NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT / ONE POINT BACK PRESSURE TEST FOR GAS

RECEIVED BY
MAR 29 1984
O. C. D.
ARTESIA, OFFICE

JSF
File

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 12/17/82

Company: Samedan Oil Corp.

Connection: AIR

Unit:

Pool: Tubb Drinkard

Formation: WOLFCAMP

Completion Date	Total Depth	Plug Back T.D.	Elevation	Farm or Lease Name
12/17/82	4650	4600	3699.4 GL	STATE 16

Csg. Size	Wt.	d	Set At	Perforations	Well No.
4 1/2	9.5		4650	From 4533 (4553) To 4560	4

Tbg. Size	Wt.	d	Set At	Perforations	Unit	Sec.	Twp.	Rge.
2 1/16	3.25		4500	From To	P	16	7S	26E

Type Well – Single – Bradenhead – G.G. or G.O. Multiple	Packer Set At	County
Dual	4500	CHAVES

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a	State
TBG	119 @ 4500	60	13.2	NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
4500	4500	.678	4.184	5.555			4"	FLG.

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					933				24 hrs.
1.	4 X 1.250	250	1.0	70	700				1 hr.
2.	4 X 1.250	250	2.0	80	557				1 hr.
3.	4 X 1.250	250	3.0	98	340				1 hr.
4.	4 X 1.250	250	1.0	110	250				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	7.469	16.22	263.2	.9905	1.214	1.023	149
2	7.469	22.94	263.2	.9813	1.214	1.021	208
3.	7.469	28.10	263.2	.9653	1.214	1.019	251
4.	7.469	16.22	263.2	.9551	1.214	1.017	143
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.39	530	1.47	.956
2.	.39	540	1.50	.960
3.	.39	558	1.55	.964
4.	.39	570	1.58	.967
5.				

Gas Liquid Hydrocarbon Ratio: DRY Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons: Deg.

Specific Gravity Separator Gas: .678 XXXXXXXXXX

Specific Gravity Flowing Fluid: XXXXX

Critical Pressure: 675 P.S.I.A. P.S.I.A.

Critical Temperature: 361 R R

* 996.5 P_c^2 992.9

NO	BHP	P_w	P_w^2	$P_c^2 - P_w^2$
1	1084.2	963.4	928.1	64.8
2	921.2	820.4	673.0	319.9
3	753.2	672.3	452.0	540.9
4	522.2	467.7	218.8	774.1
5	1122.2	SIP		

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 15.323$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.914$

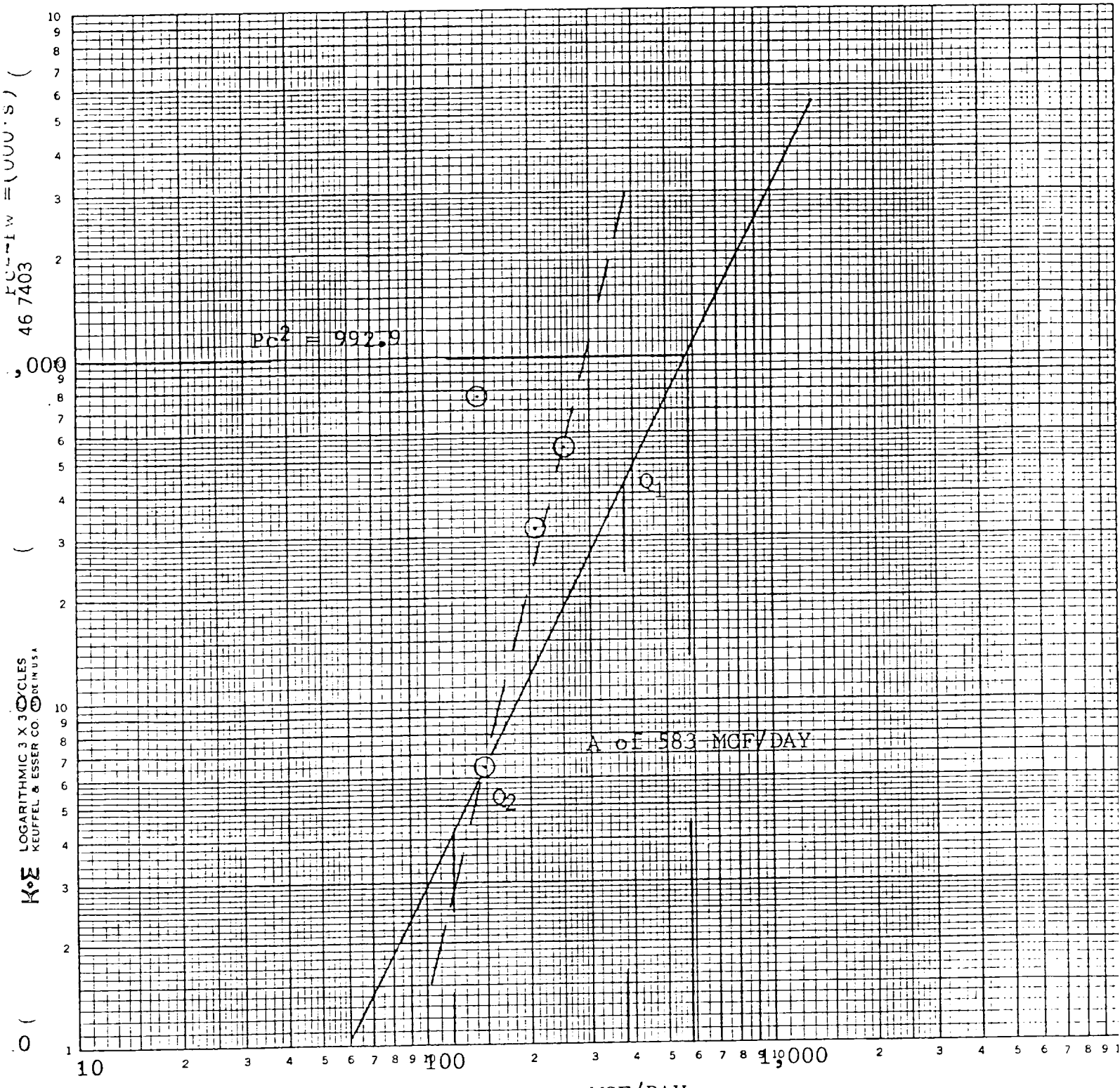
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = .583$

