STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED
JUL 11 '91
O. C. D.
ARTESIA, OFFICE

Form C-122
Revised 10-1-78

cc: SF File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 12-04-90	
Company: Kaiser - Francis Oil Company			Connection: Not connected for test		
Pool: ~~Avalon E. Carlsbad Del.~~ Sorghum Draw Del.			Formation: Delaware		Unit: 160 acs.
Completion Date: 11/16/90	Total Depth: 10973		Plug Back TD: 4195	Elevation: 3242 Gr.	Farm or Lease Name: AM Federal
Csg. Size: 5 1/2	Wt.: 17	d: 4.892	Set At: 10973	Perforations: From 4042 To 4062	Well No.: 1
Tbg. Size: 2 7/8	Wt.: 6.5	d: 2.441	Set At: 3945	Perforations: From To	Unit: O Sec.: 8 Twp.: 21S Rge.: ~~28E~~ 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 3945		County: Eddy
Producing Thru: TBG	Reservoir Temp. °F: 115 @ 4052		Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico
L: * 4052	H: 4052	Gg: .796	% CO_2: 4.95	% N_2: 3.58	% H_2S: ---- Prover:	Meter Run: 3.068	Taps: 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						1222		PKR		72 hrs.
1.	3	X 1.250	60	9.00	52	1070		PKR		60 mins.
2.	3	X 1.250	75	30.00	46	1200		PKR		45 mins.
3.	3	X 1.250	75	62.00	55	1190		PKR		45 mins.
4.	3	X 1.750	40	55.00	40	1180		PKR		45 mins.
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	7.577	25.67	73.2	1.008	1.121	1.010	222
2.	7.577	51.44	88.2	1.014	1.121	1.013	449
3.	7.577	73.95	88.2	1.005	1.121	1.013	640
4.	15.61	54.09	53.2	1.020	1.121	1.008	973
5.							

NO.	P_t	Temp. °R	T_r	Z
1	.11	512	1.21	.980
2.	.13	506	1.20	.975
3.	.13	515	1.22	.975
4.	.08	500	1.18	.985
5.				

Gas Liquid Hydrocarbon Ratio 24.6 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 50.2 Deg.
Specific Gravity Separator Gas .796 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure ***682 P.S.I.A. ____ P.S.I.A.
Critical Temperature ***421 R ____ R

** P_c 1526.4 P_c^2 2329.9

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	**	1498.9	2246.7	83.2
2	**	1466.1	2149.5	180.4
3	**	1420.9	2019.0	310.9
4	**	1355.6	1837.7	492.2
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 4.734 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 3.595

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 3.498

Absolute Open Flow 3,498 Mcfd @ 15.025 Angle of Slope θ 50.5 Slope, n .823

Remarks: Well made 3.00 BBLS 50.2 API Gr. CONDENSATE & 4.00 BBLS N_2O
*=BHP Instrument set @ this depth.
=Pc & Pw calculated from known BHP's *=PcR & TcR corrected to 4.95% CO2 & 3.85% N2

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Pro Well Testers	BM	BM