

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (or P_w)

Form C-122F
Adopted 9-1-65

FROM KNOWN BOTTOM HOLE PRESSURE (or P_s)

COMPANY Gulf Oil Explor. LEASE Artesia St. Com. WELL NO. 1 DATE 3-2-84

LOCATION: Unit G Section 23 Township 18S Range 28E

L 10,767 H 10,767 L/H 1.00 G .655 % CO₂ 4.229 % N₂ .292 % H₂S

GH 7052 P_{cr} 687 T_{cr} 368

LINE	Rates	No. I			No. II			No. III			No. IV		
		1	2	3	4	5	6	7	8				
1	T _w (W.H. °R)	534	534	534	534	534	534	534	534				
2	T _s (B.H. °F)	641	641	641	641	641	641	641	641				
3	T = ($\frac{T_w + T_s}{2}$)	587	587	587	587	587	587	587	587				
4	Z (Est.)	.848	.827	.838	.823	.826	.816	.817	.818				
5	TZ	498.2	485.9	492.3	483.5	485.3	479.4	480.0	480.6				
6	GH/TZ	14.15	14.51	14.32	14.58	14.53	14.71	14.67	14.67				
7	e ^S (Table XIV)	1.70	1.72	1.71	1.73	1.72	1.74	1.74	1.73				
8	P _f or P _s	3468.2	3468.2	3300.2	3300.2	3019.2	3019.2	2686.2	2686.2				
9	P _f ² or P _s ²	12028.4	12028.4	10891.3	10891.3	9115.6	9115.6	7215.7	7215.7				
10	P _c ² = P _f ² /e ^S or P _w ² = P _s ² /e ^S	7074.2	6979.5	6365.0	6303.0	5285.9	5250.7	4159.1	4161.9				
11	P _c or P _w	2659.7	*2641.9	2522.9	*2510.6	2299.1	*2291.4	2039.4	*2040.1				
12	P = ($\frac{P_w + P_s}{2}$) or ($\frac{P_c + P_f}{2}$)	3064.0	3055.0	2811.6	2905.4	2659.1	2655.3	2362.8	2363.1				
13	P _r = (P/P _{cr})	4.46	4.45	4.23	4.23	3.87	3.87	3.44	3.44				
14	T _r = (T/T _{cr})	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60				
15	Z (Table XI)	.827	.827	.823	.823	.816	.816	.818	.818				

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_c or P_f)

FROM KNOWN BOTTOM HOLE PRESSURE (P_f or P_c)

COMPANY Gulf Oil Exp. LEASE Artesia St. Com WELL NO. 1 DATE 3-2-84

LOCATION: Unit G Section 23 Township 18S Range 28E

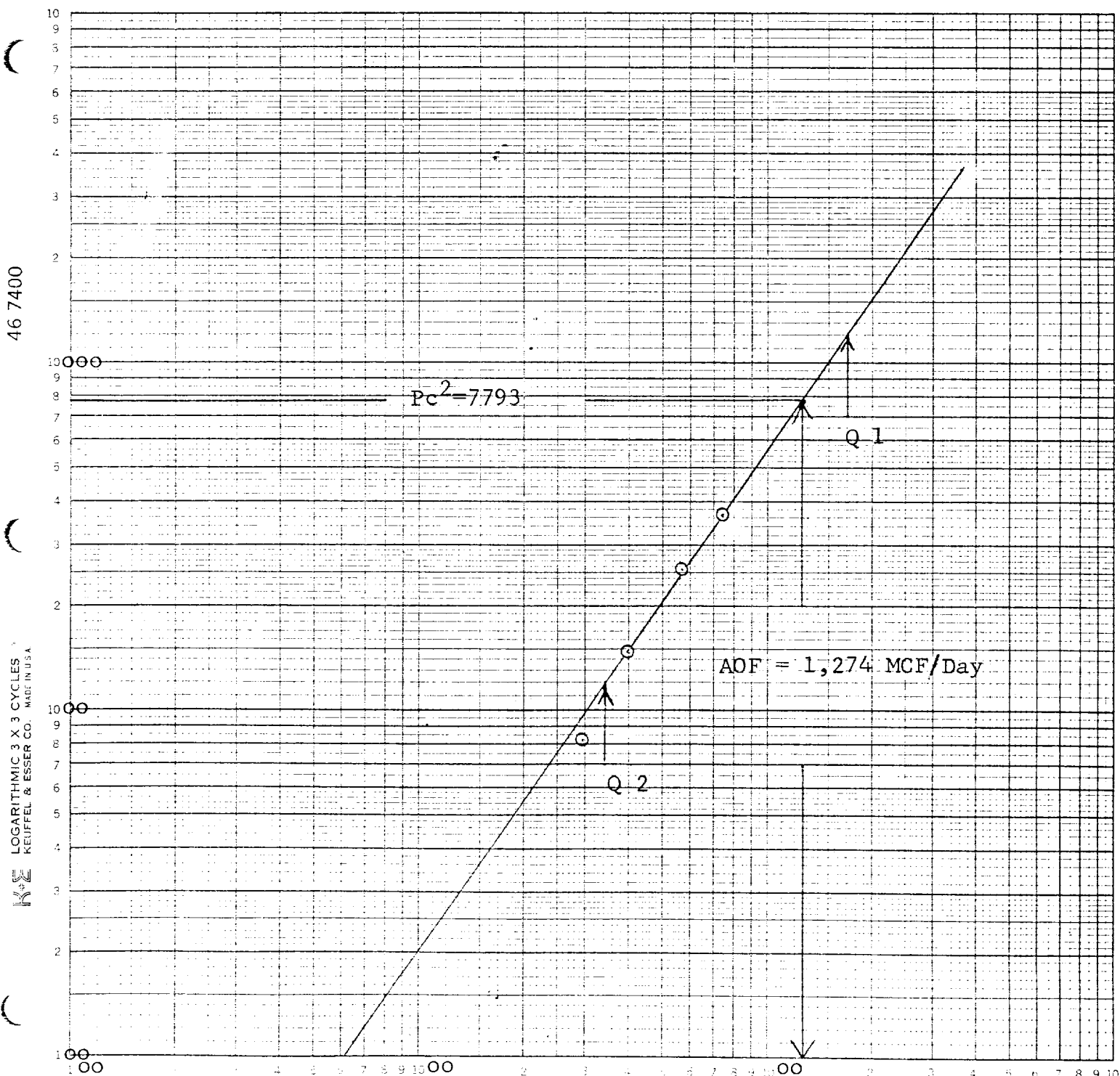
L 10,767 H 10,767 L/H 1.00 G .655 % CO₂ 4.229 % N₂ .292 % H₂S

