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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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator <i>Texaco F & P, Inc</i>				Lease or Unit Name <i>Tex Mack II Fed.</i>			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date <i>11-3-97</i>		Well No. <i>11-17-31</i>	
Completion Date <i>9-25-97</i>		Total Depth <i>12359</i>		Plug Back TD <i>12264</i>		Elevation	
Csg. Size <i>5 1/2</i>	Wt. <i>17#</i>	d <i>2.441</i>	Set At <i>12500</i>	Perforations: From: <i>12078</i> To: <i>12092</i>		Country <i>Eddy</i>	
Tbg. Size <i>2 7/8</i>	Wt. <i>6.5</i>	d <i>2.441</i>	Set At <i>11973</i>	Perforations: From: To:		Pool	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple				Packer Set At <i>11981</i>		Formation <i>Morrow</i>	
Producing Thru <i>TBG</i>		Reservoir Temp. °F <i>193.7 @ 11973</i>		Mean Annual Temp. °F <i>60°</i>		Baro. Press - P _a <i>13.2</i>	
L <i>11973</i>	H <i>11973</i>	G _g <i>.674</i>	% CO ₂ <i>.27</i>	% N ₂ <i>.70</i>	% H ₂ S	Prover	Meter Run <i>3.069</i>
						Taps <i>FLG</i>	

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						3505		PKR		24 hrs
1.		3 X 2.000	448	8.60	80	3420				1 hr
2.		3 X 2.000	451	16.70	92	3400				
3.		3 X 2.000	462	46.70	64	3280				
4.		3 X 2.000	470	111.50	42	2950				
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.	21.32	62.98	461.2	.9813	1.218	1.047	1.680
2.	21.32	88.05	464.2	.9706	1.218	1.043	2.315
3.	21.32	148.97	475.2	.9962	1.218	1.048	4.039
4.	21.32	232.11	483.2	1.018	1.218	1.065	6.535
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <i>15.767</i> Mcf/bbl		
1.	.68	540	1.41	.913	A.P. I Gravity of Liquid Hydrocarbons <i>49.3 @ 60°</i> Deg.		
2.	.69	552	1.44	.920	Specific Gravity Separator Gas <i>.674</i> XXXXXXXXXX		
3.	.71	524	1.37	.910	Specific Gravity Flowing Fluid <i>XXXXX</i> GMix. = <i>863</i>		
4.	.72	502	1.31	.882	Critical Pressure <i>669</i> P.S.I.A. <i>664</i> P.S.I.A.		
5.					Critical Temperature <i>382</i> °R <i>444</i> °R		

$P_c = 3518.2$		$P_w = 12377.7$				
NO.	P_c^2	P_w	P_w^2	$P_c^2 - P_w^2$	1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.144$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.571$
1.		3439.6	11831.0	546.7		
2.		3425.4	11733.5	644.3		
3.		3330.7	11093.8	1283.9	AOF = Q	$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 16.802$
4.		3064.5	9390.9	2986.9		
5.						

Absolute Open Flow <i>16.802</i> Mcfd @ 15.025	Angle of Slope θ <i>56.4</i>	Slope, n <i>.6641</i>
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Remarks: *Well Produced 38.5 BBLS 49.3 API Condensate & 2.75 BBLS H2O*

Approved By Division	Conducted By: <i>Pro Well Testers & Wireline</i>	Calculated By:	Checked By: <i>RM</i>
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