

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

Copy 651
Well
C-122

Form C-122
Revised 9-1-65

RECEIVED

Type Test <input type="checkbox"/> Initial <input checked="" type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 7-3-73	AUG 24 1973								
Company CORINNE GRACE #		Connection EL PASO NATURAL GAS CO.		Unit B. G. G.							
Pool SOUTH CARLSBAD Morrow		Formation MORROW		ARTESIA, OFFICE							
Completion Date 3-15-73	Total Depth 11,768'	Plug Back TD 11,740'	Elevation 3174' GR.	Farm or Lease Name GRACE ATLANTIC Co.							
Csg. Size 7"	Wt. 32#	Set At 11,768'	Perforations: From 11,424' To 11,444'	Well No. 1							
Tbg. Size 4 1/2"	Wt. 15.5#	Set At 11,000'	Perforations: From OPEN To ENDED	Unit Sec. Twp. R1/4 J 24 22S 26E							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE			Packer Set At 11,000'	County EDDY							
Producing Thru TUBING	Reservoir Temp. °F 208° @ 11,500'	Mean Annual Temp. °F 60°	Baro. Press. - P _a 13.2	State NEW MEXICO							
L 11,000'	H 11,000'	G _g 0.580 EST.	% CO ₂	% N ₂							
			% H ₂ S	Prover							
FLOW DATA			Meter Run 6"	Taps FLANGE							
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
							Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							2219.0		PKR.	CHOKE	
1.	6" X 4.00"				1.0	94	2214.0	81			
2.	6" X 4.00"				9.0	79	2181.0	82		10/64	120 MIN.
3.	6" X 4.00"				16.8	70	2147.0	83		18/64	70 "
4.	6" X 4.00"				33.6	70	2062.0	86		24/64	60 "
5.										30/64	60 "

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, Mcfd
1	85.37	17.87	319.2	0.9688	1.313	1.021	1,981
2	85.37	56.92	360.0	0.9822	1.313	1.026	6,430
3	85.37	80.36	384.4	0.9905	1.313	1.030	9,190
4	85.37	122.81	448.9	0.9905	1.313	1.035	14,112
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	T.S.T.M.	Mcf/bbl.
1	0.48	554	1.58	.960			
2	0.54	539	1.54	.950			
3	0.57	530	1.51	.943			
4	0.67	530	1.51	.934			
5							

NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1	4960.4			22.3
2	4814.5			168.2
3	4666.5			316.2
4	4306.5			676.2
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 7.3687$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.1658$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 44,676$$

Absolute Open Flow	44,676	Mcf/d @ 15.025	Angle of Slope θ	60.0°	Slope, n	0.577
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Remarks: FRICTION IS NEGLIGIBLE -
BASED ON 100"-1000# METER RANGE THE L-10 CHART READINGS CONVERTED TO
CONVENTIONAL READINGS PRIOR TO CALCULATING VALUMES

