W.F.

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Type Test: [X] Initial FOUR POINT [ ] Annual [ ] Special | Test Date: 7-8-82 | 660 FSL

Company: RAULT PETROLEUM Corp. | Connection: AIR NEW WELL | 660 FWL

Pool: WILDCAT Penn | Formation: PENN | Unit: M

Completion Date	Total Depth	Plug Back TD	Elevation	Farm or Lease Name
7-4-82	6800	6500	3948 KB	HANLAD STATE

Csg. Size	Wt.	d	Set At	Perforations	Well No.
4.5	10.5	4.052	6800	From 6327 To 6411	1
Tbg. Size	Wt.	d	Set At	Perforations	Unit / Sec. / Twp. / Rge.
2.375	4.7	1.995	6283	From OPEN To ENDED	M / 13 / 8S / 27E

Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE | Packer Set At: 6283 | County: CHAVES

Producing Thru: TUBING | Reservoir Temp. °F: 124 @ 6369 | Mean Annual Temp. °F: 60° | Baro. Press. – P_a: 13.2 | State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
6369	6369	0.6339	.373	5.766		2.00		FLANGE

NO	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	B.H.P. DATA: Press. p.s.i.g.	CHOKE	Duration of Flow
SI					2020	96	2393		92-1/2 H
1.	2.00 X 1/8	1910	.00	80	1887	87	2245	48/64	1 HR
2.	2.00 X 3/16	1680	.00	81	1667	88	1992	48/64	1 HR
3	2.00 X 7/32	1440	.00	78	1510	83	1824	12/64	1 HR
4	2.00 X 1/4	1215	.00	75	1315	80	1659	14/64	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	.2716	.00	1923.2	.9813	1.2559	1.1187	720
2	.6237	.00	1693.2	.9804	1.2559	1.1097	1443
3	.8608	.00	1453.0	.9831	1.2559	1.0990	1697
4	1.1150	.00	1228.2	.9859	1.2559	1.0885	1846
5							

NO	P_t	Temp. °R	T_f	Z
1	2.90	540	1.54	.799
2	2.55	541	1.54	.812
3	2.19	538	1.54	.828
4	1.85	535	1.53	.844
5				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas .6340 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 663 P.S.I.A. _____ P.S.I.A.
Critical Temperature 350 R _____ R

P_c 2406.2 P_c^2 5789.8

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2258.2	5099.5	690.0
2		2005.2	4020.8	1769.0
3		1837.2	3375.3	2414.0
4		1672.2	2796.3	2994.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.9338$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4612$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2697.4$

Posted 10-2 7-30-82 Comp + BK

Absolute Open Flow 2697.4 Mcfd @ 15.025 | Angle of Slope @ 60.6 | Slope, n .5751

Remarks: BOTTOM HOLE PRESSURE MEASURED WITH AMERADA PRESSURE ELEMENTS.

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

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NEW-TEX LAB
P.O. Box 1161
Hobbs, New Mexico 88240

ANALYSIS CERTIFICATE

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

ANALYSIS NUMBER: 7774
DATE OF RUN: 07 09 1982
DATE SECURED: 07 08 1982

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

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

	MOLE PERCENT	GAL/ MCF
NITROGEN	5.766	
CARBON DIOXIDE	0.373	
METHANE	87.734	
ETHANE	3.927	1.047
PROPANE	0.946	0.260
ISO-BUTANE	0.179	0.058
NORMAL BUTANE	0.333	0.105
ISO-PENTANE	0.141	0.051
NORMAL PENTANE	0.174	0.063
HEXANES	0.160	0.066
HEPTANES PLUS	0.267	0.123
TOTAL	100.000	1.773

