N. MEXICO OIL CONSERVATION COMM

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: 10- 2-81	
Company: Union Oil Company of California			Connection		
Pool: Undesignated Gem Morrow			Formation: Lower Morrow		Unit
Completion Date: 9-14-81	Total Depth: 13,800'		Plug Back TD: 13,755'	Elevation: 3,582'	Farm or Lease Name: State "HH"
Csg. Size: 5-1/2"OD / Wt.: 17# / d: 4.892 / Set At: 13,800'			Perforations: From 13,584' To 13,624'		Well No.: 1
Tbg. Size: 2-7/8"OD / Wt.: 6.5# / d: 2,441 / Set At: 13,500'			Perforations: From To		Unit: H / Sec.: 36 / Twp.: 19-S / Rge.: 32-E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 13,500'		County: Lea
Producing Thru: Tubing	Reservoir Temp. °F: 177 @ 13,584'		Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
13,584'	13,584'	.660	.75	5.25	0.0	0.0	4.0	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						3400	60			101
1.	4.00	1.000	300	36	90	300	60	0	0	12
2.										
3.										
4.										
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	4.75	106.18	313.2	.9723	1.2309	1.0238	618
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.47	550	1.52	.954
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio 14.782 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 56.1 Deg.
Specific Gravity Separator Gas .660 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX .831
Critical Pressure 664 P.S.I.A. 655 P.S.I.A.
Critical Temperature 362 R 415 R

P_c _____ P_c^2 _____

NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		323	104	11546
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0090$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0077$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 623$

Absolute Open Flow 623 Mcfd @ 15.025 Angle of Slope θ 49.6 Slope, n .850

Remarks: Calculations computed using Garrett Computing System - AOF Program

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
O.G. Signed by Jerry Sexton	Guy Harrod	M.F. Standifer	J.C. Merritt