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FILE

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
RECEIVED
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

DEC 20 88

Type Test 4 PT. ☒ Initial ☐ Annual ☐ Special		Test Date 5-20-87	
Company MCKAY OIL CORP. ✓		Connection ARTESIA, OFFICE TO AIR	
Pool WEST PECOS SLOPE 00A		Formation ABO	
Completion Date 5-17-87		Total Depth 3400	Plug Back TD 3312
Elevation 4118		Form or Lease Name FIVE MILE TANK FEE	
Csg. Size 4.500	Wt. 9.5	Set At 3400	Perforations From 3003.5 To 3158
Thg. Size 2.375	Wt. 4.7	Set At 1.995	Perforations From OPEN To ENDED
Type Well - Single - Blindhead - G.G. or G.O. Multiple SINGLE		Packer Set At NONE	County CHAVES
Producing Thru TUBING		Reservoir Temp. °F 101 # 3081	Mean Annual Temp. °F 60
State NEW MEXICO		State NEW MEXICO	
L 3081	H 3081	G _g .622	% CO ₂ 0.0
% N ₂ 4.988	% H ₂ S 0	Prover 2.000	Meter Run 0
Taps 0			

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Flow 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							827	80	827	80	72 HRS
1.	2.000		1875	779	0.00	83	779	83	780	83	60 MIN
2.	2.000		21875	749	0.00	83	749	83	753	83	60 MIN
3.	2.000		2500	711	0.00	83	711	83	718	83	60 MIN
4.	2.000		3125	599	0.00	83	599	83	668	83	60 MIN
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. Factor, F _{sp}	Rate of Flow Q, Mhd
1	0.6082	0.00	792.2	.9786	1.268	1.056	631
2	0.8393	0.00	762.2	.9786	1.268	1.054	837
3	1.0870	0.00	724.2	.9786	1.268	1.051	1027
4	1.6720	0.00	612.2	.9786	1.268	1.044	1326
5							

NO.	P ₁	Temp. °R	T ₁	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	1.20	543	1.55	896	0	0	.622	XXXXXX	658	351
2	1.16	543	1.55	900						
3	1.10	543	1.55	905						
4	0.93	543	1.55	918						
5										

NO.	P ₁	P _w	P ₁ ²	P _w ²	P ₁ ² - P _w ²
1	792.2	793.2	629	77	
2	762.2	766.2	587	119	
3	724.2	731.2	535	171	
4	612.2	681.2	464	242	
5					

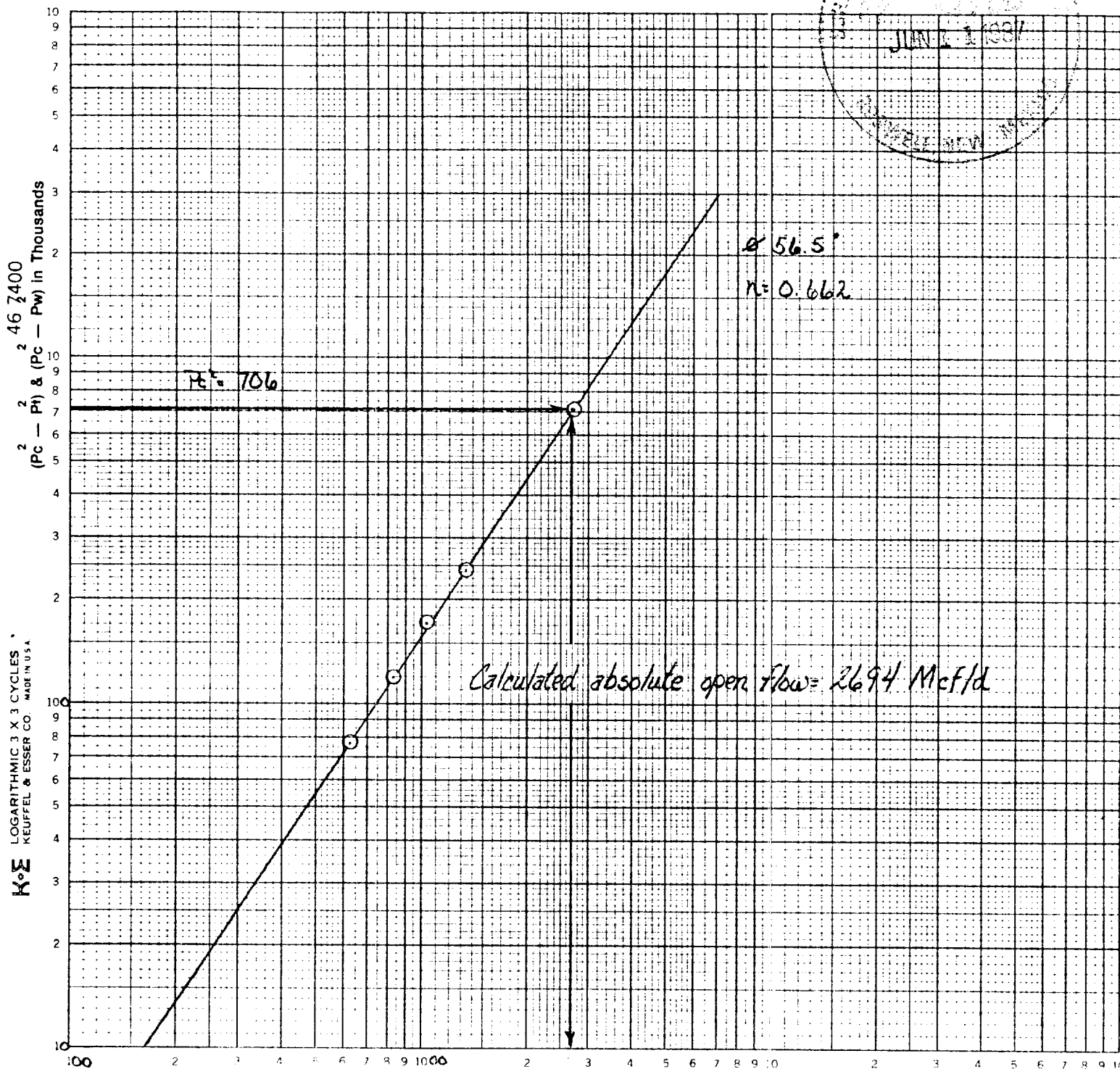
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = -2.9173$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.0315$

AOIF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2693.8$

Absolute Open Flow	2694	Mhd @ 15.025	Angle of Slope	56.5	Slope, n	0.662
Remarks:						
Approved By Division						
Conducted By:		Calculated By:		Checked By:		

BACK PRESSURE CURVE

Operator McKay Oil Corp. Lease Five Mile Tank Fcd Well No. 3
 County Chaves Field West Pecos Slope Location P 17 6S 23E
 Date of Test 5-20-87 Slope "n" 0.662 Angle of Slope 56.5
 Calc. Abs. Potential 2694 MCF/D



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

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

$$Q_1 =$$

$$Q_2 =$$

$$\text{LOG } Q_1 =$$

$$\text{LOG } Q_2 =$$

$$n =$$

