

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

Form C-122
Revised 9-1-65

File

RECEIVED BY
MAY 23 1986
O. C. D.
WATERIA, OFFICE

Type Test 4-POINT <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 5-15-86
Company MCKAY OIL COMPANY		Connection TO AIR
Pool W. PECOS SLOPE		Formation ABO
Completion Date 5-12-86	Total Depth 3207' 3350	Plug Back L. 3207'
Elevation 4127	Farm or Lease Name REMMELE	
Cst. Size 4.5	Wt. 9.50	Well No. 3
Perforations: From 2832 To 3097	Set At 3265	
Inq. Size 2.375	Wt. 4.70	Unit F
Perforations: From To	Set At 2768	Sec. 25
Type Well - Single - Brdenhead - G.G. or G.O. Multiple SINGLE		County CHAVES
Producing Thru RUBING	Reservoir Temp. °F 101 @ 2960	Mean Annual Temp. °F 60°
Baro. Press. - P _g 1.32	State NEW MEXICO	
L 2960	H 2960	C _g 0.611
% CO ₂ 0.18	% N ₂ 5.67	% H ₂ S 0
Prover 2.0	Motor Run 0	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	Press. p.s.i.g.		Temp. °F
SI							885	72	873	72	72.0
1.	2.00	X	0.125	861	0	64	861	72	853	72	1.0
2.	2.00	X	0.188	835	0	61	835	73	827	73	1.0
3.	2.00	X	0.219	808	0	60	808	73	802	73	1.0
4.	2.00	X	0.250	760	0	58	760	73	763	73	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	Supor Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	0.26	0	874.2	0.9962	1.2793	1.0671	314
2	0.61	0	848.2	0.9990	1.2793	1.0665	702
3	0.84	0	821.2	1.0000	1.2793	1.0648	937
4	1.08	0	773.2	1.0019	1.2793	1.0620	1142
5							

NO.	P _g	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1	1.32	524	1.51	0.878	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	1.28	521	1.50	0.879	Specific Gravity Separator Gas _____ 0.611
3	1.24	520	1.50	0.882	Specific Gravity Flowing Fluid _____ XXXXX
4	1.17	518	1.50	0.887	Critical Pressure _____ 663 P.S.I.A.
5					Critical Temperature _____ 346 R

P _g 885.2	P _c 785		
NO.	P ₁ ²	P _w	P _w ²
1		865	749
2		839	704
3		814	663
4		775	601
5			

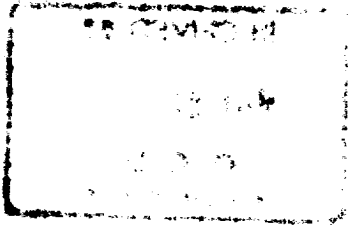
(1) $\frac{P_c^2}{P_g^2 - P_w^2} = 4.2925$

