

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR C- WELL

Form C-122
 Revised 9-1-65

2

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-30-78	
Company Amoco Production Company				Connection El Paso Natural Gas	
Well Antelope Ridge				Formation Atoka	
Completion Date 2-6-78		Total Depth 13871.		Plug Back TD 13871.	
Elevation 3434.		Farm or Lease Name State E0			
Log. Size 5.000	Wt. 18.0	d 4.276	Set At 13868.	Perforations: From 12995. To 13002.	
Log. Size 2.375	Wt. 4.7	d 1.995	Set At 12690.	Perforations: From 0. To 0.	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 11818.	
Producing Thru Tubing		Reservoir Temp. °F 173 @ 12999.		Mean Annual Temp. °F 60.0	
Baro. Press. - P _g 13.2		State New Mexico			
L 12999.	H 12999.	G _g 0.616	% CO ₂ 0.28	% N ₂ 0.64	% H ₂ S 0.07
Prover 0.		Meter Run 4.0		Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
O.	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
51							7050.	67.			24.0
1.	4.03	x 2.750		115.	13.0	90.	6478.	67.	0.	0.	1.0
2.	4.03	x 2.750		135.	22.6	84.	6110.	75.	0.	0.	1.0
3.	4.03	x 2.750		152.	30.8	76.	5740.	77.	0.	0.	1.0
4.	4.03	x 2.750		178.	42.3	65.	5105.	80.	0.	0.	1.0
5.											

RATE OF FLOW CALCULATIONS							
O.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Comp. Factor, F _{pv}	Rate of Flow Q, Mc/d
1	41.10	40.82	128.2	0.9723	1.2741	1.0094	2098.
2	41.10	57.87	148.2	0.9777	1.2741	1.0113	2996.
3	41.10	71.33	165.2	0.9850	1.2741	1.0135	3728.
4	41.10	89.93	191.2	0.9952	1.2741	1.0171	4767.
5.							

O.	P _i	Temp. °R	T _i	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.19	550.	1.52	0.981	34.4	49.0	0.616	X X X X X X X X	672.	361.
2.	0.22	544.	1.51	0.978				X X X X X	P.S.I.A.	R
3.	0.25	536.	1.46	0.974						
4.	0.28	525.	1.45	0.967						
5.										

$P_c = 7060.4 \quad P_c^2 = 49849.$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.1904$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.7798$	
NO	P _i ²	P _w	P _w ²	P _c ² - P _w ²				
1	42136.	6507.	42345.	7504.				
2	37494.	6150.	37821.	12027.				
3	38099.	5800.	33645.	16204.				
4	26196.	5205.	27091.	22758.				
5								

Absolute Open Flow 8434.		Mcid @ 15.025		Angle of Slope θ 53.7		Slope, n 0.735	
Remarks:							
Approved By: Commission		Conducted By: John West Engineering		Calculated By: GRD (Amoco)		Checked By: RMB (Amoco)	

RECEIVED
JUL 1 1978
OIL CONSERVATION COMMISSION
HONOLULU, H. M.

