WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Time Petroleum Company Lease & Well No. Koelling #1

Elevation 2441' K.B. Ticket Number 3217

Date 11-19-63 Sec. 6 Twp. 29 Range 21W County Ford State Kansas

Test Approved by Toby Elster Western Representative George Tew

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Formation Test No. 1 O.K. X Misrun ____ Interval Tested From 4997' to 5056' Total Depth 5056'

Size Main Hole 7 7/8" Rat Hole None Conv. X B.T. ____ Damaged ____ Yes X No Conv. ____ B.T. X Damaged ____ Yes X No

Packer Depth 4997 Ft. Size 6 3/4" Packer Depth 4992 Ft. Size 6 3/4"

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

Packer Depth ____ Ft Size ____

Tool Size 5½" OD Tool Jt. Size 4½" FH Anchor Length 60 Ft. Size 30' 4½" DP 30' 5½" OD

RECORDERS Depth 5047 Ft Clock No. 6806 Depth 5050 Ft. Clock No. 60

Top Make Amerada Cap. 4200# No. 1558 Inside ~~Outside~~ Bottom Make Western Cap. 4000# No. 60 ~~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

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Time Set Packer 11:49 P M

Tool Open I.F.P. From 11:52P M to 11:57P M - Hr. 5 Min. From (B) 69 P.S.I. To (C) 69 P.S.I.

Tool Closed I.C.I.P. From 11:57P M. to 12:27P M. - Hr. 30 Min. (D) 1689 P.S.I.

Tool Open F.F.P. From 12:27P M. to 1:57P M. 1 Hr. 30 Min. From (E) 77 P.S.I. To (F) 84 P.S.I.

Tool Closed F.C.I.P. From 1:57P M. to 2:27P M. - Hr. 30 Min. (G) 1437 P.S.I.

Inital Hydrostatic Pressure (A) 2799 P.S.I. Final Hydrostatic Pressure (H) 2776 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	1/2 In.		M.	
			M.	
			M.	

BLOW Weak for 5 mins. Bottom Choke Size 3/4 in.

Did Well Flow ____ Yes X No Recovery Total Ft. 60' Drilling Mud

Mud

Reversed Out ____ Yes X No Mud Type Starch Viscosity 48 Weight 10.2 Maximum Temp. 114 °F

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

Type Circ. Sub. Plug Did Tool Plug? No Where? ____ Did Packer Hold? Yes

Length Drill Pipe 4975 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe ____ ft. I.D. Weight Pipe ____ in. Length Drill Collars ____ ft.

I. D. Drill Collars ____ in. Length D. S. T. Tool 82 ft.

Remarks

WHELAN PRINTERS

WESTERN TESTING CO., INC.
Pressure Data

Date 11-19-63 Test Ticket No. 3217

Recorder No. 1558 Capacity 4200# Location 5047 Ft.

Clock No. 6806 Elevation 2441' K.B. Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2799 P.S.I.	Opened Tool	11:49 P M	11:49 PM
B First Initial Flow Pressure	69 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C First Final Flow Pressure	69 P.S.I.	Initial Closed-in Pressure	30 Mins.	33 Mins.
D Initial Closed-in Pressure	1689 P.S.I.	Second Flow Pressure	90 Mins.	93 Mins.
E Second Initial Flow Pressure	71 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	84 P.S.I.			
G Final Closed-in Pressure	1437 P.S.I.			
H Final Hydrostatic Mud	2776 P.S.I.			

