

4131 File
Form C-122
Revised 9-1-63

NOV 3 1982

Type Test: ☒ Initial FOUR POINT ☐ Annual ☐ Special						Test Date: 10-19-82		O. C. D.	
Company: RAULT PETROLEUM				Connection: AIR NEW WELL				ARTESIA, OFFICE	
Pool: UNDESIGNATED				Formation: PENN				Unit: G	
Completion Date: 10-19-82		Total Depth: 6801		Plug Hole: 6570		Elevation: 3941		Farm or Lease Name: AMOCO STATE	
Well Size: 4.500	Wt.: 10.5	d: 4.052	Set At: 6681	Perforations: From 6304 To 6482		Well No.: 1			
Trp. Size: 2.375	Wt.: 4.7	d: 1.995	Set At: 6186	Perforations: From OPEN To ENDED		Unit: G 23 34"		Trp.: 8S	Age: 27E
Type Well - Single - (Greenhead - G.O. or G.O. Multiple)						Packer Set At: 6186		County: CHAVES	
Producing thru TUBING		Reservoir Temp. °F: 128 @ 6393		Mean Annual Temp. °F: 60°		Baro. Press. - P _g : 13.2		State: NEW MEXICO	
L: 6393	H: 6393	G _g : 0.617	% CO ₂ : 0.15	% N ₂ : 3.08	% H ₂ S: 0	Prover: 0	Meter Run: 4.00	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. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
51							1945		2342	
1	4.03 X	1.750	300	4.5	102	1861	66	2267	5/64	1 HR
2	4.03 X	1.750	300	8.0	103	1796	67	2217	7.5/64	1 HR
3	4.03 X	1.750	300	11.5	100	1690	68	2161	11/64	1 HR
4	4.03 X	1.750	300	27.0	93	1390	64	1895	13/64	1 HR
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 _{sp}	Rate of Flow Q, Mcfd
1	14.93	37.54	313.2	0.9619	1.2732	1.0203	700
2	14.93	50.06	313.2	0.9611	1.2732	1.0201	933
3	14.93	60.01	313.2	0.9636	1.2732	1.0206	1122
4	14.93	91.96	313.2	0.9697	1.2732	1.0217	1731
5							

NO.	P ₁	Temp. °F	Q	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1	0.47	562	1.58	0.961	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	0.47	563	1.59	0.961	Specific Gravity Separator Gas 0.617 XXXXXXXXXXXX
3	0.47	560	1.58	0.960	Specific Gravity Flowing Fluid XXXXXX
4	0.47	553	1.56	0.958	Critical Pressure 667 P.S.I.A. _____ P.S.I.A.
5					Critical Temperature 355 _____ °F

NO.	P ₁	P _w	R ₁ ²	R _w ² - R ₁ ²
1	5199	1930	3725	246
2	4974	1888	3565	405
3	4727	1842	3392	579
4	3641	1620	2624	1346
5				

(1) $\frac{P_g^2}{R^2 - R_w^2} = 2.9489$

AOF = Q $\left[\frac{R^2}{R^2 - R_w^2} \right]^n = 3023.$

(2) $\left[\frac{R^2}{R^2 - R_w^2} \right]^n = 1.7462$

Post FD-2
11-9-82
Camp #11K

Absolute Open Flow: 3023.	Mcf @ 15.025	Angle of Slope: 62.7	Slope, n: 0.515
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Remarks: BOTTOM HOLE PRESSURE MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission:	Conducted By: DON BENNETT	Calculated By: BENNETT-CATHEY	Checked By:
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O. C. D.

