

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

Form C-122
Revised 9-1-65

HOBBS OFFICE 5-6-68
Decreasing Flow Sequence

Type Test ☒ Initial ☐ Annual		Company Atlantic Richfield Company		Connection Unconnected		Pool Todd Upper San Andres		Formation San Andres		Unit	
Completion Date 4-27-68		Total Depth 4338'		Plug Back TD 4246'		Elevation 4204 K.B.		Farm or Lease Name Dalport State			
Csg. Size 5-1/2"		Wt. 14#		Set At 5.012		Perforations: From 4139' To 4229'		Well No. 1			
Teg. Size 2-3/8 EUE		Wt. 4.7#		Set At 1.995		Perforations: From Open To Ended		Unit Sec. Twp. Rge. H 34 7S 35E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 4030'		County Roosevelt			
Producing Thru Tubing		Reservoir Temp. °F 112 @ 4200		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico			
L 4090'		H 4090'		Gg 0.746		% CO ₂ ---		% N ₂ ---		% H ₂ S ---	
Prover 2"		Meter Run		Taps							

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hg	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
5.						68	891		Packer		216 hr.
1.	2"	x	1.250	24.6	50	73	450	60			1 hr.
2.	2"	x	1.250	19.2	39	73	560	60			1 hr.
3.	2"	x	1.250	13.3	27	73	632	60			1 hr.
4.	2"	x	1.250	2.0	4	73	738	60			1 hr.

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.	27.63		37.8	0.9877	1.158	1.000	1195
2.	27.63		32.4	0.9877	1.158	1.000	1024
3.	27.63		26.5	0.9877	1.158	1.000	837
4.	27.63		15.2	0.9877	1.158	1.000	480

NO.	P _r	Temp. °R	T _r	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.	0.0567	533	1.32	1.000	168.4	17	0.746	XXXXXX	667	405
2.	0.0567	533	1.32	1.000				XXXXX	667	405
3.	0.0567	533	1.32	1.000					667	405
4.	0.0567	533	1.32	1.000					667	405

NO.	P _r	P _w	P _r ²	P _w ²	P _r ² - P _w ²
1.	214.6		238.1	1409.9	
2.	328.6		345.4	1302.6	
3.	416.3		427.3	1220.7	
4.	564.3		567.8	1080.2	

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.169$ (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.169$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1397$

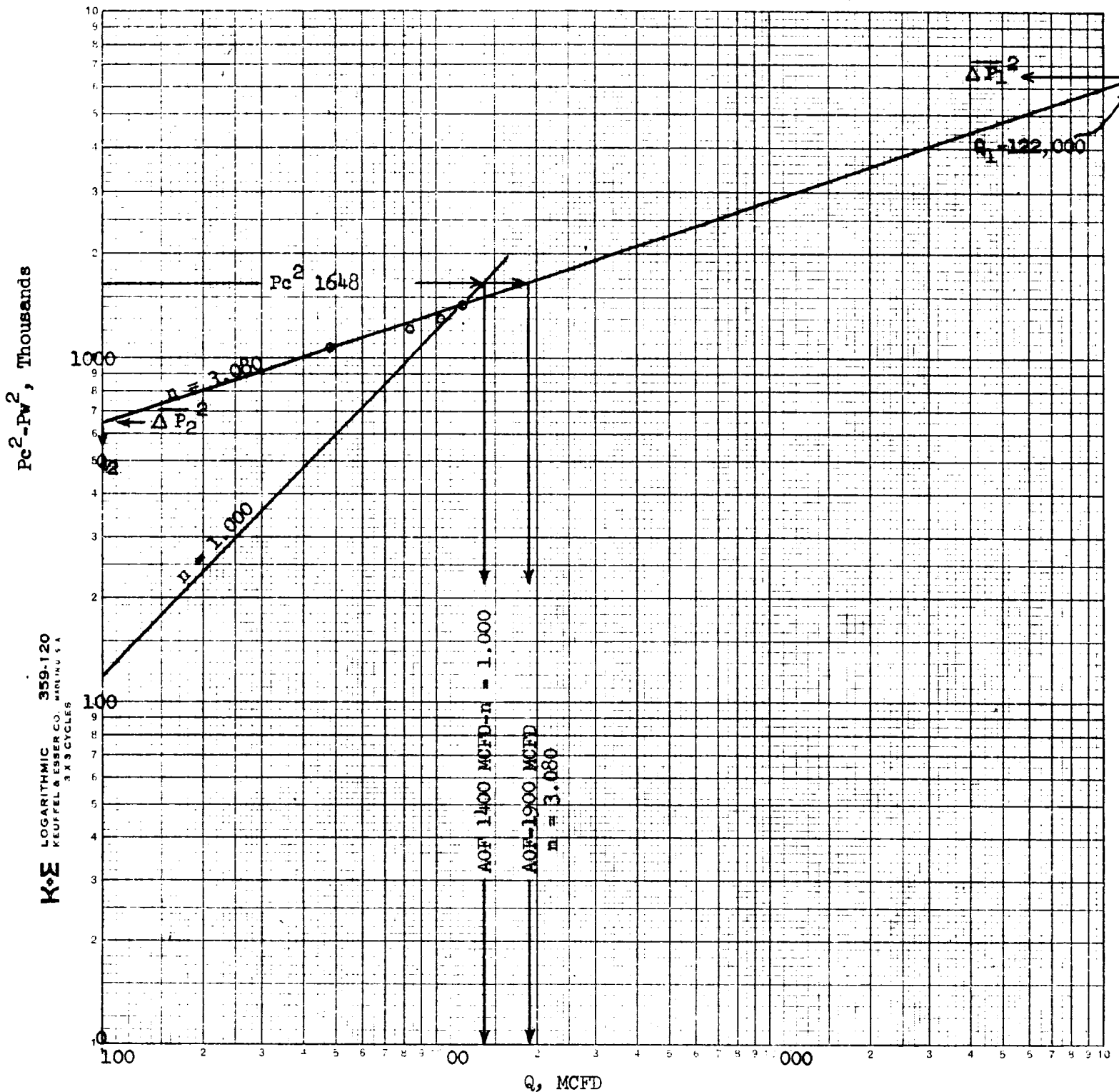
Absolute Oper. Flow 1400 Mcfd @ 15.025		Angle of Slope θ 45°		Slope, n 1.000	
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Remarks: Test data indicates AOF of 1900 MCFD using slope of 3.080.

Approved By Commission:	Conducted By: Ed Ingram	Calculated By: R. F. Baker	Checked By:
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ATLANTIC RICHFIELD COMPANY
DALPORT STATE NO. 1
H, 34-7S-35E
ROOSEVELT COUNTY, NEW MEXICO
MAY 6, 1968

Decreasing Flow
Sequence



$$\Delta \overline{P}_1^2 P_c^2 - P_w^2 = 6500$$

$$\Delta \overline{P}_2^2 P_c^2 - P_w^2 = 650$$

$$Q_1 = 122,000 \text{ MCFD}$$

$$\log Q_1 = 5.079904$$

$$\log Q_2 = 2.000000$$

$$n = 3.079904$$