

MEXICO OIL CONSERVATION CO. LTD.
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

457. File
Form C-107
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						RECEIVED BY 1-17-86 MAY 23 1986 O. C. O. ARTESIA, OFFICE					
Company MC KAY OIL COMPANY						Connection TO AIR					
Field PECOS SLOPE <i>ABO</i>						Formation ABO					
Completion Date 1-13-86			Total Depth 3400			Plug Back TD 3119			Well No. 4135		
Csg. Size 4.5			Set At 10.5			Perforations: From 2875 To 2984			Well No. 1		
Tiq. Size 2.375			Set At 4.7			Perforations: From OPEN To ENDED			Unit M		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packor Set At NONE			County CHAVES		
Producing Thru TUBING			Reservoir Temp. °F 101 @ 2929			Mean Annual Temp. °F 60°			Baro. Press. - P _a 13.2		
L 2929			H 2929			G _g .623			% CO ₂ .029		
						% N ₂ 5.519			% H ₂ S		
						Prover 2.000			Meter Run 0		
									Taps 0		

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	
1.	2.000	X	.21875	853	0.00	50	853	50	853		60 MIN
2.	2.000	X	.3125	671	0.00	55	751	55	825		60 MIN
3.	2.000	X	.375	525	0.00	54	720	54	809		60 MIN
4.	2.000	X	.4375	453	0.00	52	658	52	783		60 MIN
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mscf/d
1.	.8393	0.00	866.2	1.010	1.267	1.073	998
2.	1.672	0.00	684.2	1.005	1.267	1.056	1538
3.	2.378	0.00	538.3	1.006	1.267	1.044	1703
4.	3.408	0.00	466.2	1.008	1.267	1.040	2110
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	1.31	510	1.48	.869	0	0	.623	XXXXXX	660	345
2.	1.04	515	1.49	.896				XXXXX		
3.	.81	514	1.49	.917						
4.	.71	512	1.48	.925						
5.										

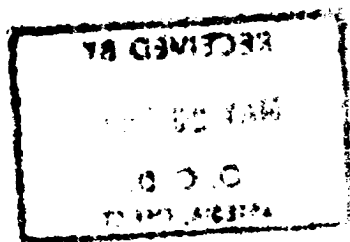
NO.	P _t	P _w	P _w ²	P _t ² - P _w ²	(1) $\frac{P_t^2}{P_t^2 - P_w^2} =$	(2) $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n =$
1.		866.2	750.3	51.1	4.7845	2.8187
2.		838.2	702.6	98.8		
3.		822.2	676.0	125.4		
4.		796.2	633.9	167.5		
5.						