STATE "EO" #1

3-30-78

467400

LOGARITHMIC 3 X 3 CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

$P_e^2 - P_w^2 \times 1000$

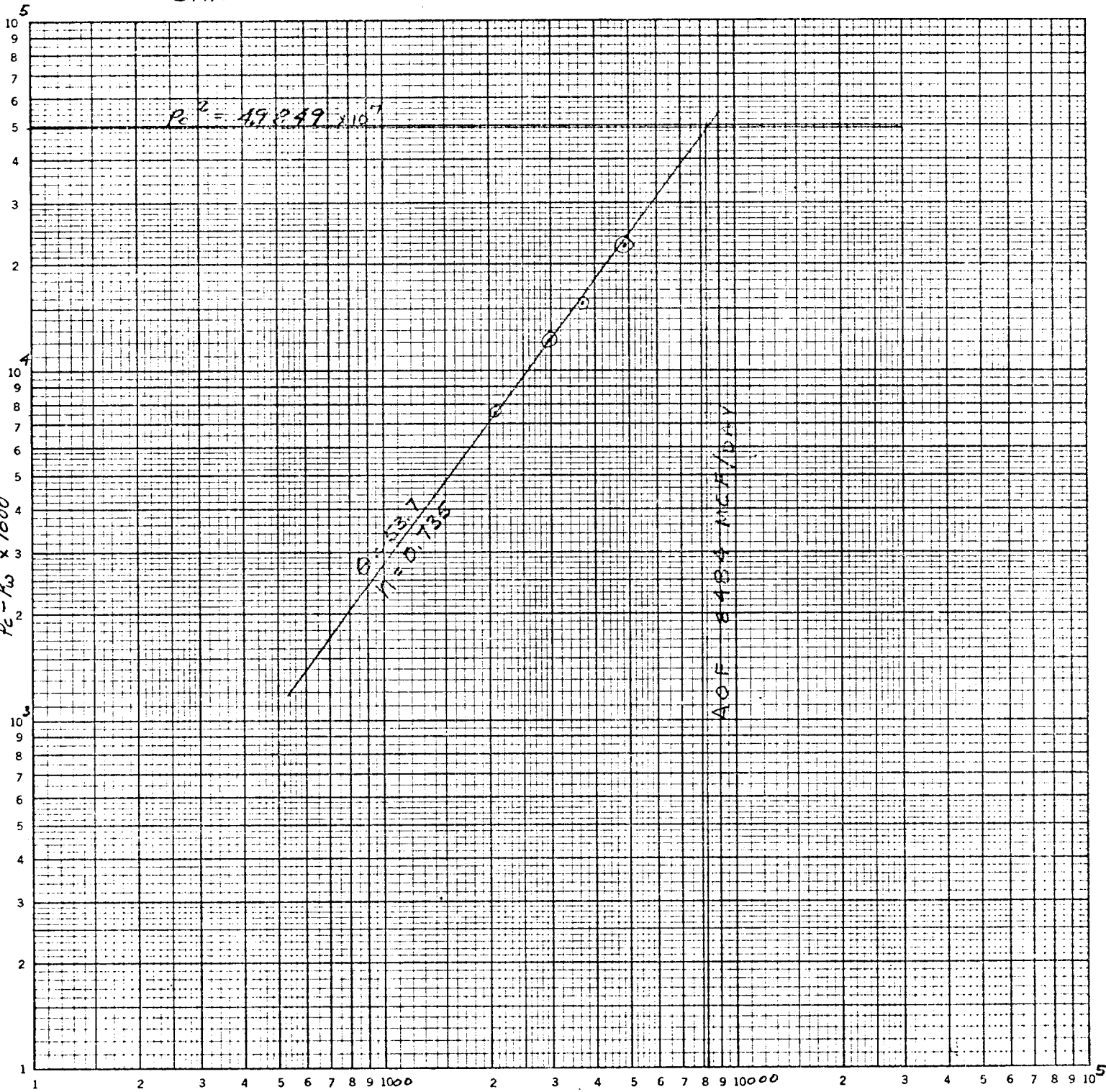
$$P_e^2 = 49849 \times 10^{-7}$$

$$S = 13.7$$

$$IT = 0.735$$

AOF 8434 MCF/DAY

Q (MCF/DAY)



FIELD SHEET

Well
FILE

Type Test		☒ Initial		☐ Annual		☐ Special		Test Date		3-30-78	
Company				Connection							
Amoco Production Co.				El Paso Natural Gas Co.							
Pool				Formation				Unit			
Completion Date				Total Depth		Plug Back TD		Elevation		Farm or Lease Name	
										State "E O"	
Csg. Size	Wt.	d	Set At	Perforations:		From		To		Well No.	
Tbg. Size	Wt.	d	Set At	Perforations:		From		To		Unit Sec. Twp. Rys.	
Type Well - Single - Blindhead - G.G. or G.O. Multiple				Packer Set At						County	
Producing Thru				Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press. - P _a		State	
Tubing				60		13.2				New Mexico	
H		G _g	% CO ₂	% N ₂	% H ₂ S Gr./100	Prover		Meter Run		Taps	
		0.616	.28	.64	.07			4"		Flange	

TIME	D.W. psig	Amb. °F	W.H. °F	Sep. psi	Line Temp. °F	Diff.	Choke	Notes
9:20 AM	7050	65°F	67°F					Shut-in
9:25								Open Choke, 1st Htr.
9:30	6580	67	72	110 [#]	76	14.4		
9:45	6470	67	74	112	78	13.7		2095 mcf/day
10:00	6478	67	75	113	84	13.0		
10:15	6478	67	75	115	90	13.0		
10:30	6481	67	76	115	90	13.0		End Rate I
10:45	6120	67	77	132	90	23.0		
11:00	6110	67	77	135	86	22.6		2998 mcf/day
11:15	6110	74	77	135	84	22.6		
11:30	6110	75	77	135	84	22.6		End Rate II
11:45 AM	5770	75	78	150	82	32.5		
12:00 Noon	5740	76	78	150	78	31.0		3735 mcf/day
12:15 PM	5740	77	79	152	76	30.8		
12:30	5740	77	79	152	76	30.8		End Rate III
12:45	5160	78	79	175	66	43.6		
1:00	5120	78	79	177	64	42.6		4761 mcf/day
1:15	5105	80	80	178	65	42.3		
1:30	5105	82	80	178	65	42.3		End Rate IV
2.750 #/D								
4" x 1.750" orifice Plate								
Note: Well made 8.3 Bbls. Condensate during test								
API Grav. of Fluid 49 @ 60°								