ARTESIA OFFICE

NAVAL - CIVILIAN

Amoco State

Well No 1

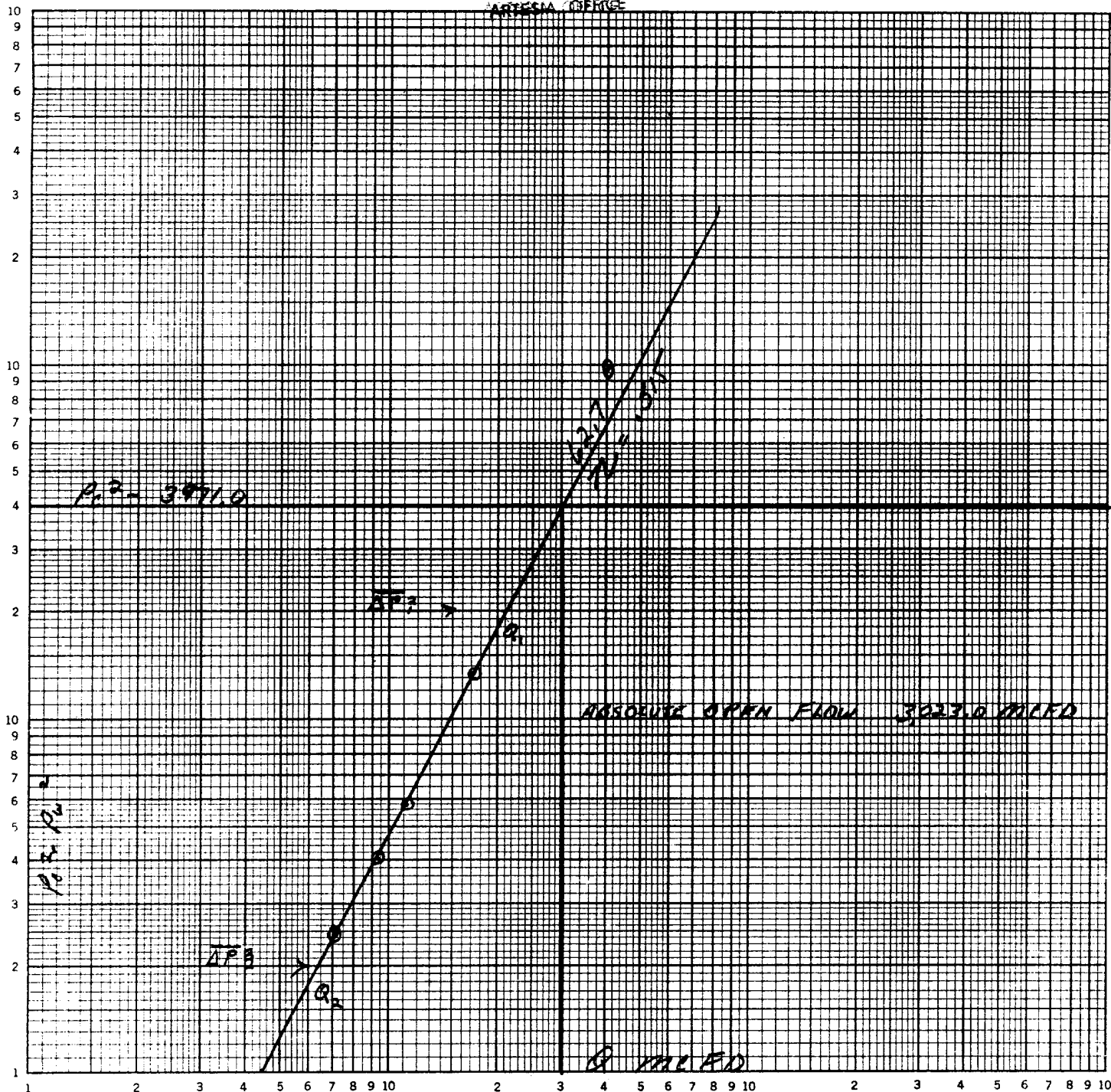
Unit G, S34, T8S, R27E

Chaves County

10-19-82

46 7400

K-E LOGARITHMIC 3 X 3 CYCLES • KEUFFEL & ESSER CO. MADE IN U.S.A.



