Submit in duplicate to appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

c|SF

Form C-122
Revised 4-1-91

30-015-30300

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: Grayburg Deep Unit				
Type Test: [X] Initial [ ] Annual [ ] Special							Test Date: 12/03/98			Well No.: 15	
Completion Date: 11/05/98		Total Depth: 11400		Plug Back TD: 11397			Elevation: 3610' GL			Unit Ltr. - Sec. - TWP - Rge.: F 30-17s-30e	
Csg. Size: 5½	Wt.: 17#	d: 4.892	Set At: 11400	Perforations: From: 11167		To: 11200				County: Eddy	
Tbg. Size: 2 7/8	Wt.: 6.5#	d: 2.441	Set At: 11103	Perforations: From: Open		To: Ended				Pool: Sand Tanks ~~Grayburg~~ MORROW	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single				Packer Set At: 11103						Formation: Morrow	
Producing Thru: Tubing	Reservoir Temp. °F: 173.9@11103		Mean Annual Temp. °F: 60	Baro. Press - P_a: 13.2						Connection: GPM	
L: 11103	H: 11103	Gg: 0.683	% CO_2: 0.476	% N_2: 0.811		% H_2S:	Prover:			Meter Run: 6.066	Taps: 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					474		PACKER		24 Hrs
1.	6.066 x 1.750	16	1.6	63	444		"		1 Hr
2.	6.066 x 1.750	15	4.9	67	413		"		1 Hr
3.	6.066 x 1.750	13.5	9.9	68	377		"		1 Hr
4.	6.066 x 1.750	13.5	17.3	70	330		"		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.	14.61	6.84	29.2	.9971	1.210	1.004	121
2.	14.61	11.75	28.2	.9933	1.210	1.004	207
3.	14.61	16.26	26.7	.9924	1.210	1.004	286
4.	14.61	21.49	26.7	.9905	1.210	1.004	378
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.04	523	1.35	.992
2.	.04	527	1.36	.992
3.	.03	528	1.37	.992
4.	.03	530	1.37	.992
5.				

Gas Liquid Hydrocarbon Ratio: Dry Gas Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Dry Deg.
Specific Gravity Separator Gas: .683 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 669 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 385 R ____ R

P_c 487.2 P_c^2 237.4

NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.		457.4	209.2	28.1
2.		426.9	182.2	55.1
3.		391.6	153.4	84.0
4.		346.1	119.8	117.6
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.018$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.747$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = .660$

Absolute Open Flow: 660 Mcfd @ 15.025 | Angle of Slope θ: 51.5 | Slope, n: .7943

Remarks: Well produced no fluid during test

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Jarrel Services, Inc.	Bob Murray	Bob Murray