

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

Copy to S-122
Form C-122
Revised 9-1-65

RECEIVED

OCT 9 1974

☐ Initial ☐ Revised ☒ Second Date: 10/4/74		O. C. C. ARTESIA, OFFICE	
Company: El Paso Natural Gas Company		Location: El Paso Natural Gas Company	
Pool: Rocky Arroyo		Unit: G	
Completion Date: 2/28/74		Form or Lease Name: Rocky Arroyo E	
Prod. Size: 7	Well No.: 1	Well No.: 1	
Tbg. Size: 2 3/8	Perforations: From 6227 To 6320	Unit Sec. Twp. Rge.: G 7 22 22	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple: Single		County: Eddy	
Producing Thru Tbg.: 6320		State: New Mexico	
Reservoir Temp. °F: 137		Mean Annual Temp. °F: 6320	
Baro. Press. - P _a : 13.2		Meter Run: 4.024	
L: 6320		H: 6320	
G _g : .660		% CO ₂ : 0	
% N ₂ : 0		% H ₂ S: 0	
Prover: 0		Taps: 0	

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							797		1051		72 hr.
1.	4.024	x	1.00	300	1.00	85	722		1041		1 hr.
2.	4.024	x	1.00	300	2.89	96	783		1033		1 hr.
3.	4.024	x	1.00	305	18.60	92	871		1020		1 hr.
4.	4.024	x	1.00	310	36.00	84	898		996		1 hr.
5.	4.024	x	1.00	320	70.60	83	910		965		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	4.753	17.70	313.2	.9768	1.231	1.029	104
2	4.753	30.09	313.2	.9671	1.231	1.027	175
3	4.753	76.93	318.2	.9706	1.231	1.028	449
4	4.753	107.87	323.2	.9777	1.231	1.030	636
5	4.753	153.38	333.2	.9786	1.231	1.031	905

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1	.47	545	1.44	.945	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	.47	556	1.47	.948	Specific Gravity Separator Gas _____ X X X X X X X X
3	.47	552	1.46	.947	Specific Gravity Flowing Fluid _____ X X X X X
4	.48	544	1.44	.943	Critical Pressure _____ 670 _____ P.S.I.A.
5	.50	543	1.44	.941	Critical Temperature _____ 378 _____ R

P _c 1064.2 P _c ² 1132.5		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 6.477$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.846$
NO.	P _w	P _w ²	P _c ² - P _w ²
1	1054.2	1111.3	21.18
2	1046.2	1094.5	37.99
3	1033.2	1067.5	65.02
4	1009.2	1018.5	114.02
5	978.2	957.7	174.86

Absolute Open Flow 3,480	Mcfd @ 15.025	Angle of Slope 54.25°	Slope, n .721
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Remarks: No condensate made during test. Was not able to measure the small amount of water produced.			
Approved By Commission:	Conducted By: R. Reston & R. Pagan	Calculated By: Rick Pagan	Checked By:

- Inlet H₂ Gas Co.
 Inlet Temp = 50°F Wellhead
 G 7-22-2 Edin Co
 AOF 3,480 mcf/d $n = .721$

10/4/74

$P_{c2} = 113.2.5$

$P_2 \log 1000 = 3.0000000$
 $P_1 \log 190 = 2.2787536$
 $17 = .721$

$P_2 = 24.05$
 $n = .721$



$Q_{in} = 15$

AOF 3,480 mcf/d