

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL *C-122 file*

Type Test ☒ Initial FOUR POINT ☐ Annual ☐ Special						Test Date 12-7-81		660 FNL RECEIVED	
Company MC CLELLAN OIL CORP.				Connection AIR NEW WELL				660 FWL	
Pool UNDESIGNATED <i>abc</i>				Formation ABO				Unit D DEC 16 1981	
Completion Date 11-30-81		Total Depth 4560		Plug Back TD 4560		Elevation 3709 KB		Farm or Lease Name FINCH FEE O. C. D. ARTESIA, OFFICE	
Coq. Size 4.500	Wt. 10.5	d 4.052	Set At 4560	Perforations: From 4287 To 4415		Well No. 1			
Trq. Size 2.375	Wt. 4.70	d 1.995	Set At 4336	Perforations: From OPEN To ENDED		Unit D		Sec. 18	Twp. 9S
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		County CHAVES			
Producing Thru TUBING		Reservoir Temp. °F 100° 4351		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 4351	H 4351	G _g .691	% CO ₂ 4.92	% N ₂ 6.94	% H ₂ S	Prover 2.00	Meter Run	Taps	

FLOW DATA							TUBING DATA		CASING 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	B.H.P. PSIG	Temp. °F	
SI							991	64			194 HRS
1.	2.000	X	1/16	948		39	984	51	1112		3/4
2.	2.000	X	1/8	943		50	943	51	1069		1
3.	2.000	X	1/4	690		53	690	54	812		1
4.	2.000	X	3/8	361		52	361	54	491		1
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	.0657	.00 >	997.2	1.0208	1.2030	1.1077	89
2	.2716	.00	956.2	1.0098	1.2030	1.0937	345
3	1.1150	.00	703.2	1.0068	1.2030	1.0666	1013
4	2.4390	.00	374.2	1.0078	1.2030	1.0347	1145
5							

NO.	P _t	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/ubl.
1	1.47	499	1.39	.815	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	1.41	510	1.42	.836	Specific Gravity Separator Gas .6910 XXXXXXXXX
3	1.04	513	1.43	.879	Specific Gravity Flowing Fluid XXXXX .6910
4	.55	512	1.43	.934	Critical Pressure 678 P.S.I.A. _____ P.S.I.A.
5					Critical Temperature 358 _____ R _____ R

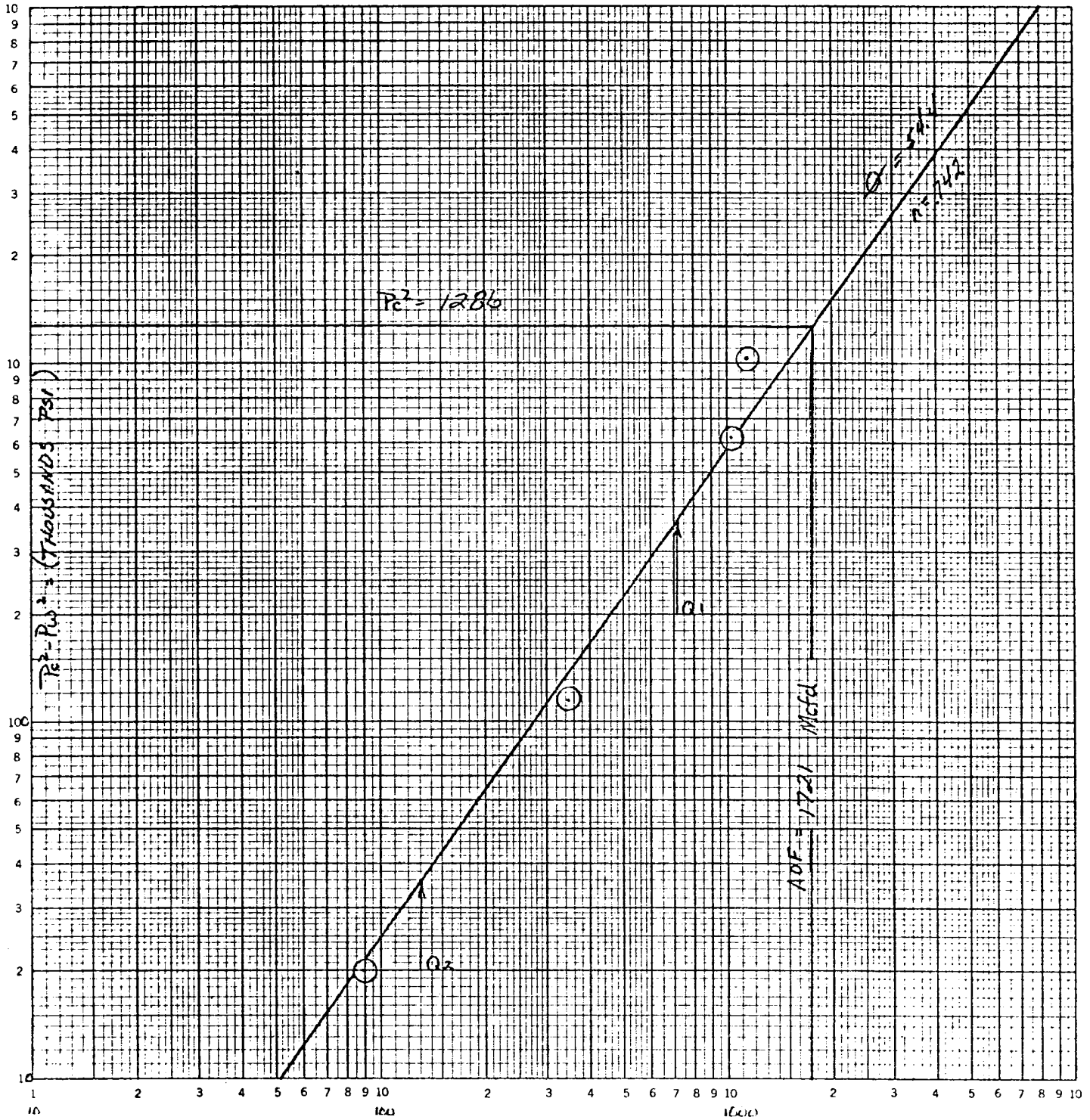
P _c 1134.2 P _c ² 1286.4				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1369$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.7210$	
NO.	P _w	P _w ²	P _c ² - P _w ²				
1	1125.2	1266.1	20				
2	1082.2	1171.2	115				
3	827.2	684.3	602				
4	504.2	254.2	1032				
5							

