

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-66 *c/sr*
File

RECEIVED
JUL 20 1982

Type Test: ☒ Initial ☐ Annual ☐ Special 7-9-82											
Company: MESA PETROLEUM CO.				Connection: UNCONNECTED				SEP 30 1982 OIL & GAS U.S. GEOLOGICAL SURVEY DOWNSWELL, NEW MEXICO			
Pool: WILDCAT ABO				Formation: ABO				O. C. D. ARTESIA, OFFICE			
Completion Date: 7-9-82			Total Depth: 4132'			Plug back TD: 3757'			3557' Form or Lease Name: KAREN FEDERAL		
Csg. Size: 4 1/2"		Wt.: 10.5#		Set At: 3810'		Perforations: From 3449' To 3531'			Well No.: 1		
Tiq. Size: 2 3/8"		Wt.: 4.7#		Set At: 3484'		Perforations: From OPEN ENDED			Unit: D 25 9S 24E County: CHAVES State: NEW MEXICO		
Type Well - Single - Production - G.G. or G.O. Multiple								Packer Set At: NONE		Prover: 2" CRITICAL FLOW PROVER Meter Run: _____ Pore: _____	
Producing Thru: TUBING				Reservoir Temp. °F: 97° @ 4132'		Mean Annual Temp. °F: 60		Baro. Press. - P ₀ : 13.2		Duration of Flow: _____ Rate of Flow: _____	
L: _____		H: _____		G _g : .65		% CO ₂ : 1		% N ₂ : 1		% H ₂ S: _____	

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
1.	2" x .5"			128		46	945	74	945		48 HRS \$1
2.	2" x .5"			223		60	840	79	855		1 HR
3.	2" x .5"			227		72	650	80	680		1 HR
4.	2" x .5"			230		75	415	85	555		1 HR
5.							360		500		1 HR

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. Compens. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	4.279	FLOW PROVER	141	1.0140	1.24		759
2.	4.279	FLOW PROVER	236	1.0000	1.24		1252
3.	4.279	FLOW PROVER	240	.9887	1.24		1259
4.	4.279	FLOW PROVER	243	.9859	1.24		1271
5.							

NO.	P ₀	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

NO.	P _c	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.4015$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1839$
1.	958	868	753	165		
2.	918	693	480	438		
3.		568	323	595		
4.		513	263	655		
5.						

Absolute Open Flow: **1,500** Mcf @ 15.025 Angle of Slope θ : **63.5°** Slope, n: **.5**

Remarks: **Plot of P_c² - P_w² vs Q yield a straight line with a θ greater than 63.5°.**
Drew 63.5° line through highest point.

Approved By: _____	Conducted By: JAMES CRAIG	Calculated By: EBB 7-16-82	Checked By: _____
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*Posted ID 2
10-1-82
Comp + BK*