

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-30-78		NOV - 6 1978	
Company MESA PETROLEUM CORP. ✓				Connection AIR		O. C. C.	
Pool UNDESIGNATED <i>Wegcamp</i>				Formation SHERIDAN <i>Wolfcamp</i>		Unit ARTESIA, OFFICE	
Completion Date 10-3-78		Total Depth 8850		Plug Back TD 6690		Elevation 3626	
Csg. Size 4 1/2		Wt. 11.6/10.5		Set At 8757		Perforations: From 6498 To 6664	
Tbg. Size 2 3/8		Wt. N- 80		Set At 6443		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 6443		County EDDY	
Producing Thru TBC		Reservoir Temp. °F 138 @ 6443		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L 6443		H 6443		G _g .654		% CO ₂ .13	
				% N ₂ 1.34		% H ₂ S	
				Prover		Meter Run 4"	
						Taps FIG.	

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
SI							1275				72 Hr.
1.	4 X 1.500			522	11.0	90	1208				1 Hr.
2.	4 X 1.500			520	19.0	98	1120				1 Hr.
3.	4 X 1.500			525	32.0	86	960				1 Hr.
4.	4 X 1.500			520	12.0	80	600				1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	10.84	76.73	535.2	.9723	1.237	1.046	1046
2	10.84	100.65	533.2	.9653	1.237	1.044	1360
3	10.84	131.23	538.2	.9759	1.237	1.047	1798
4	10.84	79.99	533.2	.9813	1.237	1.049	1104
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.	.80	550	1.47	.914	DRY		.654		670	375
2.	.80	558	1.49	.918						
3.	.80	546	1.46	.912						
4.	.80	540	1.44	.908						
5.										

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²
1	1288.2	1230.5	1514.2	145.4
2	1659.5	1150.3	1323.1	336.4
3		1008.3	1016.7	642.8
4		635.7	404.1	1255.4
5				

$$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 11.413$$

$$ACF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3.534$$

$$(2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3.378$$

Partial
AD-2 ✓
11-22-78
ST

Absolute Open Flow	3,534	Mcf @ 15.025	Angle of Slope °	63.5°	Slope, n	500
--------------------	-------	--------------	------------------	-------	----------	-----

Remarks:			
Approved by Commission:	Conducted By:	Calculated By:	Checked By: