

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED

Form C-122
Revised 10-1-78

SEP 18 90

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL
O. C. D.

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 9/8/90		ARTESIA, OFFICE	
Company Enron Oil & Gas Company				Connection Llano				
Pool Malaga				Formation Atoka				Unit
Completion Date 4/27/90		Total Depth 12,050		Plug Back TD 11,957		Elevation 2974' GL		Farm or Lease Name Malaga 2 State Com.
Ceq. Size 4 1/2	Wt. 15.1#	d 3.826	Set At 12,047	Perforations: From 11,769 To 11,835				Well No. 1
Tng. Size 2 3/8	Wt. 4.7#	d 1.995	Set At 11,706	Perforations: From Open To Ended				Unit Sec. Twp. Rye J 2 24s 28e
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Dual					Packer Set At 11,655		County Eddy	
Producing Thru TBG		Reservoir Temp. °F 191° 11706		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico
L 11,706	H 11,706	G _g 0.574	% CO ₂ 0.51	% N ₂ 0.55	% H ₂ S -	Proves -	Meter Run 4.026	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							2732		PKR		72 hrs.
1.	4.026	10/64	2.000	540	7.00	64	2600		"		1 hr.
2.	4.026	13/64	2.000	580	18.00	70	2455		"		1 hr.
3.	4.026	15/64	2.000	640	36.00	56	2110		"		1 hr.
4.	4.026	23/64	2.000	730	68.00	60	1534		"		1 hr.
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 _{sp}	Rate of Flow Q, Mscf/d
1	19.81	62.23	553.2	.9962	1.320	1.044	1,692
2	19.81	103.33	593.2	.9905	1.320	1.047	2,802
3	19.81	153.35	653.2	1.004	1.320	1.052	4,235
4	19.81	224.81	743.2	1.000	1.320	1.058	6,220
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry Gas _____ Mcf/ubi.
1	.82	524	1.51	.918	A.P.I. Gravity of Liquid Hydrocarbons _____ Dry _____ Deg.
2	.88	530	1.53	.913	Specific Gravity Separator Gas .574 _____ XXXXXXXXX
3	.97	516	1.49	.904	Specific Gravity Flowing Fluid _____ XXXXX
4	1.10	520	1.50	.893	Critical Pressure 672 _____ P.S.I.A. _____ P.S.I.A.
5					Critical Temperature 346 _____ R _____ R

P _c 2745.2 P _c ² 7536.1					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.967$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.620$	
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10.076$			
1		2631.6	6925.4	610.7				
2		2521.1	6356.0	1180.1				
3		2260.2	5108.3	2427.8				
4		1925.0	3705.6	3830.5				
5								

Absolute Open Flow 10,076 _____ Mscf @ 15.025		Angle of Slope @ 54.5°		Slope, n 0.713	
Remarks: No fluid produced during test.					
<i>Enron Oil & Gas Company</i> <i>9/17/90</i>					

Approved By Division	Conducted By: Jarrel Services, Inc.	Calculated By: Bob Murray	Checked By: Bob Murray
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