PRESSURE BREAKDOWN

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

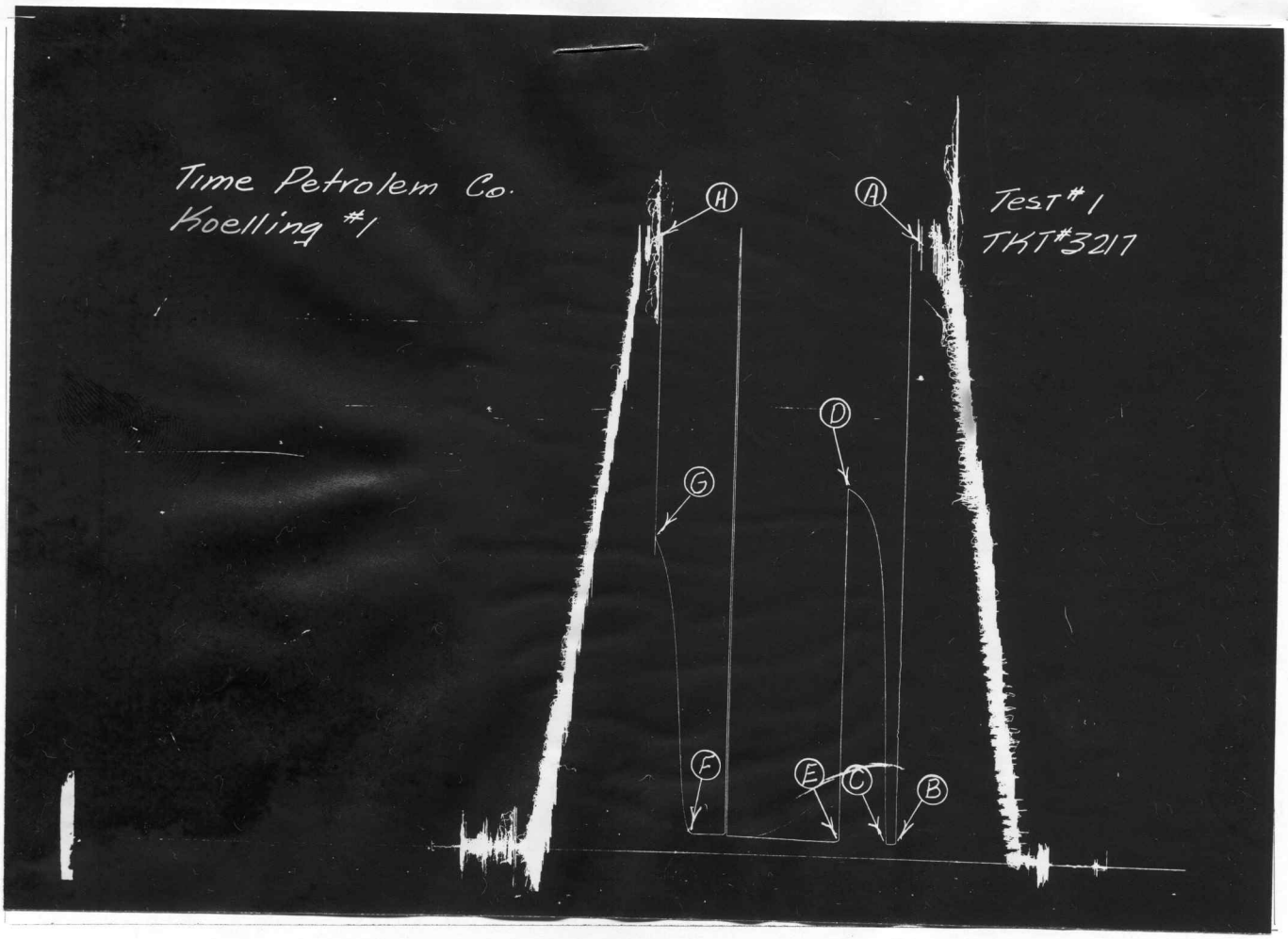
Initial Shut-In
Breakdown: 11 Inc. of 3 mins. and a final inc. of - Min.

Second Flow Pressure
Breakdown: 18 Inc. of 5 mins. and a final inc. of 3 Min.

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

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	69	0	69	0	71	0	84
P 2 5	69	3	449	5	71	3	130
P 3		6	914	10	71	6	242
P 4		9	1227	15	71	9	510
P 5		12	1407	20	71	12	805
P 6		15	1508	25	71	15	1014
P 7		18	1573	30	71	18	1171
P 8		21	1613	35	71	21	1280
P 9		24	1641	40	71	24	1353
P10		27	1660	45	71	27	1401
P11		30	1681	50	71	30	1437
P12		33	1689	55	71		
P13				60	71		
P14				65	71		
P15				70	71		
P16				75	84		
P17				80	84		
P18				85	84		
P19				90	84		
P20				93	84		

WHELAN PRINTERS



This is an actual photograph of recorder chart.

