

OIL CONSERVATION DIVISION

Form C-122
Revised 10-1-78 *clst. File*

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS

RECEIVED BY

MAR 26 1987

O. C. D.

ARTESIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3/18/87	
Company Enron Oil & Gas Co. ✓				Connection Enron Oil & Gas Company -El-Paso	
Pool Hay Hollow - <i>Morrow</i>				Formation Morrow	
Completion Date 7/11/85		Total Depth 12960'		Plug Back TD 12455	
				Elevation 3034' GL	
Csg. Size 3 1/2"		Wt. 9.3#		Perforations: From 12237 To 12432	
Tq. Size 2 7/8"		Wt. 6.5#		Perforations: From Open To Ended	
d 2.992		Set At 1822-12960		Well No. 1	
d 2.441		Set At 11862		Unit Sec. Twp. Rge. G 25 25s 27e	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11862	
Producing Thru Tbg.		Reservoir Temp. °F 196° 12237		Baro. Press. - P _g 13.2	
L 11822'		H 11822'		State New Mexico	
Gg .581		% CO ₂ .957		Prover -	
		% N ₂ 1.481		Meter Run 3.068	
				Taps Flg.	

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							3432				48 hrs
1.	3	X	1.250	205	7	76	3246				90 Min.
2.	3	X	1.250	205	14	70	3164				60 Min.
3.	3	X	1.250	205	30	73	3049				60 Min.
4.	3	X	1.250	210	60	70	2849				75 Min.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.577	39.08	218.2	.9850	1.312	1.015	388
2	7.577	55.27	218.2	.9905	1.312	1.016	553
3	7.577	80.91	218.2	.9877	1.312	1.015	806
4	7.577	115.72	223.2	.9905	1.312	1.016	1158
5							

NO.	R ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	286.4 Mcf/bbl.
1	.32	536	1.55	.971	A.P.I. Gravity of Liquid Hydrocarbons	Deq.
2	.32	530	1.53	.969	Specific Gravity Separator Gas	.581
3	.32	533	1.54	.970	Specific Gravity Flowing Fluid	X X X X X X X X
4	.33	530	1.53	.969	Critical Pressure	675 P.S.I.A.
5					Critical Temperature	346 °R

P _c 3445.2 P _c ² 11869				
NO.	P ₁ ²	P _w	P _w ²	P _c ² - P _w ²
1	10622	3260.3	10630	1239
2	10094	3177.9	10099	1770
3	9377	3064.0	9388	2481
4	8192	2865.5	8211	3658
5				

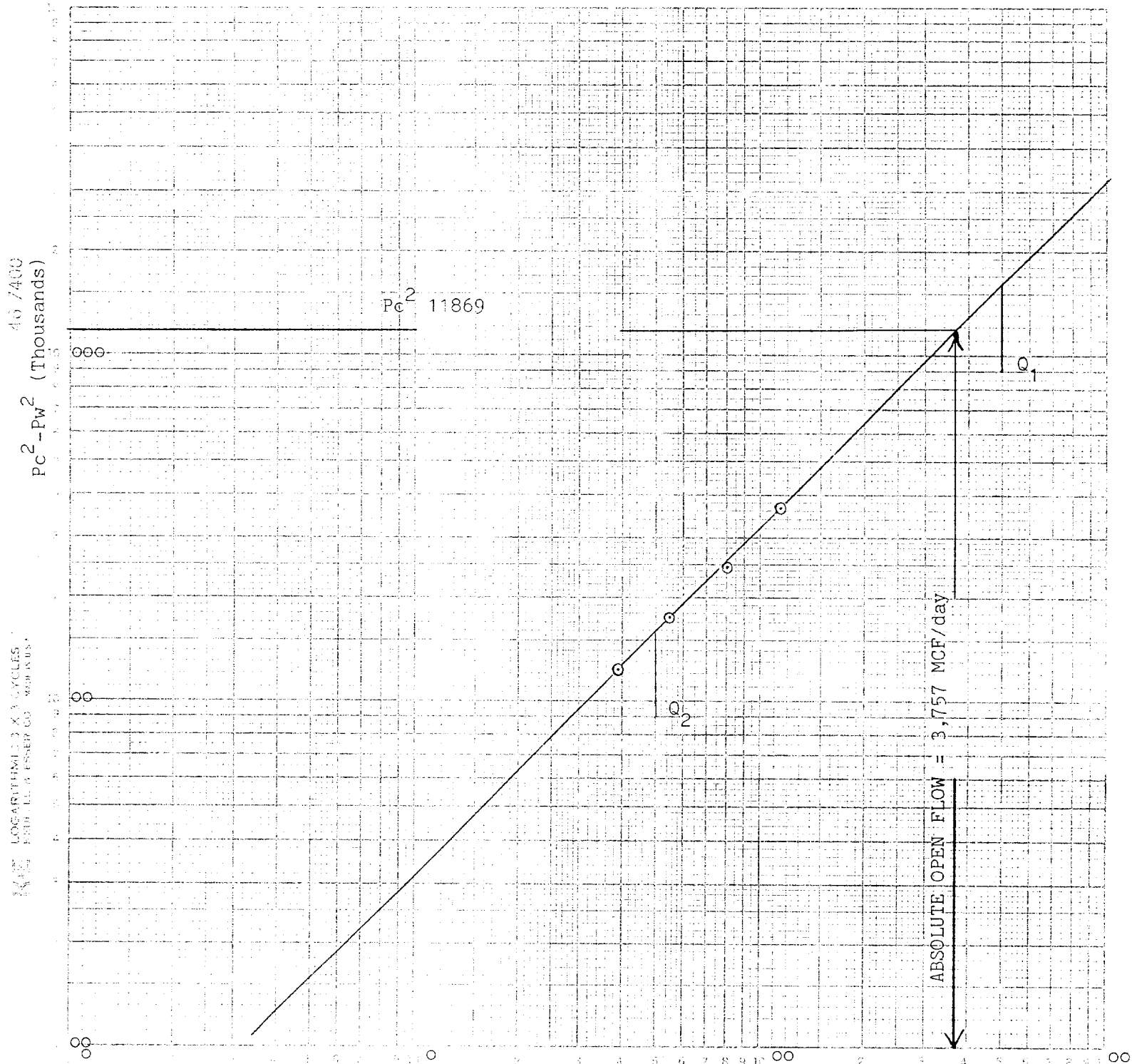
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.245$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.245$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3,757$

Absolute Open Flow	3,757 Mcfd @ 15.025	Angle of Slope	45	Slope, n	1.00
Remarks: .5 BBL OF CONDENSATE LAST RATE					

Approved By Division	Conducted By: JARREL SERVICES, INC.	Calculated By: D. Dickerson	Checked By: D. Dickerson
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COMPANY: Enron Oil & Gas Company
 WELL: Hay Hollow 25 ate, No.1
 LOCATION: G 25 25s 27e
 COUNTY: Eddy
 DATE: March 18, 1987



$Q = \text{MCF/DAY}$
 $Q_1 = 5000 \text{ MCFD}; \text{Log } Q_1 = 3.698970$
 $Q_2 = 500 \text{ MCFD}; \text{Log } Q_2 = 2.698970$
 $N = 1.000000 = 1.000$