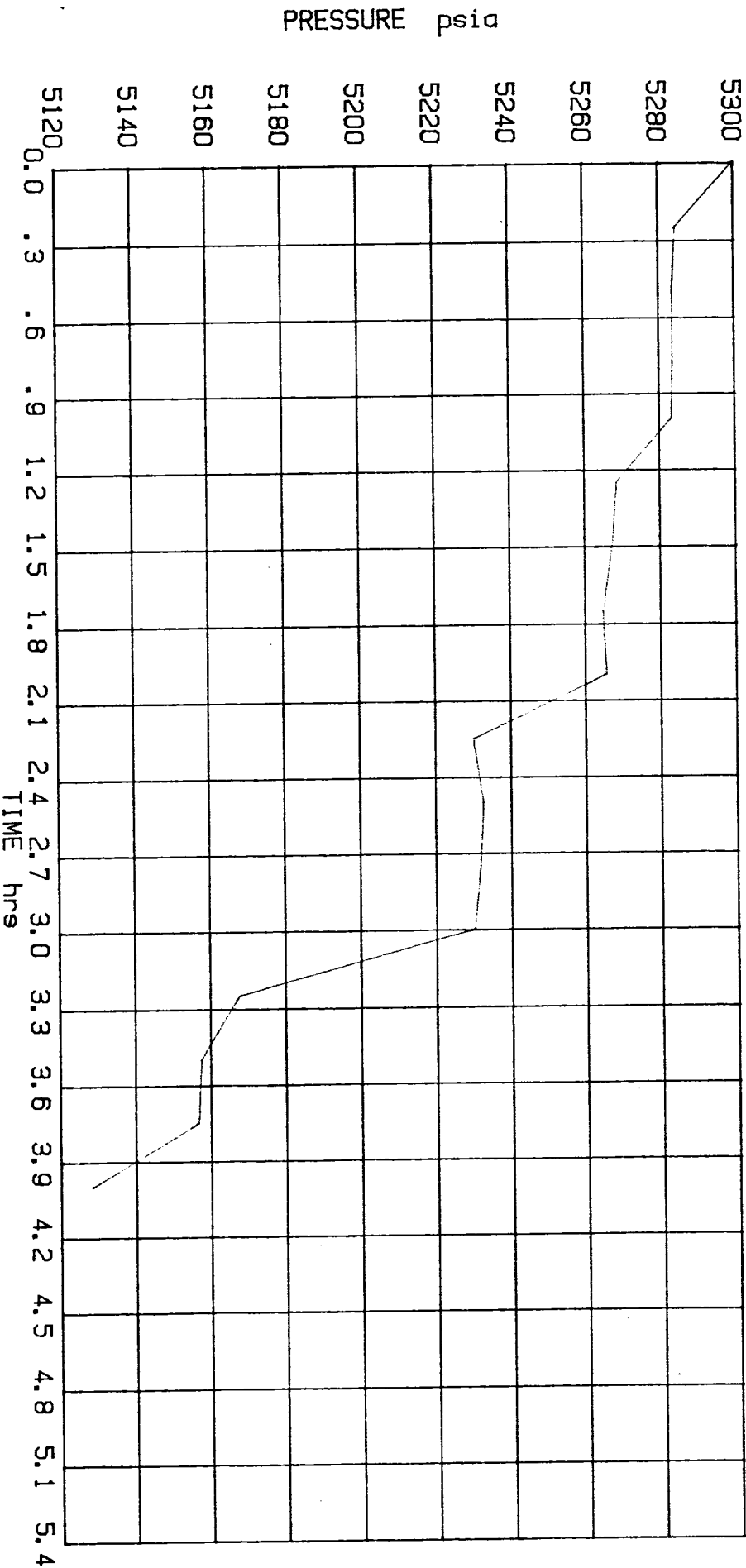
EVENT	DATE	TIME	DEAD WEIGHT PRESSURE
START CLOCK	08/06/84	08:49:00	4,060.0 psig
SET ELEMENT	08/06/84	10:10:00	4,060.0 psig
WELL SHUT IN	08/03/84	17:05:00	3,952.0 psig
END OF TEST	08/06/84	15:55:00	3,628.0 psig

SUBSURFACE PRESSURE MEASUREMENTS

DATE	TIME	t hrs	GAUGE PRESSURE psig	ABSOLUTE PRESSURE psia	RESERVOIR PRESSURE psia
08/06/84	10:55:00	0.000	5,271.8	5,285.0	5,300.0
08/06/84	11:10:00	.250	5,256.3	5,269.5	5,284.5
08/06/84	11:25:00	.500	5,255.4	5,268.6	5,283.6
08/06/84	11:40:01	.750	5,255.4	5,268.6	5,283.6
08/06/84	11:55:00	1.000	5,255.0	5,268.2	5,283.2
08/06/84	12:10:00	1.250	5,240.4	5,253.6	5,268.6
08/06/84	12:25:00	1.500	5,239.1	5,252.3	5,267.3
08/06/84	12:40:00	1.750	5,236.7	5,249.9	5,264.9
08/06/84	12:55:00	2.000	5,237.5	5,250.7	5,265.7
08/06/84	13:10:01	2.250	5,202.0	5,215.2	5,230.2
08/06/84	13:25:00	2.500	5,204.4	5,217.6	5,232.6
08/06/84	13:40:00	2.750	5,203.6	5,216.8	5,231.8
08/06/84	13:55:00	3.000	5,202.0	5,215.2	5,230.2
08/06/84	14:10:00	3.250	5,139.6	5,152.8	5,167.8
08/06/84	14:25:01	3.500	5,129.4	5,142.6	5,157.6
08/06/84	14:40:01	3.750	5,128.6	5,141.8	5,156.8
08/06/84	14:55:00	4.000	5,100.4	5,113.6	5,128.6

TEST DATE: 08/06/84 TO 08/06/84
 TEST DEPTH: 10415 ft
 ELEMENT NO: RPC3#9526
 RANGE: 8100 psig
 CLOCK: B3443
 RANGE: 12 hrs
 OPERATOR: RICHARD TOWNLEY