POINT		PRESSURE	
(A)	Initial Hydrostatic Mud	2799	PSI
(B)	First Initial Flow Pressure	69	PSI
(C)	First Final Flow Pressure	69	PSI
(D)	Initial Closed-in Pressure	1689	PSI
(E)	Second Initial Flow Pressure	71	PSI
(F)	Second Final Flow Pressure	84	PSI
(G)	Final Closed-in Pressure	1437	PSI
(H)	Final Hydrostatic Mud	2776	PSI

Company Time Petroleum Company Lease and Well No. Koelling #1 Sec. 6 Twp. 29 Rge. 21W Test No. 1 Date 11-19-63

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Time Petroleum Company Lease & Well No. Koelling #1

Elevation 2438' D.F. Ticket Number 3218

Date 11-19-63 Sec. 6 Twp. 29 Range 21W County Ford State Kansas

Test Approved by Toby Elster Western Representative George Tew

Formation Test No. 2 O.K. X Misrun ____ Interval Tested From 3050' to 5078' Total Depth 5078'

Size Main Hole 7 7/8" Rat Hole None Conv. X B.T. ____ Damaged ____ Yes X No Conv. ____ B.T. X Damaged ____ Yes X No

Packer Depth 5050 Ft. Size 6 3/4" Packer Depth 5045 Ft. Size 6 3/4"

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

Packer Depth ____ Ft Size ____

Tool Size 5½" OD Tool Jt. Size 4½" FH Anchor Length 28 Ft. Size 5½" OD

RECORDERS Depth 5069 Ft Clock No. 6806 Depth 5072 Ft. Clock No. 60

Top Make Amerada Cap. 4200# No. 1558 Inside ~~Outside~~ Bottom Make Western Cap. 4000# No. 60 ~~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 1:37P M

Tool Open I.F.P. From 1:40P M to 1:45P M - Hr. 5 Min. From (B) 46 P.S.I. To (C) 46 P.S.I.

Tool Closed I.C.I.P. From 1:45P M. to 2:15P M. - Hr. 30 Min. (D) 612 P.S.I.

Tool Open F.F.P. From 2:15P M. to 4:15P M. 2 Hr. - Min. From (E) 50 P.S.I. To (F) 50 P.S.I.

Tool Closed F.C.I.P. From 4:15P M. to 5:00P M. - Hr. 45 Min. (G) 61 P.S.I.

Inital Hydrostatic Pressure (A) 2801 P.S.I. Final Hydrostatic Pressure (H) 2795 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	1/2 In.		M.	
			M.	
			M.	

BLOW Weak for 5 mins. Bottom Choke Size 3/4 in.

Did Well Flow ____ Yes X No Recovery Total Ft. 30' Drlg. Mud

Reversed Out ____ Yes X No Mud Type Starch Viscosity 49 Weight 10.1 Mud Maximum Temp. 114 °F

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

Type Circ. Sub. Plug Did Tool Plug? No Where? ____ Did Packer Hold? Yes

Length Drill Pipe 5022 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe ____ ft. I.D. Weight Pipe ____ in. Length Drill Collars ____ ft.

I. D. Drill Collars ____ in. Length D. S. T. Tool 50 ft.

Remarks

Flushed tool - No help

WHELAN PRINTERS

WESTERN TESTING CO., INC.
Pressure Data

Date 11-29-63 Test Ticket No. 3218

Recorder No. 1558 Capacity ~~XX~~ 4200# Location 5069 Ft.

Clock No. 6806 Elevation 2438' D.F. Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2801 P.S.I.	Opened Tool	1:37 P M	1:37 PM
B First Initial Flow Pressure	46 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C First Final Flow Pressure	46 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	612 P.S.I.	Second Flow Pressure	120 Mins.	120 Mins.
E Second Initial Flow Pressure	50 P.S.I.	Final Closed-in Pressure	45 Mins.	42 Mins.
F Second Final Flow Pressure	50 P.S.I.			
G Final Closed-in Pressure	61 P.S.I.			
H Final Hydrostatic Mud	2795 P.S.I.			

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	46
P 2 5	46
P 3	
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: 10 Inc.
of 3 mins. and a
final inc. of - Min.

Point Minutes	Press.
0	46
3	48
6	54
9	69
12	92
15	128
18	164
21	238
24	345
27	466
30	612

Second Flow Pressure
Breakdown: 24 Inc.
of 5 mins. and a
final inc. of - Min.

Point Minutes	Press.
0	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50
45	50
50	50
55	50
60	50
65	50
70	50
75	50
80	50
85	50
90	50
95	50
100	50
105	50
110	50
115	50
120	50

Final Shut-In
Breakdown: 14 Inc.
of 3 mins. and a
final inc. of - Min.

