NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 9-1-65

RECEIVED
JAN 8 1976
MESA — PBD

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 12-27-75	
Company: MESA PETROLEUM COMPANY			Connection: AIR		
Pool: Red Hills Penn			Formation: Atoka		Unit
Completion Date: 12-8-75	Total Depth: 15,249'		Plug Back TD: 15,149'	Elevation: 3372' RKB	Farm or Lease Name: Red Hills Federal
Csg. Size: 7" / Wt.: 29 Lb / d: 6.875 / Set At: 15,249'			Perforations: From 14616' To 14894'		Well No.: 1
Tbg. Size: 2 3/8" / Wt.: 5.95 / d: 1.865 / Set At: 14475			Perforations: From To		Unit: A / Sec.: 6 / Twp.: 26s / Rge.: 33e
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual GAS			Packer Set At: 14475'		County: Lea
Producing Thru: Tubing	Reservoir Temp. °F: 200 @	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
14755'	14755'	.5757	.840%	.534%	N		X	

	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						9561				
1.	4.0	2.5	157	50"	60°	1440	61°			1 Hr
2.	4.0	2.5	157	27"	97°	1300	65°			1 Hr
3.	4.0	2.5	157	18"	92°	1340	65°			1 Hr
4.	4.0	2.5	157	10"	73°	1681	66°			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	32.64	92.2497	170.2	1.000	1.3180	1.014	4024
2.	32.64	67.7894	170.2	.9662	1.3180	1.011	2849
3.	32.64	53.3498	170.2	.9706	1.3180	1.011	2336
4.	32.64	41.2553	170.2	.9877	1.3180	1.013	1776
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.25	520	1.48	.973
2.	.25	557	1.59	.979
3.	.25	552	1.58	.979
4.	.25	533	1.52	.975
5.				

Gas Liquid Hydrocarbon Ratio: 165836 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 60 (.7389) Deg.
Specific Gravity Separator Gas: .575 (XXXXXXXXX)
Specific Gravity Flowing Fluid: XXXXX (.593)
Critical Pressure: 672 P.S.I.A. (672 P.S.I.A.)
Critical Temperature: 350 R (354 R)

P_c 9574.2 P_c^2 91665

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1650.1	2723	88942
2		1429.4	2043	89622
3		1426.3	2034	89631
4		1730.9	2996	88669
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0306$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0306$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 4147$

Absolute Open Flow: 4147 Mcfd @ 15.025 | Angle of Slope θ: 45° | Slope, n: 1.00

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Larry Davis	Larry Davis	