$$\Delta P_1 \quad P_c^2 - P_w^2 = 2000$$

$$\Delta P_2 \quad P_c^2 - P_w^2 = 200$$

$$Q_1 = 2111.5 \text{ mcf/d}$$

$$Q_2 = 645.0 \text{ mcf/d}$$

$$\log Q_1 = 3.3246$$

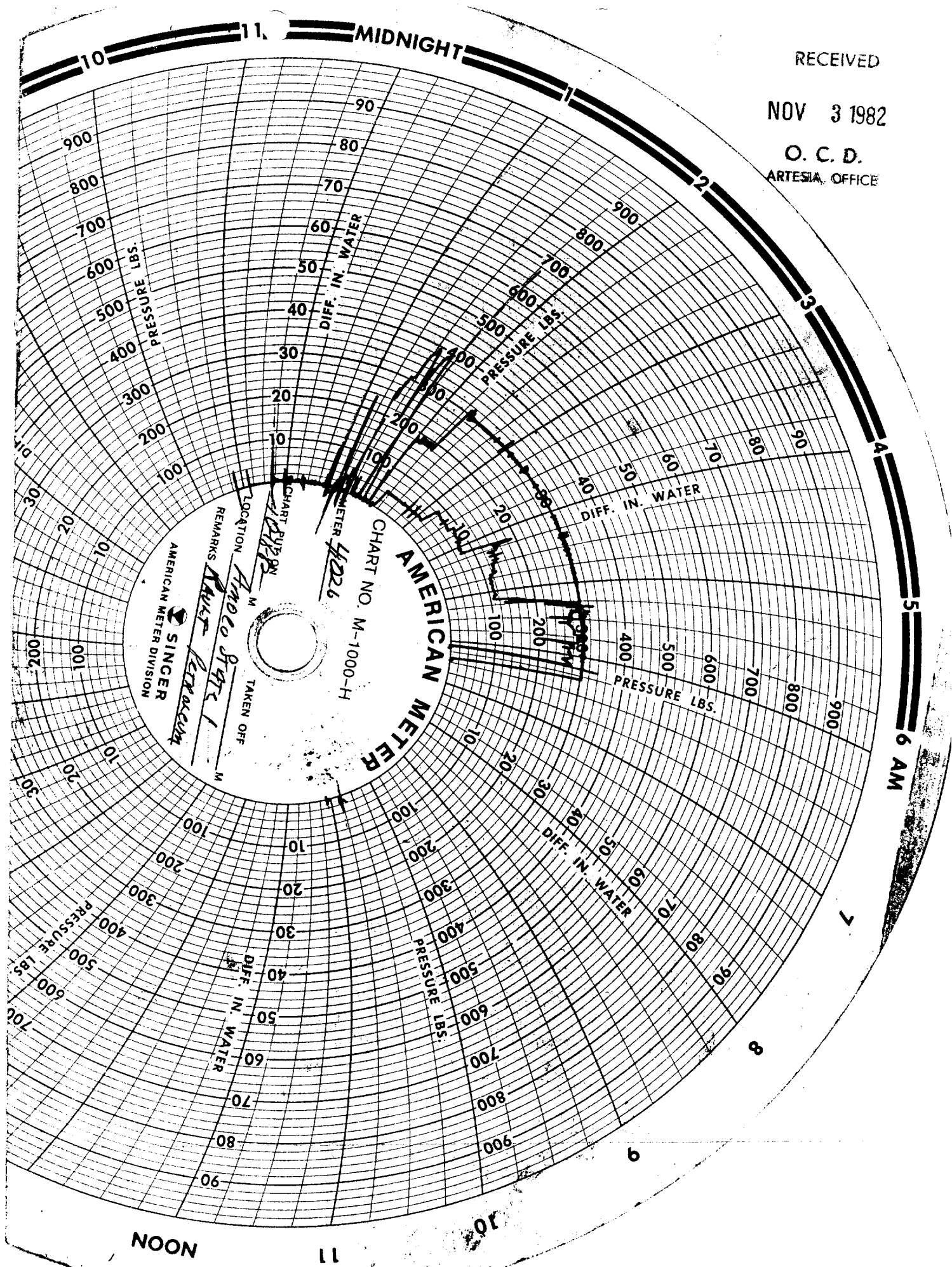
$$\log Q_2 = 2.8096$$

$$\pi = 1.5150$$

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O. C. D.
ARTESIA, OFFICE



**NEW-TEX
LAB**

PHONE 505/393-3581

P. O. BOX 1161

811 W. SNYDER

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O. C. D.

