NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test			Test Date	
[x] Initial	[ ] Annual	[ ] Special	5-5-82	
Company: H.N.G. Oil Co.	Connection: None			
Pool: Wildcat	Formation: Morrow		Unit	
Completion Date: 4-7-82	Total Depth: 15,400	Plug Back TD: 15,302	Elevation: 3468 GL	Farm or Lease Name: Madera 32 State Com.
Csg. Size: 4½ / Wt.: 13.5 / d: / Set At: 15,419'	Perforations: From 14723 To 15,002'			Well No.: 1
Tbg. Size: 2 7/8 / Wt.: 8.7 / d: / Set At: 12,900	Perforations: From To			Unit: / Sec.: 32 / Twp.: 24S / Rge.: 34E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 12,925 PBR			County: Lea
Producing Thru: Tubing	Reservoir Temp. °F: 203@12800	Mean Annual Temp. °F: 68	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
12900	12900	.5841	.71	.39	0		6.065	Flange

	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						7253				
1.	6.065	2.0	570	4.8	99	6882	72			60 Min.
2.	6.065	2.0	485	19.0	81	6407	72			60 Min.
3.	6.065	2.0	465	47.0	75	5667	70			60 Min.
4.	6.065	2.0	435	65.	70	5128	70			60 Min.
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	19.16	52.91	583.2	.9645	1.309	1.035	1325
2	19.16	97.29	498.2	.9804	1.309	1.030	2464
3	19.16	149.92	478.2	.9859	1.309	1.038	3848
4.	19.16	170.68	448.2	.9905	1.309	1.035	4388
5.							

NO.	P_t	Temp. °R	T_t	Z
1	.87	559	1.60	.983
2.	.74	541	1.55	.943
3.	.71	535	1.53	.929
4.				
5.				

Gas Liquid Hydrocarbon Ratio: 183 to 1 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 43.6 Deg.
Specific Gravity Separator Gas: .5841 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 672 P.S.I.A. P.S.I.A.
Critical Temperature: 350 R R

P_c 9112.2 P_c^2 83032

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		8717.2	75990	7042
2		8236.2	67835	15197
3		7484.2	56013	27019
4		6915.2	47820	35212
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.358$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.9337$

$AOF = Q\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 8485$

Absolute Open Flow: 8485 Mcfd @ 15.025 Angle of Slope θ: 52.5 Slope, n: .7686

Remarks: Pw Substituted for Pt - Bottom Hole Pressure Measured with Amerada Instrument No. 33118 0 - 10,000# Element

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
ORIGINAL SIGNED BY JERRY SEXTON			