Absolute Open Flow 1743.3 Mcfd @ 15.225				Angle of Slope θ 54.4		Slope, n .7419	
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMARADA PRESSURE ELEMENTS.							
Approved By Division		Conducted By: RICHARD TOWNLEY		Calculated By: WOHLFORD & JENKINS		Checked By:	

McCLELLAN OIL CORP.
 FINCH FEE #1
 D - 18 - 95 - 26E
 CHAVES COUNTY
 NEW MEXICO
 12-7-81

46 7400

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



$$\overline{\Delta P}_1 \quad P_c^2 - P_w^2 = 360$$

$$\overline{\Delta P}_2 \quad P_c^2 - P_w^2 = 360$$

$$Q_1 = 717.5$$

$$Q_2 = 130$$

$$Q, \text{ Mcfd}$$

$$\text{LOG } Q_1 = 2.85551$$

$$\text{LOG } Q_2 = 2.11394$$

$$n = .74157 = .742$$

NEW-TEX LAB
P.O. BOX 1161
HOBBS NM 88241-1161
505-393-3561

ANALYSIS NUMBER: 6171
DATE OF RUN: 12/08/81
DATE SECURED: 12/08/81

ANALYSIS CERTIFICATE

SAMPLE IDENT: MCCLELLEN OIL CORP - FINCH FEE #1

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

SAMPLING PRESS: 0 PSIG SAMPLING TEMP: 0 DEG F
STATION NUMBER: D-18-9S-26E CHAVES CO. NM
***** GAS ANALYSIS *****

	MOLE PERCENT	GAL/ MCF
NITROGEN	6.9359335	
CARBON DIOXIDE	4.9152880	
METHANE	81.0815887	
ETHANE	4.0849628	1.0894600
PROPANE	1.5638424	0.4292750
ISO-BUTANE	0.2530501	0.0825702
NORMAL BUTANE	0.4770963	0.1499990
ISO-PENTANE	0.1378023	0.0503116
NORMAL PENTANE	0.1456491	0.0526376
HEXANES	0.1180968	0.0484433
HEPTANES PLUS	0.2866901	0.1319350
TOTAL	100.0000000	2.0346300

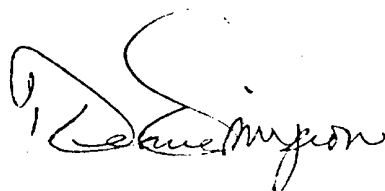
PROPANE GPM: 0.43 BUTANES GPM: 0.23
ETHANE GPM: 1.09 PENTANES PLUS GPM: 0.28

SPECIFIC GRAV (CALC): .6914
MOLE WEIGHT: 20.05

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
14.696		970	987
14.650		967	984
14.730		972	990
14.735		973	990

ANALYZED BY:

APPROVED BY:



COMPANY MC CLELLAN OIL COMPANY WELL NAME FINCH FEE WELL NO. 1
DATE OF TEST 12-7-81 FORMATION ABO PAGE 1 OF 1

ELEMENT NUMBER	RPG3 #73882	RANGE	3,500 LBS.
CLOCK NUMBER	G9489	RANGE	72 HOURS
TIME WELL SHUT IN	1500 HOURS	11-30-81	
TIME CLOCK STARTED	1621 HOURS		
DEAD WEIGHT ELEMENT ON SURFACE	1004 PSIA		LBS.
TIME ELEMENT REACHED BOTTOM	1647 HOURS		
DEAD WEIGHT ELEMENT ON BOTTOM	1004		LBS.
ELEMENT SET AT	4351		FEET.
TEMPERATURE	4351	FT.	100 °F.
DEAD WEIGHT AT THE END OF		HOURS	MINUTES.

[illegible]

TEST DATE: 12-7-81
TEST DEPTH: 4,351 FEET

ELEMENT NO.: RFG3 #73882
RANGE: 3,500 LBS.

CLOCKS: 69489
RANGE: 72 HOURS

OPERATOR: BOB HERREN

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

PAUL RAGSDALE

MC CLELLAN OIL COMPANY

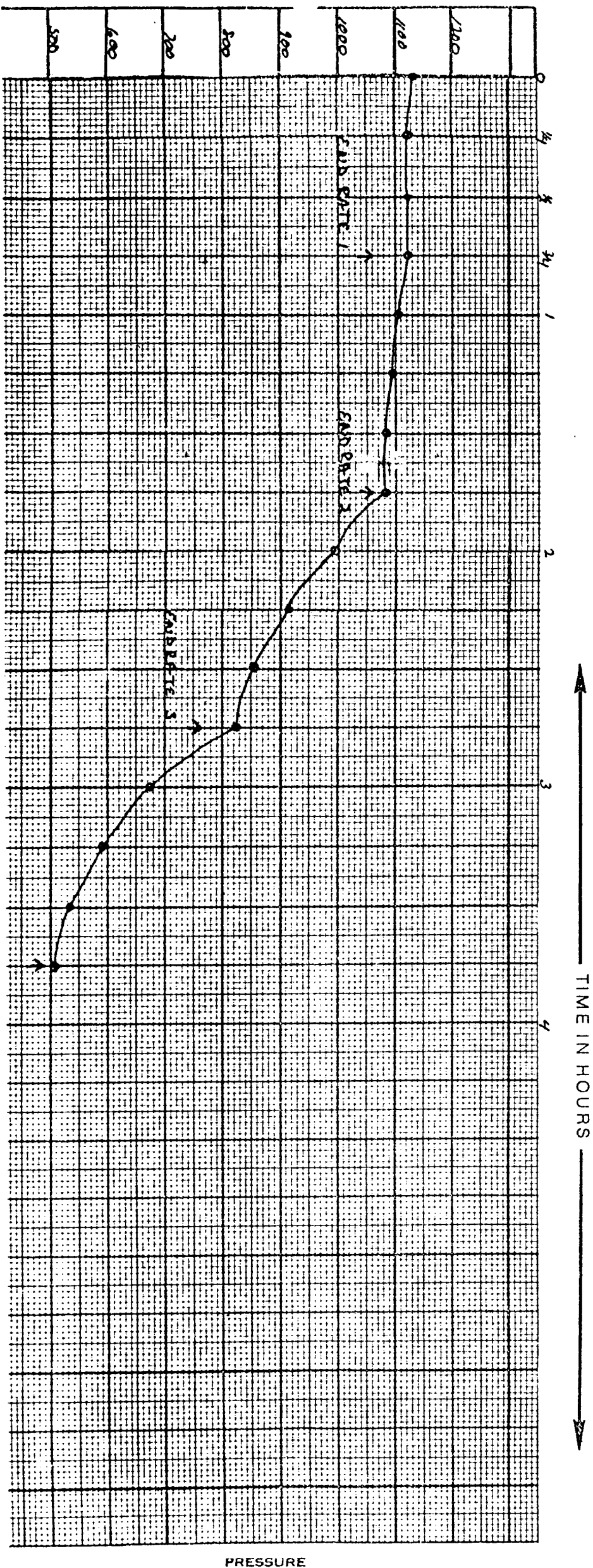
FINCH FEE WELL NO. 1

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

Drawn By

Scale: As Shown

BENNETT-
CATHEY
WELL SERVICES



Artesia, New Mexico 88210

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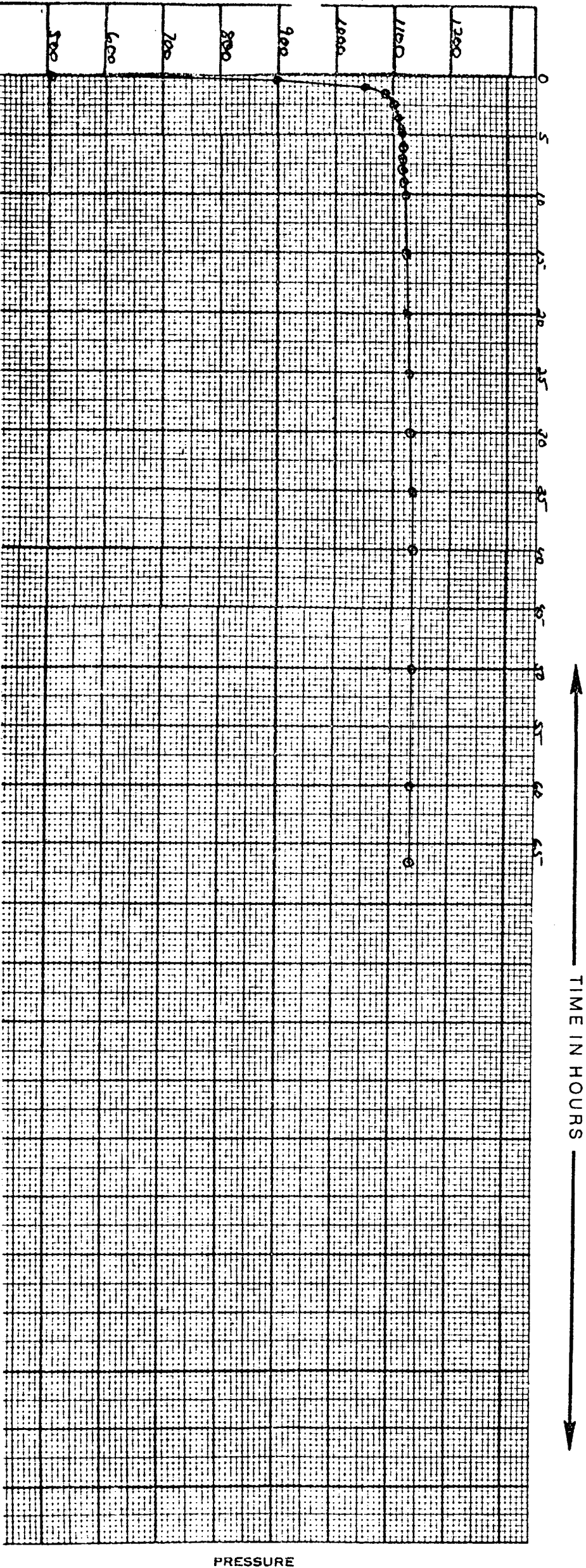
CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

DEAD WEIGHT AT THE END OF _____ HOURS _____ MINUTES.