PROPANE GPM: 0.26
ETHANE GPM: 1.05
BUTANES GPM: 0.16
PENTANES PLUS GPM: 0.30

SPECIFIC GRAV (CALC): 0.6339
MOLE WEIGHT: 18.38

HHV-BTU/CU FT PRESSURE (PSIA)	WET	DRY
14.696	1013	1031
14.650	1010	1028
14.730	1016	1034
14.735	1016	1034

ANALYZED BY: R H HAMILTON

APPROVED BY: Deana Simpson Lyles

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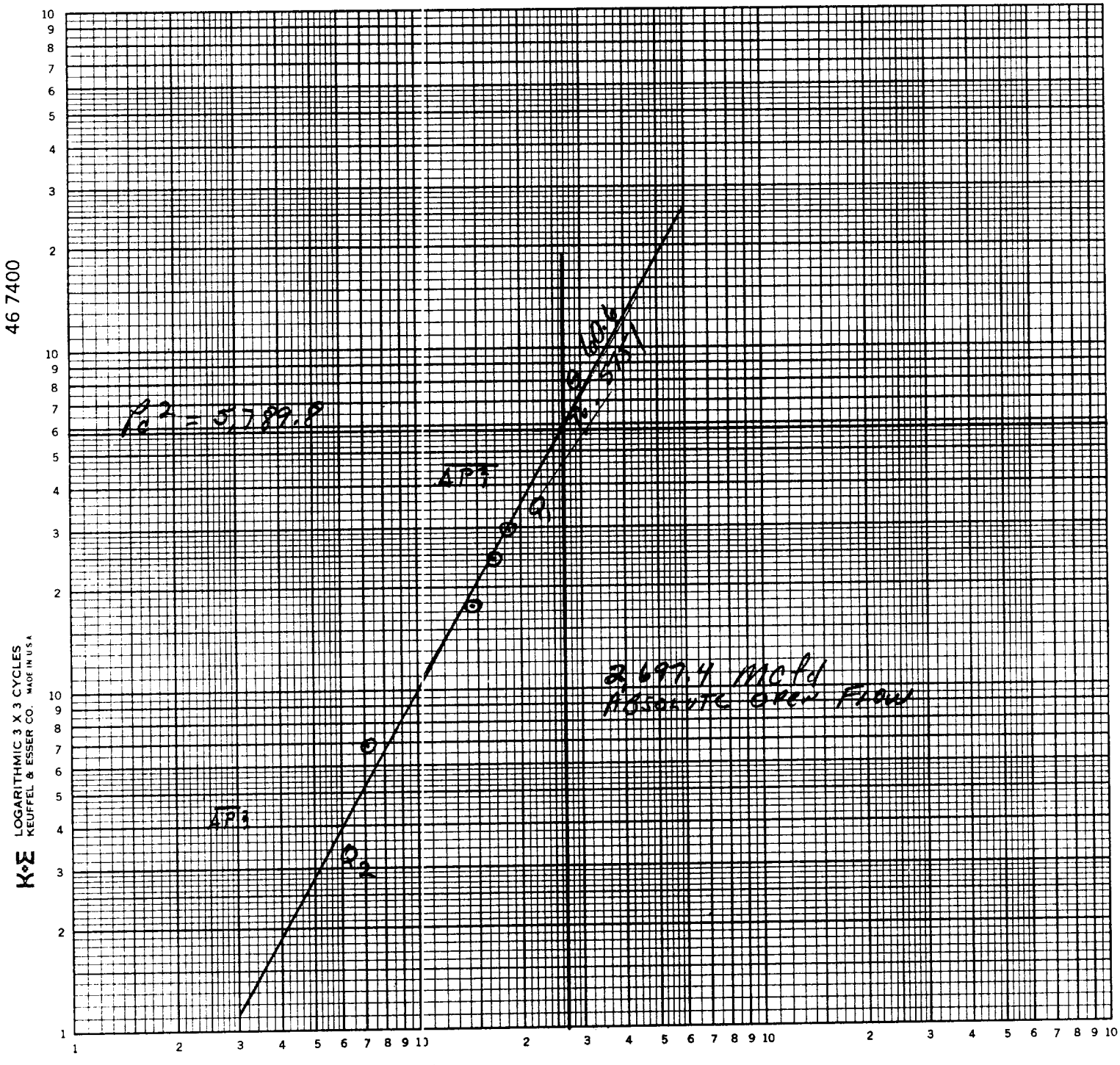
[illegible]
Landrad State Well No 1
Unit M, Sec 13, Twp 8S, Rge 27E
Chaves County
July 8, 1982



