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OIL CONSERVATION DIVIS RECEIVED

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 8750 AUG 26 1991

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Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

O.C.D. ARTESIA, OFFICE WESTERN REGION

Type Test: [X] Initial [ ] Annual [ ] Special		Test Date: 07-23-91	
Company: Hallwood Petroleum, Inc.	Connection: Vented		
Pool: CATCLAW DRAW MORROW	Formation: MORROW "A" ZONE		Unit
Completion Date: 07-19-91	Total Depth: 10474	Plug Back TD: 10165	Elevation: 3335.6 GL
Farm or Lease Name: Catclaw			

Csg. Size	Wt.	d	Set At	Perforations	Well No.
5½	17		10474	From 10102 To 10112	17

Tbg. Size	Wt.	d	Set At	Perforations	Unit	Sec.	Twp.	Rge.
2 3/8	4.7		10018	From To	B	14	21-S	25-E

Type Well – Single – Bradenhead – G.G. or G.O. Multiple	Packer Set At	County
Single	10018	Eddy

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a	State
Tubing	174 @ 10018	60	13.2	New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
*10018	10018	.590	.89	.25			3.068	Flange

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
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	
SI						3100		PKR		72 hrs.
1.	3	X 1.250	380	5.00	97	2360		PKR		1 hr.
2.	3	X 1.250	450	8.00	96	1775		PKR		1 hr.
3.	3	X 1.250	480	10.00	96	1280		PKR		1 hr.
4.	3	X 1.250	480	9.00	94	955		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	7.577	44.34	393.2	.9662	1.302	1.024	433
2.	7.577	60.87	463.2	.9672	1.302	1.028	597
3.	7.577	70.23	493.2	.9672	1.302	1.030	690
4.	7.577	66.62	493.2	.9688	1.302	1.030	656
5.							

NO.	P_t	Temp. °R	T_t	Z
1.	.58	557	1.57	.954
2.	.68	556	1.57	.947
3.	.73	556	1.57	.943
4.	.73	554	1.56	.943
5.				

Gas Liquid Hydrocarbon Ratio: DRY GAS Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: DRY Deg.
Specific Gravity Separator Gas: .590 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 672 P.S.I.A. P.S.I.A.
Critical Temperature: 354 R R

P_c 3187.7 P_c^2 10161.4

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2497.6	6238.0	3923.4
2		1893.6	3585.7	6575.7
3		1406.7	1978.8	8182.6
4		1093.4	1195.5	8965.9
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 1.242

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.151

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = .794

Absolute Open Flow: 794 Mcfd @ 15.025 | Angle of Slope θ: 57.0 | Slope, n: .6478

Remarks: *=BHP instrument set @ this depth
NO FLUID PRODUCED DURING TEST
NOTE: This test performed prior to 8/8/91 ACID STIMULATION JOB (SEE LAST PAGES)

Approved By Division	Conducted By:	Calculated By:	Checked By:
		DM	RM