(2) $\left[\frac{P_c^2}{P_g^2 - P_w^2} \right]^n = 3.1211$

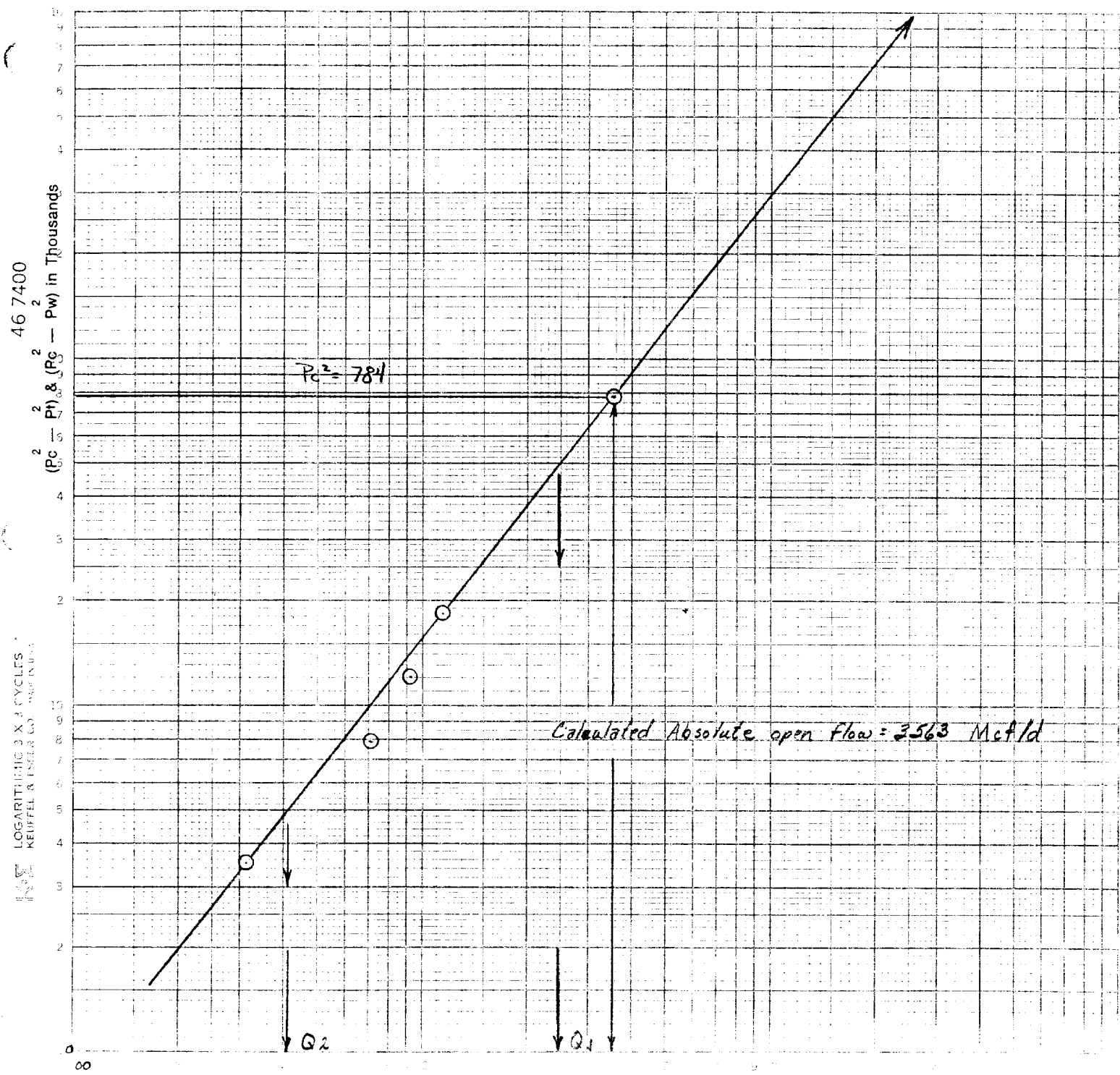
AOI = 0 $\left[\frac{P_g^2}{P_g^2 - P_w^2} \right]^n = 3563$

Post ID-2
5-30-86
comp + BK

Absolute Open Flow 3563 Mcfd @ 15.025	Angle of Slope @ 52.0	Slope, n 0.781
Remarks: FULL OPEN CHOKE TO CRITICAL FLOW PROVER		
Approved By Commission	Conducted By: BENNETT & CATHEY	Calculated By: RICHARD TOWNLEY
		Checked By:



Operator McKay Oil Lease Remmie Well No. #3
 County Chaves Field Nest Pecos Slope Location 25 65 22E
 Date of Test 5-15-86 Slope "n" 0.781 Angle of Slope 52°
 Calc. Abs. Potential 3563 MCF/D



