NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 9-29-81	OCT 1 1981
Company: HNG OIL COMPANY		Connection: El Paso Natural Gas Company			
Pool: Wildcat		Formation: Morrow		Unit	
Completion Date: 9-21-81	Total Depth: 12,650'	Plug Back TD: 12,540'	Elevation: 3407' GR	Farm or Lease Name: Golden Lane 1 Federal	
Csg. Size: 5" / Wt.: 15# / d: / Set At: 12,625		Perforations: From 12,112' To 12,509'		Well No.: 1	
Tbg. Size: 2-3/8" / Wt.: / d: / Set At: 11,997'		Perforations: From To		Unit: J / Sec.: 1 / Twp.: 21S / Rge.: 28E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 11,997'		County: Eddy	
Producing Thru: Tubing	Reservoir Temp. °F: 190 @ 12,619'	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
11,997	11,997	.6765	1.31	2.04	–		4.026	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						3916				
1.	4.026	1.250	430	8	110	3322	105			60 min.
2.	4.026	1.250	480	16	112	2784	105			60 min.
3.	4.026	1.250	570	20	116	2166	106			60 min.
4.	4.026	1.250	640	27	120	1589	106			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	7.469	59.54	443.2	.9551	1.216	1.035	535
2.	7.469	88.83	493.2	.9535	1.216	1.039	799
3.	7.469	108.00	583.2	.9501	1.216	1.046	975
4.	7.469	132.80	653.2	.9469	1.216	1.052	1201
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.66	570	1.49	.934
2.	.74	572	1.50	.926
3.	.87	576	1.51	.914
4.	.98	580	1.52	.903
5.				

Gas Liquid Hydrocarbon Ratio 1201 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 46.4 @ 60 Deg.
Specific Gravity Separator Gas .6765 xxxxxxxxx
Specific Gravity Flowing Fluid xxxxx
Critical Pressure 669 P.S.I.A. ____ P.S.I.A.
Critical Temperature 382 R ____ R

P_c 5183.2 P_c^2 26866

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		4451.2	19813	7073
2		3982.2	15858	11008
3		3616.2	13077	13789
4		3202.2	10254	16612
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.617$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.596$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1917$

Posted ID-2 & Comp. Book SI 11-6-81

Absolute Open Flow 1917 Mcfd @ 15.025 | Angle of Slope θ 45.5 | Slope, n .9727

Remarks: PW substituted for PT measured with Amerada instrument No. 33109 0-7000# Element.

Approved By Commission:	Conducted By:	Calculated By:	Checked By: