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C-122

NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
APR 2 - 1974
O. C. C.
ARTESIA, OFFICE

Type Test: ☐ Initial ☐ Annual ☒ Special — Test Date: 3-27-74

Company: Mesa Petroleum Company	Connection: El Paso Natural Gas Company		
Pool: Atoka	Formation: Atoka		Unit: J
Completion Date: 9-19-73	Total Depth: 12130	Plug Back TD: 11511	Elevation: 3167 gr.
Farm or Lease Name: Reddy Com			
Csg. Size: 5½ / Wt.: 17 / d: / Set At: 11,994	Perforations: From 10,791 To 10,876		Well No.: Com 1
Tbg. Size: 2 7/8 / Wt.: 6.5 / d: / Set At: 10,721	Perforations: From Open End To		Unit: J / Sec.: 8 / Twp.: 23 / Rge.: 27
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 10,721		County: Eddy
Producing Thru: Tbg.	Reservoir Temp. °F: 181 @ 10,724	Mean Annual Temp. °F:	Baro. Press. – P_a: 13.2
			State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
10.721	10.721	.589					4"	Flg.

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI							1879				
1.	4	x	1.750	505	1.4	75	1798	82			24 hr.
2.	4	x	1.750	516	4.8	76	1675	81			1 hr.
3.	4	x	1.750	519	9.3	72	1483	80			1 hr.
4.	4	x	1.750	522	16.8	72	1305	79			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	14.93	26.93	518.2	.9859	1.303	1.038	536
2.	14.93	50.40	529.2	.9850	1.303	1.039	1003
3.	14.93	70.35	532.2	.9887	1.303	1.040	1407
4.	14.93	94.82	535.2	.9887	1.303	1.040	1897
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.77	535	1.53	.928
2.	.79	536	1.53	.926
3.	.79	532	1.52	.925
4.	.80	532	1.52	.924
5.				

Gas Liquid Hydrocarbon Ratio 480,452 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 56 @ 60 Deg.
Specific Gravity Separator Gas .589 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX G Mix. .595
Critical Pressure 672 P.S.I.A. 672 P.S.I.A.
Critical Temperature 350 R 354 R

P_c 1892.2 P_c^2 3580.4

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1812.1	3283.6	296.8
2		1691.5	2861.1	719.3
3		1503.6	2260.7	1319.7
4		1333.6	1778.4	1802.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.987$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.644$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.119$

Absolute Open Flow 3.119 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n .724

Remarks: Well Made .240 Bbl. of 56 API Gr.

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