

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

Form C-122
Revised 9-1-74

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11-30-78			
Company Sun Oil Co.				Connection El Paso Gas					
Pool Jalmat				Formation Jalmat - Yates				Unit	
Completion Date 7-12-78		Total Depth 3800'		Plug Back TD 3780		Elevation		Farm or Lease Name Boren & Greer Gas U	
Csg. Size 5 1/2	Wt. 14#	d	Set At 3800	Perforations: From 3444 To 3545		Well No. 2			
Tbg. Size 2 3/8	Wt. 4.7#	d	Set At 3417	Perforations: From To		Unit Sec. Twp. Rge. C 21 22S 36			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At None		County Lea	
Producing Thru Tbg.		Reservoir Temp. °F 95 @ 3495		Mean Annual Temp. °F 68		Baro. Press. - P _a 13.2		State New Mexico	
L 3417	H 3417	Gg .678	% CO ₂ None	% N ₂ None	% H ₂ S None	Prover	Meter Run X	Taps Flange	

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	4"		.875				235	64	223		S.I. 40
1.	4"		.875	82.2	2.3"	64	232	64	223		60 Min.
2.	4"		.875	84.2	4"	63	231	66	223		60 Min.
3.	4"		.875	85.2	16"	60	228	66	223		60 Min.
4.	4"		.875	85.2	86.5"	57	216	66	218		60 Min.
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	3.630	13.7499	96.2	.9962	1.214	1.015	61
2	3.630	18.3521	97.2	.9971	1.214	1.015	82
3	3.630	36.9215	98.2	1.000	1.214	1.015	165
4	3.630	85.8475	98.2	1.003	1.214	1.015	385
5							

NO.	P _t	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio	None	Mcf/bbl.
1	.122	524	1.36	.971	A.P.I. Gravity of Liquid Hydrocarbons		Deg.
2	.125	523	1.36	.971	Specific Gravity Separator Gas	.678	XXXXXXXXXX
3	.127	520	1.35	.971	Specific Gravity Flowing Fluid	XXXXXX	
4	.127	517	1.34	.971	Critical Pressure	669	P.S.I.A.
5					Critical Temperature	385	R

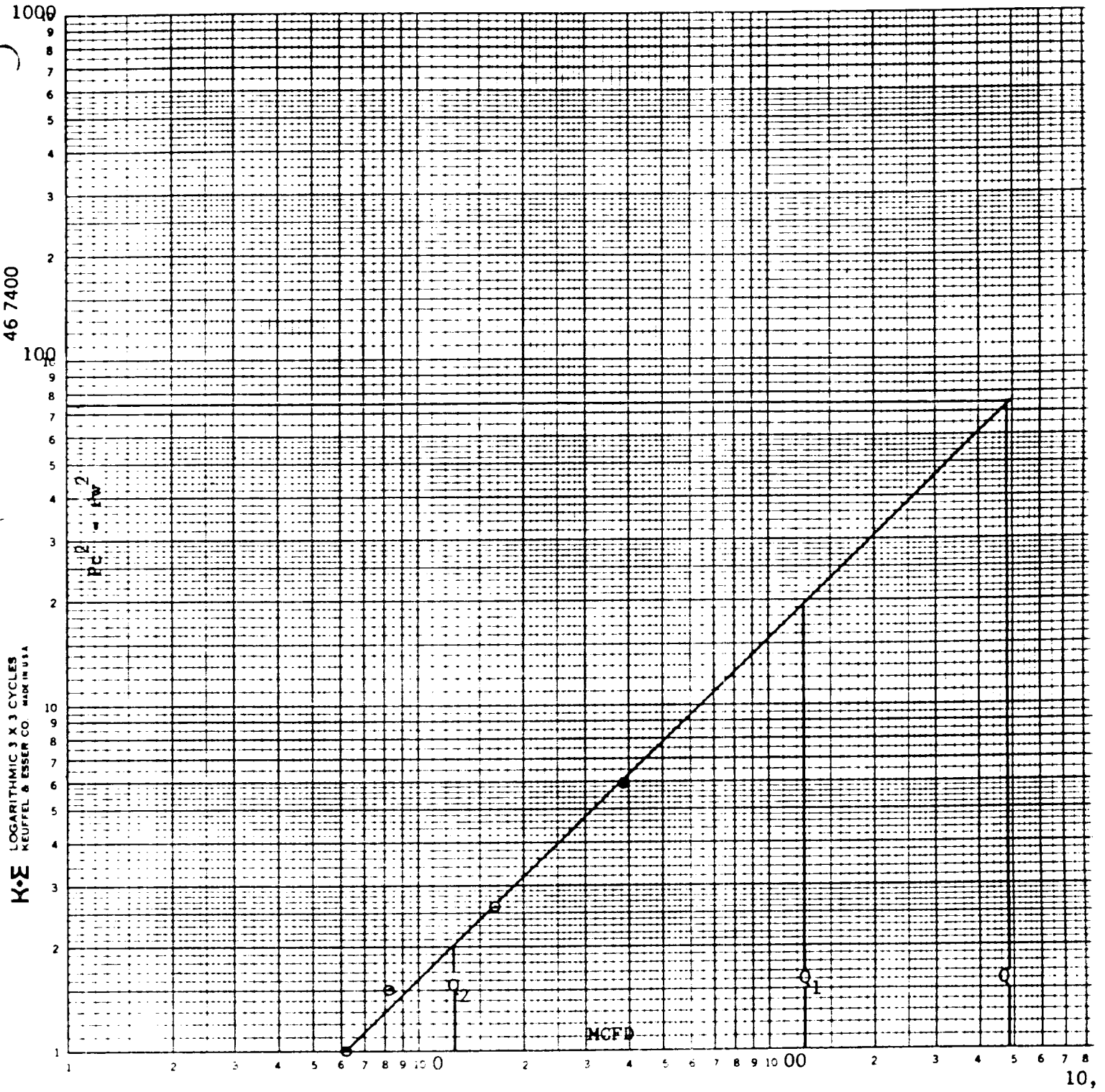
NO.	P _t ²	P _w ²	P _e ²	P _e ² - P _w ²	(1) $\frac{P_e^2}{P_e^2 - P_w^2} = 12.758$	(2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 12.758$
1		270.2	73.0	1.0		
2		269.2	72.5	1.5		
3		267.2	71.4	2.6		
4		261.2	68.2	5.8		
5						

