WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Abercrombie Drilling Co.,Inc. Lease & Well No. Fitzhugh #1

Elevation 2083 Kelly Bushings Formation K. C. Ticket Number 8366

Date Sept.27,1965 Sec. 13 Twp. 5 Range 22 County Norton State Kansas

Test Approved by Jack K. Wharton Western Representative Gerrell Veatch

13-33-22W

Formation Test No. 1 O.K. x Misrun ____ Interval Tested From 3240' to 3265' Total Depth 3265'

Size Main Hole 6 3/4 Rat Hole ____ Conv. ____ B.T. x Damaged ____ Yes ____ No x Conv. x B.T. ____ Damaged ____ Yes x No

Top Packer Depth 3236 Ft. Size 5½ Packer Depth 3240 Ft. Size 5½

Straddle ____ Yes x No ____ Conv. ____ B.T. ____ Damaged ____ Yes ____ No

Packer Depth ____ Ft. Size ____

Tool Size 4½OD Tool Jt. Size 3½ IF Anchor Length 25 Ft. Size 4½ OD

RECORDERS Depth 3243 Ft. Clock No. 6875 Depth 3246 Ft. Clock No. 104

Top Make Kuster Cap. 4300 No. 1566 Inside Outside Bottom Make Western Cap. 4000 No. 26 Inside Outside

Below Straddle: Depth ____ Clock No. ____ Inside Outside Depth ____ Ft. Clock No. ____ Inside Outside

Top Make ____ Cap. ____ No. ____ Inside Outside Bottom Make ____ Cap. ____ No. ____ Inside Outside

Time Set Packer ____ M

Tool Open I.F.P. From 5:40A M to 5:47A M Hr. ____ Min. From (B) 12 P.S.I. To (C) 12 P.S.I.

Tool Closed I.C.I.P. From 5:47A M. to 6:17 M. Hr. 30 Min. (D) 473 P.S.I.

Tool Open F.F.P. From 6:17A M. to 7:17A M. 1 Hr. ____ Min. From (E) 23 P.S.I. To (F) 23 P.S.I.

Tool Closed F.C.I.P. From 7:17 M. to 7:47 M. Hr. 30 Min. (G) 38 P.S.I.

Initial Hydrostatic Pressure (A) 1756 P.S.I. Final Hydrostatic Pressure (H) 1742 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	3/8 In.		M.	
			M.	
			M.	

BLOW Very weak for seven minutes. Bottom Choke Size 3/4 In.

Did Well Flow ____ Yes x No Recovery Total Ft. 5' mud

Mud

Reversed Out ____ Yes x No Mud Type chem. Viscosity 40 Weight 10.2 Maximum Temp. 100 °F

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size ____ Make ____ Ser. No. ____

Type Circ. Sub. plug Did Tool Plug? no Where? ____ Did Packer Hold? yes

Length Drill Pipe 2350 ft. I.D. Drill Pipe 2.5 in Length Weight Pipe 810 ft. I.D. Weight Pipe 2.5 in. Length Drill Collars 60 ft.

I. D. Drill Collars 2.5 in. Length D.S.T. Tool 45 ft.

Remarks

WESTERN TESTING CO., INC.

Pressure Data

Date September 27, 1965 Test Ticket No. 8366

Recorder No. 1566 Capacity 4300 Location 3243 Ft.

Clock No. 6875 Elevation 2083 Kelly Bushings Well Temperature 100 °F

Point	Pressure
A Initial Hydrostatic Mud	1756 P.S.I.
B First Initial Flow Pressure	12 P.S.I.
C First Final Flow Pressure	12 P.S.I.
D Initial Closed-in Pressure	473 P.S.I.
E Second Initial Flow Pressure	23 P.S.I.
F Second Final Flow Pressure	23 P.S.I.
G Final Closed-in Pressure	38 P.S.I.
H Final Hydrostatic Mud	1742 P.S.I.

