N. 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: 1/11/98	
Company: Citation Oil & Gas Corp.		Connection: G P M / Warren			
Pool: Eumont Yates / 7 Rivers Queen		Formation: Yates / 7 Rivers			Unit: P 20 21 S 36 E
Completion Date: 10/31/97	Total Depth: 3800'	Plug Back TD: 3754'		Elevation: 3611' Gr	Farm or Lease Name: Devonian State
Csg. Size: 5 1/2" / Wt.: 15 # / d: 4.950" / Set At: 3800'		Perforations: From 3026' To 3575'			Well No.: 6
Tbg. Size: 2 3/8" / Wt.: 4.7 # / d: 1.995" / Set At: 3385'		Perforations: From To			Unit: P / Sec.: 20 / Twp.: 21 S / Rge.: 36 E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At:			County: Lea
Producing Thru: Casing	Reservoir Temp. °F: 90 @ 3026'	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
3026'	3026'	.793	3.49	1.57	0		X	

	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								56.2	60	
1.	3.826"	1.75"	33.64	31.36	60			29.0	58	24 Hrs
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	15.01	38.33	46.84	1.00	1.123	1.018	657.7
2							
3							
4							
5							

NO.	P_r	Temp. °R	T_r	Z
1	0.0695	520	1.26	.965
2				
3				
4				
5				

Gas Liquid Hydrocarbon Ratio: None Produced Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: None Produced Deg.
Specific Gravity Separator Gas: .793 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX .793
Critical Pressure: 665 P.S.I.A. 674 P.S.I.A.
Critical Temperature: 424 R 413 R

P_c 69.4 P_c^2 4.816

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	1.7808	44.5	1.9810	2.835
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.699$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.699$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1117$

Absolute Open Flow: 1117 Mcfd @ 15.025 Angle of Slope θ: 45 Slope, n: 1.0

Remarks: Well is producing through tubing / casing annulus.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
ORIGINAL SIGNED BY CHRIS WILLIAMS DISTRICT SUPERVISOR	Arc Pressure Data Inc.	Rod Dodson	

APR 0 9 1998