GH 7052 P_{cr} 687 T_{cr} 368
TABLE IX & X

Shut In

LINE		1	2	3	4	5	6	7	8
1	$T_w(W.H. \cdot R)$	534	534						
2	$T_s(B.H. \cdot R)$	641	641						
3	$T = (\frac{T_w + T_s}{2})$	587	587						
4	Z (Est.)	.859	.835						
5	TZ	504.7	490.6						
6	GH/TZ	13.97	14.38						
7	e^S (Table XIV)	1.69	1.71						
8	P_f or P_s	3655.2	3655.2						
9	P_f^2 or P_s^2	13360.0	13360.0						
10	$P_c^2 = P_f^2/e^S$ or $P_w^2 = P_s^2/e^S$	7911.3	7793.0						
11	P_c or P_w	2812.7	*2791.6						
12	$P = (\frac{P_w + P_s}{2})$ or $(\frac{P_c + P_f}{2})$	3233.9	3223.4						
13	$P_T = (P/P_{GT})$	4.71	4.67						
14	$T_T = (T/T_{GT})$	1.60	1.60						
15	Z (Table XI)	.835	.835						

Company : Gulf Oil Exploratic & Production
 Lease : Artesia St. Com.
 Well # : 1
 County : Eddy
 Unit : G - Sec 23-TWP 18S-Rge 28E
 State : New Mexico
 Date : March 2, 1984



$Q = \text{MCF/Day}$
 $Q 1 = 1709; \text{ Log of } Q 1 = 3.232754$
 $Q 2 = 341; \text{ Log of } Q 2 = 2.532754$
 $N = .700$

NEW-TEX LAB

PHONE 505/393-3561

P. O. BOX 1161

611 W. SNYDER

HOBBS, NEW MEXICO 88240

RECEIVED BY

MAR 08 1984

Q. C. D.

ARTESIA, OFFICE

ANALYSIS CERTIFICATE

CLIENT: B & D WELL TESTERS
ADDRESS: BOX 5683
CITY: STATE: HOBBS NM 88240

ANALYSIS NUMBER: 2662
DATE OF RUN: 3 4 84
DATE SECURED: 3 4 84

SAMPLE IDENT: GULF OIL - ARTESIA STATE COMM #1
SAMPLING PRESS: SAMPLING TEMP:

***** GAS ANALYSIS *****

	MOLE PERCENT	BAL/ OLF
NITROGEN	0.292	
CARBON DIOXIDE	4.217	
METHANE	57.660	
ETHANE	3.354	1.348
PROPANE	1.739	0.477
ISO-BUTANE	0.276	0.091
NORMAL BUTANE	0.363	0.114
ISO-PEXANE	0.137	0.050
NORMAL PENTANE	0.098	0.032
HEXANE	0.064	0.026
HEPTANE PLUS	0.096	0.044
TOTAL	100.000	2.182

PROPANE GPM: 0.46 BUTANES GPM: 0.21
ETHANE GPM: 1.35 PENTANES PLUS GPM: 0.15

SPECIFIC GRAV (CALC): 0.6554
MOLE PERCENT: 18.98

HHV-BTU/GAL FT	PRESSURE (PSIA)	WET	DRY
14.696	1038	1057	
14.652	1038	1053	
14.730	1041	1059	
14.735	1041	1059	

DEANE SIMPSON

Deane Simpson