

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT A ONE POINT BACK PRESSURE TEST OR GAS WELL

35
File
Form C-122
122 Revised 9-1-65
yates
RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 5-25-79	
Company Yates Petroleum Corp. ✓		Connection El Paso Natural Gas Pipeline	
Pool Wildcat <i>also</i>		Formation Abo	
Completion Date 5-12-79		Total Depth 4970' KB	Plug Back TD 4830' KB
Csg. Size 5½		Wt. 15.5	d 4.950
Tbg. Size 2-7/8		Wt. 6.5	d 2.441
Set At 4868' KB		Set At 3524' KB	
Perforations: From 3548 To 3880' KB		Perforations: From To	
Well No. 2		Unit NM 2351	
Farm or Lease Name Federal "HY"		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 90 @ 3600	Mean Annual Temp. °F 62
Baro. Press. - P _a 13.2		State New Mexico	
L 3697	H 3697	G _g .671	% CO ₂ 1.99
% N ₂ 6.62	% H ₂ S Nil	Prover 4"	Meter Run Flanged

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							967	78			Days
1.	4.026 x 1.000			710	10	70	922	78			1 hr
2.	4.026 x 1.000			710	17	70	896	79			1 hr
3.	4.026 x 1.000			710	40	70	823	80			1 hr
4.	4.026 x 1.000			710	81	70	756	81			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	4.753	85.04	723.2	.9905	1.221	1.0612	519
2	"	110.88	723.2	"	"	"	676
3	"	170.08	723.2	"	"	"	1037
4	"	226.60	723.2	"	"	"	1487
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	1.086	530	1.480	.888	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	1.086	530	1.480	.888	Specific Gravity Separator Gas .671 X X X X X X X X
3.	1.086	530	1.480	.888	Specific Gravity Flowing Fluid X X X X X
4.	1.086	530	1.480	.888	Critical Pressure 666 P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature 358 _____ R

P _c 1083.2 P _c ² 1173				
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1		1033	1067	106
2		1004	1008	165
3		921	848	325
4		852	726	447
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.624$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3175$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.1354$

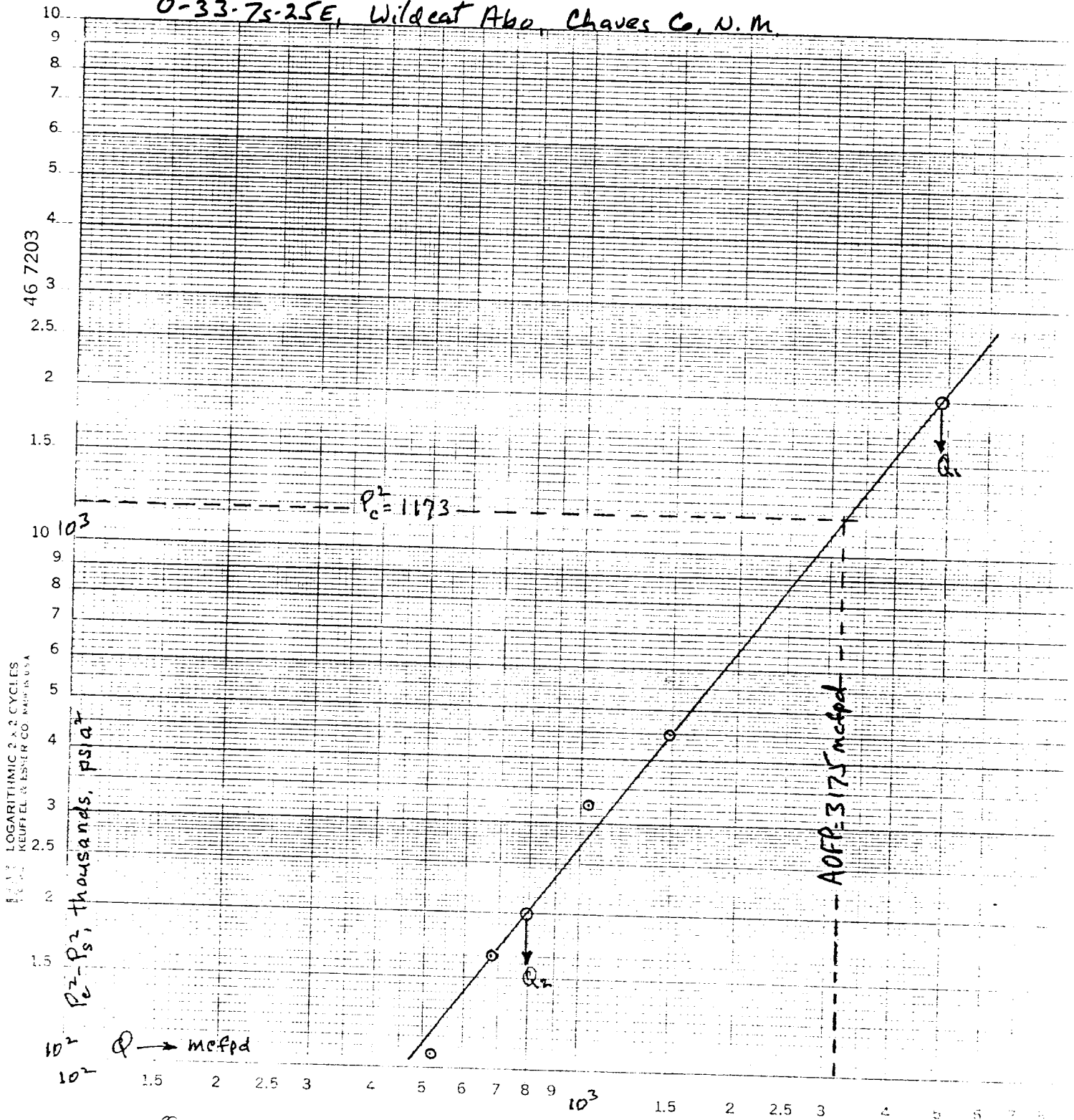
Absolute Open Flow	3175	Mcf @ 15.025	Angle of Slope θ	51.8 deg.	Slope, n	0.7864
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Remarks: Pressures by Bennett Wireline

Approved By Commission:	Conducted By: Don Weaver	Calculated By: Eddie Mahfood	Checked By:
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YPC. Federal HY No.2

0-33-7s-2SE, Wildcat Abo, Chaves Co., N.M.



$$Q_1 = 4850 \text{ mcfpd}$$

$$\log Q_1 = 3.6857$$

$$Q_2 = 793 \text{ mcfpd}$$

$$\log Q_2 = 2.8993$$

$$n = 0.7864$$