[illegible]

TEST DATE: 12-4-81 TO 12-10-81
TEST DEPTH: 4,351 FEET
ELEMENT NO.: RPG3 #73882
RANGE: 3,500 LBS.
CLOCKS: G9489
RANGE: 72 HOURS
OPERATOR: BOB HERREN
Note: See Attached Sheet for Tabulation of Pressure
And Time.

PAUL RAGSDALE	
MC CLELLAN OIL COMPANY FINCH FEE WELL NO. 1	
BENNETT-CATHEY WIRE LINE SERVICE Box 787 Artesia, N.M. 88210 505/746-3281	
Drawn By	Scale: As Shown





BENN' TT-CATHEY WIRE LINE SERVICE



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

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR MC CLELLAN OIL COMPANY
LEASE FINCH FEE
WELL NO. 1
POOL FORMATION ABO
DATE 12-10-81 TIME 1626 HOURS

STATUS SHUT IN TEST DEPTH 4,351 FEET
TIME S.I. 2100 HRS. LAST TEST DATE 1ST TEST
CAS. PRES. 12-7-81 BHP LAST TEST
TUB. PRES. 1005 BHP CHANGE
ELE. FLUID TOP
DATUM PLANE WATER TOP
DATUM PSIA 1135 RUN BY BO FAULKENBERRY
TEMP 100° PRESSURE RANGE 3,500 LBS.
CLOCK NO.
ELEMENT NO. RPG3 #73882

DEPTH	PRESSURE	GRADIENT
0	1005	
1,000	1032	2.7
2,000	1063	3.1
3,000	1095	3.2
4,201	1130	3.5
4,351	1135	3.3

TIME B.H.P. MEASURED: 1626 HOURS

LENGTH OF TIME WELL SHUT IN: 67 HOURS
26 MINUTES