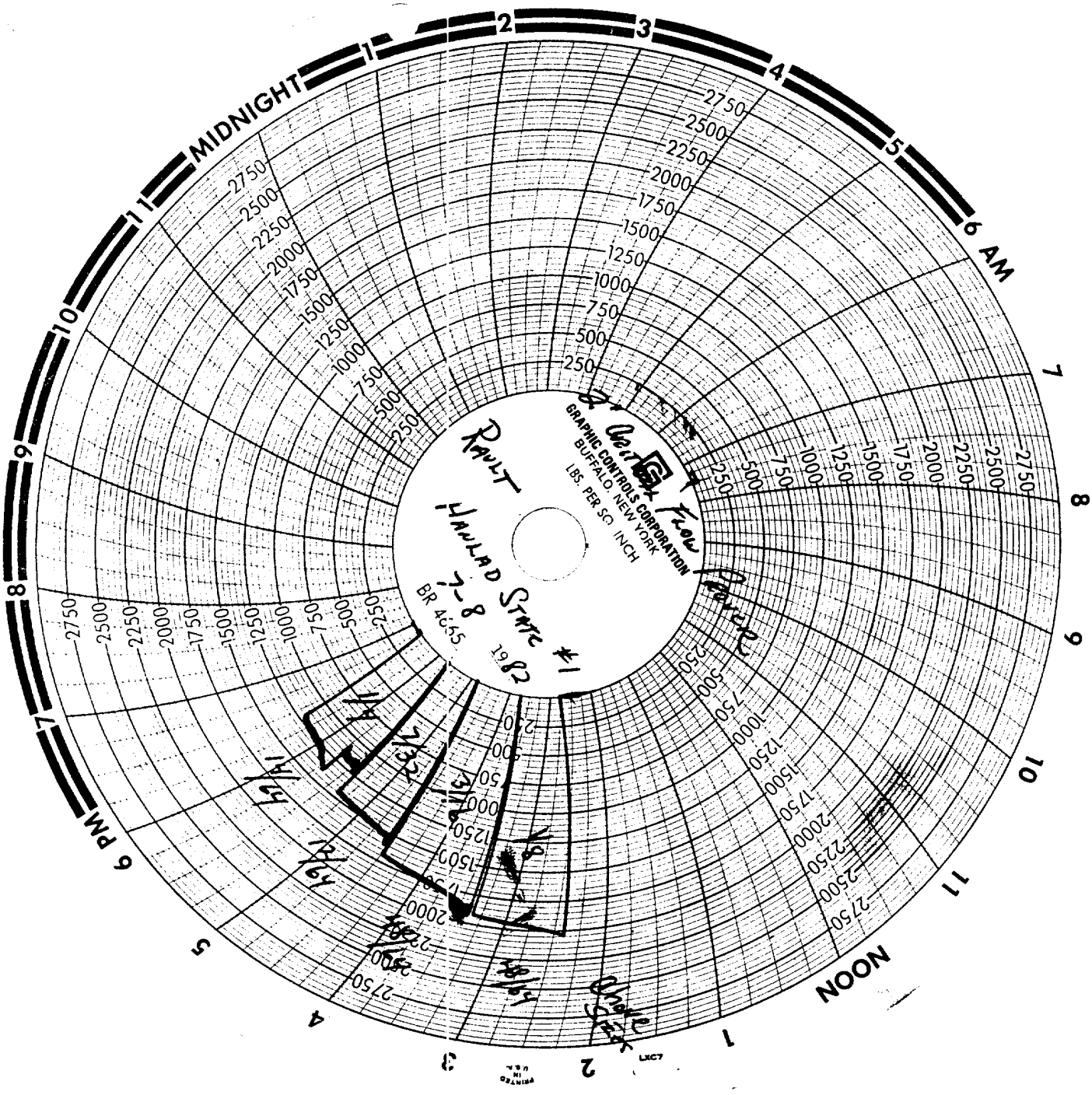
$\overline{\Delta P}_1^2$ $P_c^2 - P_w^2 = 4000$

