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O. C. D.
ARTESIA, OFFICE

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

Form C-122
Revised 9-1-65

Type Test: ☒ Initial ☐ Annual ☐ Special			Test Date: 5-14-80	SPUD DATE: 3-8-80
Company: MGF Oil Company		Connection: To air		
Pool: Undesignated		Formation: Morrow		Unit: O
Completion Date: 5-14-80	Total Depth: 9760	Plug Back TD: 9230	Elevation: 3974 GL	Farm or Lease Name: Rutter Federal
Csg. Size: 4.5 / Wt. / d / Set At: 9745		Perforations: From 9180 To 9193		Well No.: 1
Tbg. Size: 2 3/8 / Wt. / d / Set At: 9162		Perforations: From open / To end		Unit: O Sec.: 14 Twp.: 10 Rge.: 29
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 9126		County: Chaves
Producing Thru: Tbg.	Reservoir Temp. °F: 166 @ 9187	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
9187	9187	.652	.87	1.18			3	Flg.

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI						1985				72 hrs.
1.	3	x .625	140	18	56	1704				1 hr.
2.	3	x .625	200	28	59	1467				1 hr.
3.	3	x .625	240	36	61	1224				1 hr.
4.	3	x .625	270	44	64	992				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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	1.845	52.51	153.2	1.004	1.238	1.016	122
2	1.845	77.26	213.2	1.001	1.238	1.022	181
3	1.845	95.47	253.2	.9990	1.238	1.025	223
4	1.845	111.63	283.2	.9962	1.238	1.028	261
5							

NO.	P_t	Temp. °R	T_t	Z
1	.23	516	1.38	.969
2	.32	519	1.38	.957
3	.38	521	1.39	.951
4	.42	524	1.40	.947
5				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas .652 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 670 P.S.I.A. _____ P.S.I.A.
Critical Temperature 375 R _____ R

* P_c 2036.7 P_c^2 4148.1

NO	Ps	P_w	P_w^2	$P_c^2 - P_w^2$
1	2299.2	1791.4	3209.1	939.0
2	2000.2	1564.9	2448.9	1699.2
3	1704.2	1340.6	1797.2	2350.9
4	1411.2	118.2	1250.4	2897.7
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.432$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.277$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = .333$

Absolute Open Flow 333 Mcfd @ 15.025 Angle of Slope θ 55.750 Slope, n .681

Remarks: Pf = 2618.2
* Calculated from known B.H.P.; Made no fluid during test.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Reston and Rea	Reggie Reston	