STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 6-17-86	
Company: Southland Royalty Company			Connection: To Air		
Pool: Johnson Ranch			Formation: Wolfcamp		Unit: B
Completion Date: 6-7-86	Total Depth: 15694		Plug Back TD: 14,765	Elevation: 3522.4' GR	Farm or Lease Name: Madera Ridge "27" St Com
Csg. Size: 7 & 4 1/2 / Wt.: 15.1	d:	Set At: 14,765	Perforations: From 13,266 To 13,532		Well No.: 1
Tbg. Size: 2 7/8 / Wt.: 6.5	d: 2.441	Set At: 12,798	Perforations: From Open To End		Unit: B / Sec.: 27 / Twp.: 24S / Rge.: 33E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 12,687		County: Lea
Producing Thru: Tbg	Reservoir Temp. °F: 207° @ 13,266	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
12,798	12,798	.639	.295	.650	-	-	4"	Flg.

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI					7984	(SIP)			72 HRS.
1.	4 x 1.250	440	15	82	7690				1 HR
2.	4 x 1.250	440	28	60	7070				1 HR
3.	4 x 1.250	440	60	60	6300				1 HR
4.	4 x 1.250	600	79	60	5302				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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.469	82.45	453.2	.9795	1.251	1.041	785
2.	7.469	112.65	453.2	1.00	1.251	1.047	1102
3.	7.469	164.90	453.2	1.00	1.251	1.047	1613
4.	7.469	220.10	613.2	1.00	1.251	1.063	2186
5.							

NO.	P_t	Temp. °R	T_r	Z
1	.68	540	1.45	.923
2.	.68	520	1.40	.913
3.	.68	520	1.40	.913
4.	.92	520	1.40	.885
5				

Gas Liquid Hydrocarbon Ratio: 25.752 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 52 @ 60 Deg.
Specific Gravity Separator Gas: .639 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX G-Mix 756
Critical Pressure: 670 P.S.I.A. 667 P.S.I.A.
Critical Temperature: 372 R 408 R

P_c 7997.2 P_c^2 63,955.2

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		7703.2	59339.2	4616.0
2		7083.2	50171.7	13783.5
3		6313.2	39856.5	24098.7
4		5315.2	28251.4	35703.8
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.791$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.493$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.265$

Absolute Open Flow: 3,265 Mcfd @ 15.025 Angle of Slope θ: 55 1/2 Slope, n: .688

Remarks: 9.2 Bbls of condensate during test. Calculations for Pw were attempted but were lower than flowing tbg press. Flwg tbg press were used for Pw. Due to large amount of fluid.

Approved By Division	Conducted By:	Calculated By:	Checked By:
ORIGINAL SIGNED BY JERRY SEXTON DISTRICT I SUPERVISOR	Reston, Jackson & Golden	R. E. Reston	