Home Office: Wichita, Kansas 67201
P.O. Box 1599 (316) 262-5861

Company Rains & Williamson Oil Company, Inc. Lease & Well No. Tobias #1

Elevation 1574 Kelly Bushing Formation Lansing (30ft.) Effective Pay - Ft. Ticket No. 13531

Date 10/19 /81 Sec. 23 Twp. 12S Range 13W County Russell State Kansas

Test Approved by Robert B. Thompson Western Representative Glenn VanSteenburgh

Formation Test No. 1 Interval Tested from 2808 ft. to 2819 ft. Total Depth 2819 ft.

Packer Depth 2803 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 2808 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2811 ft. Recorder Number 13401 Cap. 4000

Bottom Recorder Depth (Outside) 2814 ft. Recorder Number 3659 Cap. 4000

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Rains & Williamson Drlg. Rig #4 Drill Collar Length - I. D. - in.

Mud Type starch Viscosity 40 Weight Pipe Length - I. D. - in.

Weight 9.8 Water Loss 12.8 cc. Drill Pipe Length 2784 I. D. 3.8 in.

Chlorides 74,000 P.P.M. Test Tool Length 24 ft. Tool Size 4½ in.

Jars: Make - Serial Number - Anchor Length 11 ft. Size 5½ in.

Did Well Flow? No Reversed Out Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½XH in.

Blow: Initial flow period good blow building to strong blow in eleven minutes holding steady throughout. Final flow period weak blow building to strong blow in 35 minutes holding steady throughout.

Recovered 90 ft. of watery mud

Recovered 240 ft. of muddy water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Tool slid two feet when it opened.

Time Set Packer(s) 9:09 ~~A.M.~~ P.M. Time Started Off Bottom 12:09 A.M. ~~P.M.~~ Maximum Temperature 100°

Initial Hydrostatic Pressure			(A)	1460	P.S.I.	
Initial Flow Period	Minutes	30	(B)	91	P.S.I. to (C)	116 P.S.I.
Initial Closed In Period	Minutes	30	(D)	713	P.S.I.	
Final Flow Period	Minutes	60	(E)	152	P.S.I. to (F)	198 P.S.I.
Final Closed In Period	Minutes	60	(G)	704	P.S.I.	
Final Hydrostatic Pressure			(H)	1460	P.S.I.	

WTC-1

WESTERN TESTING CO., INC.
Pressure Data

Date 10/19/81 Test Ticket No. 13531

Recorder No. 13401 Capacity 4000 Location 2811 Ft.

Clock No. - Elevation 1574 Kelly Bushing Well Temperature 100 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	1460 P.S.I.		Open Tool	9:09P M	
B	First Initial Flow Pressure	91 P.S.I.		First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	116 P.S.I.		Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	713 P.S.I.		Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	152 P.S.I.		Final Closed-in Pressure	60 Mins.	60 Mins.
F	Second Final Flow Pressure	198 P.S.I.				
G	Final Closed-in Pressure	704 P.S.I.				
H	Final Hydrostatic Mud	1460 P.S.I.				

PRESSURE BREAKDOWN

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

Point	Mins.	Press.
P 1	0	91
P 2	5	91
P 3	10	91
P 4	15	98
P 5	20	104
P 6	25	110
P 7	30	116
P 8		
P 9		
P10		
P11		
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

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

Point	Minutes	Press.
	0	116
	3	556
	6	606
	9	639
	12	657
	15	673
	18	685
	21	697
	24	704
	27	711
	30	713

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

Point	Minutes	Press.
	0	152
	5	152
	10	152
	15	152
	20	157
	25	161
	30	167
	35	173
	40	179
	45	183
	50	188
	55	193
	60	198

Final Shut-In
Breakdown: 20 Inc. of 3 mins. and a final inc. of 0 Min.

Point	Minutes	Press.
	0	198
	3	518
	6	564
	9	593
	12	612
	15	627
	18	637
	21	647
	24	657
	27	663
	30	669
	33	675
	36	681
	39	685
	42	689
	45	692
	48	696
	51	699
	54	701
	57	703
	60	704

COMPANY RAINS & WILLIAMSON OIL COMPANY, INC. LEASE AND WELL NO. TOBIAS #1 SEC. 23 TWP. 12S RGE. 13W TEST NO. 1 DATE 10/19/81