Absolute Open Flow: 583 Mcfd @ 15.025 Angle of Slope θ: 63.5° Slope, n: .500

Remarks: *CALCULATED FROM BOTTOM HOLE PRESSURE

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	DAVIS SERVICES, INC.	RICK PAGAN	

COMPANY : CANADIAN OIL CORP.
LEASE : STATE 16
WELL : 4
UNIT : P SEC 16/TWP 7S/RGE 26E
COUNTY : LEA
STATE : NEW MEXICO
DATE : DECEMBER 17, 1982



Q = MCF/DAY

LOG OF Q_1 379 = 2.579181

LOG OF Q_2 120 = 2.079181

N = .500

θ = 63.5°

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_t or P_w)

FROM KNOWN BOTTOM HOLE PRESSURE (P_t or P_s)

Form C-122F
Adopted 9-1-65

COMPANY SAMEDAN OIL CORP. LEASE STATE 16 WELL NO. 4 DATE 12/17/82

LOCATION: Unit P Section 16 Township 7S Range 26E

L 4500 H 4500 L/H 1.000 G .678 % CO_2 4.184 % N_2 5.555 % H_2S

GH 3051 P_{cr} 675 (TABLE IX & X) T_{cr} 361 (TABLE IX & X)

		RATE 1		RATE 2		RATE 3		RATE 4	
l		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. °R)	579	579	579	579	579	579	579	579
3	$T=(\frac{T_w + T_s}{2})$	556.5	556.5	556.5	556.5	556.5	556.5	556.5	556.5
4	Z (Est.)	.863	.870	.881	.887	.901	.905	.930	.933
5	TZ	480.3	484.2	490.3	493.6	501.4	503.6	517.5	519.2
6	GH/TZ	6.353	6.302	6.223	6.181	6.085	6.058	5.895	5.876
7	e^s(Table XIV)	1.269	1.267	1.263	1.261	1.256	1.255	1.247	1.247
	P_f or P_s	1084.2	1084.2	921.2	921.2	753.2	753.2	522.2	522.2
9	P_f^2 or P_s^2	1175.5	1175.5	848.6	848.6	567.3	567.3	272.7	272.7
10	$P_c^2 = P_f^2/e^s$ or $P_w^2 = P_s^2/e^s$	926.3	928.1	672.0	673.0	451.6	452.0	218.6	218.8
11	P_c or P_w	962.4	*963.4	819.7	*820.4	672.0	*672.3	467.6	*467.7
12	$P=(\frac{P_w + P_s}{2})$ or $(\frac{P_c + P_f}{2})$	1023.3	1023.8	870.5	870.8	712.6	712.8	494.9	495.0
13	$P_r = (P/P_{cr})$	1.52	1.52	1.29	1.29	1.06	1.06	.73	.73
14	$T_r = (T/T_{cr})$	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
15	Z (Table XI)	.870	.870	.887	.887	.905	.905	.933	.933

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_c or ~~P_x~~)

FROM KNOWN BOTTOM HOLE PRESSURE (P_f or ~~P_x~~)

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Adopted 9-1-65

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L 4500 H 4500 L/H 1.000 G .678 % CO_2 4.184 % N_2 5.555 % H_2S _____

GH 3051 P_{cr} 675 (TABLE IX & X) T_{cr} 361 (TABLE IX & X)

S.I.P.

L		1	2	3	4	5	6	7	8
1	T_w(W.H. °R)	534	534						
2	T_s(B.H. °R)	579	579						
3	$T=(\frac{T_w + T_s}{2})$	556.5	556.5						
4	Z (Est.)	.859	.865						
5	TZ	478.0	481.4						
6	GH/TZ	6.382	6.338						
7	e^S(Table XIV)	1.270	1.268						
	P_f or P_s	1122.2	1122.2						
9	P_f^2 or P_s^2	1259.3	1259.3						
10	$P_c^2 = P_f^2/e^s$ or $P_w^2 = P_s^2/e^s$	991.3	992.9						
11	P_c or P_w	995.6	*996.5						
12	$P-(\frac{P_w + P_s}{2})$ or $(\frac{P_c + P_f}{2})$	1058.9	1059.3						
13	$P_r = (P/P_{cr})$	1.57	1.57						
14	$T_r = (T/T_{cr})$	1.54	1.54						
15	Z (Table XI)	.865	.865						

NEW-TEX LAB

PHONE 505/393-3561 • P. O. BOX 1161 • 611 W. SNYDER • HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

[illegible] DAVIS SERVICES INC
[illegible] FOR [illegible]
[illegible] HOBBS NM [illegible]

ANALYSIS NUMBER: [illegible]
DATE OF RUN: [illegible]
DATE SECURED: [illegible]

[illegible] BANDAN - STATE [illegible]
BA [illegible] PRESS:
[illegible]

REMARKS: TRAP PRESSURE 335#

[illegible] GAS ANALYSIS [illegible]

	[illegible]	GAL
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ANALYZED BY: [illegible]

APPROVED BY R.H. Hamilton