Absolute Open Flow				4910	Mcf/d @ 15.025	Angle of Slope @	45°	Slope, n	1.00
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Remarks: PW substituted for PT - Measured with Amerada Instrument No. 40925
0 - 2500#

Approved By Commission:	Conducted By: Richburg	Calculated By: Richburg	Checked By: Spruell
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SUN OIL COMPANY
 en Greer No. 2
 Absolute Open Flow Test
 11-30-78



$$Q_1 = 1.280 \quad \text{Log } Q_1 = 3.10721$$

$$Q_2 = 128 \quad \text{Log } Q_2 = 2.10721$$

$$N = 1.000$$

$$Q = 4910 \text{ MCFD}$$



JOHN KUYKENDALL WIRELINE SERVICE CO., INC.
P. O. Box 184 / A/C 915 337-5241 / ODESSA, TEXAS 79760

BOTTOM HOLE PRESSURE REPORT

Operator Sun Oil Company Lease Boren . Greer Gas U. Well No. 2
Field Jal Mat Reservoir Jal Mat Yates Datum 3495 M.P.
Test Date 11-30-78 Well Status S. I. Hours Shut In 40½
Tubing 2 3/8 4.7 Depth 3417 End _____ Packer _____ S. N. 3416
Casing 5½ 14# Depth _____ Perf. 3444 - 3545 Total Depth 3780 PB

	Depth	Press. Lbs/Sq. In.	Δ Press.	Gradient Lbs/Ft.
Tubing Press. 233# DWG	0	231.7		
Casing Press. 223#	1000	238.3	6.6	.007
Top of Fluid	2000	245.5	7.2	.007
Top of Water 3494	3000	252.3	6.8	.007
Temp. @.....°F.....	3150	253.8	1.5	.010
Elev. KB.....GI.....	3250	254.4	.6	.006
Last Test Date.....Initial.....	3350	255.1	.7	.007
Press. Last Test.....	3450	256.2	1.1	.011
Change.....Per Day.....	3550	281.9	25.7	.257
Inst. No.....Cal.....				
Tested By.....Richburg.....				
Calcu. By.....Richburg.....				
Prod. Index.....Bbls/day/lb.....				
Drop.....				
Cumulative prod.				

Remarks:



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OPEN FLOW PRODUCTION DATA

Company Sun Oil Company Field Jal Mat
Well Boren, Greer #2 Pay Jal Mat Yates S.G. (Liquid) 0.678
Meter Run 4" Orifice Size .875 Coefficient of Orifice 3.630

WELL HEAD INFO.				SEPARATOR INFO.			METER RUN			FLUID MEASUREMENTS				
Date	Time	TBG Pres.	CSG Pres.	Temp.	Temp.	Choke	Pres.	Dif.	Volume	Inches	Inches Per Hr.	BBLS Per Hr.	BBLS Per Day	BBLS Per MMCF
11-30-78	10:30	233	223	61	64	2/64								
	11:00	232	223	63	64		82.2	2.3"	61 MCFD					
	11:30	232	223	64	64		82.2	2.3"	61 MCFD	0				0
	11:30	Start	On 2nd Rate			4/64								
	12:00	231	223	65	62		84.2	4"	82 MCFD					
	12:30	231	223	66	63		84.2	4"	82 MCFD	0				0
	12:30	Start	on 3rd Rate			10/64								
	13:00	228	223	66	60		85.2	17.6"	173 MCFD					
	13:30	228	223	66	60		85.2	16"	165 MCFD	0				0
	13:30	Start	on 4th Rate			16/64								
	14:00	218	222	66	57		85.2	88.4"	389 MCFD					
	14:30	216	218	66	57		85.2	86.5"	385 MCFD	0				0