MOBILE, NEW MEXICO 88240

ANALYSIS CERTIFICATE

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

ANALYSIS NUMBER: 8507
DATE OF RUN: 10 19 82
DATE SECURED: 10 19 82

SAMPLE IDENT: RAULT PETROLEUM - AMOCO STATE #1
SAMPLING PRESS: SAMPLING TEMP:

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

	MOLE PERCENT	GAL/ MCF
NITROGEN	3.081	
CARBON DIOXIDE	0.147	
METHANE	91.238	
ETHANE	3.408	0.909
PROPANE	0.951	0.261
ISO-BUTANE	0.156	0.051
NORMAL BUTANE	0.329	0.103
ISO-PENTANE	0.102	0.037
NORMAL PENTANE	0.133	0.048
HEXANES	0.119	0.049
HEPTANES PLUS	0.336	0.155
TOTAL	100.000	1.613

PROPANE GPM: 0.26 BUTANES GPM: 0.15
ETHANE GPM: 0.91 PENTANES PLUS GPM: 0.29

SPECIFIC GRAV (CALC): 0.6170
MOLE WEIGHT: 17.90

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
	14.696	1037	1055
	14.650	1034	1052
	14.730	1039	1058
	14.735	1040	1058

ANALYZED BY: DEANE SIMPSON

APPROVED BY

[Signature]

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NOV 3 1982 October 21, 1982

RAULT PETROLEUM CORPORATION, OPERATOR

O. C. D.
ARTESIA, OFFICE

FINAL REPORT - AMOCO STATE #1

4-POINT POTENTIAL
TEST

DATE: Oct. 19, 1982; PRESENT OPERATION: Shut in 108 hours. TP (Well-head pressure) = 1945 psig; BHP (Bottom hole pressure) = 2342 psig.

FLOW TEST DATA

	<u>CHOKE:</u>	<u>TUBING PRESSURE:</u> <u>(WELL-HEAD PRESSURE)</u>	<u>GAS VOLUME:</u> <u>(MCF/D)</u>	<u>BOTTOM HOLE</u> <u>PRESSURE:</u>
<u>1st FLOW:</u>	5/64	1861 psig	700	2267 psig
<u>2nd FLOW:</u>	7.5/64	1796 psig	933	2217 psig
<u>3rd FLOW:</u>	11/64	1690 psig	1122	2161 psig
<u>4th FLOW:</u>	13/64	1390 psig	1731	1895 psig

CAOF (CALCULATED ABSOLUTE
OPEN FLOW): 3,023 MCF/D. No liquids.

GAS SPECIFIC GRAVITY: .617

CO₂: .15 MOLE %

N₂ : 3.08 MOLE %

BTU: 1055

TEST DATE: 10-18-82

TEST DEPTH: 5,393

ELEMENT NO.: RPG3 #7201-B

RANGE: 3,200 LBS.

