NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
DEC - 8 1978
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 12-2-78	
Company: GULF OIL CORP.		Connection: AIR			Unit: E
Pool: ANGEL RANCH		Formation: MORROW			
Completion Date: 11-21-78	Total Depth: 11180		Plug Back TD: 10740	Elevation: 3391 GL	Farm or Lease Name: PACHECO FED. Com.
Csg. Size: 5 1/4 / Wt.: 17 / d: / Set At: 11180			Perforations: From 10623 To 10710		Well No.: # 3
Tbg. Size: 2 3/8 / Wt.: N/80 / d: / Set At: 10575			Perforations: From / To		Unit: E / Sec.: 31 / Twp.: 19 / Rge.: 28
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE			Packer Set At: 10570		County: EDDY
Producing Thru: TBG.	Reservoir Temp. °F: 180° PERFS	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
10575	10575	.667	2.05	9.95			4"	FLG.

	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						3035				72 Hrs.
1.	4	X 1.250	500	2.0	65	2640				1 Hr.
2.	4	X 1.250	540	6.0	87	1890				1 Hr.
3.	4	X 1.250	550	13.0	92	1160				1 Hr.
4.	4	X 1.250	500	2.0	90	500				1 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	7.469	32.04	513.2	.9952	1.224	1.058	308
2.	7.469	57.61	553.2	.9750	1.224	1.053	541
3.	7.469	85.57	563.2	.9706	1.224	1.051	798
4.	7.469	32.04	513.2	.9723	1.224	1.047	298
5.							

NO.	P_t	Temp. °R	T_f	Z
1.	.77	525	1.37	.893
2.	.83	547	1.43	.902
3.	.84	552	1.45	.906
4.	.77	550	1.44	.912
5.				

Gas Liquid Hydrocarbon Ratio: DRY Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: .667 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 669 P.S.I.A. P.S.I.A.
Critical Temperature: 382 R R

P_c 3048.2 P_c^2 9291.5

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2653.8	7042.5	2249.0
2		1905.6	3631.3	5660.2
3		1182.2	1397.7	7893.8
4		516.4	266.7	9024.8
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.177$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.127$

Packer leaked 12-8-78 SI

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = .899$

Absolute Open Flow: 899 Mcfd @ 15.025 | Angle of Slope θ: 53.75 | Slope, n: .731

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	LARRY DAVIS	LARRY DAVIS	