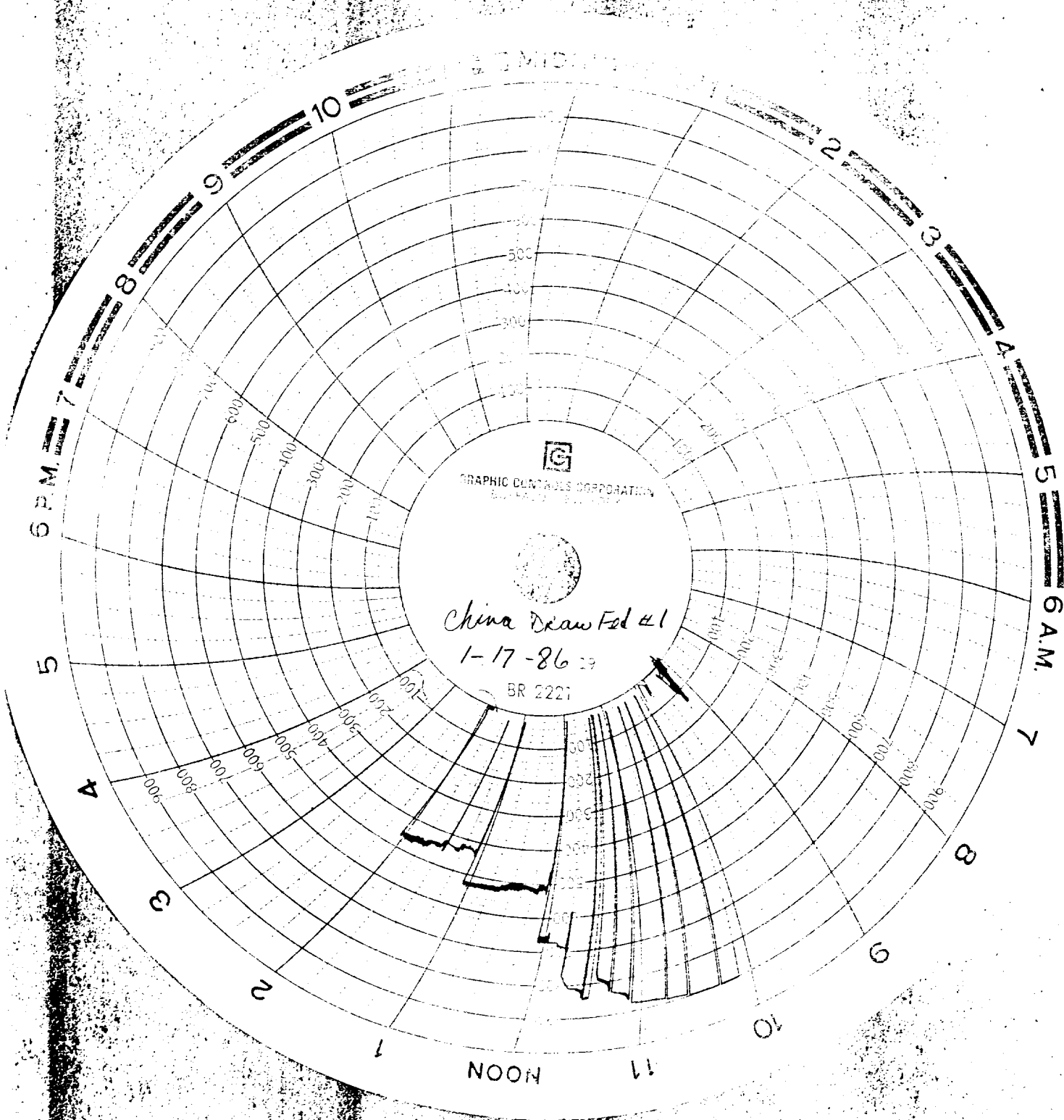
Absolute Open Flow 5947 Mscf/d @ 15.025 Angle of Slope 56.5 Slope, n 0.662

Remarks: _____

Approved By Commission:	Conducted By: BENNETT & CAHTEY	Calculated By: RICHARD TOWNLEY	Checked By:
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RECEIVED JAN 22 1986





BACK PRESSURE CU.

