

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

Form C-122
Revised 9-1-65

RECEIVED

MAY 25 1978

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 5-17-78	
Company Gulf Oil Corp.			Connection Air		O. C. C. ARTEBIA, OFFICE
Pool Undesignated <i>Sharn</i>			Formation Strawn		Unit J
Completion Date 5/12/78		Total Depth 11350		Plug Back TD 10105	Elevation
Csq. Size 5 1/2	Wt. 17	d	Set At 11350	Perforations: From 9568 To 9575	
Thq. Size 2 3/8	Wt. 4.7	d	Set At 9502	Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9494	
Producing thru Tubing		Reservoir Temp. *F 169° 9502		Mean Annual Temp. *F	
L		H		Baro. Press. - P _a New Mexico	
G _g .684		% CO ₂		% N ₂	
Prover		Meter Run 4"		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							2080				72 Hr
1.	4	X	1.000	410	2.0	86	1855				1 Hr
2.	4	X	1.000	420	4.0	88	1620				1 Hr
3.	4	X	1.000	435	9.0	86	1850				1 Hr
4.	4	X	1.000	595	38.0	81	1740				1 Hr
5.	4	X	1.000	620	78.0	78	1625				1 Hr

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
1	4.753	29.09	423.2	.9759	1.209	1.041	170
2	4.753	41.63	433.2	.9741	1.209	1.043	243
3	4.753	63.51	448.2	.9759	1.209	1.044	372
4	4.753	152.02	608.2	.9804	1.209	1.061	909
5	4.753	222.24	633.2	.9831	1.209	1.065	1337

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	.63	546	1.42	.922	2.745	54 @ 60°	.684	X X X X X X X X	669	385
2	.65	548	1.42	.920			X X X X X	Est. .950		
3	.67	546	1.42	.918					660	474
4	.91	541	1.41	.888						
5	.95	538	1.40	.881						

NO.	P _r	P _w	P _r ²	P _w ²	P _r ² - P _w ²
1	2093.2	1869.6	4381.5	3495.4	886.1
2		1619.2		2621.8	1759.7
3		1866.5		3484.2	897.3
4		1684.1		2836.2	1545.3
5		1652.7		2731.4	1650.1

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 2655$ (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.655$

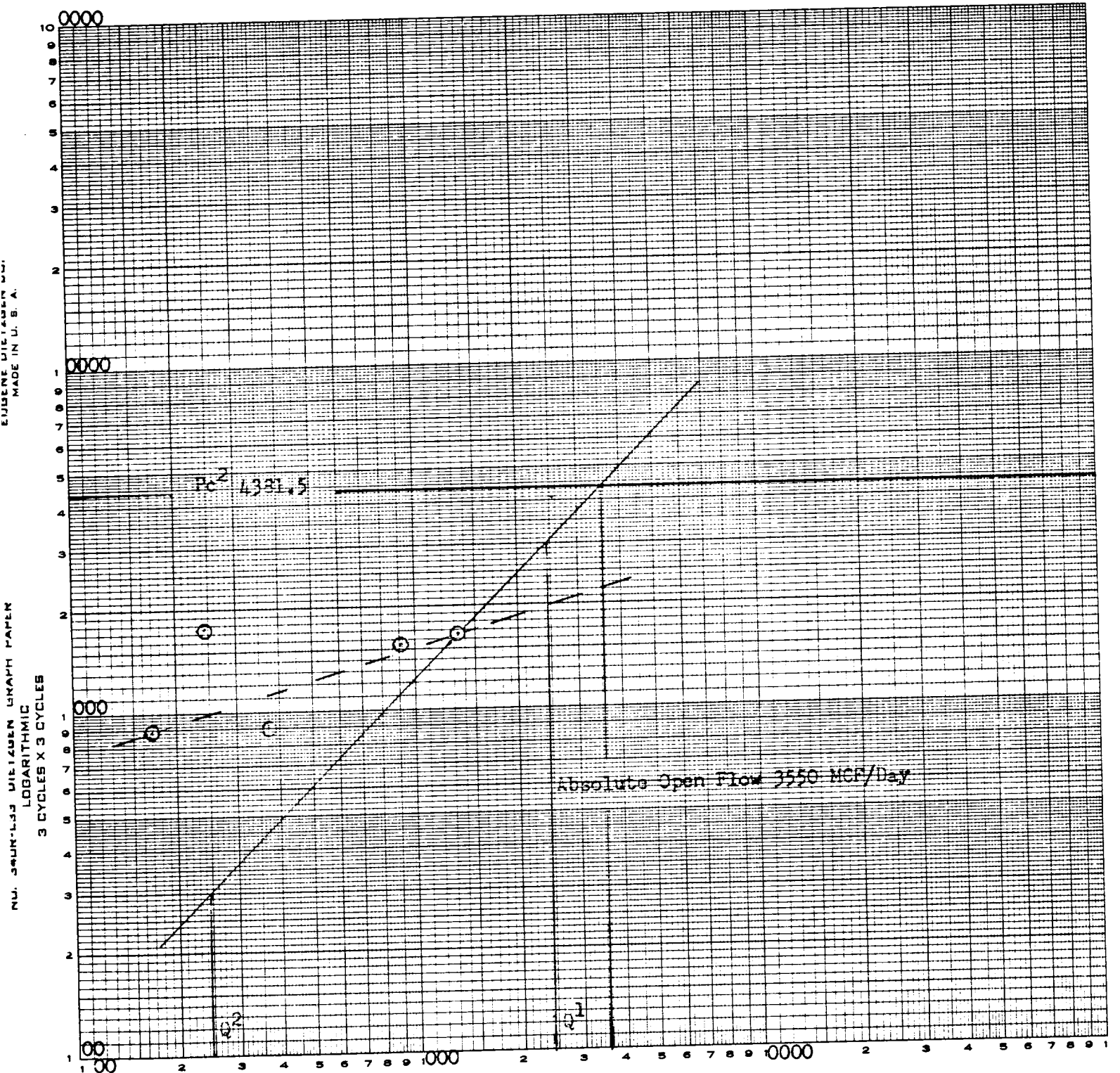
ACF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3.550$