Tkt #13531
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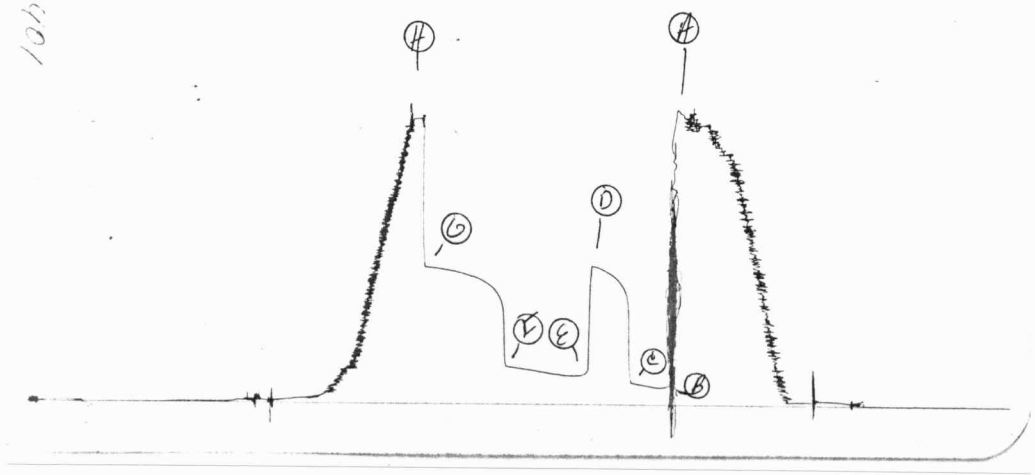


This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1523	1460	PSI
(B)	First Initial Flow Pressure	101	91	PSI
(C)	First Final Flow Pressure	132	116	PSI
(D)	Initial Closed-in Pressure	720	713	PSI
(E)	Second Initial Flow Pressure	158	152	PSI
(F)	Second Final Flow Pressure	205	198	PSI
(G)	Final Closed-in Pressure	708	704	PSI
(H)	Final Hydrostatic Mud	1490	1460	PSI

Home Office: Wichita, Kansas 67201
P.O. Box 1599 (316) 262-5861

Company Rains & Williamson Oil Company, Inc. Lease & Well No. Tobias #1

Elevation 1574 Kelly Bushing Formation Lansing (90ft.) Effective Pay - Ft. Ticket No. 13532

Date 10/ 20/81 Sec. 23 Twp. 12S Range 13W County Russell State Kansas

Test Approved by Robert B. Thompson Western Representative Glenn VanSteenburgh

Formation Test No. 2 Interval Tested from 2808 ft. to 2887 ft. Total Depth 2887 ft.

Packer Depth 2803 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 2808 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2811 ft. Recorder Number 13401 Cap. 4000

Bottom Recorder Depth (Outside) 2814 ft. Recorder Number 3659 Cap. 4000

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Rains & Williamson Drlg. Rig #4 Drill Collar Length - I. D. - in.

Mud Type Starch Viscosity 41 Weight Pipe Length - I. D. - in.

Weight 9.7 Water Loss 12.8 cc. Drill Pipe Length 2789 I. D. 3.8 in.

Chlorides 74,000 P.P.M. Test Tool Length 24 ft. Tool Size 4½ in.

Jars: Make - Serial Number - Anchor Length 79 ft. Size 5½ in.

Did Well Flow? No Reversed Out Yes Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½XH in.

Blow: Initial flow period good blow building to strong blow in three minutes and holding steady.
Final flow period good blow building to strong blow in five minutes.

Recovered 900 ft. of slightly oil specked gassy muddy water 56% mud; 32% water; 2% oil

Recovered 200 ft. of oily water 5% mud; 90% water; 5% oil

Recovered ft. of

Recovered ft. of Chlorides : Top sample - 75,000 ppm

Recovered ft. of Bottom sample - 82,000 ppm

Remarks:

Time Set Packer(s) 1:38 A.M. P.M. Time Started Off Bottom 4:38 A.M. P.M. Maximum Temperature 100°

Initial Hydrostatic Pressure			(A)	1500	P.S.I.	
Initial Flow Period	Minutes	30	(B)	217	P.S.I. to (C)	270 P.S.I.
Initial Closed In Period	Minutes	30	(D)	1069	P.S.I.	
Final Flow Period	Minutes	60	(E)	360	P.S.I. to (F)	526 P.S.I.
Final Closed In Period	Minutes	60	(G)	1084	P.S.I.	
Final Hydrostatic Pressure			(H)	1456	P.S.I.	

WTC-

WESTERN TESTING CO., INC.
Pressure Data

Date 10/20/81 Test Ticket No. 13532

Recorder No. 13401 Capacity 4000 Location 2811 Ft.

Clock No. - Elevation 1574 Kelly Bushing Well Temperature 100 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1500	P.S.I.
B	First Initial Flow Pressure	217	P.S.I.
C	First Final Flow Pressure	270	P.S.I.
D	Initial Closed-in Pressure	1069	P.S.I.
E	Second Initial Flow Pressure	360	P.S.I.
F	Second Final Flow Pressure	526	P.S.I.
G	Final Closed-in Pressure	1084	P.S.I.
H	Final Hydrostatic Mud	1456	P.S.I.

	Time Given	Time Computed
Open Tool	1:38P M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	30 Mins.	30 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	60 Mins.	60 Mins.

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	217
P 2 5	217
P 3 10	217
P 4 15	226
P 5 20	240
P 6 25	260
P 7 30	270
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

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

Point Minutes	Press.
0	270
3	867
6	934
9	974
12	994
15	1014
18	1030
21	1045
24	1055
27	1064
30	1069

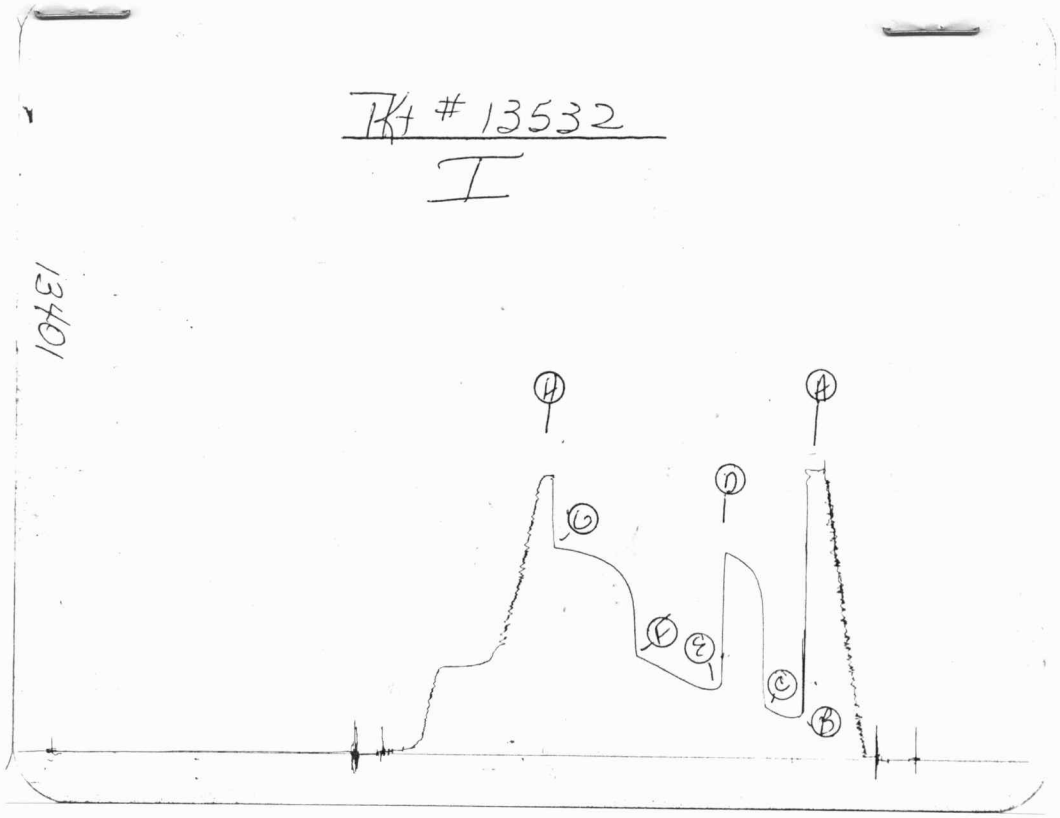
Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	360
5	360
10	360
15	368
20	378
25	394
30	415
35	435
40	451
45	472
50	490
55	506
60	526

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	526
3	815
6	884
9	924
12	954
15	976
18	994
21	1006
24	1020
27	1028
30	1038
33	1046
36	1052
39	1058
42	1063
45	1068
48	1073
51	1075
54	1079
57	1082
60	1084

COMPANY RAINS & WILLIAMSON OIL COMPANY, INC. LEASE AND WELL NO. TOBIAS #1 SEC. 23 TWP. 12S RGE. 13W TEST NO. 2 DATE 10/20 /81



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1501	1500	PSI
(B)	First Initial Flow Pressure	219	217	PSI
(C)	First Final Flow Pressure	272	270	PSI
(D)	Initial Closed-in Pressure	1073	1069	PSI
(E)	Second Initial Flow Pressure	363	360	PSI
(F)	Second Final Flow Pressure	534	526	PSI
(G)	Final Closed-in Pressure	1095	1084	PSI
(H)	Final Hydrostatic Mud	1456	1456	PSI