

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7/16/90				
Company TEXACO PRODUCING INC.				Connection					
Pool EUMONT YATES 7 RIVERS				Formation PENROSE				Unit E	
Completion Date 07-08-90		Total Depth 3750		Plug Back TD 3740		Elevation 3706		Farm or Lease Name STATE J	
Csq. Size 5.5	Wt. 15.5	d 4.95	Set At 3750	Perforations: From 3512 To 3724		Well No. 5			
Tqg. Size 2.375	Wt. 4.7	d 1.995	Set At 3429	Perforations: From To		Unit Sec. Twp. Rye. E 17 19S 37E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G.G. SINGLE					Packer Set At NONE		County LEA		
Producing Thru TUBING		Reservoir Temp. °F 108 #		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 3429	H 3429	Gg .782	% CO ₂ 7.81	% N ₂ 3.32	% H ₂ S .3	Prover		Meter Run 3.068	Taps FLANGE

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											
1.	3.068	x	.75	25	13	80	174				72
2.	3.068	x	.75	25	20	76	118	75	120	70	1
3.	3.068	x	.75	25	29	74	90	73	90	71	1
4.	3.068	x	.75	25	43	72	64	70	64	71	1
5.							40	70	41	71	1

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	2.67	22.28	38.2	.9813	1.131	1.014	67
2	2.67	27.64	38.2	.985	1.131	1.015	83
3	2.67	33.28	38.2	.9868	1.131	1.015	101
4	2.67	40.53	38.2	.9887	1.131	1.015	123
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.	2	540	1.37	.972	0	0	.782	X X X X X X X X	695	395
2.	2	536	1.36	.971				X X X X X		
3.	2	534	1.35	.971						
4.	2	532	1.35	.971						
5.										

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²
1	17.2	131.5	17.3	17.7
2	10.7	103.9	10.8	24.2
3	6	78.1	6.1	28.9
4	2.8	54.8	3	32
5				

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = \frac{35}{32}$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 135$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.094$

Absolute Open Flow	135	Mcfd @ 15.025	Angle of Slope	45°	Slope, n	1.000
Remarks:						
Approved By Division						
Conducted By:		Calculated By:		Checked By:		
J W Mc Mahan		T M Morgan				