Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Watson Petroleum, Inc. Lease & Well No. Warren #1

Elevation - Formation Stalnaker Effective Pay - Ft. Ticket No. 22616

Date 9-29-77 Sec. 1 Twp. 35S Range 1E County Sumner State Kansas

Test Approved by L. A. Watson Western Representative Tim Wilson

Formation Test No. 1 O.K. X Misrun - Interval Tested From 2369' to 2381' Total Depth 2381'

Size Main Hole 7 7/8 Rat Hole - Conv. X B.T. - Damaged - Yes X No Conv. - B.T. - Damaged - Yes - No

Top Packer Depth 2369 Ft. Size 6 3/4 Bottom Packer Depth - Ft. Size -

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 12 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 2373 Ft. Clock No. 9102 Depth 2376 Ft. Clock No. 9727

Top Make Kuster Cap. 3150 No. 1562 Inside ~~Outside~~ Bottom Make Kuster Cap. 3200 No. 1561 ~~Inside~~ Outside

Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside

Time Set Packer 2:37P M

Tool Open I.F.P. From 2:40P M. to 3:10 M. - Hr. 30 Min. From (B) 2 P.S.I. To (C) 16 P.S.I.

Tool Closed I.C.I.P. From 3:10 M. to 3:40 M. - Hr. 30 Min (D) 214 P.S.I.

Tool Open F.F.P. From 3:40 M. to 4:10 M. - Hr. 30 Min. From (E) 50 P.S.I. To (F) 31 P.S.I.

Tool Closed F.C.I.P. From 4:10 M. to 4:40 M. - Hr. 30 Min. (G) 301 P.S.I.

Initial Hydrostatic Pressure (A) 1201 P.S.I. Final Hydrostatic Pressure (H) 1167 P.S.I. Maximum Temp. 102

INFORMATION

BLOW Weak blow, building to strong blow.

Did Well Flow - Yes X No Recovery Total Ft. 10' oil and gas cut mud, with 230' of gas in pipe. Free oil in tool

Reversed Out - Yes X No Mud Type Chem Viscosity 37 Weight 9.6 Water Loss 18.8 cc. Chlorides 4,600 p.p.m.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -

Dual Packer No Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR D N B #3 Length Drill Pipe? 1477 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½FH In.

Length Weight Pipe 846 Ft. I.D. Weight Pipe 2.7 In. Tool Joint Size 4½XH In. Length Drill Collars 31 Ft. I.D. Drill Collars 2¼ In.

Tool Joint Size 4½XH In. Length D.S.T. Tool 27 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

Date 9-29-77 Test Ticket No. 22616

Recorder No. 1562 Capacity 3150 Location 2373 Ft.

Clock No. 9102 Elevation - Well Temperature 102 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1201	P.S.I.
B	First Initial Flow Pressure	2	P.S.I.
C	First Final Flow Pressure	16	P.S.I.
D	Initial Closed-in Pressure	214	P.S.I.
E	Second Initial Flow Pressure	50	P.S.I.
F	Second Final Flow Pressure	31	P.S.I.
G	Final Closed-in Pressure	301	P.S.I.
H	Final Hydrostatic Mud	1167	P.S.I.

	Time Given		Time Computed	
Open Tool	2:37P.	M		
First Flow Pressure	30	Mins.	30	Mins.
Initial Closed-in Pressure	30	Mins.	24	Mins.
Second Flow Pressure	30	Mins.	30	Mins.
Final Closed-in Pressure	30	Mins.	33	Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

