

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

Form C-122
Revised 9-1-65
RECEIVED

SEP 28 1982

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 9-4-82		SEP 28 1982			
Company Mesa Petroleum Company						Connection unconnected				O. C. D. ARTESIA, OFFICE	
Pool Pecos Slope ABO						Formation ABO				Unit	
Completion Date 9-4-82			Total Depth 4300'		Plug Back TD 3976'		Elevation 3927'		Farm or Lease Name Camack Fed Com		
Csg. Size 4 1/2	Wt. 10.5#	d	Set At 4038'	Perforations: From 3768' To 3842'		Well No. 9					
Tub. Size 2-3/8	Wt. 4.7#	d	Set At 3797'	Perforations: From open ended To		Unit		Sec.	Twp.	Range	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single						Packer Set At none		County Chaves			
Producing Thru Tubing		Reservoir Temp. °F 107 @ 4200		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico			
L	H	G _g .65	% CO ₂ 1	% N ₂ 1	% H ₂ S	Prover 2" Critical Flow Prover		Meter Run		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.		Temp. °F
51							820		820		38 hr. SI
1.	2" X 1"			32		38	770	76	790		1 hr.
2.	2" X 1"			68		46	680	80	745		1 hr.
3.	2" X 1"			93		54	560	83	680		1 hr.
4.	2" X 1"			102		62	430	86	550		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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mscf/d
1	17.09	Flow Prover	45	1.022	1.24		974
2	17.09	" "	81	1.014	1.24		1740
3	17.09	" "	106	1.006	1.24		2259
4	17.09	" "	115	.9981	1.24		2432
5.							

NO.	P _r	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 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

P _c 833	P _c ² 694			
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1		803	645	49
2		758	575	119
3		693	480	214
4		563	317	377
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8408$

ADP = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3300$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.3568$

1.3568 (SI) 2
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1.3568 (SI) 2

Absolute Open Flow <u>3300</u>	Mscf @ 15.025	Angle of Slope θ <u>63.5°</u>	Slope, n <u>.5</u>
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Remarks: Plot of P_c²-P_w² vs. Q yielded a straight line with A Ø greater than 63.5°. Drew 63.5° line through highest point.

Approved By Commission:	Conducted By: James Craig	Calculated By: E.L. Buttross, Jr.	Checked By:
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