

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 9-65

RECEIVED

NOV 11 1974

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11-04-74			
Company Depco, Inc.				Connection None				O.C.C. ARTESIA, OFFICE	
Pool <i>Buffalo 1st</i>				Formation Morrow				Unit	
Completion Date 10-22-74		Total Depth 9300		Plug Back TD 9262		Elevation 3600 Gr.		Farm or Lease Name Toles Federal	
Csq. Size 4 1/2	Wt. 11.6	d	Set At 9300	Perforations: From 8930 To 8938		Well No. 1			
Inq. Size 2 3/8	Wt.	d	Set At 8766	Perforations: From open end To		Unit I	Sec. 25	Twp. 15-S	Rge. 27-E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 8766		County Chavez	
Producing Thru Tubing		Reservoir Temp. °F 144 @ 8934		Mean Annual Temp. °F		Baro. Press. - P _a		State New Mexico	
L	H	Gg	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run X	Taps	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
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
SI							2351	60			72
1.	4.026		1.125	405	42	98	1961	66			1
2.	4.026		1.125	435	72	111	1740	67			1
3.	4.026		1.500	450	24	65	1454	65			1
4.	4.026		1.500	440	30	87	1245	63			1
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	6.031	133	418.2	.9653	1.213	.928	869
2	6.031	180	448.2	.9543	1.213	.924	1159
3	10.840	105	463.2	.9952	1.213	.899	1240
4	10.840	117	453.2	.9750	1.213	.915	1368
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ 22 Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ 58.8 Deg.
2.					Specific Gravity Separator Gas _____ .680
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A.
5.					Critical Temperature _____ R

NO.	P _r ²	P _s P _w	P _s R _w ²	P _r ² - P _w ²	P _r ² - R _w ²
1	3204.2	2700.2	7291	2978	2978
2		2393.2	5727	4542	4542
3		1997.2	3989	6280	6280
4		1689.2	2853	7416	7416
5					

(1) $\frac{P_r^2}{P_r^2 - R_w^2} = 1.3848$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - R_w^2} \right]^n = 1612$

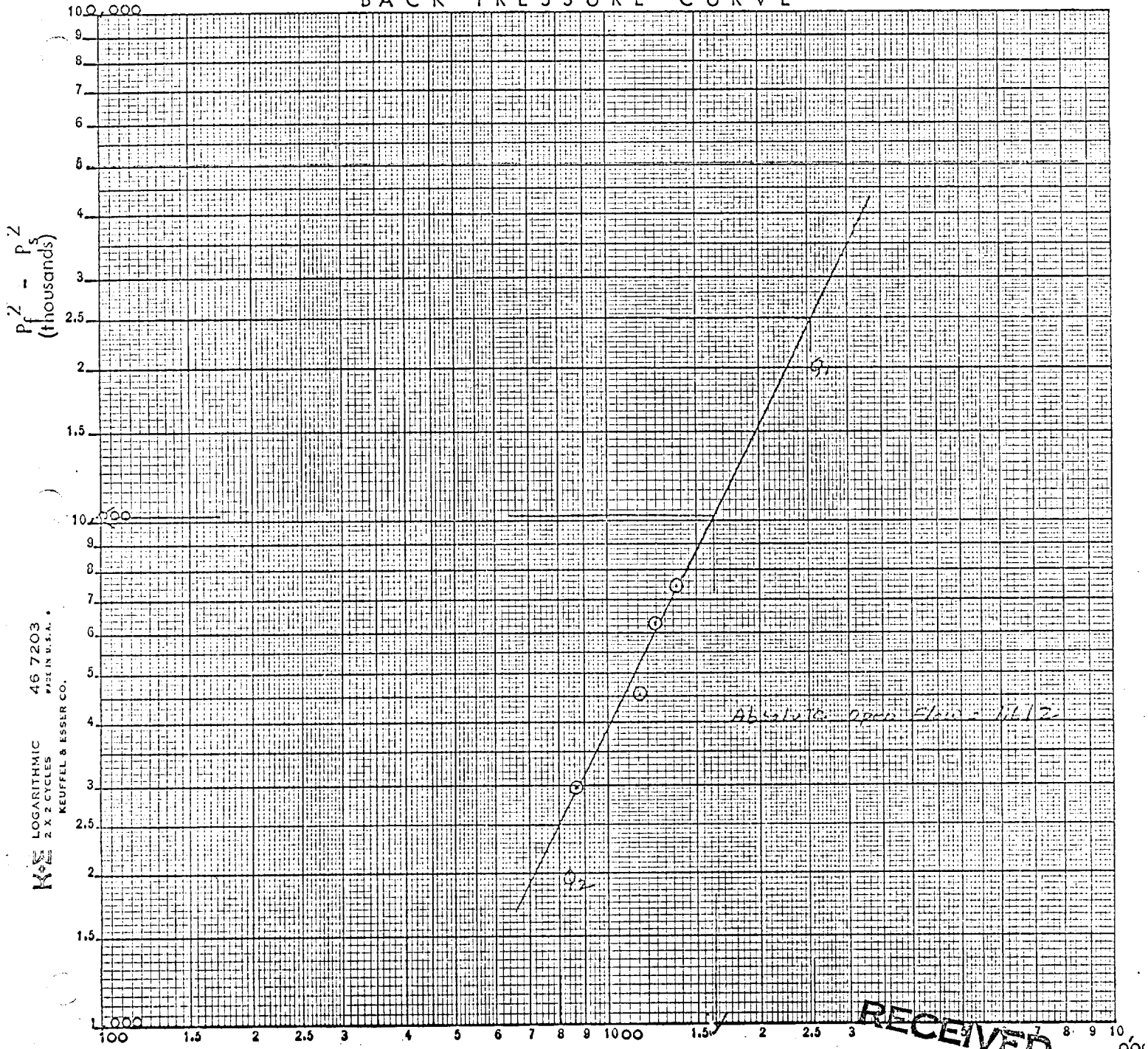
(2) $\left[\frac{P_r^2}{P_r^2 - R_w^2} \right]^n = 1.1783$

Absolute Open Flow	1612	Mcf/d @ 15.025	Angle of Slope @	63
Remarks:				
Approved By Commission:	Conducted By:	Calculated By:	Checked By:	

COMPANY Depco, Inc.
 FIELD Wildcat (Morrow)
 COUNTY Chavez STATE New Mexico
 LEASE Toles Federal # 1

DATE 11/01-04/74

BACK PRESSURE CURVE



KEUFFEL & ESSER CO.
 46 7203
 2 X 2 CYCLES
 1/2 IN. D.S.A.

$Q_1 = 2,550 \text{ MCF/D}$
 $Q_2 = 800 \text{ MCF/D}$
 $\log Q_1 = 3.4065$
 $\log Q_2 = 2.9030$
 $n = .504$

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 NOV - 8 1974
 U. S. GEOLOGICAL SURVEY
 ARTESIA, NEW MEXICO