$$\overline{\Delta P}_1^2 \quad P_c^2 - P_w^2 = \frac{500}{\quad}$$

$$\overline{\Delta P}_2^2 \quad P_c^2 - P_w^2 = \frac{50}{\quad}$$

$$Q_1 = \frac{2476}{\quad}$$

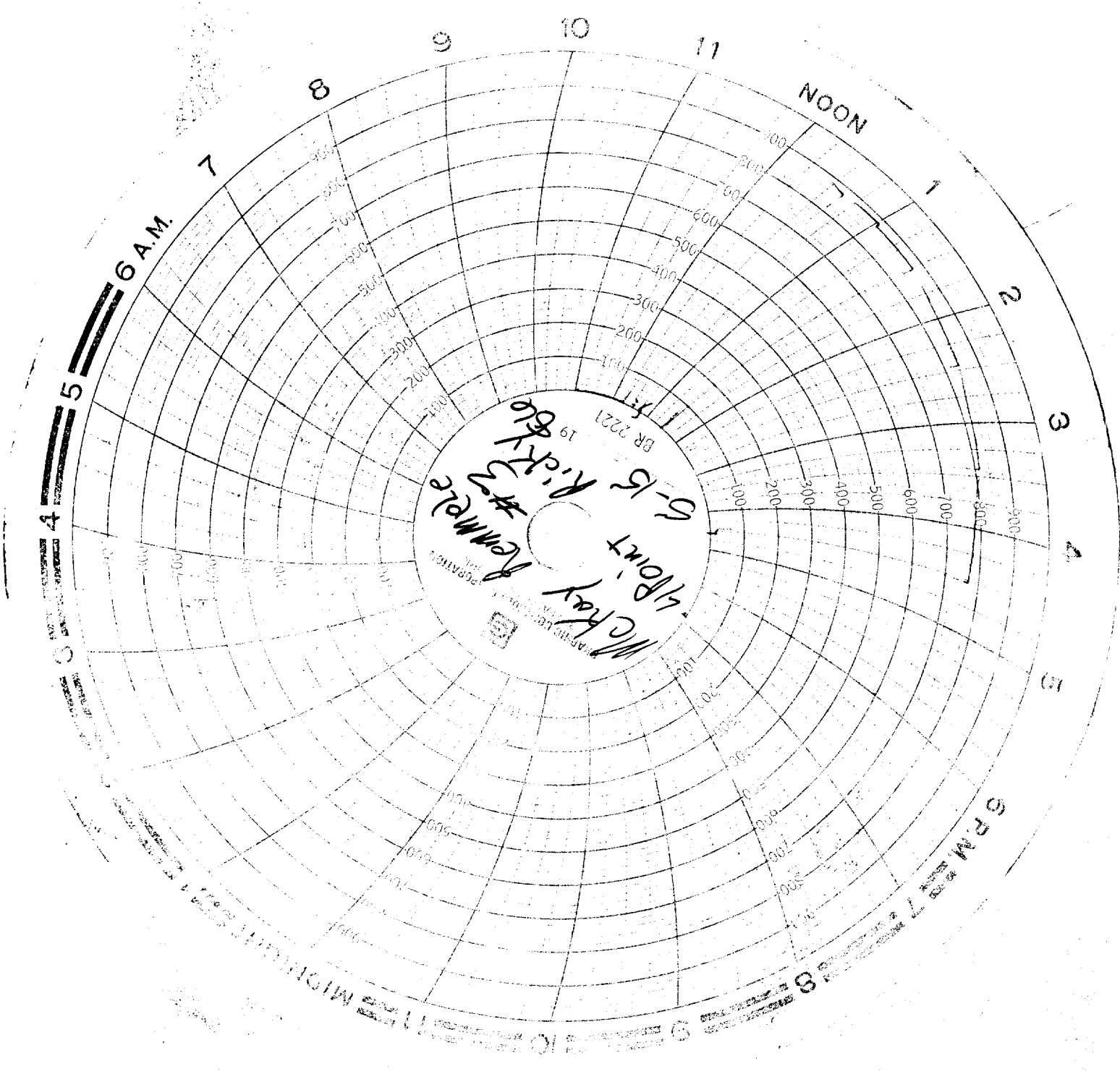
$$Q_2 = \frac{410}{\quad}$$

Q in MCF/Day

$$\text{LOG } Q_1 = \frac{2.6128}{\quad}$$

$$\text{LOG } Q_2 = \frac{3.3938}{\quad}$$

$$n = \frac{0.781}{\quad}$$



