NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
JUL 22 1974
O. C. C.
ARTESIA, N. M.

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 7-12-74	
Company: Morris R. Antweil		Connection: Not Committed			Unit: D
Pool: South Carlsbad		Formation: Morrow			
Completion Date: 7-1-74	Total Depth: ~~10382 11695 Liner~~ 11690		Plug Back TD: ~~11685~~ 11665	Elevation: 3135 K.B.	Farm or Lease Name: Saik
Csg. Size: 4-1/2" / Wt.: 13.50 / d: 3.920 / Set At:	Perforations: From 11112 To 11611				Well No.: 1
Tbg. Size: 2-3/8" / Wt.: 4.70 / d: 1.995 / Set At: 11050	Perforations: From To				Unit: B / Sec.: 17 / Twp.: 22S / Rge.: 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: G.G.			Packer Set At: 11,050		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 180 @ 11112	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
11,050	11,050	.580	1.023	.283	Nil		4.026	Flange

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI					3745	70	Packer		96 hrs.
1.	4.026 x 1.250	830	17	100	3588	74			1 hr.
2.	4.026 x 1.500	820	26	86	3320	75			1 hr.
3.	4.026 x 1.500	805	64	67	2921	78			1 hr.
4.	4.026 x 1.750	820	56	63	2439	76			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	119.7264	843.2	.9636	1.313	1.050	1188
2	10.84	147.1842	833.2	.9759	1.313	1.054	2155
3	10.84	228.8336	818.2	.9933	1.313	1.061	3433
4	14.93	216.0074	833.2	.9971	1.313	1.064	4492
5							

NO.	P_t	Temp. °R	T_r	Z
1	1.23	560	1.61	.907
2	1.21	546	1.57	.901
3	1.19	526	1.51	.888
4	1.21	523	1.50	.883
5				

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Dry Deg.
Specific Gravity Separator Gas: .580 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 676 P.S.I.A. 676 P.S.I.A.
Critical Temperature: 348 R 348 R

P_c _____ P_c^2 _____

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3609.2	13026.3	1097.8
2		3358.0	11276.2	2847.9
3		3005.3	9031.8	5092.3
4		2578.1	6646.6	7477.5
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.889$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.63039$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 7,324$

Absolute Open Flow: 7,324 Mcfd @ 15.025
Angle of Slope θ: 52.45
Slope, n: .76860

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Cone & Kerley, Inc.	Joe Rampy	Bill Kerley

FORM 2448

BACK PRESSURE CURVE

Operator Morris R. Antweil Lease Saik Well No. 1-T

County Eddy Field South Carlsbad Location B,17,22-S,27-E

Date of Test July 12, 1974 Slope "n" .769 W. H. _____ Abs.

Calc. W. H. Potential _____ MCF/D Calc. Abs. Potential 7324 MCF/D