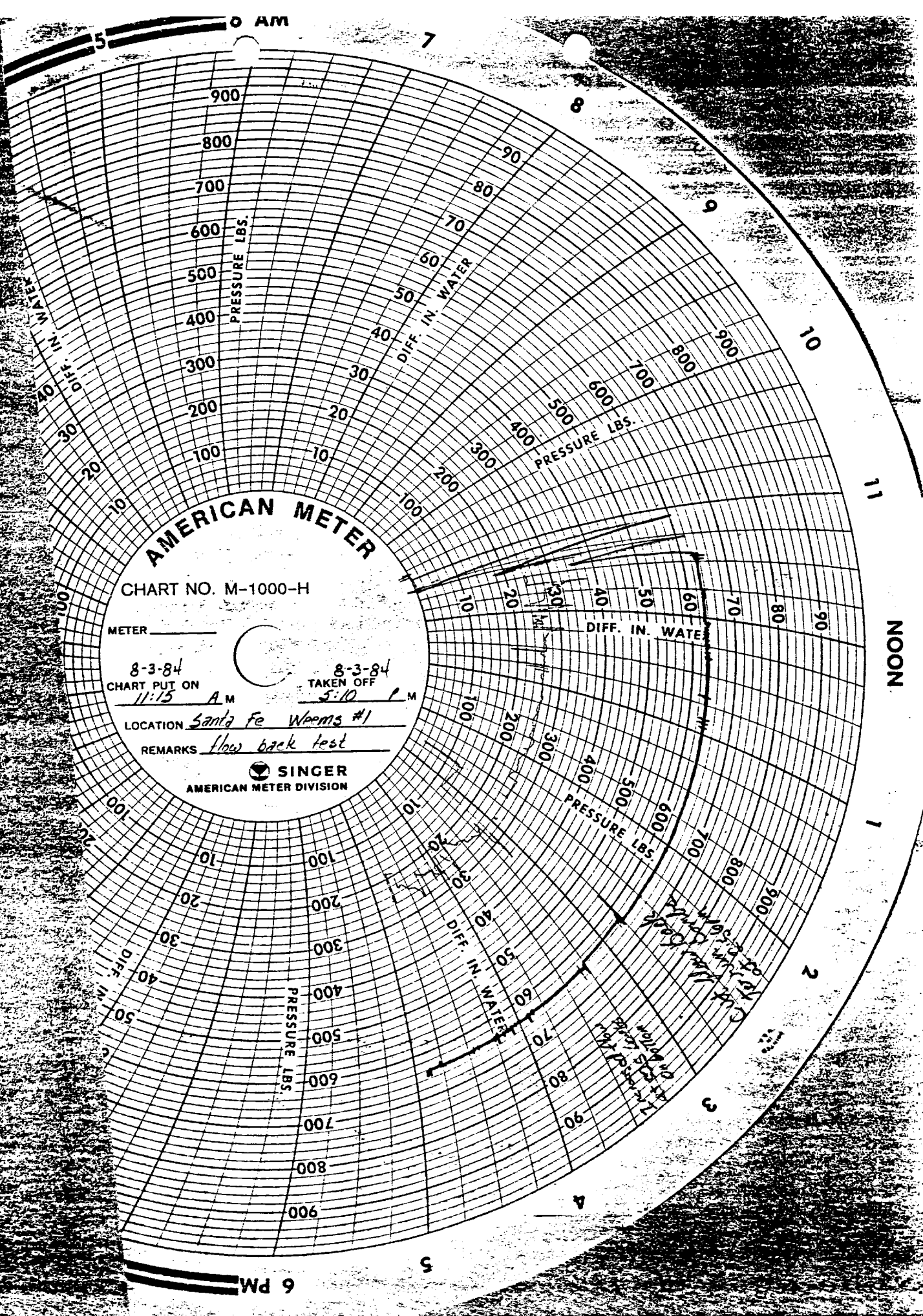
TOMMY FOLSOM
SANTA FE ENERGY
WEEMS #1
BENNETT-CATHEY WIRE LINE SERVICE
Box 787 Artesia, N.M. 88210 (505) 748-3354



FIELD DATA SHEET

Type Test: ☒ Initial ☐ Annual ☐ Special		Test Date 8-3-84		Lease No. or Serial No.	
Flow Back		Connection TO AIR		Allottee	
Company SANTA FE ENERGY		Reservoir STRAWN		Location 4 MILES S. CARLSBAD	
Field SOUTH CARLSBAD		Plug Back TD 11465		Unit	
Completion Date 8-3-84		Total Depth 12302		Form or Lease Name WEEMS	
Csg. Size 5.5	Wt. 17	d 4.892	Set At 12032	Perforations: From 10510	To 10556
Well No. 1					
1 g. Size 2.375	Wt. 4.7	d 1.995	Set At 10427	Perforations: From OPEN	To ENDED
Sec. 27	Twp - Blk 22S	Rge - Sur 27E			
Type Completion (Describe) SINGLE				Packer Set At 10434	
Producing Thru TUBING				County or Parish EDDY	
Reservoir Temp. F 60°F		Mean Ground Temp. F 13.2		State NEW MEXICO	
L 10533	H 10533	G _g	% CO ₂	% N ₂	% H ₂ S
Prover Ø		Meter Run 4.026		Taps FLG	

DATE	ELAP. TIME	WELLHEAD WORKING PRESSURE			METER OR PROVER				REMARKS		
Time of Reading	Hrs.	Tbg. Psig	Csg. Psig	Temp. F	Pressure Psig	Diff.	Temp. F	Ori-fice	(Include liquid production data: Type - API Gravity - Amount)		
1020	SIP	4065							START GAUGES 3'11" 3'10"		
		WARM UP PRODUCTION TEST UNIT							113	109	4BBL OIL
1135	START	TEST									
1150	0.250	3991			630	24.0	60	1.750	2436	MCFD	10/64
1205	0.500	3995			630	27.0	69	"	2561	MCFD	10/64
1220	0.750	3995			635	26.0	79	"	2500	MCFD	10/64
1235	1.000	3970			635	27.0	79	"	2547	MCFD	10/64
									FLUID P/H .5 BBL OIL 0 BBL H2O		
									TOTAL FLUID .5 BBL OIL 0 BBL H2O		
1250	1.250	3970			635	26.0	79	1.750	2500	MCFD	10/64
1305	1.500	3970			635	26.0	79	"	2500	MCFD	10/64
1320	1.750	3970			635	26.0	79	"	2500	MCFD	10/64
1335	2.000	3967			635	26.0	79	"	2500	MCFD	10/64
									FLUID P/H 4.5 BBL OIL 0 BBL H2O		
									TOTAL FLUID 5 BBL OIL 0 BBL H2O		
1350	2.250	3961			635	26.0	79	1.750	2500	MCFD	10/64
1405	2.500	3955			635	26.0	79	"	2500	MCFD	10/64
1420	2.750	3960			635	26.0	79	"	2500	MCFD	10/64
1435	3.000	3960			635	25.0	79	"	2451	MCFD	10/64
									FLUID P/H 2 BBL OIL 0 BBL H2O		
									TOTAL FLUID 7 BBL OIL 0 BBL H2O		
1450	3.250	3960	CUT BACK FLOW		635	26.0	79	1.750	2500	MCFD	7.5/64
1505	3.500	4015	@1456HR TO		625	14.0	79	"	1820	MCFD	7.5/64
1520	3.750	4015	RUN BOMBS		630	12.5	80	"	1725	MCFD	7.5/64
1535	4.000	3945	INCREASE FLOW		635	26.0	79	"	2500	MCFD	7.5/64
			@1525 HR BOMBS ON BOTTOM						FLUID P/H .25 BBL OIL 0 BBL H2O		
									TOTAL FLUID 7.25 BBL OIL 0 BBL H2O		
1550	4.250	3950			635	24.0	82	1.750	2395	MCFD	10/64
1605	4.500	3950			635	26.0	83	"	2497	MCFD	10/64
1620	4.750	3952			640	24.0	80	"	2409	MCFD	10/64
1635	5.000	3952			640	24.0	80	"	2409	MCFD	10/64
									FLUID P/H .75 BBL OIL 0 BBL H2O		
									TOTAL FLUID 8 BBL OIL 0 BBL H2O		
1650	5.250	3952			640	24.0	80	1.750	2409	MCFD	10/64
1705	5.500	3952			640	24.0	80	"	2409	MCFD	10/64
									FLUID P/H 0 BBL OIL 0 BBL H2O		
									FLUID TOTAL 0BBL OIL 0 BBL H2O		



COMPANY: SANTA FE ENERGY
LEASE: WEEMS
FIELD: SOUTH CARLSBAD
COUNTY: EDDY
STATUS: BOTTOM HOLE BUILD UP TEST
PERFORATIONS FROM: 10510 ft
DEPTH: 10415 ft

CONTACT: TOMMY FOLSOM
WELL: #1
ZONE: STRAWN
STATE: NEW MEXICO
OPERATOR: BO FAULKENBERRY
TO: 10556 ft
TEMPERATURE: 220°F

ELEMENT# RPG3#18323
CLOCK# 21850
ELEMENT# RPG3#9526
CLOCK# 28656

ELEMENT RANGE: 8600 psig
CLOCK RANGE: 120 hrs
ELEMENT RANGE: 8100 psig
CLOCK RANGE: 120 hrs

START CLOCK 08/03/84
SET ELEMENT 08/03/84
WELL SHUT IN 08/03/84
TEST ENDED 08/06/84

14:37:00 3960 psig
15:25:00 3960 psig
17:05:00 3952 psig
10:10:00 4060 psig

GAIN= 1
FILE: SANTA-BU-3:D701

BIAS= 15 psi
BAROMETRIC PRESSURE= 13.2 psia

BENNETT-CATHEY WIRE LINE SERVICE
 PHONE (505) 748-3354
 ARTESIA, NEW MEXICO, 88210

PRESSURE TRANSIENT TEST DATA

COMPANY: SANTA FE ENERGY
 LEASE: WEEMS
 FIELD: SOUTH CARLSBAD
 COUNTY: EDDY
 STATUS: BOTTOM HOLE BUILD UP TEST

CONTACT: TOMMY FOLSOM
 WELL: #1
 ZONE: STRAWN
 STATE: NEW MEXICO
 OPERATOR: BO FAULKENBERRY

PERFORATIONS FROM: 10,510.0'
 ELEMENT DEPTH: 10,415.0'

TO: 10,556.0'
 TEMPERATURE: 220.0°F

ELEMENT: RPG3#19323
 CLOCK: 21850
 ELEMENT: RPG3#9526
 CLOCK: 28656

RANGE: 8600 psig
 RANGE: 120 hrs
 RANGE: 8100 psig
 RANGE: 120 hrs

SURFACE PRESSURE MEASUREMENTS

EVENT	DATE	TIME	DEAD WEIGHT PRESSURE
START CLOCK	08/03/84	14:37:00	3,960.0 psig
SET ELEMENT	08/03/84	15:25:00	3,960.0 psig
WELL SHUT IN	08/03/84	17:05:00	3,952.0 psig
END OF TEST	08/06/84	10:10:00	4,060.0 psig