6 A.M.

NOON

5 P.M.

8

10

11

7

2

3

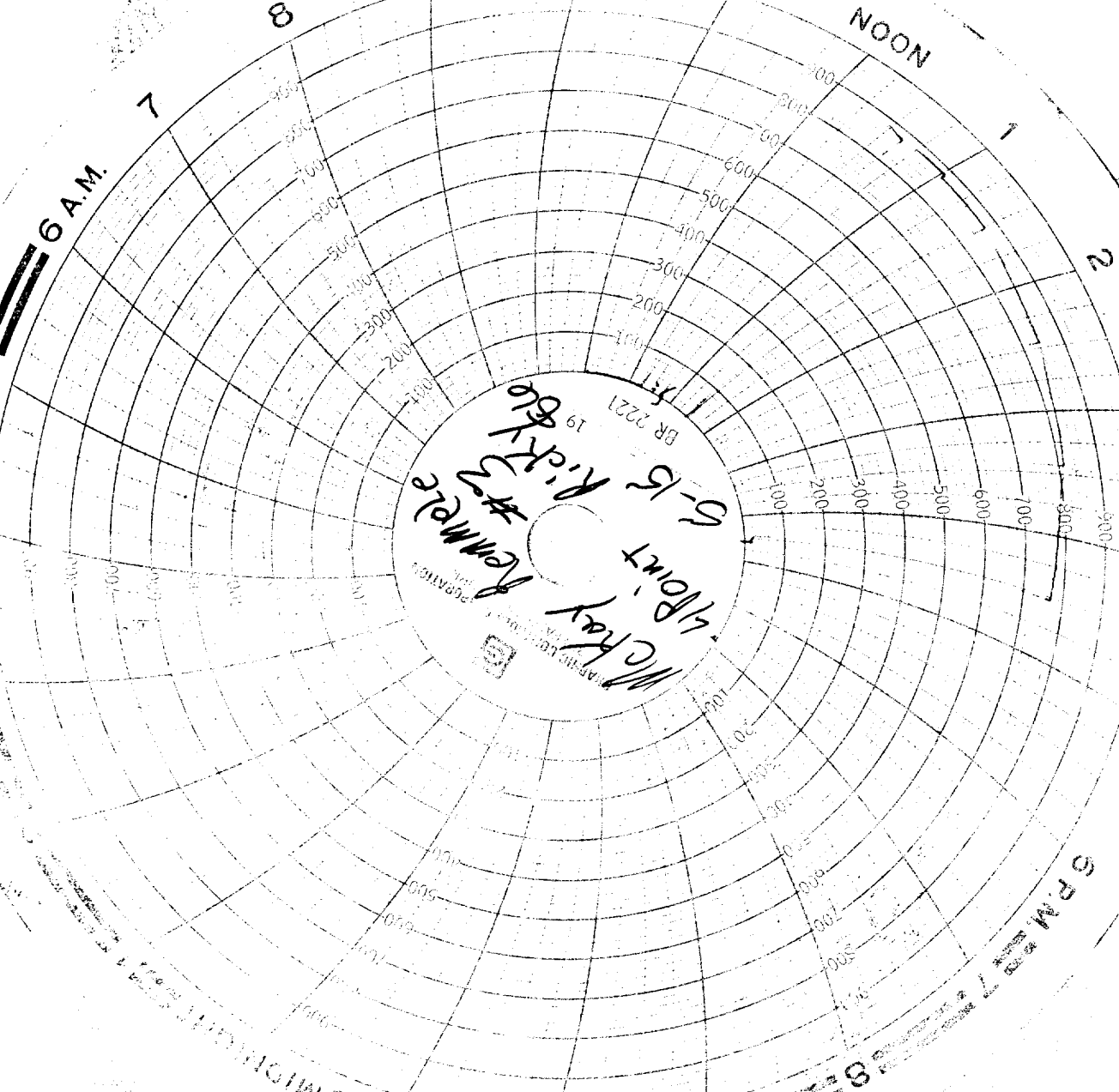
4

12

4

5

McRay Hemmels
Point #3
G-15 Rick #2
BR 2221 19 6/16



WELL : 13
 S/T/R : 04 69 22E
 COUNTY: CHAVEZ
 STATE : NEW MEXICO

LOG NO. :
 TEST DATE: 5/15/84

NEW MEXICO OIL CONSERVATION COMMISSION
 MULTIPoint AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

