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: 07-05-90	
Company: W.A. Moncrief, Jr.			Connection: vented		
Pool: Hume Atoka Pool			Formation: Atoka		Unit: D
Completion Date: 06-26-90	Total Depth: 12,826		Plug Back TD: 12,753	Elevation: 4142.1	Farm or Lease Name: State 8
Csg. Size: 5½ / Wt.: 17 / d: / Set At: 12,826			Perforations: From 12,418 To 12.432		Well No.: 3
Tbg. Size: 2 7/8 / Wt.: 6.5 / d: 2.441 / Set At: 12,185			Perforations: From OPEN To END		Unit: D / Sec.: 8 / Twp.: 16S / Rge.: 34E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE			Packer Set At: 12,185		County: Lea
Producing Thru: TBG	Reservoir Temp. °F: 198 @ 12,418	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2		State: New Mexico
L: *12,418	H: 12,418	Gg: .698	% CO_2: 0.36	% N_2: 2.80	% H_2S: ----
Prover:	Meter Run: 3.068	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	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI							2775		PKR		72 hrs.
1.	3	X	1.750	170	4.00	95	2250		PKR		1 hr.
2.	3	X	1.750	200	10.00	90	1980		PKR		1 hr.
3.	3	X	1.750	210	16.00	82	1750		PKR		1 hr.
4.	3	X	1.750	220	34.00	75	1540		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.	15.61	27.07	183.2	.9680	1.197	1.016	498
2.	15.61	46.17	213.2	.9723	1.197	1.021	856
3.	15.61	59.76	223.2	.9795	1.197	1.022	1,118
4.	15.61	89.04	233.2	.9859	1.197	1.023	1,678
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.27	555	1.45	.969
2.	.32	550	1.43	.960
3.	.33	542	1.41	.958
4.	.35	535	.140	.956
5.				

Gas Liquid Hydrocarbon Ratio 57.7 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 56.8 Deg.
Specific Gravity Separator Gas .698 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX GMIX = .748
Critical Pressure ** 666 P.S.I.A. 664 P.S.I.A.
Critical Temperature ** 382 R 399 R

P_c 2788.2 P_c^2 7774.1

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2263.9	5125.1	2649.0
2		1995.4	3981.7	3792.4
3		1767.5	3124.0	4650.1
4		1564.3	2447.1	5327.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.459$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.459$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2,448$

Absolute Open Flow 2,448 Mcfd @ 15.025 Angle of Slope θ 45 Slope, n 1.000

Remarks: Well made 3.00 BBLS 56.8 API CONDENSATE during test
* equiv. L Cal. for 233' 5½ 17# csg. & converted to 2.441 tbg. for friction calculations.

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Pro Well Testers	bm	bm