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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

RECEIVED
OIL CON. DIV.

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator <u>Arco Permian</u>						Lease or Unit Name <u>Dakota 32 State, Com.</u>					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date <u>7/30/96</u>		Well No. <u>1.2</u>			
Completion Date <u>5/11/96</u>		Total Depth <u>10610</u>		Plug Back TD <u>10533</u>		Elevation <u>3690 GR</u>		Unit Ltr. - Sec. - TWP - Rge. <u>H 32 17-5 28-F</u>			
Csg. Size <u>51/2</u>	Wt. <u>17</u>	d <u>4,892</u>	Set At <u>10610</u>	Perforations: From: <u>10200</u> To: <u>10206</u>				County <u>Eddy</u>			
Tbg. Size <u>2 3/8</u>	Wt. <u>4.7</u>	d <u>1,995</u>	Set At <u>9534</u>	Perforations: From: <u></u> To: <u></u>				Pool <u>Redlake Morrow</u>			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple <u>Single</u>						Packer Set At <u>9534</u>		Formation <u>Morrow</u>			
Producing Thru <u>Tbs</u>		Reservoir Temp. °F <u>155</u>		Mean Annual Temp. °F <u>60°</u>		Baro. Press - P <u>13.2</u>		Connection <u></u>			
L <u>9534</u>	H <u>9534</u>	Gg <u>.654</u>	% CO ₂ <u>.401</u>	% N ₂ <u>.492</u>	% H ₂ S <u>0</u>	Prover <u>0</u>	Meter Run <u>4.028</u>	Taps <u>F/9</u>			

FLOW DATA					TUBING DATA			CASING DATA		Duration of Flow
NO.	Prover Line Size	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										
1.	4.028 x .875		28	38	60	1700	60			24 HR
2.										24 HR
3.										
4.										
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, F _{pv}	Rate of Flow Q, Mcfd
1.	3.630	39.6	41.2	1.000	1.237	1.004	178
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.064	520	1.40	.993	25.429	
2.					A.P. I. Gravity of Liquid Hydrocarbons <u>54.4</u>	Deg.
3.					Specific Gravity Separator Gas <u>.654</u>	XXXXXXXXXX
4.					Specific Gravity Flowing Fluid <u>XXXXXX</u>	
5.					Critical Pressure <u>673</u> P.S.I.A.	665 P.S.I.A.
					Critical Temperature <u>371</u> R	460 R

P_c 2038.2 P_c 4154.3

NO.	P _c ²	P _w	P _w ²	P _c ² - P _w ²
1.	2935.1	1713.4	2935.9	1218.4
2.				
3.				
4.				
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.410$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.410$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 607$

Absolute Open Flow <u>607</u> Mcfd @ 15.025	Angle of Slope θ <u>45°</u>	Slope, n <u>1.000</u>
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Remarks: Well made 7 BBLS oil API Gravity 54.4

Approved By Division	Conducted By: <u>Pro Well Testing</u>	Calculated By: <u>MB</u>	Checked By: <u>BM</u>
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