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

dist. File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 5/25/90	API 30-015-26315
Company: Great Western Drilling Co.	Connection: Pinnacle Natural Gas Co.	RECEIVED JUN 6 '90		State Lease-Lse #LG8793
Pool: Und. Dark Canyon - Penn Gas	Formation: Strawn			Unit
Completion Date: 5/18/90	Total Depth: 9925	Plug Back TD: 9914	Elevation: 3,863' KB	Farm or Lease Name: Mosley Spring "32" State COM
Csg. Size: 4 1/2 / Wt.: 11.6# / d: / Set At: 9925		Perforations: From 9842 To 9858	OCD ARTESIA, OFFICE	Well No.: 3
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: 1.995 / Set At: 9,807'		Perforations: From open To end		Unit: G / Sec.: 32 / Twp.: 23S / Rge.: 25E
Type Well – Single – Bradenhead – G.C. or G.O. Multiple: Single		Packer Set At: 9,807'		County: Eddy
Producing Thru: Tbg	Reservoir Temp. °F: 173 @ 9850	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: NM

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
**9850	9850	.593	.61	1.12	--		2.067	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						3182		Pkr		24 Hrs.
1.	2	x 1.000	600	23.00	60	3034		Pkr		1 Hr.
2.	2	x 1.000	600	42.00	60	2892		Pkr		1 Hr.
3.	2	x 1.000	600	64.00	61	2685		Pkr		1 Hr.
4.	2	x 1.000	600	72.00	60	2240		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, Fpv	Rate of Flow Q, Mcfd
1	4.946	118.76	613.2	1.000	1.299	1.051	802
2.	4.946	160.48	613.2	1.000	1.299	1.051	1.084
3	4.946	198.10	613.2	.9990	1.299	1.051	1.336
4.	4.946	210.12	613.2	1.000	1.299	1.051	1.419
5.							

NO.	P_t	Temp. °R	T_t	Z
1	.91	520	1.48	.905
2.	.91	520	1.48	.905
3.	.91	521	1.48	.905
4.	.91	520	1.48	.905
5.				

Gas Liquid Hydrocarbon Ratio: Dry Gas Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Dry Deg.
Specific Gravity Separator Gas: .593 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: *671 P.S.I.A. P.S.I.A.
Critical Temperature: *351 R R

P_c 3384.4 P_c^2 11454.5

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3248.0	10549.5	905.0
2		3143.5	9881.6	1572.9
3		3021.5	9129.5	2325.0
4		2754.9	7589.5	3865.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.927$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.355$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.146$

Absolute Open Flow: 3,146 Mcfd @ 15.025 Angle of Slope θ: 61.7 Slope, n: .537

Remarks: * = Corrected to .61% CO2 & 1.12% N2
** = BHP Instrument set @ This Depth for recording known BHP's.

Approved By Division	Conducted By:	Calculated By:	Checked By:
	John West Engineering	BM	BM