NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Revised

RECEIVED

AUG 07 1981

O. C. D.

ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 7-21-81	
Company: McCellan Oil Corporation		Connection: Atoms			
Pool: ~~Wild-Cat~~		Formation: Abo		Unit: P	
Completion Date: 7-16-81	Total Depth: ~~3940~~ 4005	Plug Back TD: ~~3910~~ 3900	Elevation: 3698 G.L.	Farm or Lease Name: Coyote Draw Fed.	
Csg. Size: 4 ½ / Wt.: 10.5# / d: 4.052 / Set At: ~~3940~~ 3975		Perforations: From 3467 To 3760		Well No.: 2	
Tbg. Size: 2 3/4 / Wt.: 4.7# / d: 1.995 / Set At: 3660		Perforations: From Open To Ended		Unit: P / Sec.: 1 / Twp.: 8 S / Rge.: 24 E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: None		County: Chaves	
Producing Thru: tubing	Reservoir Temp. °F: 115 @ 3614	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: N. Mex.	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
.3614	3614	.6464	-0-	5.378	-0-	2"		

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size	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						978		980		72 Hrs.
1.	2	.250	195		44°	974		980		½ hr.
2.	2	.250	570		54°	956		960		½ hr.
3.	2	.375	520		52°	888		910		1 hr.
4.	2	.375	770		66°	771		860		½ 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	1.087		208.2	1.016	1,244	1.021	292
2.	1.087		583.2	1.006	1,244	1.055	837
3.	2.378		533.2	1.008	1.244	1.051	1.671
4.	2.378		783.2	.9943	1.244	1.071	2.467
5.							

NO.	P_t	Temp. °R	T_r	Z
1	.315	504	1.40	.960
2.	.864	514	1.42	.899
3.	.808	512	1.42	.905
4.	1.17	526	1.46	.872
5				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.

Specific Gravity Separator Gas _____ XXXXXXXXX

Specific Gravity Flowing Fluid XXXXX _____

Critical Pressure 660 P.S.I.A. _____ P.S.I.A.

Critical Temperature 361 R _____ R

P_c 986.67 P_c^2 973.52

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		983.04	966.37	7.15
2		969.76	940.4	33.08
3		919.22	844.9	128.55
4		870.35	757.5	216.00
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.50704$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.16064$

AOF = $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 7,797$

Absolute Open Flow 7,797 Mcfd @ 15.025 Angle of Slope θ 52°37' Slope, n .76431

Remarks: * Calculated from known Bottom Hole Pressures

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	W.S.	M.K.	M.K.