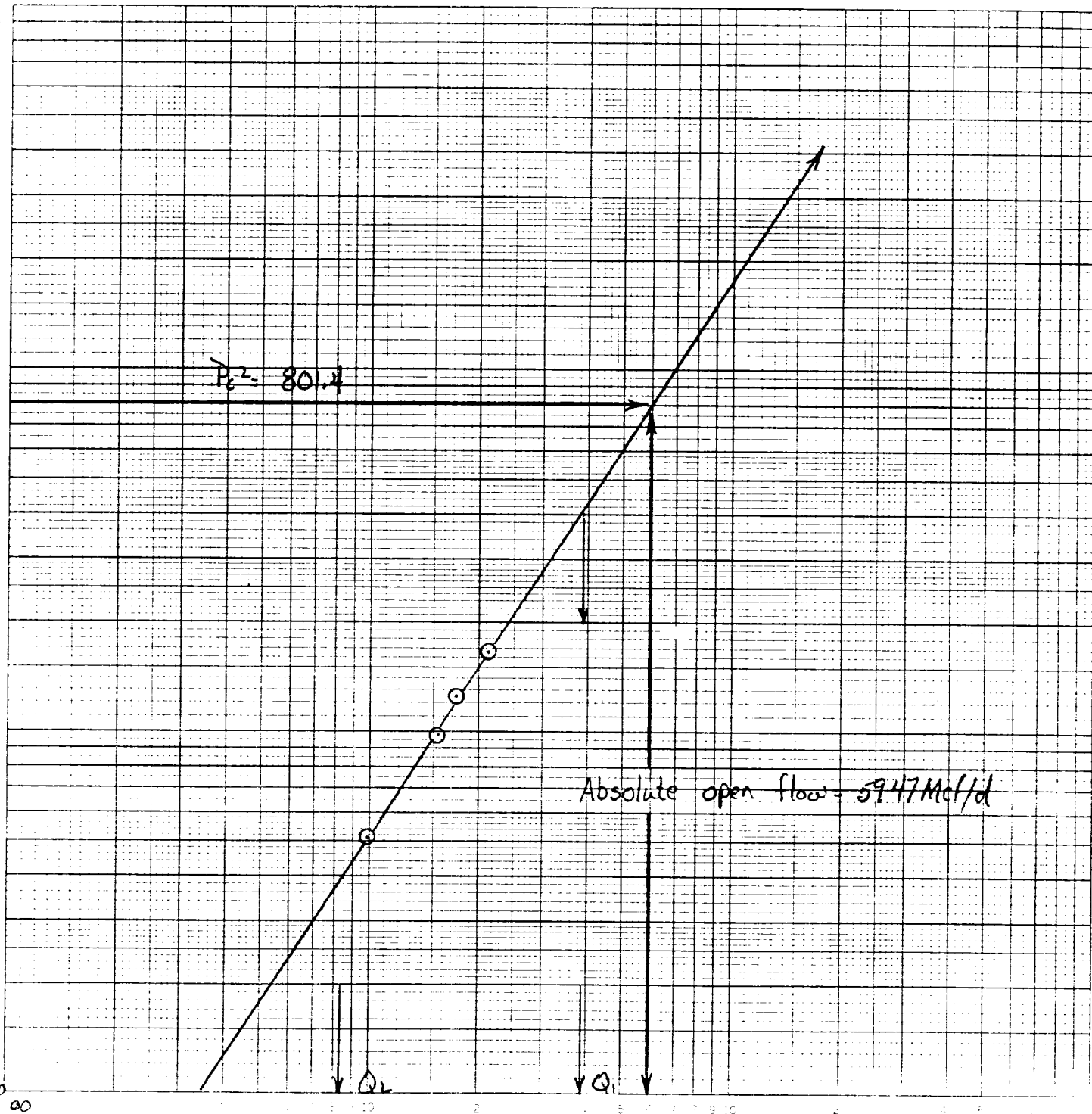
Operator McKay Lease China Draw Fed Well No. 1
 County Chaves Field Pecos Slope Location 31 6S 23E
 Date of Test 1-17-86 Slope "n" 0.662 Angle of Slope 56.5
 Calc. Abs. Potential 5947 MCF/D

LOGARITHMIC 3 X 3 CYCLES
 KEUFFEL & NEUBER CO. MADE IN U.S.A.

46 7400

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$(P_c^2 - P_w^2) \& (P_c^2 - P_w^2)$ in Thousands



$$\frac{\Delta P_1^2}{\Delta P_2^2} = \frac{P_c^2 - P_w^2}{P_c^2 - P_w^2} = \frac{400}{40}$$

$$Q_1 = 3880$$

$$Q_2 = 845$$

Q in MCF/Day

$$\text{LOG } Q_1 = 3.5888$$

$$\text{LOG } Q_2 = 2.9268$$

$$n = 0.662$$