Approved By Commission:	Conducted By: D. TYSON	Calculated By: R. WEST	Checked By:
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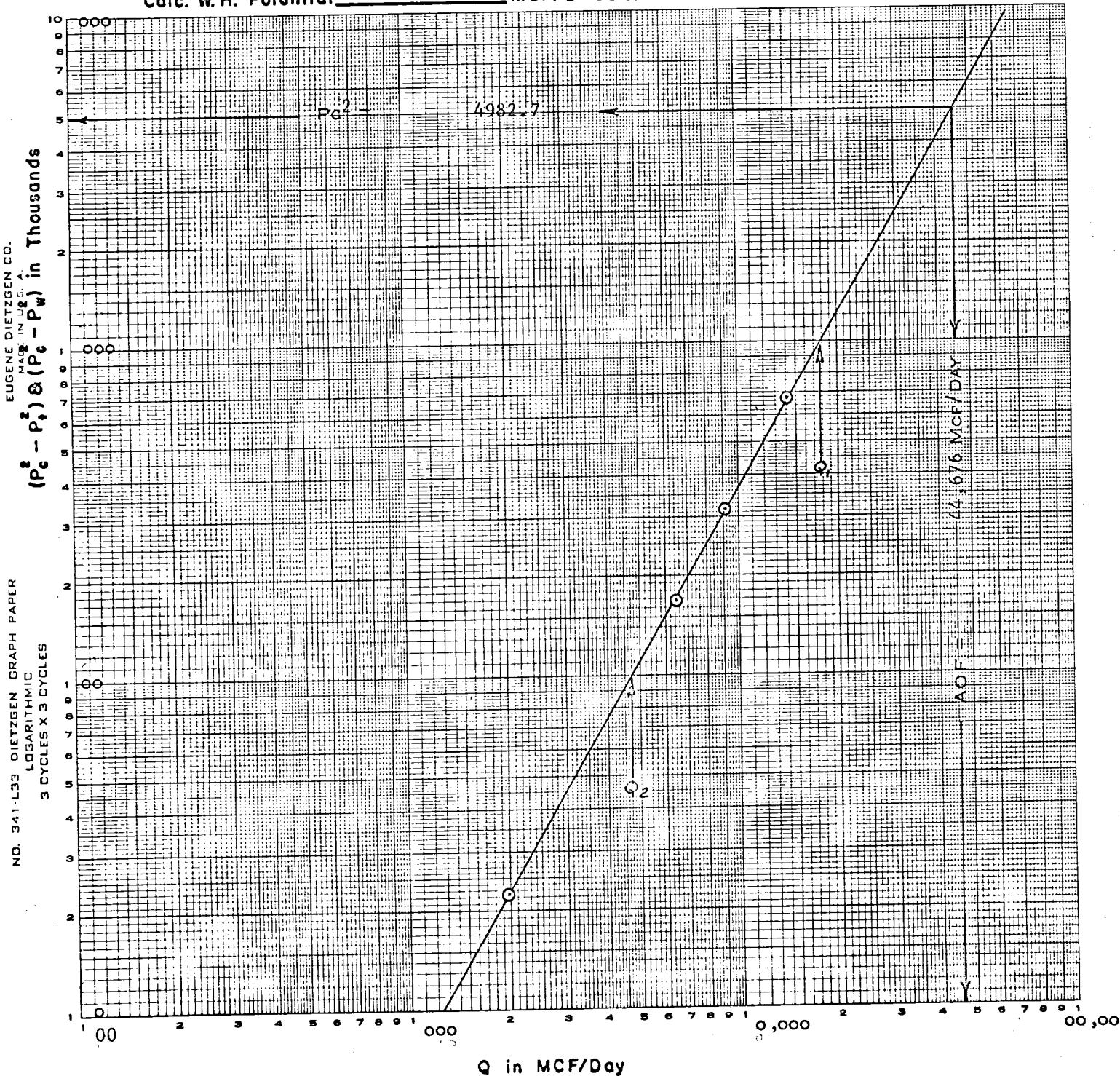
BACK PRESSURE CURVE

Operator CORINNE GRACE Lease GRACE ATLANTIC Well No. 1

County EDDY Field SOUTH CARLSBAD Location J, SEC 24, T22S, R26E

Date of Test 7-3-73 Slope "n" 0.577 W.H. _____ Abs.

Calc. W.H. Potential _____ MCF/D Calc. Abs. Potential 44,676 MCF/D



$$\begin{aligned} \text{SLOPE (n)} &= Q_1 = 17750 = 8.2491984 \\ &= Q_2 = 4700 = 7.6720979 \\ (n) &= 0.5771005 \end{aligned}$$

$$\text{ABS. POT.} = 14,112 \frac{4982.7}{676.2}^{.577} = 44,676 \text{ MCF/n}$$

ND. 341-L33 DIETZGEN GRAPH PAPER
 LOGARITHMIC
 3 CYCLES X 3 CYCLES
 EUGENE DIETZGEN CO.
 MADE IN U.S.A.