

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

ST file
Form C-122
Revised 9-1-66
C-122 file
RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 11-18-81		DEC 11 1981		
Company Mesa Petroleum Co. ✓				Connection Unconnected				O. C. D.	
Pool Undesignated ABO				Formation ABO				ARTESIA, OFFICE	
Completion Date 11-18-81		Total Length 4293		Plug back To 4188		Elevation 3757		Form or Lease Name Alkali Federal	
Coq. Size 4 1/2	Wt. 10.5#	d	Set At 4265	Perforations: From 3770 To 3999		Well No. 1			
Trg. Size 2 3/8	Wt. 4.7#	d	Set At 3653	Perforations: From Open ended To		Unit M	Sec. 33	Twp. 5S	Range 25E
Type Well - Single - Prodenhead - G.G. or G.O. Multiple Single					Packer Set At None		County Chaves		
Producing Thru Tubing		Reservoir Temp. °F 100 @ 4293		Mean Annual Temp. °F 60		Zero. Press. - P _a 13.2		State New Mexico	
L 3653	H 3653	Gg .65	% CO ₂ 1	% N ₂ 1	% H ₂ S	Prover 2" Orifice Well Tester	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	
5!							900		835		24 hr. SI
1.	2" Orifice	1 1/4	14.5			56	835	70	785		1 hr.
2.	Well	1 1/4	31			54	740	72	710		1 hr.
3.	Tester	1 1/4	36			52	510	72	620		1 hr.
4.		1 1/4	42			56	400	72	570		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 _{sp}	Rate of Flow Q, Mgd
1	944	2" Orifice	Well	1.0039	.9608		911
2	1653	Tester		1.0058	.9608		1597
3	1843			1.0078	.9608		1785
4	2065			1.0039	.9608		1992
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mol/ubl.
1.					A.P.L. 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

P _c 848	P _c ² 719				
NO.	P _t	P _w	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8971$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.3862$
1		798	637	82	
2		723	523	196	
3		633	401	318	
4		583	340	379	
5					

ADP = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2800$

Partial Back Pressure
ID-2 + Back
12-10-81
ST

Absolute Open Flow 2800	Mcf @ 14.625	Angle of Slope θ 630	Slope, n .51
Remarks:			

Approved By: _____	Conducted By: James Craig	Calculated By: 28 11-23-81 E.L. Buttross, Jr.	Checked By: _____
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