SUBSURFACE PRESSURE MEASUREMENTS

DATE	TIME	t hrs	GAUGE PRESSURE psig	ABSOLUTE PRESSURE psia	RESERVOIR PRESSURE psia
08/03/84	15:27:48	-1.620	5,249.3	5,262.5	5,277.5
08/03/84	15:35:00	-1.500	5,250.3	5,263.5	5,278.5
08/03/84	15:50:00	-1.250	5,252.3	5,265.5	5,280.5
08/03/84	16:05:00	-1.000	5,254.3	5,267.5	5,282.5
08/03/84	16:20:00	-.750	5,256.3	5,269.5	5,284.5
08/03/84	16:35:00	-.500	5,258.4	5,271.6	5,286.6
08/03/84	16:50:00	-.250	5,260.4	5,273.6	5,288.6
08/03/84	17:05:00	0.000	5,262.4	5,275.6	5,290.6
08/03/84	17:10:00	.083	5,268.9	5,282.1	5,297.1
08/03/84	17:15:00	.167	5,270.0	5,283.2	5,298.2
08/03/84	17:20:00	.250	5,270.3	5,283.5	5,298.5
08/03/84	17:25:00	.333	5,270.5	5,283.7	5,298.7
08/03/84	17:30:00	.417	5,270.7	5,283.9	5,298.9
08/03/84	17:35:00	.500	5,270.9	5,284.1	5,299.1
08/03/84	17:40:00	.583	5,271.1	5,284.3	5,299.3
08/03/84	17:45:00	.667	5,271.4	5,284.6	5,299.6
08/03/84	17:50:00	.750	5,271.6	5,284.8	5,299.8
08/03/84	17:55:00	.833	5,271.8	5,285.0	5,300.0
08/03/84	18:00:00	.917	5,272.0	5,285.2	5,300.2
08/03/84	18:05:00	1.000	5,272.2	5,285.4	5,300.4
08/03/84	18:20:00	1.250	5,272.8	5,286.0	5,301.0
08/03/84	18:35:00	1.500	5,273.4	5,286.6	5,301.6

BENNETT-CATHEY WIRE LINE SERVICE
 PHONE (505) 748-3354
 ARTESIA, NEW MEXICO, 88210

PRESSURE TRANSIENT TEST DATA

SUBSURFACE PRESSURE MEASUREMENTS

DATE	TIME	t hrs	GAUGE PRESSURE psig	ABSOLUTE PRESSURE psia	RESERVOIR PRESSURE psia
08/03/84	18:50:00	1.750	5,273.8	5,287.0	5,302.0
08/03/84	19:05:00	2.000	5,273.8	5,287.0	5,302.0
08/03/84	19:20:00	2.250	5,273.8	5,287.0	5,302.0
08/03/84	19:35:00	2.500	5,273.9	5,287.1	5,302.1
08/03/84	19:50:00	2.750	5,273.9	5,287.1	5,302.1
08/03/84	20:05:00	3.000	5,273.9	5,287.1	5,302.1
08/03/84	20:20:00	3.250	5,273.9	5,287.1	5,302.1
08/03/84	20:35:00	3.500	5,273.9	5,287.1	5,302.1
08/03/84	20:50:00	3.750	5,273.9	5,287.1	5,302.1
08/03/84	21:05:00	4.000	5,274.0	5,287.2	5,302.2
08/03/84	21:20:00	4.250	5,274.0	5,287.2	5,302.2
08/03/84	21:35:00	4.500	5,274.0	5,287.2	5,302.2
08/03/84	21:50:00	4.750	5,274.0	5,287.2	5,302.2
08/03/84	22:05:00	5.000	5,274.0	5,287.2	5,302.2
08/03/84	22:20:00	5.250	5,274.1	5,287.3	5,302.3
08/03/84	22:35:00	5.500	5,274.1	5,287.3	5,302.3
08/03/84	22:50:00	5.750	5,274.1	5,287.3	5,302.3
08/03/84	23:05:00	6.000	5,274.1	5,287.3	5,302.3
08/03/84	23:20:00	6.250	5,274.1	5,287.3	5,302.3
08/03/84	23:35:00	6.500	5,274.1	5,287.3	5,302.3
08/03/84	23:50:00	6.750	5,274.2	5,287.4	5,302.4
08/04/84	00:05:00	7.000	5,274.2	5,287.4	5,302.4
08/04/84	00:20:00	7.250	5,274.2	5,287.4	5,302.4
08/04/84	00:35:00	7.500	5,274.2	5,287.4	5,302.4
08/04/84	00:50:00	7.750	5,274.2	5,287.4	5,302.4
08/04/84	01:05:00	8.000	5,274.2	5,287.4	5,302.4
08/04/84	01:20:00	8.250	5,274.3	5,287.5	5,302.5
08/04/84	01:35:00	8.500	5,274.3	5,287.5	5,302.5
08/04/84	01:50:00	8.750	5,274.3	5,287.5	5,302.5
08/04/84	02:05:00	9.000	5,274.3	5,287.5	5,302.5
08/04/84	02:20:00	9.250	5,274.3	5,287.5	5,302.5
08/04/84	02:35:00	9.500	5,274.3	5,287.5	5,302.5
08/04/84	02:50:00	9.750	5,274.3	5,287.5	5,302.5
08/04/84	03:05:00	10.000	5,274.4	5,287.6	5,302.6
08/04/84	03:35:00	10.500	5,274.4	5,287.6	5,302.6
08/04/84	04:05:00	11.000	5,274.4	5,287.6	5,302.6
08/04/84	04:35:00	11.500	5,274.5	5,287.7	5,302.7
08/04/84	05:05:00	12.000	5,274.5	5,287.7	5,302.7
08/04/84	05:35:00	12.500	5,274.5	5,287.7	5,302.7
08/04/84	06:05:00	13.000	5,274.6	5,287.8	5,302.8
08/04/84	06:35:00	13.500	5,274.6	5,287.8	5,302.8
08/04/84	07:05:00	14.000	5,274.6	5,287.8	5,302.8
08/04/84	07:35:00	14.500	5,274.6	5,287.8	5,302.8
08/04/84	08:05:00	15.000	5,274.6	5,287.8	5,302.8
08/04/84	08:35:00	15.500	5,274.6	5,287.8	5,302.8
08/04/84	09:05:00	16.000	5,274.6	5,287.8	5,302.8