$\overline{\Delta P}_2^2$ $P_c^2 - P_w^2 = 400$

$Q_1 = 2180.0$ Mcfd

$Q_2 = 580.1$ Mcfd

Log Q_1	3.3385
Log Q_2	2.7634
n	.5751



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BENNET - CATHEY

(505) 748--3354 / Artesia, New Mexico 88210

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY RAULT PETROLEUM WELL NAME HANLAD STATE WELL NO. 1

DATE OF TEST 7-8-82 FORMATION PENN PAGE 1 OF 1

COMPANY MAN JIM VADRINE

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CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

ELEMENT NUMBER RPG3 #21121N RANGE 5,000 LBS.

CLOCK NUMBER 27744 RANGE 48 HOURS

TIME WELL SHUT IN 1800 HOURS 7-4-82

TIME CLOCK STARTED 1053 HOURS 7-8-82

DEAD WEIGHT ELEMENT ON SURFACE 2033 PSIA SHUT IN LBS.

TIME ELEMENT REACHED BOTTOM 1130 HOURS 7-8-82

DEAD WEIGHT ELEMENT ON BOTTOM 2033 PSIA SHUT IN LBS.

ELEMENT SET AT 6,369 FEET.

TEMPERATURE 6,369 FT. 124 °F.

DEAD WEIGHT AT THE END OF HOURS MINUTES.

DATE	HOUR	TIME	DEFLECTION in/inches	CALCULATED PRESSURE psig	CORRECTION P ± PC psig	CORRECTED PRESSURE psia	PRESSURE AT MID-POINT OF PERFORATIONS psia
7-8-82							
START TEST	0	1445		2393	13.2		2406
	1/4	1500		2351	13.2		2364
	1/2	1515		2293	13.2		2306
	3/4	1530		2264	13.2		2277
END RATE 1	1	1545		2245	13.2		2258
	1-1/4	1600		2154	13.2		2167
	1-1/2	1615		2066	13.2		2079
	1-3/4	1630		2025	13.2		2038
END RATE 2	2	1645		1992	13.2		2005
	2-1/4	1700		1966	13.2		1979
	2-1/2	1715		1884	13.2		1897
	2-3/4	1730		1848	13.2		1861
END RATE 3	3	1745		1824	13.2		1837
	3-1/4	1800		1805	13.2		1818
	3-1/2	1815		1724	13.2		1737
	3-3/4	1830		1681	13.2		1694
END RATE 4	4	1845		1659	13.2		1672

Bryan Printers & Stationers, Inc.

