Submit in duplicate to appropriate district office
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: PHILLIPS PETROLEUM COMPANY						Lease or Unit Name: RANGER			
Type Test: [X] Initial [ ] Annual [ ] Special						Test Date: 5/19/92		Well No.: 17	
Completion Date: 5/16/92		Total Depth: 14100'		Plug Back TD: 12925'		Elevation: 4150' GL		Unit Ltr. - Sec. - TWP - Rge.: M 26 ~~35~~ 12 34	
Csg. Size: 9 5/8"	Wt.: 53.5# 47#	d:	Set At: 13800'	Perforations: From: 12813	To: 12905'			County: LEA	
Tbg. Size: 2 7/8"	Wt.: 6.5	d: 2.441	Set At: 12675	Perforations: From:	To:			Pool: West Ranger Lake (Dev.)	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single				Packer Set At: 12675				Formation: DEV.	
Producing Thru: TBG	Reservoir Temp. °F	Mean Annual Temp. °F: 60		Baro. Press - P: 13.2				Connection	
L: 12675	H: 12675	Gg: .699	% CO_2: 2.24	% N_2: 3.36	% H_2S	Prover		Meter Run: 4.026	Taps: FLG

NO.	FLOW DATA: Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							2815		PKR		17 HRS
1.	4	X	2.000	450	20.00	71	2667		PKR		30 MIN
2.	4	X	2.000	450	30.00	72	2730		PKR		30 MIN
3.	4	X	2.000	450	38.00	69	2722		PKR		30 MIN
4.	4	X	2.000	450	52.00	59	2683		PKR		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, F pv.	Rate of Flow Q, Mcfd
1.	19.81	96.25	463.2	.9896	1.196	1.047	2363
2.	19.81	117.88	463.2	.9887	1.196	1.047	2891
3.	19.81	132.67	463.2	.9915	1.196	1.047	3263
4.	19.81	155.20	463.2	1.001	1.196	1.054	3880
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.68	531	1.41	.913
2.	.68	532	1.41	.913
3.	.68	529	1.40	.913
4.	.68	519	1.38	.901
5.				

Gas Liquid Hydrocarbon Ratio: 5.57 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 70.0 @ 60° Deg.
Specific Gravity Separator Gas: .699 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: * 672 P.S.I.A. 656 P.S.I.A.
Critical Temperature: * 376 R 508 R

P_c 2828.2 P_c^2 7998.7

NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.		2703.3	7307.8	690.9
2.		2775.0	7700.6	298.1
3.		2774.5	7697.9	300.8
4.		2748.7	7555.4	443.3
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 18.044$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 9.576$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 37.154$

Absolute Open Flow: 37,154 Mcfd @ 15.025 | Angle of Slope θ: 52 | Slope, n: .781

Remarks: WELL MADE 60.9 BBLS API GR CONDENSATE DURING TEST

* = CORRECTED TO 2.24% CO2 AND 3.36% N2.

Approved By Division	Conducted By:	Calculated By:	Checked By:
	JOHN WEST ENGINEERING	BM	BM