COMPANY: MCKAY OIL CONNECTION: TO AIR
 FIELD: W PECOS SLOPE POOL: RESERVOIR: ABO
 COMPLETED 5 12 84 TD = 3207. PBD = 3207. ELEV = 4127
 CSG SIZE = 4.5000 WT = 9.50 SET AT 3265. PERF: 2832.- 3097.
 TBS SIZE = 2.3750 WT = 4.70 SET AT 2768. PERF: 0.- 0.
 TYPE COMPLETION: SINGLE PACKER SET AT: 0.
 PRODUCING THROUGH: TUBING BARO.PRESS = 13.20 PSIA
 RESERVOIR TEMP., F =101. @ 2960. FT. MEAN GROUND TEMP., F = 60.

L	H	G	% CO2	% N2	% H2S	PROVER	M-RUN	TAPS
2960.	2960.	0.611	0.18	5.67	0.	2.0	0.	

NO.	LINE SIZE	ORI. SIZE	FLOW PSIG	HW IN.	FLOW TEMP	TBS. PSIG	TBS. TEMP	CSG. PSIG	CSG. TEMP	FLOW HRS.
SI						885	72	873.	72.	72.0
1	2.00 X	0.125	861.	0.	64.	861	72	853.	72.	1.0
2	2.00 X	0.188	835.	0.	61.	835	73	827.	73.	1.0
3	2.00 X	0.219	808.	0.	60.	808	73	802.	73.	1.0
4	2.00 X	0.250	760.	0.	58.	760	73	763.	73.	1.0

NO.	COEFFICIENT (24 - HOUR)	SOFT. (HWPM)	PRESS. PM	T-FACTR F (T)	G-FACTR F (G)	SC-FACTR F (PV)	FLOW MCFD
1	0.26	0.	874.2	0.9962	1.2793	1.0671	314.
2	0.61	0.	848.2	0.9990	1.2793	1.0665	702.
3	0.84	0.	821.2	1.0000	1.2793	1.0648	937.
4	1.08	0.	773.2	1.0019	1.2793	1.0620	1142.

NO.	P (R)	TEMP. R	T (R)	Z	GAS LIQ RATIO, MCF/BBL	API G OF HYDROCARBONS	FLOW MCFD
1	1.32	524.	1.51	0.878			0.
2	1.26	521.	1.50	0.879	SP G SEPARATOR GAS	0.611	XXXXX
3	1.24	520.	1.50	0.882	SP G FLOWING FLUID	XXXXX	0.611
4	1.17	518.	1.50	0.887	CRITICAL PRES., PSIA	663.	663.
					CRITICAL TEMP., R	346.	346.

NO.	PN	PW*PL	PC*PD-PW*PI	PC =	FLOW MCFD
1	865.	749.	35.	PC =	895.2
2	839.	704.	79.	PC*PD =	784.
3	814.	663.	121.	PC*PD / (PC*PD - PW*PI) =	4.2925
4	773.	601.	163.	(PC*PD / (PC*PD - PW*PI)) * Q =	3 1211
				ACF (SCF/DAY) =	5563.

WELL : 3
CITY : 25 65 22E
COUNTY : CHAVES
STATE : NEW MEXICO

TEST DATE: 5/15/86

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

PAGE 2

CALC WH OPEN FLOW= 3563. MCFD @ 15.025, SLOPE ANGLE= 52.0, N= 0.781

APPROVED BY
COMMISSION: CONDUCTED BY: CALCULATED BY: CHECKED BY:

I, _____, BEING FIRST DULY SWORN ON OATH, STATE THAT
I AM FAMILIAR WITH FACTS AND FIGURES SET FORTH IN THIS REPORT,
AND THAT THE REPORT IS TRUE AND CORRECT.

SIGNATURE AND TITLE OF AFFIANT

COMPANY

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____, 19____

MY COMMISSION EXPIRES _____

NOTARY PUBLIC