	Time Given	Time Computed
Opened Tool	5:38 AM	
First Flow Pressure	7 Mins.	7 Mins.
Initial Closed-in Pressure	30 Mins.	24 Mins.
Second Flow Pressure	60 Mins.	56 Mins.
Final Closed-in Pressure	30 Mins.	27 Mins.

PRESSURE BREAKDOWN

First Flow Press.
Breakdown: 1 Inc.
of 5 mins. and a
final inc. of 2 Min.

Point Mins.	Press.
P 1 0	12
P 2 5	12
P 3 7	12
P 4	
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 8 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	12
3	21
6	43
9	75
12	140
15	218
18	322
21	406
24	473

Second Flow Pressure
Breakdown: 11 Inc.
of 5 mins. and a
final inc. of 1 Min.

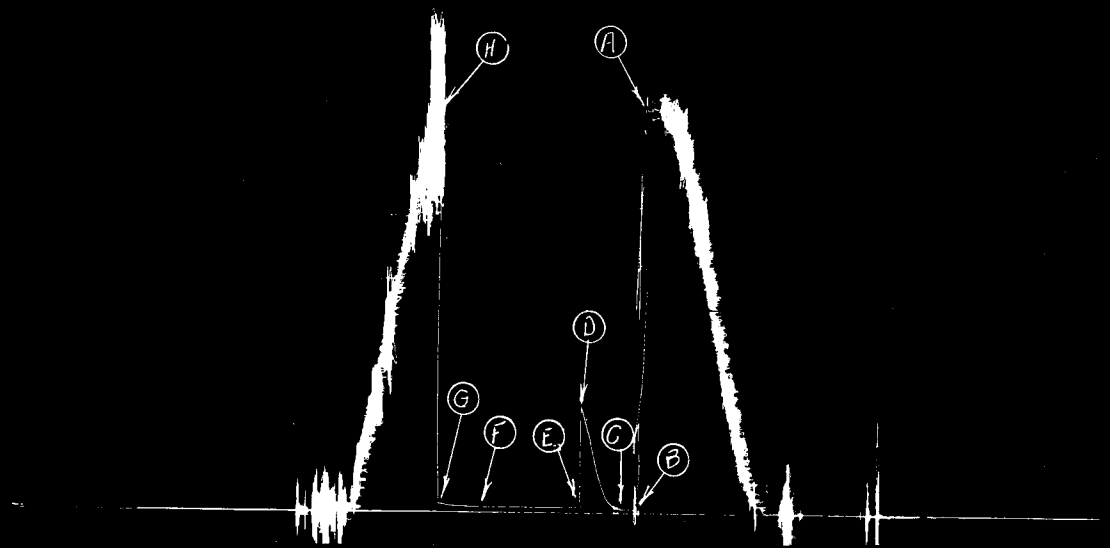
Point Minutes	Press.
0	23
5	23
10	23
15	23
20	23
25	23
30	23
35	23
40	23
45	23
50	23
55	23
56	23