Point Minutes	Press.
0	50
3	51
6	52
9	53
12	54
15	54
18	55
21	55
24	56
27	56
30	57
33	58
36	59
39	60
42	61

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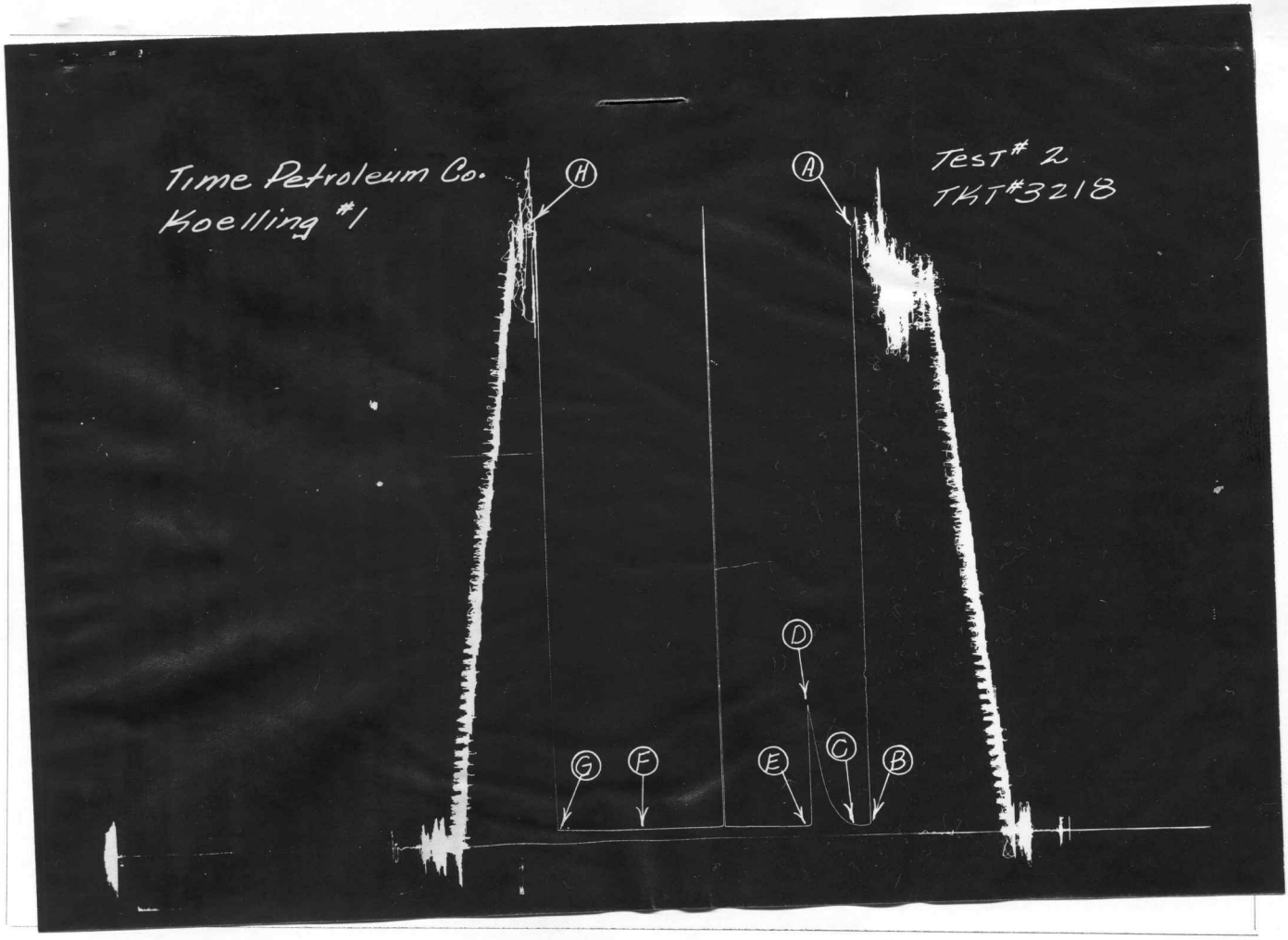

This is an actual photograph of recorder chart.

