

MULTIPOINT ONE POINT BACK PRESSURE TEST FOR GAS WELL

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O. C. D.
ARTESIA, OFFICE

4. file
Form 172
Revised 9-1-66

Type Test ☒ Initial		☐ Special		Test Date 6-3-86	1980 FNL
Company MCKAY OIL COMPANY		Connection TO AIR		1980 FWL	
Pool WEST PECOS SLOPE		Formation ABO		Unit	
Completion Date 5-28-86		Total Length 3292-3382		Plug Back To -3292-3240	
Elevation 4174		Form of Lease Estate REMMELE FEDERAL		Well No. 6	
Casing Size 4.5	Wt. 9.5	d 4.090	Set At 3292	Perforations: From 2859 To 2989	Unit 25
Tub. Size 2.375	Wt. 4.7	d 1.995	Set At 2806	Perforations: From OPEN To ENDED	Sec. 6S
Type Well - Single - Prodenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE	County CHAVES
Producing Thru TUBING		Reservoir Temp. °F 100 @ 2924		Mean Annual Temp. °F 60°	State NEW MEXICO
L 2924	H 2924	Gg .620	% CO ₂ .097	% N ₂ 5.468	% H ₂ S 0
Proven 6 II CHOKE NIPPLE				Meter Run 0	Days 0

FLOW DATA							TUBING DATA		CASING DATA		Direction of Flow
NO.	Proven Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
1.	2.000	X	11/64	880	0.00	72	880	72	904	72	72 HRS
2.	2.000	X	16/64	835	0.00	72	835	72	879	72	60 MIN
3.	2.000	X	20/64	717	0.00	74	717	74	840	72	60 MIN
4.	2.000	X	24/64	570	0.00	74	570	74	772	74	60 MIN
5.									720	74	60 MIN

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor Fg	Super. Compens. Factor Fpv	Rate of Flow Q, Mcfd
1	.5090	0.00	893.2	.9887	1.270	1.068	610
2	1.1120	0.00	848.2	.9887	1.270	1.064	1260
3	1.7710	0.00	730.2	.9868	1.270	1.055	1710
4	2.5910	0.00	583.2	.9868	1.270	1.044	1977
5							

NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	A.P.L. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	1.35	532	1.52	.877	0	0	.620	X X X X X	662	351
2	1.28	532	1.52	.883						
3	1.10	534	1.52	.898						
4	.88	534	1.52	.917						
5										

NO.	P ₁	P ₂	P ₂ ²	P ₂ ² - P ₁ ²	(1) $\frac{P_2^2}{P_2^2 - P_1^2} = 3.7436$	(2) $\left[\frac{P_2^2}{P_2^2 - P_1^2} \right]^n = 2.3554$
1		892.2	796.0	45.2		
2		853.2	727.9	113.3		
3		785.2	616.5	224.7		
4		733.2	537.5	303.7		
5						