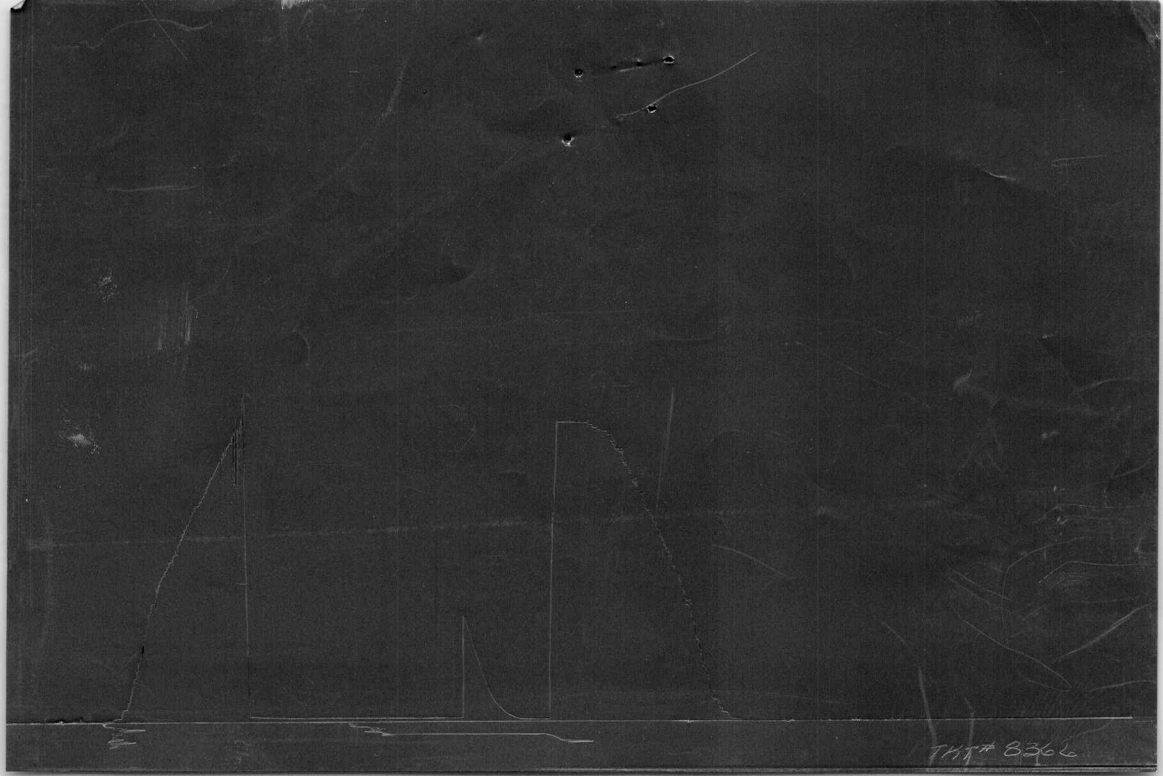
Final Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	23
3	23
6	24
9	26
12	28
15	30
18	32
21	33
24	36
27	38

Abercrombie Drlg. Inc.
Fitzhugh # 1

Test # 1
TKT # 8366




THT# 8364

Home Office: Great Bend, Kansas
P. O. Box 793 GLadstone 3-7903

Company Abercrombie Drilling Co.,Inc. Lease & Well No. Fitzhugh #1

Elevation 2083 Kelly Bushings Formation ? & Regan Sand Ticket Number 8369

Date Sept.30,1965 Sec. 13 Twp. 5s Range 22w County Norton State Kansas

Test Approved by Jack K. Wharton Western Representative Gerrell Veatch

Formation Test No. 4 O.K. X Misrun Interval Tested From 3436' to 3506' Total Depth 3506'

Size Main Hole 6 3/4 at Hole Conv. B.T. X Damaged Yes X No Conv. X B.T. Damaged Yes X No

Top Packer Depth 3432 Ft. Size 5½ Packer Depth 3436 Ft. Size 5½

Straddle Yes X No Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 4½ OD Tool Jt. Size 3½IF Anchor Length 70 Ft. Size 4½OD 1 jt. D.P.

RECORDERS Depth 3439 Ft. Clock No. 6875 Depth 3442 Ft. Clock No. 104

Top Make Kuster Cap. 4300 No. 1566 Inside ~~Outside~~ Bottom Make Western Cap. 4000 No. 26 ~~Inside~~ Outside

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

Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 3:58 A M

Tool Open I.F.P. From 4:02A M to 4:08A M Hr. 6 Min. From (B) 32 P.S.I. To (C) 36 P.S.I.

Tool Closed I.C.I.P. From 4:08A M. to 4:38 M. Hr. 30 Min. (D) 1164 P.S.I.

Tool Open F.F.P. From 4:38A M. to 5:38 M. 1 Hr. Min. From (E) 86 P.S.I. To (F) 207 P.S.I.

