

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

Form 612-127
Revised 1-1-65

RECEIVED

MAY 6 1976

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-22-76			
Company MESA PETROLEUM CO.				Connection Air				MESA - PBO	
Well Undersignated				Formation Atoka				Unit F	
Completion Date 4-21-76		Total Depth 13,946'		Plug Back TD 13,895'		Elevation 3057' RKB.		Farm or Lease Name Nash Drum Unit	
Log. Size 5	Wt. 23	d 4.044	Set At 13,946'	Perforations: From 12432 To 12441		Well No. #2			
Log. Size 2.375EUE	Wt. 4.70#	d 1.995"	Set At 10692	Perforations: From To		Unit Sec. Twp. Rge. F 18 23S 30E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Dual Completion Gas-Gas						Packer Set At 10692		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 195 @ 12437		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 12437	H 12437	G _g 0.613	% CO ₂ 1.65	% N ₂ 1.06	% H ₂ S 0.00	Prover X	Meter Run X	Taps	

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.	
SI							5900	65		
1.	3.00		1.75	615	9.00"	95	5300	70		1.00 Hr.
2.	3.00		1.75	630	15.00"	73	4900	70		1.00 Hr.
3.	3.00		1.75	630	26.00"	70	4400	70		1.00 Hr.
4.	3.00		1.75	640	40.00"	64	3900	70		1.00 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, Mcfd
1	13.24	75.192	628.20	0.9680	1.2772	1.0460	1287
2	13.24	98.224	643.20	0.9877	1.2772	1.0560	1733
3	13.24	129.318	643.20	0.9905	1.2772	1.0540	2283
4	13.24	161.642	653.20	0.9962	1.2772	1.0580	2881
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.94	555	1.53	0.908			0.613	X X X X X X X X	671	362
2	0.96	533	1.47	0.894				X X X X X		
3	0.96	530	1.46	0.894						
4	0.97	524	1.45	0.893						
5										

NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1	5913.2	5321.2	28315	6651
2	34966	4929.4	24299	10667
3		4440.3	19716	15250
4		3958.7	15671	19295
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.81221$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.6825$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4847$

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons **None Produced** Deg.

Specific Gravity Separator Gas **0.613** X X X X X X X X

Specific Gravity Flowing Fluid **0.613** X X X X X

Critical Pressure **671** P.S.I.A. **671** P.S.I.A.

Critical Temperature **362** °R **362** °R

Absolute Open Flow 4847 Mcfd @ 15.025		Angle of Slope ϕ 48.81		Slope, no. 0.875	
Remarks: _____					

Approved By Commission:	Conducted By: <i>Harry Davis</i>	Calculated By: <i>Harry Davis</i>	Checked: MAY 21 1976
	<i>Wesley Consulting</i>		

RECEIVED

Operator: Mesa Petroleum Co.
 Lease: Nash Draw
 Well No. #2
 County: Eddy, New Mexico
 Date: 4-22-76

