

NM-8420-A

N.M.C. C. COPY
NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

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Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11-8-73		NOV 21 1973											
Company El Paso Natural Gas Company		Connection None		Unit O.C.C.											
Pool Rocky Arroyo <i>Wildcat</i>		Formation Wolfcamp		Unit ARTESIA, OFFICE											
Completion Date 11-8-73		Total Depth 9750		Plug Back TD 6056											
Elevation		Form or Lease Name Patterson A		Well No. 1											
Csg. Size 5 1/2		Wt. 17#		Set At 6056											
Perforations: From 5764 To 5861		Perforations: From To		Unit Sec. Twp. Rge.											
Tub. Size 2 3/8		Wt. 4.7		Set At 5691											
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At None		County Eddy											
Producing Thru Tbg.		Reservoir Temp. *F 130 @ 5691		Mean Annual Temp. *F 13.2											
Baro. Press. - P _a 13.2		State New Mexico		Meter Run 4"											
Prover L		H		G _g Assumed .693											
% CO ₂		% N ₂		% H ₂ S											
Prover		Meter Run		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	Press. p.s.i.g.	Temp. *F	Duration of Flow		
SI							1564		1570				72 Hr.		
1.	4	x	1.500	600	4.2	92	1527	74	1556	74			1 hr.		
2.	4	x	1.500	600	8.0	88	1516	74	1546	74			1 hr.		
3.	4	x	1.500	750	11.0	90	1500	73	1531	73			1 hr.		
4.	4	x	1.500	740	23.0	88	1465	72	1504	72			1 hr.		
5.	4	x	1.500	740	36.0	86	1429	70	1478	70			1 hr.		
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 Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd								
1	10.84	50.75	613.2	.9706	1.201	1.060	680								
2	10.84	70.04	613.2	.9741	1.201	1.061	942								
3	10.84	91.63	763.2	.9723	1.201	1.076	1,248								
4	10.84	131.62	753.2	.9741	1.201	1.077	1,798								
5	10.84	164.67	753.2	.9759	1.201	1.077	2,253								
NO.	P _t	Temp. *R	T _t	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.										
1	.92	552	1.42	.890	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.										
2	.92	548	1.41	.888	Specific Gravity Separator Gas _____ X X X X X X X X										
3	1.14	550	1.42	.864	Specific Gravity Flowing Fluid _____ X X X X X										
4	1.13	548	1.41	.862	Critical Pressure _____ 669 P.S.I.A.										
5	1.13	546	1.41	.862	Critical Temperature _____ 388 R										
$P_c = 1583.2$ $P_w = 2506.5$															
NO.	P _t ²	P _w ²	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 8.863$										
1		1569.2	2462.4	44.1	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.606$										
2		1559.2	2431.1	75.4											
3		1544.2	2384.6	121.9											
4		1517.2	2302.0	204.5											
5		1491.2	2223.7	282.8											
Absolute Open Flow 10,377 Mcfd @ 15.025 Angle of Slope 55°															
Remarks: No tank to measure fluid, Est. 4 Bbl. of 61 API @ 60° Cond.															
Approved By Commission:				Conducted By: Reggie Reston & Rick Fagan				Calculated By: Reggie Reston				Checked By:			

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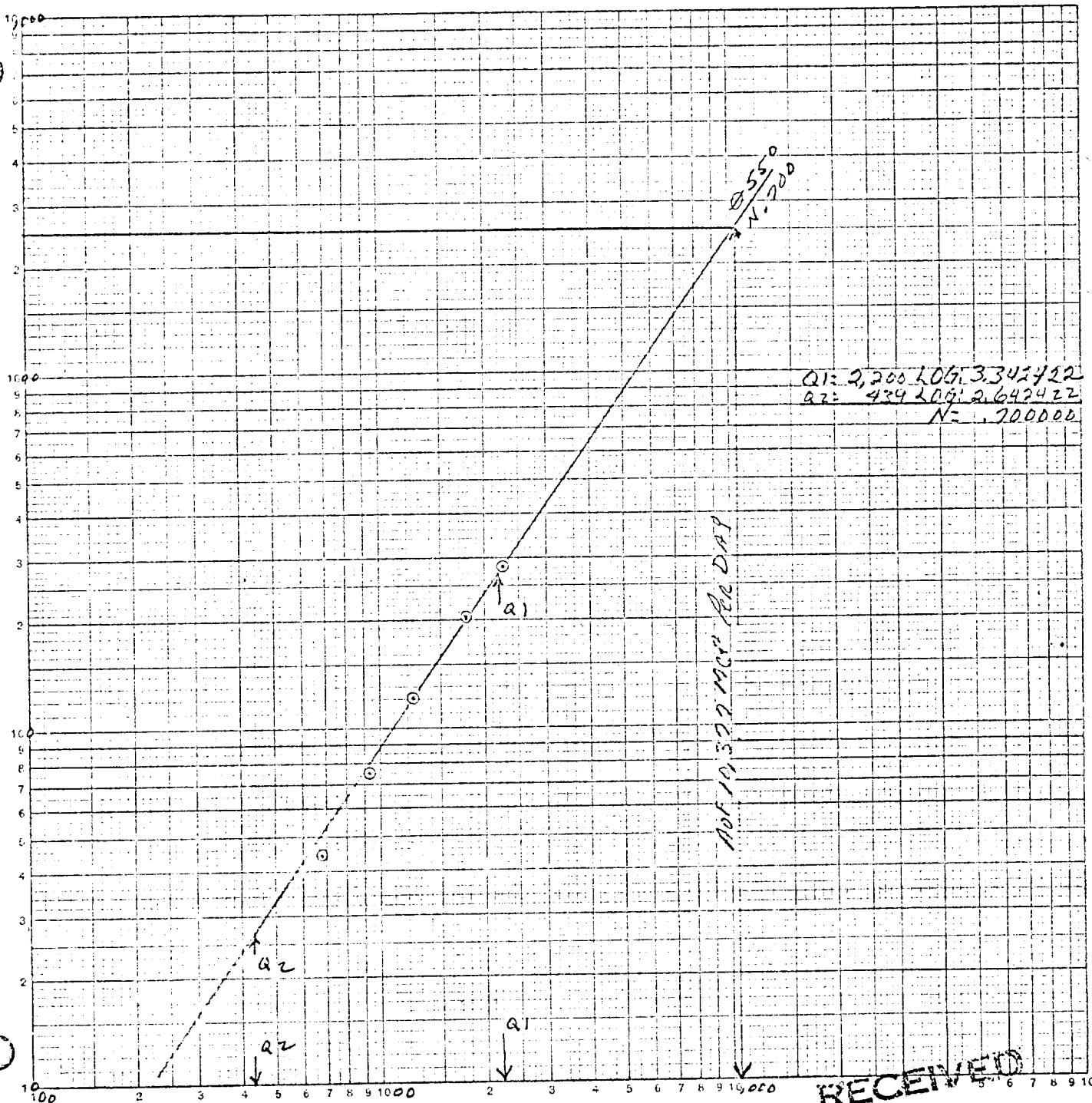
U.S. GEOLOGICAL SURVEY

55° ARTESIA NEW MEXICO

EL PASO NATURAL GAS COMPANY
Patterson A No. 1
Eddy County, New Mexico
November 8, 1973

RESP IN (MMSDAS)

LOG 7400
5 X 5 CYCLES
KIUFFEL & ESSER CO.



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ARTESIA, NEW MEXICO