Tool Closed F.C.I.P. From 5:38 M. to 6:08 M. Hr. 30 Min. (G) 1059 P.S.I.

Initial Hydrostatic Pressure (A) 1908 P.S.I. Final Hydrostatic Pressure (H) 1893 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	3/8 In.		M.	
			M.	
			M.	

BLOW Good through out test. Bottom Choke Size In.

Did Well Flow Yes X No Recovery Total Ft. 180' mud; 240' muddy water

Mud

Reversed Out Yes No Mud Type chem. Viscosity 42 Weight 10.5 Maximum Temp. 103 °F

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size Make Ser. No.

Type Circ. Sub. plug Did Tool Plug? no Where? Did Packer Hold? yes

Length Drill Pipe 2546 ft. I.D. Drill Pipe 2.5 in Length Weight Pipe 810 ft. I.D. Weight Pipe 2.5 in. Length Drill Collars 60 ft.

I. D. Drill Collars 2.5 in. Length D.S.T. Tool 90 ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date September 30, 1965 — Test Ticket No. 8369

Recorder No. 1566 — Capacity 4300 — Location 3439 Ft.

Clock No. 6875 — Elevation 2083 Kelly Bushings — Well Temperature 103 °F

Point		Pressure			Time Given		Time Computed	
A	Initial Hydrostatic Mud	1908	P.S.I.	Opened Tool	3:58A	M		
B	First Initial Flow Pressure	32	P.S.I.	First Flow Pressure	6	Mins.	5	Mins.
C	First Final Flow Pressure	36	P.S.I.	Initial Closed-in Pressure	30	Mins.	27	Mins.
D	Initial Closed-in Pressure	1164	P.S.I.	Second Flow Pressure	60	Mins.	62	Mins.
E	Second Initial Flow Pressure	86	P.S.I.	Final Closed-in Pressure	30	Mins.	27	Mins.
F	Second Final Flow Pressure	207	P.S.I.					
G	Final Closed-in Pressure	1059	P.S.I.					
H	Final Hydrostatic Mud	1893	P.S.I.					