Absolute Open Flow 3,550 Mcfd @ 15.025 Angle of Slope θ 45° Slope, n 1.000

Remarks: Made 46 Bbls Distillate During Test

Approved by Commission: _____ Conducted By: John Davis Calculated By: Larry Davis Checked By: _____

Company: Gulf Oil Corporation
 Lease: Shearn "d" Federal
 Well No: # 1
 Field: Undesignated
 County: Eddy
 Date: 5/17/78



EUGENE DIETZGEN CO.
 MADE IN U. S. A.
 NO. 3400-133 MILLIGAN GRAPH PAPER
 LOGARITHMIC
 3 CYCLES X 3 CYCLES

$Q = \text{MCF}$
 $Q^1 = 2450; \text{Log Of } Q^1 = 3.3891661$
 $Q^2 = 245; \text{Log Of } Q^2 = 2.3891661$
 $N = 1.00000$

El Paso Natural Gas Company
CHROMATOGRAPH CALCULATIONS
 Form 15-171 (Rev. 12-62)

Analysis No.
 41620

Sample From
 Gulf Oil Cororation Shearn "D" Federal # 1

Owner
 State NM County Eddy

Location or Field Undesignated Formation Strawn Depth From To

Date Secured 5-17-78 Secured By Hicks Department

Date Run 5-10-78 Run By Witherspoon Checked By

Source Press. Bomb Press. Source Temp. Atmos. Temp.

SULPHUR - GRS. PER 100 cu. Ft. Hydrogen Sulphide .00 Mercaptan .00 Total .00 Sweet

COMPONENT	AREA	FACTOR	CORRECTED AREA	MOLE %	GPM	BTU	Sp. Gr.
Helium HE ₂							
Hydrogen Sulphide H ₂ S							
Carbon Dioxide CO ₂	1.7571	3513	.62	.64			.010
Nitrogen N ₂	8.5992	4247	3.65	3.76			.036
Methane C ₁	155.5324	4992	77.64	79.88		808.39	.442
Ethane C ₂	30.8897	3348	10.34	10.64		188.65	.110
Propane C ₃	12.3596	2734	3.38	3.48	.957	87.80	.053
Iso Butane IC ₄	2.0011	2462	.49	.50	.164	16.31	.010
Normal Butane C ₄	3.0272	2449	.74	.76	.239	24.85	.015
Iso Pentane IC ₅	.7072	2418	.17	.17	.062	6.82	.004
Normal Pentane C ₅	.5626	2447	.14	.14	.051	5.63	.003
Hexane C ₆			.03	.03	.012	1.43	.001
Heptane C ₇							
TOTAL			97.20	100.00	1.485	1139.88	.684

Meter No.

Remarks: Sec 15 Twp 23 Range 25