BENNETT-CATHEY WIRE LINE SERVICE
 PHONE (505) 748-3354
 ARTESIA, NEW MEXICO, 88210

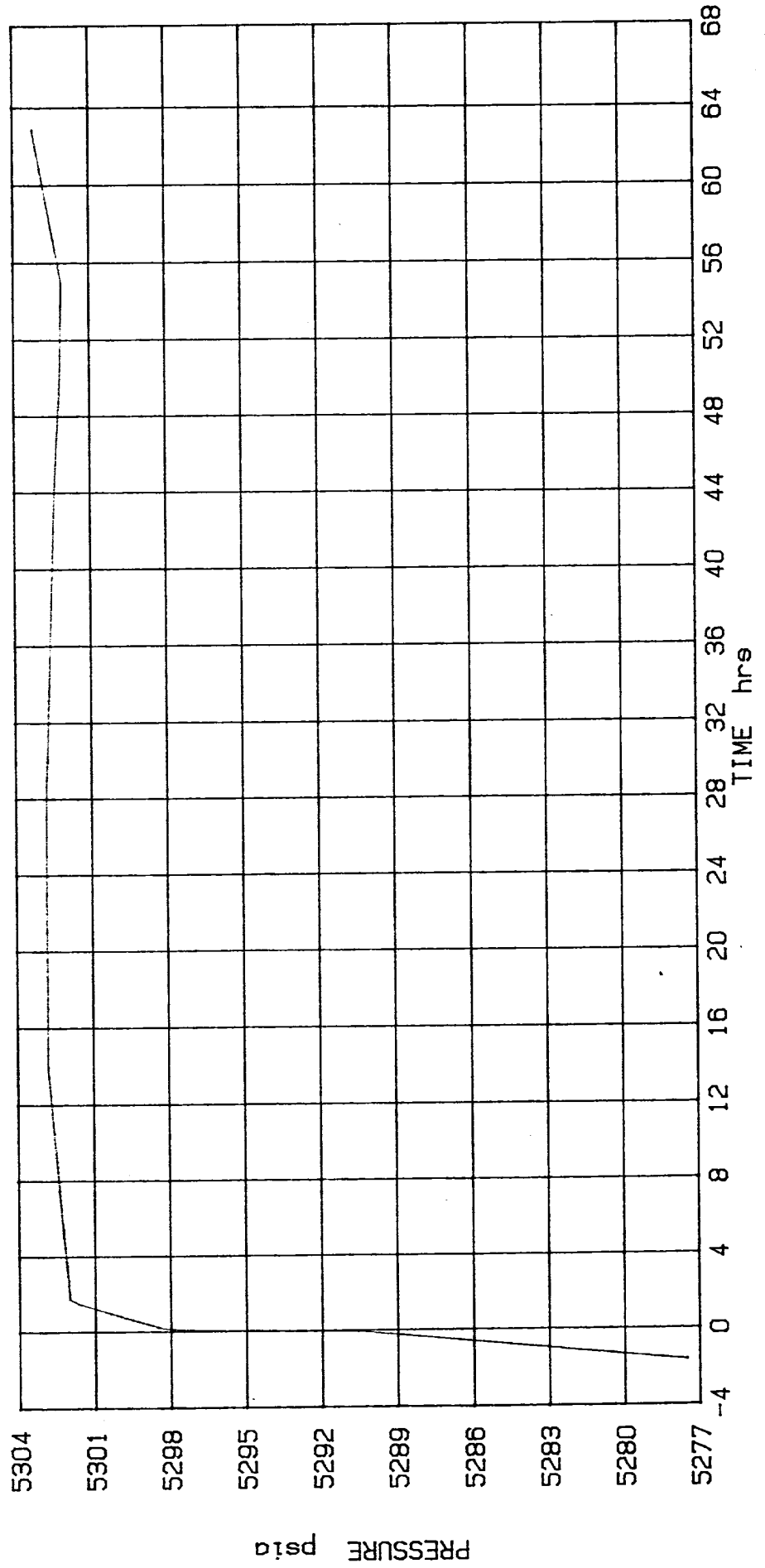
PRESSURE TRANSIENT TEST DATA

SUBSURFACE PRESSURE MEASUREMENTS

DATE	TIME	t hrs	GAUGE PRESSURE psig	ABSOLUTE PRESSURE psia	RESERVOIR PRESSURE psia
08/04/84	09:35:00	16.500	5,274.6	5,287.8	5,302.8
08/04/84	10:05:00	17.000	5,274.6	5,287.8	5,302.8
08/04/84	10:35:00	17.500	5,274.6	5,287.8	5,302.8
08/04/84	11:05:00	18.000	5,274.6	5,287.8	5,302.8
08/04/84	11:35:00	18.500	5,274.6	5,287.8	5,302.8
08/04/84	12:05:00	19.000	5,274.6	5,287.8	5,302.8
08/04/84	12:35:00	19.500	5,274.6	5,287.8	5,302.8
08/04/84	13:05:00	20.000	5,274.6	5,287.8	5,302.8
08/04/84	14:05:00	21.000	5,274.6	5,287.8	5,302.8
08/04/84	15:05:00	22.000	5,274.6	5,287.8	5,302.8
08/04/84	16:05:00	23.000	5,274.6	5,287.8	5,302.8
08/04/84	17:05:00	24.000	5,274.6	5,287.8	5,302.8
08/04/84	18:05:00	25.000	5,274.6	5,287.8	5,302.8
08/04/84	19:05:00	26.000	5,274.6	5,287.8	5,302.8
08/04/84	20:05:00	27.000	5,274.6	5,287.8	5,302.8
08/04/84	21:05:00	28.000	5,274.6	5,287.8	5,302.8
08/04/84	22:05:00	29.000	5,274.6	5,287.8	5,302.8
08/04/84	23:05:00	30.000	5,274.6	5,287.8	5,302.8
08/05/84	01:05:00	32.000	5,274.5	5,287.7	5,302.7
08/05/84	03:05:00	34.000	5,274.5	5,287.7	5,302.7
08/05/84	05:05:00	36.000	5,274.4	5,287.6	5,302.6
08/05/84	07:05:00	38.000	5,274.4	5,287.6	5,302.6
08/05/84	09:05:00	40.000	5,274.3	5,287.5	5,302.5
08/05/84	11:05:00	42.000	5,274.3	5,287.5	5,302.5
08/05/84	13:05:00	44.000	5,274.2	5,287.4	5,302.4
08/05/84	15:05:00	46.000	5,274.2	5,287.4	5,302.4
08/05/84	17:05:00	48.000	5,274.1	5,287.3	5,302.3
08/05/84	19:05:00	50.000	5,274.0	5,287.2	5,302.2
08/06/84	00:05:00	55.000	5,273.9	5,287.1	5,302.1
08/06/84	05:05:00	60.000	5,274.6	5,287.8	5,302.8
08/06/84	07:58:40	62.894	5,275.0	5,288.2	5,303.2

