

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

Form 5-122
Revised 9-1-65

RECEIVED

Type Test ☐ Initial ☐ Annual ☒ Special				Test Date 5/8/74		MAY 15 1974	
Company El Paso Natural Gas Company				Connection El Paso Natural Gas Company		O. C. C.	
Pool Rocky Arroyo (Morrow)				Formation Morrow		Unit ARTESIA, OFFICE	
Completion Date 1-3-74		Total Depth 9157		Plug Back TD 9108		Elevation GL 4463.8	
Farm or Lease Name Rocky Arroyo D				Well No. 1			
Csg. Size 4 1/2	Wt. 11.6	d 	Set At 9157	Perforations: From 8795 To 8900		Unit Sec. Twp. Rge. 0 5 22 22	
Tbg. Size 2 3/8	Wt. 4.7	d 	Set At 8592	Perforations: From Open To End			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 		County Eddy	
Producing Thru Tbg.		Reservoir Temp. °F 168 @ 8848		Mean Annual Temp. °F 		Baro. Press. - P _a 13.2	
L 8592		H 8592	Gg .583	% CO ₂ 	% N ₂ 	% H ₂ S 	Prover
						Meter Run 4"	
						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.	
SI										
1.	4	x	1.250	444	11.6	75	2205	80		
2.	4	x	1.250	449	23.0	70	2088	80		
3.	4	x	1.250	450	42.3	65	1897	76		
4.	4	x	1.250	460	68.9	66	1618	76		
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, Mcfd
1	7.469	72.83	457.2	.9859	1.310	1.033	726
2	7.469	103.10	462.2	.9905	1.310	1.036	1035
3	7.469	139.98	463.2	.9952	1.310	1.036	1412
4	7.469	180.56	473.2	.9943	1.310	1.037	1822
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	.68	535	1.53	.937	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	.69	530	1.51	.932	Specific Gravity Separator Gas _____ X X X X X X X X
3.	.69	525	1.50	.931	Specific Gravity Flowing Fluid _____ X X X X X
4.	.70	526	1.50	.930	Critical Pressure _____ 672 _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ 350 _____ R _____ R

P _c 2429.2 P _c ² 5901.0		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.872$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.577$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	
1		2221.3	4934.1	966.9	
2		2107.8	4442.8	1458.2	
3		1923.7	3700.8	2200.2	
4		1657.8	2748.4	3152.6	
5					

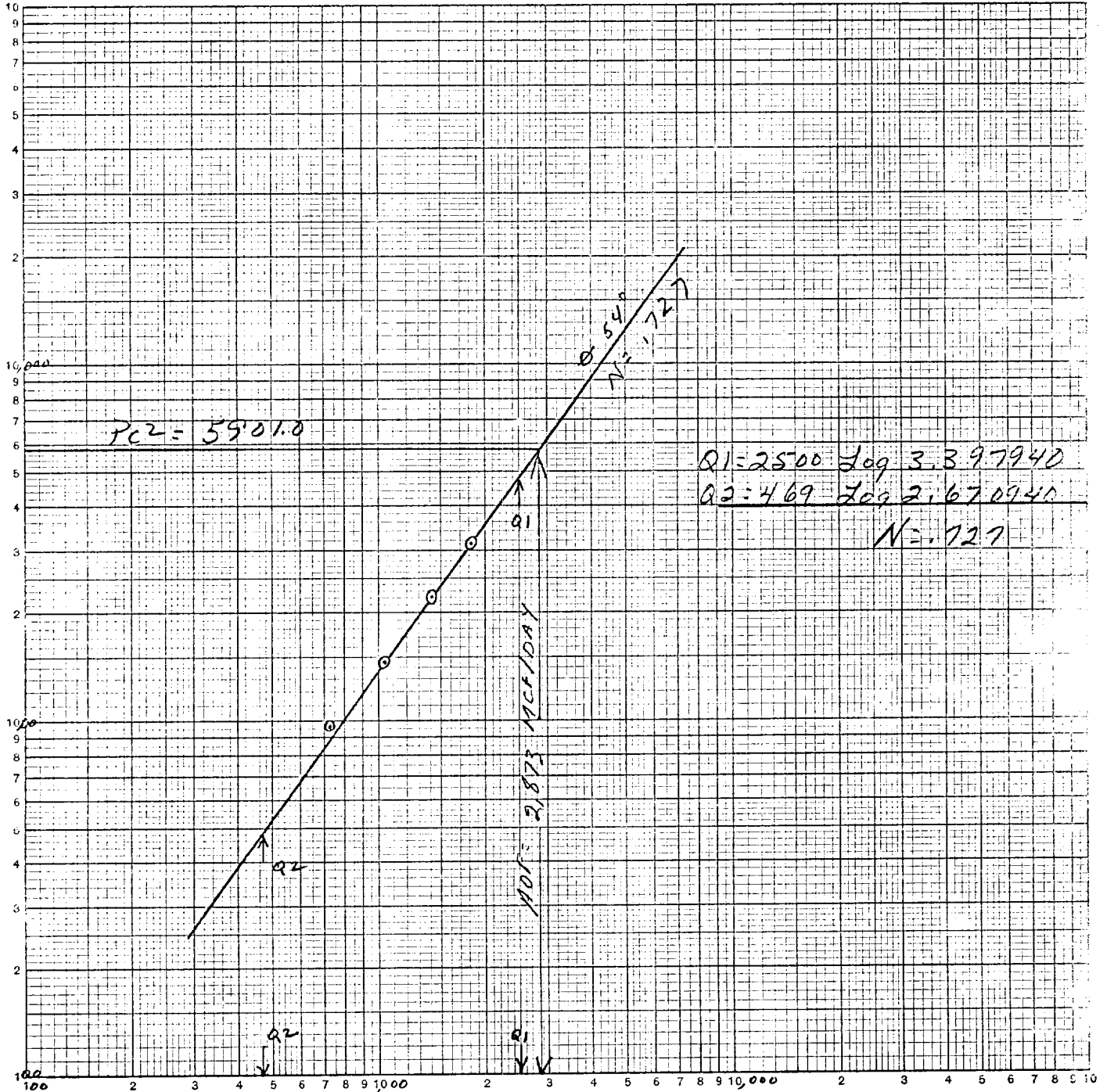
Absolute Open Flow _____ 2,873 _____ Mcfd @ 15.025		Angle of Slope @ _____ 54 _____		Slope, n _____ .727 _____	
Remarks: Made 1/2 Bbl. Water during test.					

Approved By Commission: 	Conducted By: R. Reston & R. Pagan	Calculated By: Reggie Reston	Checked By:
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EL PASO NATURAL GAS COMPANY
 Rocky Arroyo D No. 1
 0-5-22-22 Eddy County, New Mexico
 May 9, 1974

$P_2 - P_{w2}$ IN (COO'S)

LOGARITHMIC 467400
 3 X 3 CYCLES
 KEUFFEL & ESSER CO.



$Q = \text{MCF/DAY}$