

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 3-18-81		APR 02 1981	
Company MADDOX ENERGY		Connection NONE		Unit O. C. D.	
Pool UNDESIGNATED		Formation MORROW		ARTESIA, OFFICE	
Completion Date N/A		Total Length 12,105		Plug Back TD 12,008	
Elevation N/A		Perforations: From 12,499 To 12,667		Para. or Lease Name EARL GUITAR	
Csg. Size 4 1/2	Wt. 13.5	d 3,920	Set At 12,105	Well No. #1	
Tub. Size 2,7/8	Wt. 6.5	d 2.441	Set At 11,888	Unit G	Soc. 23 Twp. 24 Rge. 28
Type Well - Single - Protthead - G.G. or G.O. Multiple SINGLE				Packer Set At 11,888	
Producing Thru TUBING		Reservoir Temp. °F 200 @ 12,583		Mean Annual Temp. °F 60	
		Baro. Press. - P _a 13.2		State NEW MEXICO	
L * 12,499	H 12,499	G _g .572	% CO ₂ .80	% N ₂ .94	% H ₂ S 0
Prover # 1.0. 2.962		Meter Run 4"		Type FLANGE	

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							3670									
1.	4 X 1.500			400	4.0	74	3460	74				1 HR				
2.	4 X 1.500			420	19.0	71	3080	78				1 HR				
3.	4 X 1.500			423	34.0	76	2450	74				1 HR				
4.	4 X 1.500			425	45.0	88	1900	74				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 _{pv}	Rate of Flow Q, Mc/d
1	10.84	40.65	413.2	.9868	1.322	1.030	592
2	10.84	90.72	433.2	.9896	1.322	1.030	1325
3	10.84	121.78	436.2	.9850	1.322	1.030	1771
4	10.84	140.42	438.2	.9741	1.322	1.028	2015
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Met/Dol.
1.	.61	534	1.54	.943	NONE	
2.	.64	531	1.53	.942	A.P.I. Gravity of Liquid Hydrocarbons	
3.	.65	536	1.55	.942	Specific Gravity Separator Gas	.572
4.	.65	548	1.58	.946	Specific Gravity Flowing Fluid	X X X X X
5.					Critical Pressure	672 P.S.I.A.
					Critical Temperature	346 R

P _c 3683.2 P _c ² 13566.0			
NO.	P _r ²	P _w	P _r ² - P _w ²
1	3474.5	12072.1	1493.9
2	3097.1	9592.0	3974.0
3	2470.8	6104.9	7461.1
4	1925.2	3706.4	9859.6
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.376$

AOF = Q $\left[\frac{P_r^2}{P_c^2 - P_w^2} \right]^n = 2.478 \text{ Mill/day}$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.230$

Absolute Open Flow	2,478	Mcf/d @ 15.025	Angle of Slope	57	Slope, n	.649
--------------------	-------	----------------	----------------	----	----------	------

Remarks: ** EQUIVALENT LENGTH & EFFECTIVE DIAMETER.
MADE NO FLUID DURING TEST

Approved By Contribution:	Conducted By:	Calculated By:	Checked By:
	DON BENNETT		