TEST DATE: 08/03/84 TO 08/06/84
TEST DEPTH: 10415 ft
ELEMENT NO: RPC3#9526
RANGE: 8100 psig
CLOCK: 28656
RANGE: 120 hrs
OPERATOR: BO FAULKENBERRY

TOMMY FOLSOM
SANTA FE ENERGY WEEMS #1
BENNETT-CATHEY WIRE LINE SERVICE Box 787 Artesia, N.M. 88210 (505) 748-3354



COMPANY: SANTA FE ENERGY
LEASE: WEEMS
FIELD: SOUTH CARLSBAD
COUNTY: EDDY
STATUS: BOTTOM HOLE BUILD UP TEST

CONTACT: TOMMY FOLSOM
WELL: #1
ZONE: STRAWN
STATE: NEW MEXICO
OPERATOR: BO FAULKENBERRY

PERFORATIONS FROM: 10510 ft
DEPTH: 10415 ft

TO: 10556 ft
TEMPERATURE: 220°F

ELEMENT# RPG3#18323
CLOCK# 21850
ELEMENT# RPG3#9526
CLOCK# 28656

RANGE: 8600 psi
RANGE: 120 hrs
RANGE: 8100 psi
RANGE: 120 hrs

START CLOCK	08/03/84	14:37:00	3960 psig
SET ELEMENT	08/03/84	15:25:00	3960 psig
WELL SHUT IN	08/03/84	17:05:00	3952 psig
TEST ENDED	08/06/84	10:10:00	4060 psig