TEST DATE: 7-8-82
TEST DEPTH: 6,369

ELEMENT NO.: RPG3 #21121N
RANGE: 5,000 LBS.
CLOCKS: 27744
RANGE: 48 HOURS
OPERATOR: BO FAULKENBERRY

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

JIM VADRINE

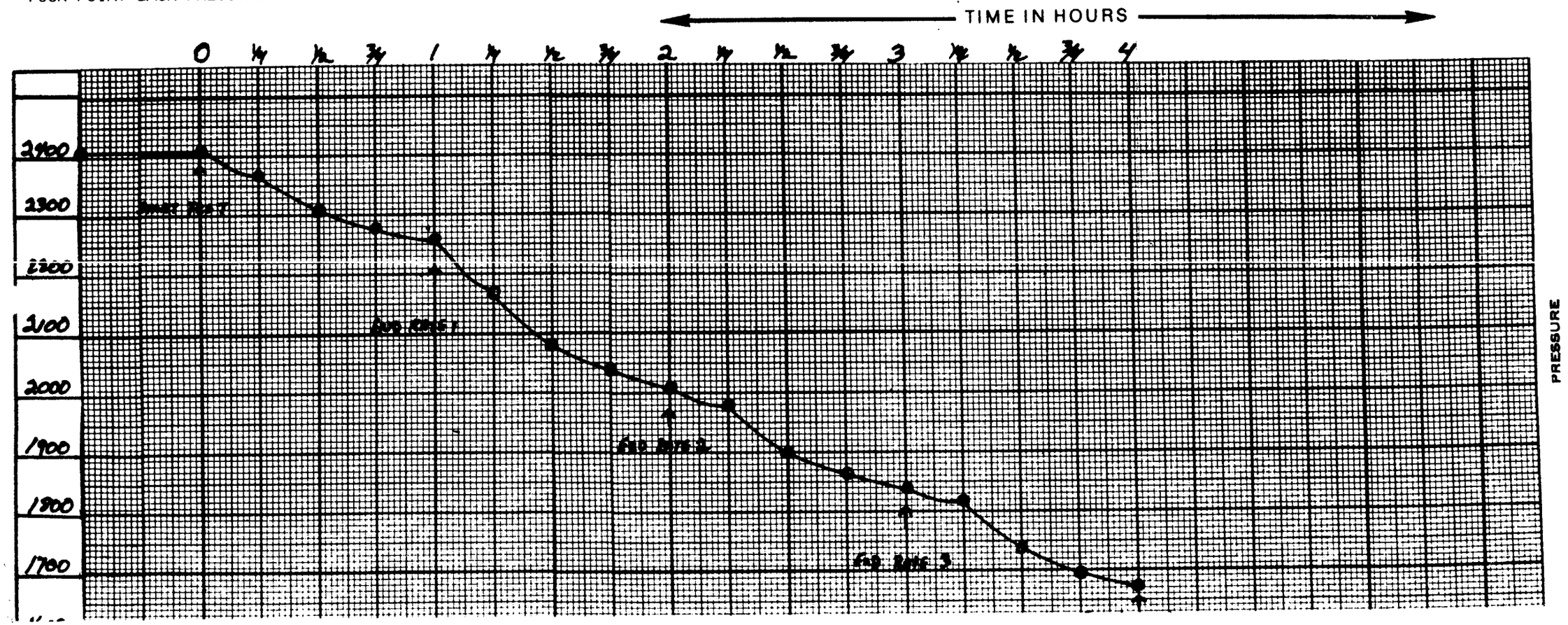
RAULT PETROLEUM

HANLAD 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



TEST DATE: 7-9-82
TEST DEPTH: 6,369

ELEMENT NO.: RPG3 #21121N
RANGE: 5,000 LBS.