CLOCKS: 27744

RANGE: 48 HOURS

OPERATOR: DON BENNETT

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

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O. C. D.
ARTESIA, OFFICE

JIM VADRINE

RAULT PETROLEUM

AMOCO STATE WELL NO. 1

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

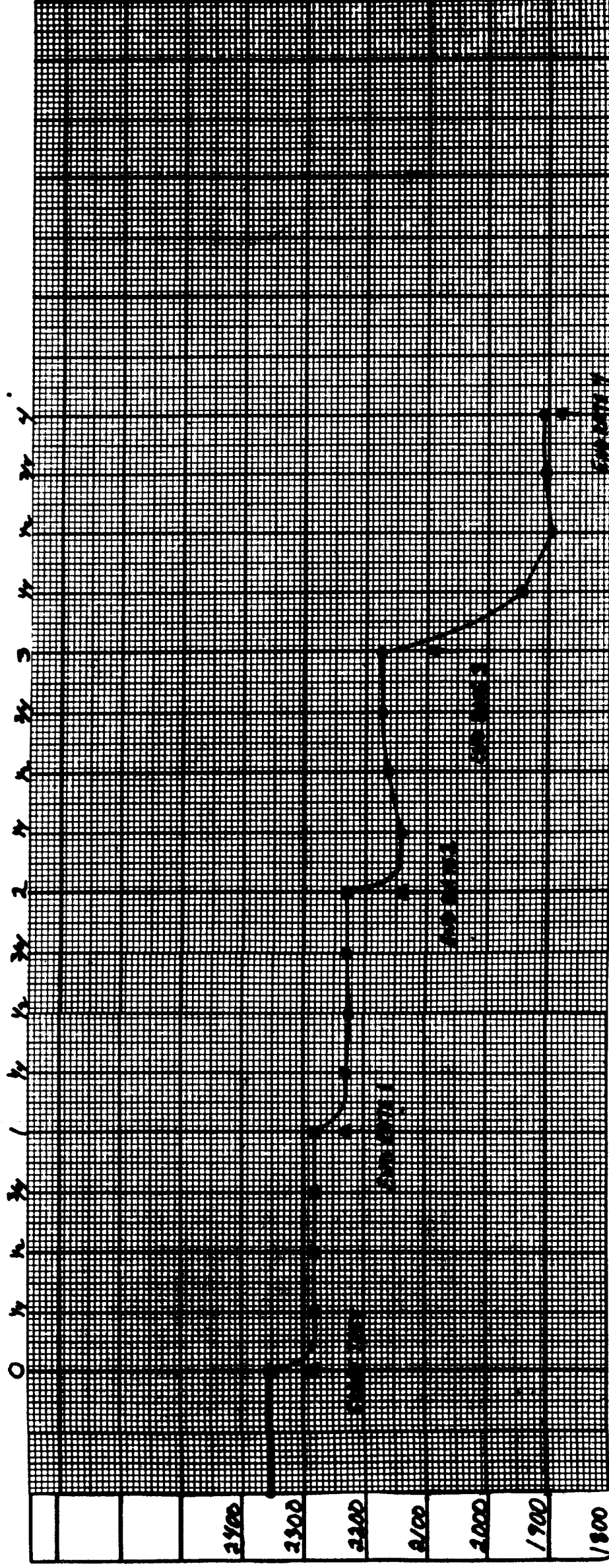
505/746-3281

Drawn By Scale: As Shown

BENNETT-
CATHEY
WELL SERVICES

FOUR POINT BACK PRESSURE TEST

TIME IN HOURS



TEST DATE: 10-19-82
TEST DEPTH: 6,393

ELEMENT NO.: RPG3 #7201-B
RANGE: 3,200 LBS.