FILE: SANTA-BU-3:D701

C/qwf= 0 hrs/psi

Gain= 1

tsi= 0 hrs

tp= 5.75 hrs

m= 0 psi/cycle

oA= 13.2 psia

Bias= 15 psi

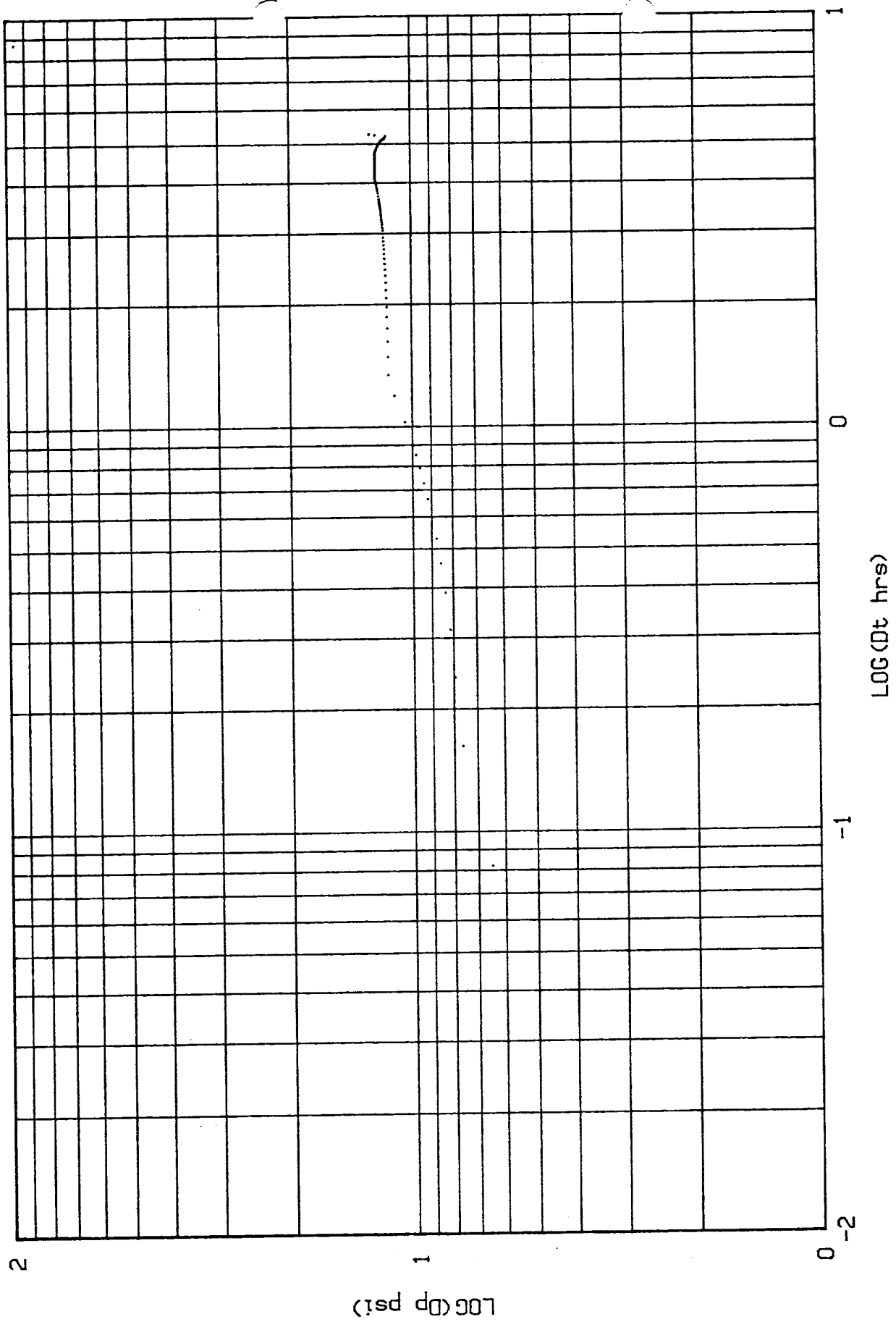
owf= 5290.534 psia

dps= 0 psi

o*= 0 psia

08/03/84

WEEMS #1



3
COMPANY: SANTA FE ENERGY
LEASE: WEEMS
FIELD: SOUTH CARLSBAD
COUNTY: EDDY
STATUS: BOTTOM HOLE BUILD UP TEST

CONTACT: TOMMY FOLSOM
WELL: #1
ZONE: STRAWN
STATE: NEW MEXICO
OPERATOR: BO FAULKENBERRY

PERFORATIONS FROM: 10510 ft
DEPTH: 10415 ft

TO: 10555 ft
TEMPERATURE: 220°F

ELEMENT# RPG3#18323
CLOCK# 21850
ELEMENT# RPG3#9526
CLOCK# 28656

RANGE: 8600 psi
RANGE: 120 hrs
RANGE: 8100 psi
RANGE: 120 hrs

START CLOCK	08/03/84	14:37:00	3960 psig
SET ELEMENT	08/03/84	15:25:00	3960 psig
WELL SHUT IN	08/03/84	17:05:00	3952 psig
TEST ENDED	08/06/84	10:10:00	4060 psig

FILE: SANTA-BU-3:D701

C/qwf= 0 hrs/psi
Gain= 1
tsi= 0 hrs
tp= 5.75 hrs
Dt/tD= 1 hrs

pA= 13.2 psia
Bias= 15 psi
pwf= 5290.584 psia
dps= 0 psi
Dp/pD= 1 psi

08/03/84

WEEMS #1

p psia

5303.7

5302.8

5301.9

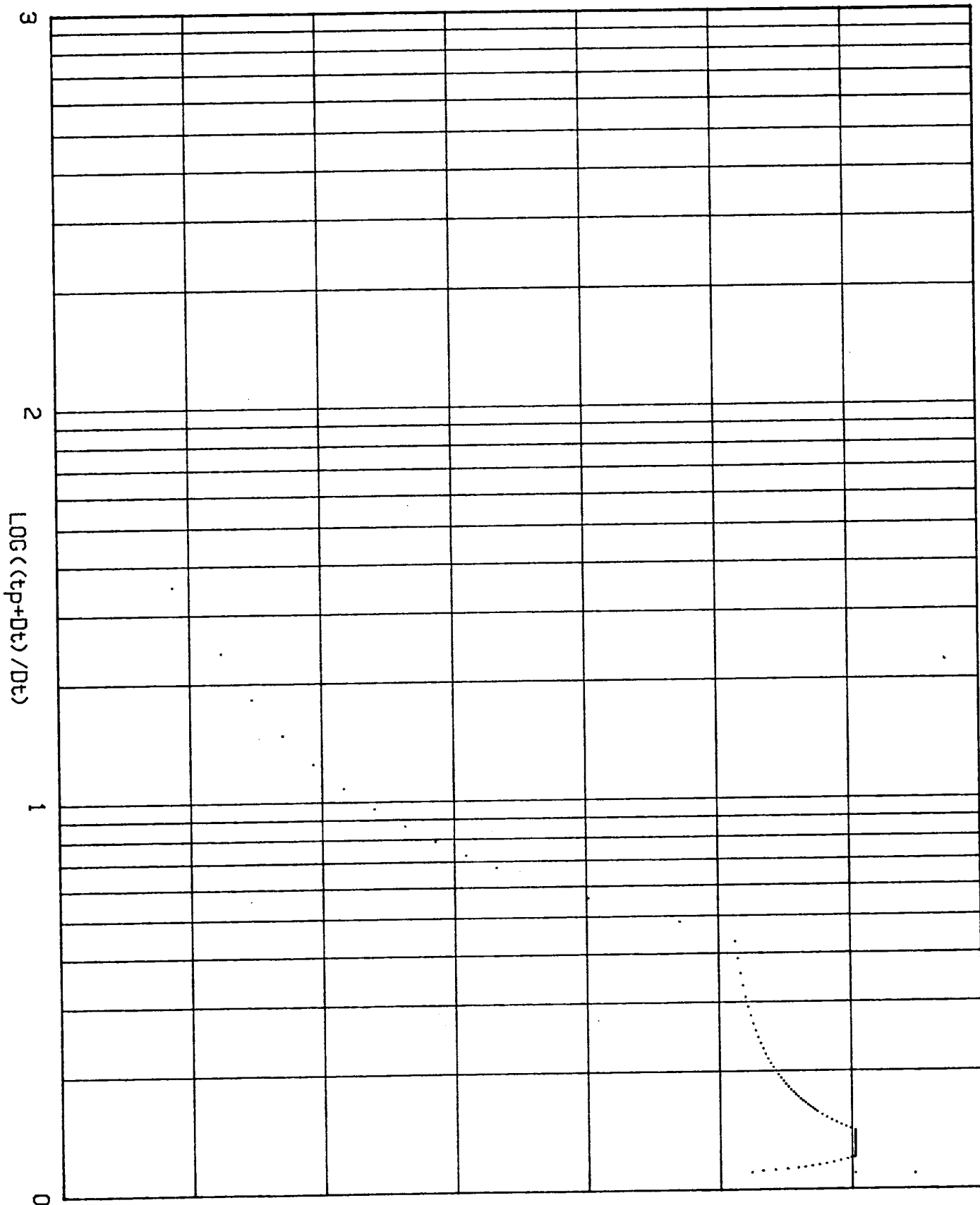
5301.0

5300.1

5299.2

5298.3

5297.4





BEN. ETT-CATHEY WIRE LIN. SERVICE

P. O. BOX 787

ARTESIA, NEW MEXICO 88210

Phone (505) 746-3281



BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR SANTA FE ENERGY
LEASE WEEMS
WELL NO. #1
POOL FORMATION
DATE 8-6-84 TIME 1010 HOUR
CO. MAN TOMMY FOLSOM
STATUS SHUT IN TEST DEPTH 10533 FEET
TIME S.I. 1705 HOUR LAST TEST DATE 1ST TEST
8-3-84 BHP LAST TEST
TUB. PRES. 4073.2 BHP CHANGE
CAS. PRES. FLUID TOP
DATUM PLANE WATER TOP
DATUM PSIA 5286.2 RUN BY BO FAULKENBERRY
TEMP 220° CLOCK # B-3443
PRESSURE RANGE 8600 LBS.
ELEMENT NO. RPG3#1935