CLOCKS: 27744
RANGE: 48 HOURS

OPERATOR: BO FAULKENBERRY

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

24 HOURS BUILD UP TEST

JIM VADRINE

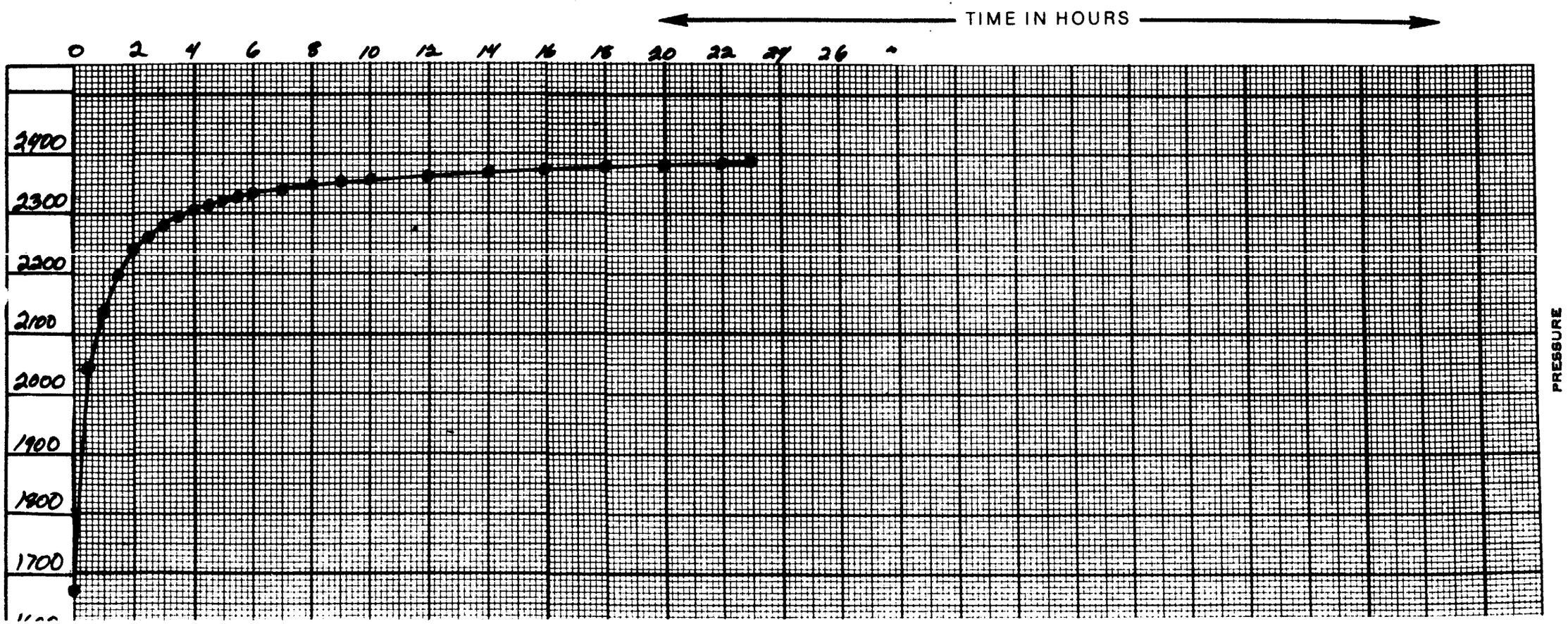
RAULT PETROLEUM

HANLAD 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



BENNETT-CATHEY WIRE LINE SERVICE

P. O. BOX 787
ARTESIA, NEW MEXICO 88210
Phone (505) 746-3281

BOTTOM HOLE PRESSURE SURVEY REPORT

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OPERATOR RAULT PETROLEUM
LEASE HANLAD STATE
WELL NO. 1
POOL _____ **FORMATION** PENN
DATE 7-9-82 **TIME** 1917 HOURS
CO. MAN JIM VADRINE
STATUS SHUT IN **TEST DEPTH** 6,369
TIME S.I. 1845 HRS. **LAST TEST DATE** 1ST TEST
7-8-82 **BHP LAST TEST** _____
TUB. PRES. 2007 **BHP CHANGE** _____
CAS. PRES. _____ **FLUID TOP** _____
DATUM PLANE _____ **WATER TOP** _____
DATUM PSIA 2382 **RUN BY** BO FAULKENBERRY
TEMP 124° **CLOCK #** 27744
PRESSURE RANGE 5,000 LBS.
ELEMENT NO. RPG3 #21121N

DEPTH	PRESSURE	GRADIENT
0	2007	
2,000	2128	6.1
4,000	2244	5.8
6,000	2357	5.7
6,219	2370	5.9
6,369	2382	8.0

TIME B.H.P. MEASURED: 1917 HRS.

LENGTH OF TIME WELL SHUT IN: 24 HRS. 32 MIN.