PRESSURE BREAKDOWN

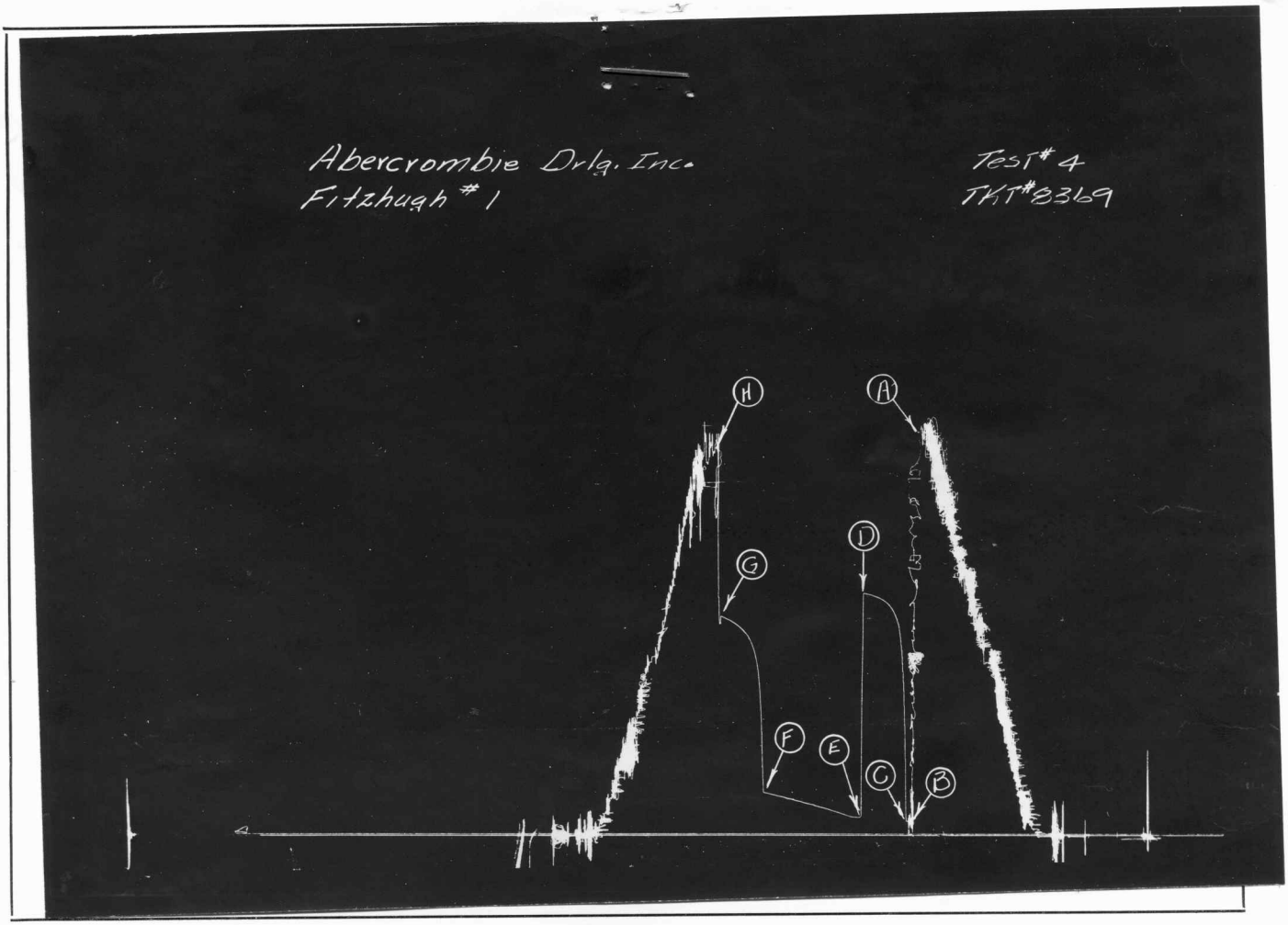
First Flow Press. Breakdown: 1 Inc. of 5 mins. and a final inc. of 0 Min.

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

Second Flow Pressure Breakdown: 12 Inc. of 5 mins. and a final inc. of 2 Min.

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

Point	First Flow Press. Mins.	First Flow Press. Press.	Initial Shut-In Point Minutes	Initial Shut-In Press.	Second Flow Pressure Point Minutes	Second Flow Pressure Press.	Final Shut-In Point Minutes	Final Shut-In Press.
P 1	0	32	0	36	0	86	0	207
P 2	5	36	3	909	5	87	3	793
P 3			6	1040	10	97	6	903
P 4			9	1094	15	110	9	961
P 5			12	1121	20	125	12	989
P 6			15	1136	25	136	15	1008
P 7			18	1147	30	146	18	1027
P 8			21	1156	35	157	21	1038
P 9			24	1160	40	164	24	1049
P10			27	1164	45	177	27	1059
P11					50	185		
P12					55	194		
P13					60	203		
P14					62	207		
P15								
P16								
P17								
P18								
P19								
P20								



This is an actual photograph of recorder chart.

POINT		PRESSURE	
(A)	Initial Hydrostatic Mud	1908	PSI
(B)	First Initial Flow Pressure	32	PSI
(C)	First Final Flow Pressure	36	PSI
(D)	Initial Closed-in Pressure	1164	PSI
(E)	Second Initial Flow Pressure	86	PSI
(F)	Second Final Flow Pressure	207	PSI
(G)	Final Closed-in Pressure	1059	PSI
(H)	Final Hydrostatic Mud	1893	PSI

COMPANY ABERCROMBIE DRILLING CO., INC. LEASE AND WELL NO. FITZHUGH #1 SEC. 13 TWP. 5S RGE. 22W TEST NO. 4 DATE 9-30-65