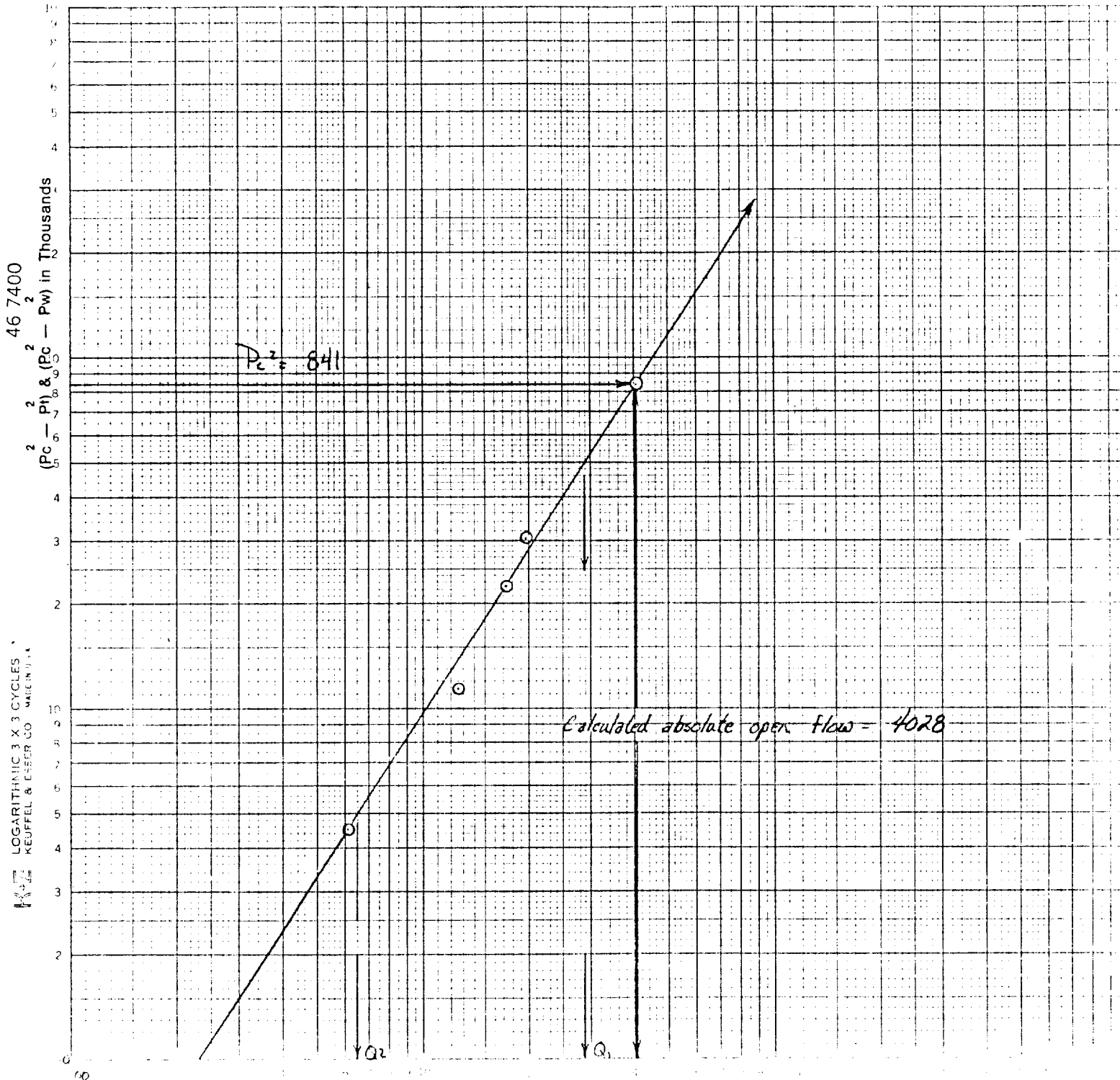
Absolute Open Flow 4028 Mcfd @ 15,025 Angle of Slope 57 Slope n 0.649

Remarks: CALCULATED FROM CASING PRESSURE

Approved by: A. C. D.	Contacted by: BENNETT & CATHEY	Checked by: RICHARD TOWNLEY	Checked by:
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BACK PRESSURE CU. E

Operator McKen C. Lease Fennell Well No. 6
 County Chavis Field W. Fennell Slope Location 25 65 251
 Date of Test 6-3-86 Slope "n" 0.629 Angle of Slope 57°
 Calc. Abs. Potential 4028 MCF/D



$\Delta P_1^2 \quad P_c^2 - P_w^2 =$ 500
 $\Delta P_2^2 \quad P_c^2 - P_w^2 =$ 50
 $Q_1 =$ 150
 $Q_2 =$ 150

Q in MCF/Day

$\text{LOG } Q_1 =$ 2.176
 $\text{LOG } Q_2 =$ 2.176
 $n =$ 0.629