OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

c/SF File

RECEIVED
JUN 13 1991
O. C. D.
ARTESIA, OFFICE

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 5-21-91	
Company: Hallwood Energy			Connection		Unit
Pool: ~~Catclaw Dr. Morrow~~			Formation: Morrow		
Completion Date: 5-16-91	Total Depth: 10880		Plug Back TD: 10648	Elevation: 3635 GL	Farm or Lease Name: Catclaw Draw
Csg. Size: 5½	Wt.: 17 & 20#	d:	Set At: 10880	Perforations: From 10432 To 10636	Well No.: 9
Tbg. Size: 2-7/8	Wt.: 6.5	d: 2.441	Set At: 10340	Perforations: From Open To End	Unit: F, Sec.: 35, Twp.: 21, Rge.: 25
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 10340		County: Eddy
Producing Thru: TB6	Reservoir Temp. °F: 177 @ 10337		Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: N.M.

L	H	Cg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
*10337	10337	.593	.75	.45	–		3.068	FL6

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					2700		PKR		96 hrs.
1.	3 X 2.000	480	6.00	79	2565		"		1 hr.
2.	3 X 2.000	510	18.50	80	2420		"		1 hr.
3.	3 X 2.000	510	37.00	80	2270		"		1 hr.
4.	3 X 2.000	540	76.00	80	2055		"		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	21.32	54.40	493.2	.9822	1.299	1.039	1,538
2.	21.32	98.38	523.2	.9813	1.299	1.041	2,783
3.	21.32	139.13	523.2	.9813	1.299	1.041	3,936
4.	21.32	205.04	553.2	.9813	1.299	1.041	5,801
5.							

NO.	P_t	Temp. °R	T_f	Z
1.	.73	539	1.52	.927
2.	.77	540	1.52	.923
3.	.77	540	1.52	.923
4.	.77	540	1.52	.923
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: 672 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 354 R ____ R

P_c 2709.8 P_c^2 7343.0

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2583.0	6671.9	671.1
2		2471.2	6106.8	1236.2
3		2406.2	5789.8	1553.2
4		2220.5	4930.6	2412.4
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.044$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.044$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 17.658$

Absolute Open Flow: 17,658 Mcfd @ 15.025 Angle of Slope θ: 45 Slope, n: 1.000

Remarks: * = BNP instrument set @ this depth
2.5 BBLS H^{2o} cut mud & trace of Condensate.

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Prowell Testers	BM	BM