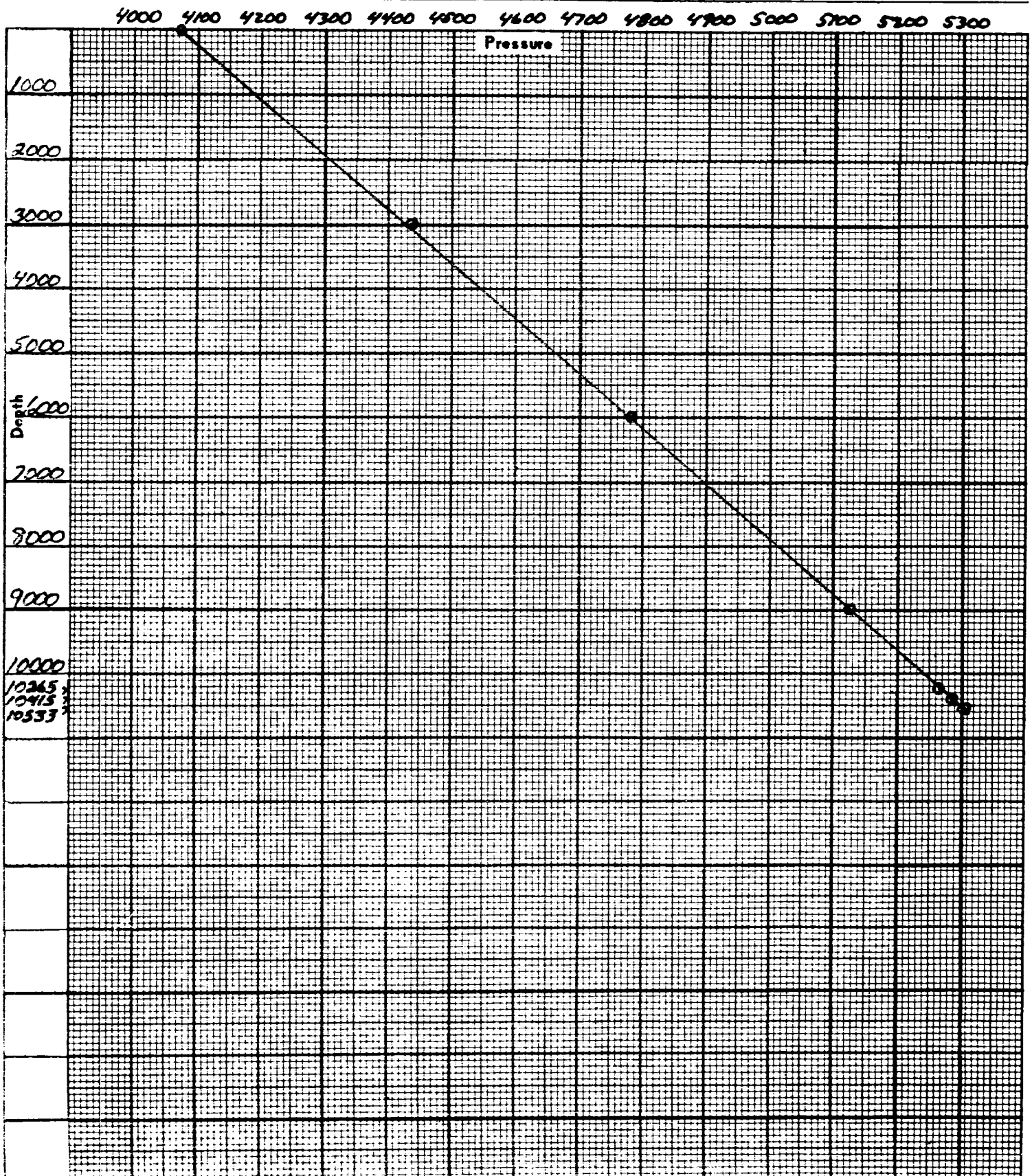
DEPTH	PSIA PRESSURE	LBS/100 FT. GRADIENT
0	4073.2	
3000	4436.2	12.1
6000	4782.2	12.0
9000	5125.2	11.4
10265	5268.2	11.3
10415	5286.2	12.0
10533	5301.2	12.7

TIME B.H.P. MEASURED 1010 HOUR.

LENGTH OF TIME WELL SHUT IN 65 HR 5 MIN.

STATIC GRADIENTS

PERFORATIONS FROM 10510 TO 10556 FEET.





BENNETT-CATHEY WIRE LINE SERVICE

P. O. BOX 787

ARTESIA, NEW MEXICO 88210

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BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR SANTA FE ENERGY
LEASE WEEMS
WELL NO. #1
POOL FORMATION
DATE 8-6-84 TIME 1630 HOUR
CO. MAN TOMMY FOLSOM
STATUS FLOWING TEST DEPTH 10533 FEET
TIME S.I. LAST TEST DATE 1ST TEST
 BHP LAST TEST
TUB. PRES. 4019.2 BHP CHANGE
CAS. PRES. FLUID TOP
DATUM PLANE WATER TOP
DATUM PSIA RUN BY BO FAULKENBERRY
TEMP 220° CLOCK # B-3443
PRESSURE RANGE 8600 FEET
ELEMENT NO. RPG3#18323

DEPTH	PSIA PRESSURE	LBS/100 FT. GRADIENT
0	4019.2	
3000	4382.2	12.1
6000	4741.2	11.9
9000	5088.2	11.6
10265	5227.2	11.0
10415	5244.2	11.3
10533	5301.2	12.7

TIME B.H.P. MEASURED 1640 HOUR.

FLOWING GRADIENTS

PERFORATIONS FROM 10510 TO 10556 FEET.