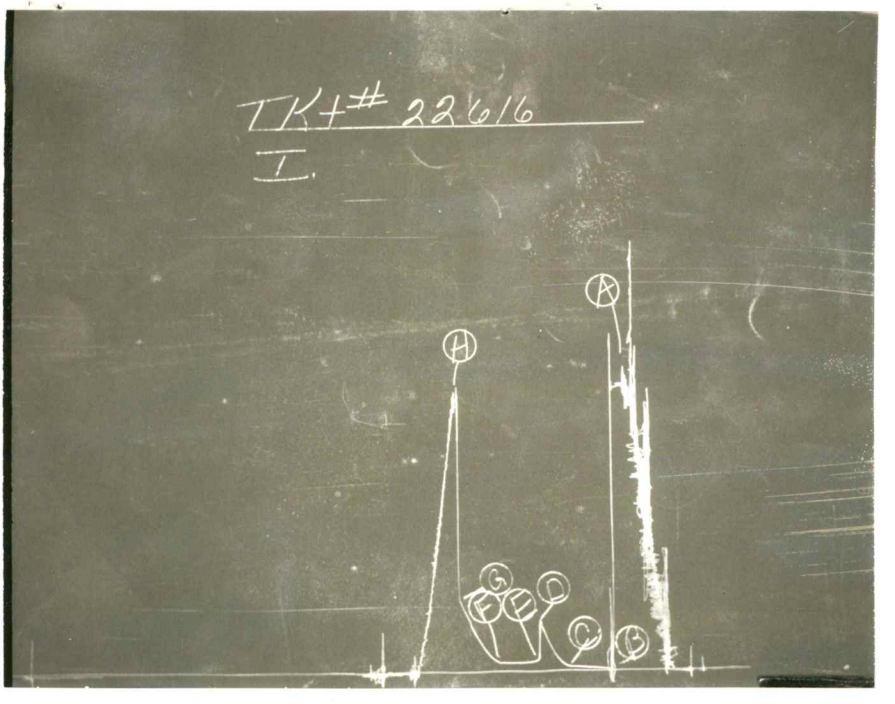
Second Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 11 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point	Mins.	Press.	Point	Minutes	Press.	Point	Minutes	Press.	Point	Minutes	Press.
P 1	0	2		0	16		0	50		0	31
P 2	5	6		3	20		5	36		3	38
P 3	10	11		6	31		10	33		6	49
P 4	15	13		9	47		15	31		9	66
P 5	20	14		12	71		20	31		12	89
P 6	25	15		15	97		25	31		15	116
P 7	30	16		18	132		30	31		18	143
P 8				21	165					21	168
P 9				24	214					24	204
P10										27	239
P11										30	271
P12										33	301
P13											
P14											
P15											
P16											
P17											
P18											
P19											
P20											

TK+# 22616

I.



Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Watson Petroleum Inc. Lease & Well No. Warren #1

Elevation 1119 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 22687

Date 10-3-77 Sec. 1 Twp. 35S Range 1E County Sumner State Kansas

Test Approved by L. A. Watson Western Representative Sam McClune

Formation Test No. 2 O.K. X Misrun - Interval Tested From 3493' to 3508' Total Depth 3508'

Size Main Hole 7 7/8 at Hole - Conv. X B.T. - Damaged - Yes X No Conv. X B.T. - Damaged - Yes X No

Top Packer Depth 3488 Ft. Size 6 3/4 Bottom Packer Depth 3493 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 15 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4n.

RECORDERS Depth 3501 Ft. Clock No. 6800 Depth 3504 Ft. Clock No. 10167

Top Make Kuster Cap. 4200 No. 1558 ~~Inside~~ ~~Outside~~ Bottom Make Kuster Cap. 4200 No. 1559 ~~Inside~~ Outside

Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. Clock No. - Inside Outside

Time Set Packer 5:18A M

Tool Open I.F.P. From 5:20P M. to 5:50A M. - Hr. 30 Min. From (B) 19 P.S.I. To (C) 25 P.S.I.

Tool Closed I.C.I.P. From 5:50 M. to 6:20A M. - Hr. 30 Min (D) 135 P.S.I.

Tool Open F.F.P. From 6:20A M. to 7:20 M. - Hr. 60 Min. From (E) 38 P.S.I. To (F) 38 P.S.I.

Tool Closed F.C.I.P. From 7:20A M. to 8:20A M. - Hr. 60 Min. (G) 293 P.S.I.

Initial Hydrostatic Pressure (A) 1799 P.S.I. Final Hydrostatic Pressure (H) 1783 P.S.I. Maximum Temp. 119

INFORMATION

BLOW Weak increasing to fair blow on initial flow period. Fair increasing blow on final flow period.