CLOCKS: 27744
RANGE: 48 HOURS

OPERATOR: STEVE HARWELL

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

BUILD UP TEST

JIM VADRINE

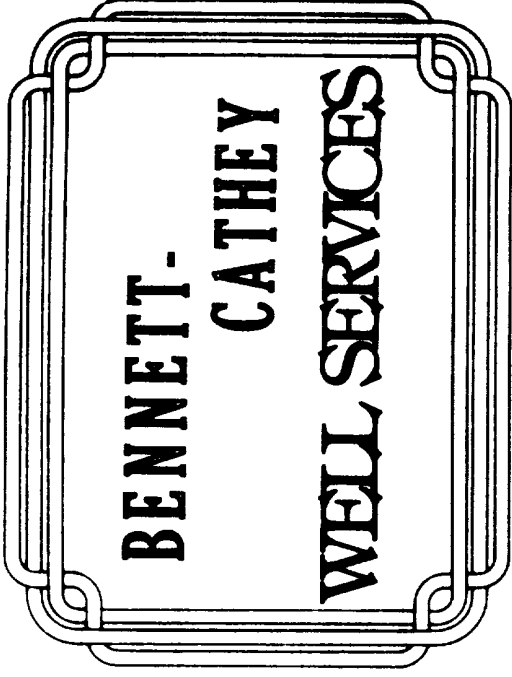
RAULT PETROLEUM

AMOCO STATE COM WELL NO. 1

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

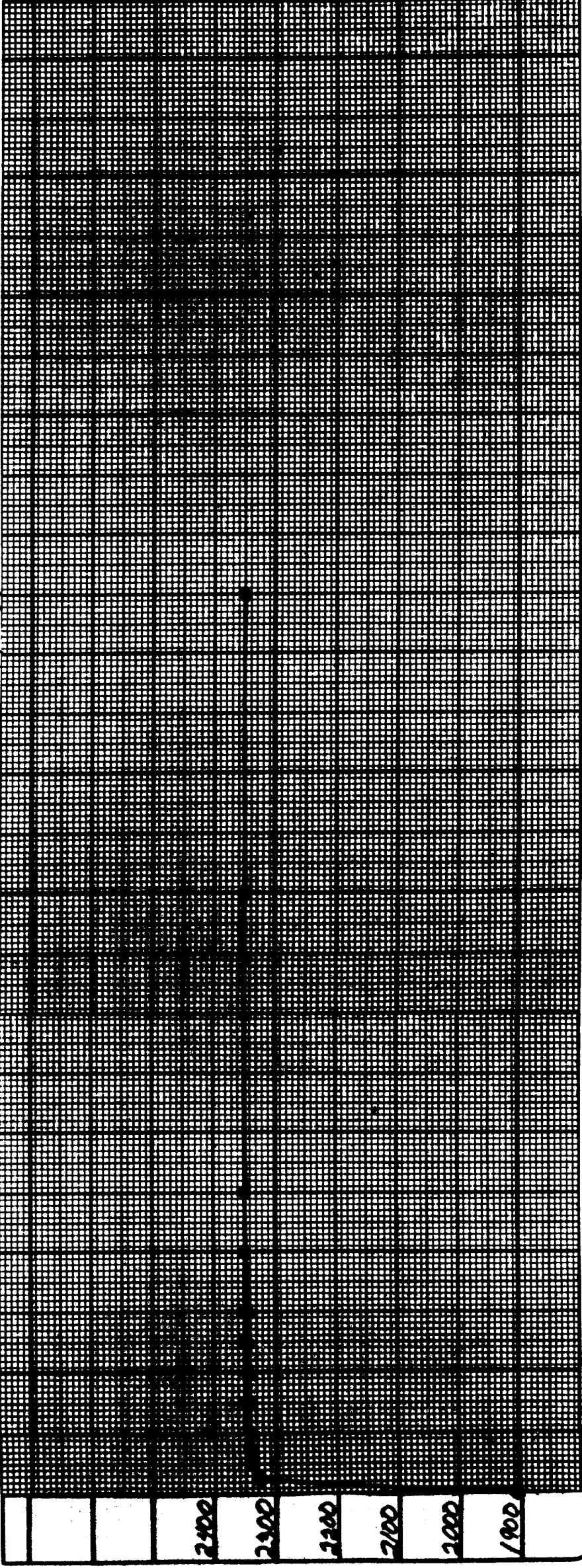
Drawn By

Scale: As Shown



TIME IN HOURS

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15





BENNETT-CATHEY WIRE LINE SERVICE

P. O. BOX 787

ARTESIA, NEW MEXICO 88210

Phone (505) 746-3281

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BOTTOM HOLE PRESSURE SURVEY REPORT

O. C. D.

ARTESIA, OFFICE

OPERATOR RAULT PETROLEUM
LEASE AMOCO STATE COM
WELL NO. 1
POOL FORMATION ABO
DATE 10-20-82 TIME 0849 HOURS
CO. MAN JIM VADRINE
STATUS SHUT IN TEST DEPTH 6,393
TIME S.I. 0625 HRS. LAST TEST DATE 1ST TEST
10-19-82 BHP LAST TEST
TUB. PRES. 1950 BHP CHANGE
CAS. PRES. FLUID TOP
DATUM PLANE WATER TOP
DATUM PSIA 2350 RUN BY BILLY JOE CATHEY
TEMP 128° CLOCK # 27744
PRESSURE RANGE 3,200 LBS.
ELEMENT NO. RPG3 #2701-B

DEPTH	PRESSURE	GRADIENT
0	1950	
2,000	2082	6.6
4,000	2200	5.9
6,243	2336	6.1
6,393	2350	9.3

TIME B.H.P. MEASURED: 0849 HRS.

LENGTH OF TIME WELL SHUT IN: 15 HRS.
-0- MIN.