Did Well Flow - Yes X No Recovery Total Ft. 420' gas in pipe, 20' heavy oil & gas cut mud.

Reversed Out - Yes X No Mud Type Chem Viscosity 36 Weight 10 Water Loss 24 cc. Chlorides 7,800 p.p.m.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR D N B #3 Length Drill Pipe? 2762 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½FH In.

Length Weight Pipe 780 Ft. I.D. Weight Pipe 2.7 In. Tool Joint Size 4½XH In. Length Drill Collars 30 Ft. I.D. Drill Collars 2.25 In.

Tool Joint Size 4½XH In. Length D.S.T. Tool 36 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

ate 10-3-77 Test Ticket No. 22687

corder No. 1558 Capacity 4200 Location 3501 Ft.

ock No. 6800 Elevation 1119 Kelly Bushing Well Temperature 119 °F

int	Pressure		Time Given	Time Computed
Initial Hydrostatic Mud	1799 P.S.I.	Open Tool	5:18A. M	
First Initial Flow Pressure	19 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
First Final Flow Pressure	25 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	135 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
Second Initial Flow Pressure	38 P.S.I.	Final Closed-in Pressure	60 Mins.	63 Mins.
Second Final Flow Pressure	38 P.S.I.			
Final Closed-in Pressure	293 P.S.I.			
Final Hydrostatic Mud	1783 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

oint ins.	Press.
1 0	19
2 5	19
3 10	20
4 15	21
5 20	23
6 25	24
7 30	25
8	
9	
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
20	

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

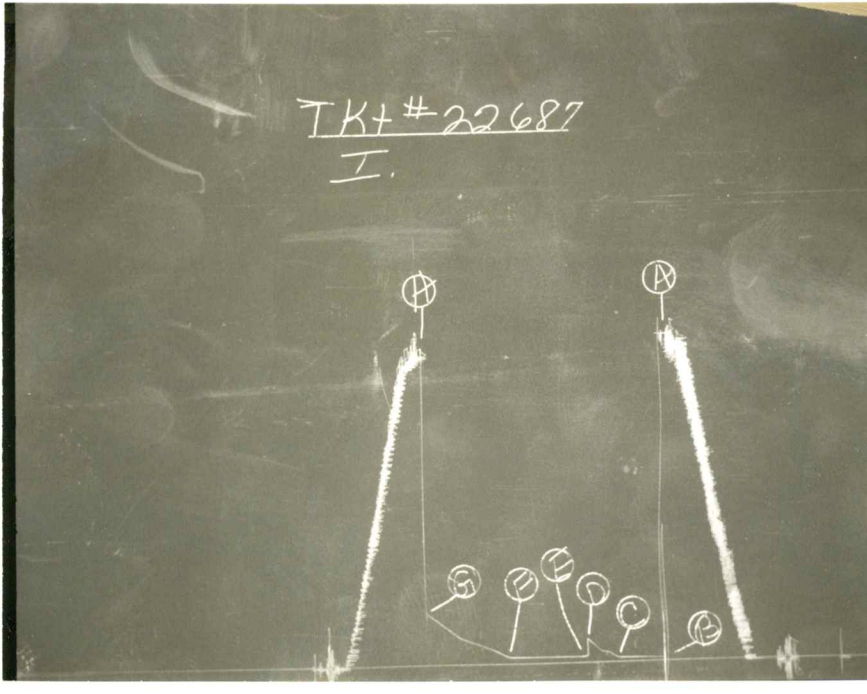
Point Minutes	Press.
0	25
3	26
6	27
9	40
12	53
15	59
18	61
21	78
24	97
27	116
30	135

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	38
5	34
10	34
15	34
20	34
25	34
30	35
35	35
40	36
45	36
50	37
55	37
60	38

Final Shut-In
Breakdown: 21 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	38
3	46
6	57
9	67
12	78
15	86
18	95
21	103
24	112
27	116
30	127
33	135
36	143
39	156
42	171
45	190
48	205
51	224
54	240
57	255
60	272
63	293


TK+#22687
I.