POINT		PRESSURE	
(A)	Initial Hydrostatic Mud	2801	PSI
(B)	First Initial Flow Pressure	46	PSI
(C)	First Final Flow Pressure	46	PSI
(D)	Initial Closed-in Pressure	612	PSI
(E)	Second Initial Flow Pressure	50	PSI
(F)	Second Final Flow Pressure	50	PSI
(G)	Final Closed-in Pressure	61	PSI
(H)	Final Hydrostatic Mud	2795	PSI

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Time Petroleum Company Lease & Well No. Koelling #1

Elevation 2438' D.F. Ticket Number 3224

Date 11-23-63 Sec. 6 Twp. 29 Range 21W County Ford State Kansas

Test Approved by Toby Elster Western Representative George Tow

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Formation Test No. 6 O.K. X Misrun ____ Interval Tested From 5178' to 5206' Total Depth 5206'

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

Packer Depth 5178 Ft. Size 6 3/4" Packer Depth 5173 Ft. Size 6 3/4"

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

Packer Depth ____ Ft Size ____

Tool Size 5½" OD Tool Jt. Size 4½" FH Anchor Length 28 Ft. Size 5½" OD

RECORDERS Depth 5200 Ft Clock No. 6806 Depth 5197 Ft. Clock No. 60

Top Make Amerada Cap. 4200# No. 1558 Inside ~~Outside~~ Bottom Make Western Cap. 4000# No. 60 ~~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

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Time Set Packer 5:02P M

Tool Open I.F.P. From 5:05P M to 5:10P M - Hr. 5 Min. From (B) 18 P.S.I. To (C) 18 P.S.I.

Tool Closed I.C.I.P. From 5:10P M. to 5:40P M. - Hr. 30 Min. (D) 109 P.S.I.

Tool Open F.F.P. From 5:40P M. to 7:40P M. 2 Hr. - Min. From (E) 23 P.S.I. To (F) 27 P.S.I.

Tool Closed F.C.I.P. From 7:40P M. to 7:55P M. - Hr. 15 Min. (G) 27 P.S.I.

Inital Hydrostatic Pressure (A) 2748 P.S.I. Final Hydrostatic Pressure (H) 2739 P.S.I.

SURFACE INFORMATION Size Choke 1/2 In. Max. Press. P.S.I. Time Description of Flow

____ ____ ____ M. ____

____ ____ ____ M. ____

____ ____ ____ M. ____

BLOW Few bubbles when tool opened

Did Well Flow ____ Yes X No Recovery Total Ft. 30' Mud

Bottom Choke Size 3/4 in.

Reversed Out ____ Yes X No Mud Type Starch Viscosity 47 Weight 9.9 Maximum Temp. 114 °F

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

Type Circ. Sub. Plug Did Tool Plug? No Where? ____ Did Packer Hold? Yes

Length Drill Pipe 5156 ft. I.D. Drill Pipe 2.8 in. Length Weight Pipe ____ ft. I.D. Weight Pipe ____ in. Length Drill Collars ____ ft.

I. D. Drill Collars ____ in. Length D. S. T. Tool 50 ft.

Remarks

Flushed tool - No help

WHELAN PRINTERS

WESTERN TESTING CO., INC.
Pressure Data

Date 11-23-63 Test Ticket No. 3224

Recorder No. 1558 Capacity 4200# Location 5200 Ft.

Clock No. 6806 Elevation 2438' D.F. Well Temperature 114 °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	2748 P.S.I.	Opened Tool	5:02 P M	5:02 PM
B	First Initial Flow Pressure	18 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C	First Final Flow Pressure	18 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	109 P.S.I.	Second Flow Pressure	120 Mins.	120 Mins.
E	Second Initial Flow Pressure	23 P.S.I.	Final Closed-in Pressure	15 Mins.	15 Mins.
F	Second Final Flow Pressure	27 P.S.I.			
G	Final Closed-in Pressure	27 P.S.I.			
H	Final Hydrostatic Mud	2739 P.S.I.			

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	18
P 2 5	18
P 3	
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: 10 Inc.
of 3 mins. and a
final inc. of - Min.

Point Minutes	Press.
0	18
3	21
6	29
9	35
12	42
15	48
18	56
21	69
24	80
27	92
30	109

Second Flow Pressure
Breakdown: 24 Inc.
of 5 mins. and a
final inc. of - 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
60	23
65	27
70	27
75	27
80	27
85	27
90	27
95	27
100	27
105	27
110	27
115	27
120	27

Final Shut-In
Breakdown: 5 Inc.
of 3 mins. and a
final inc. of - Min.

Point Minutes	Press.
0	27
3	27
6	27
9	27
12	27
15	27

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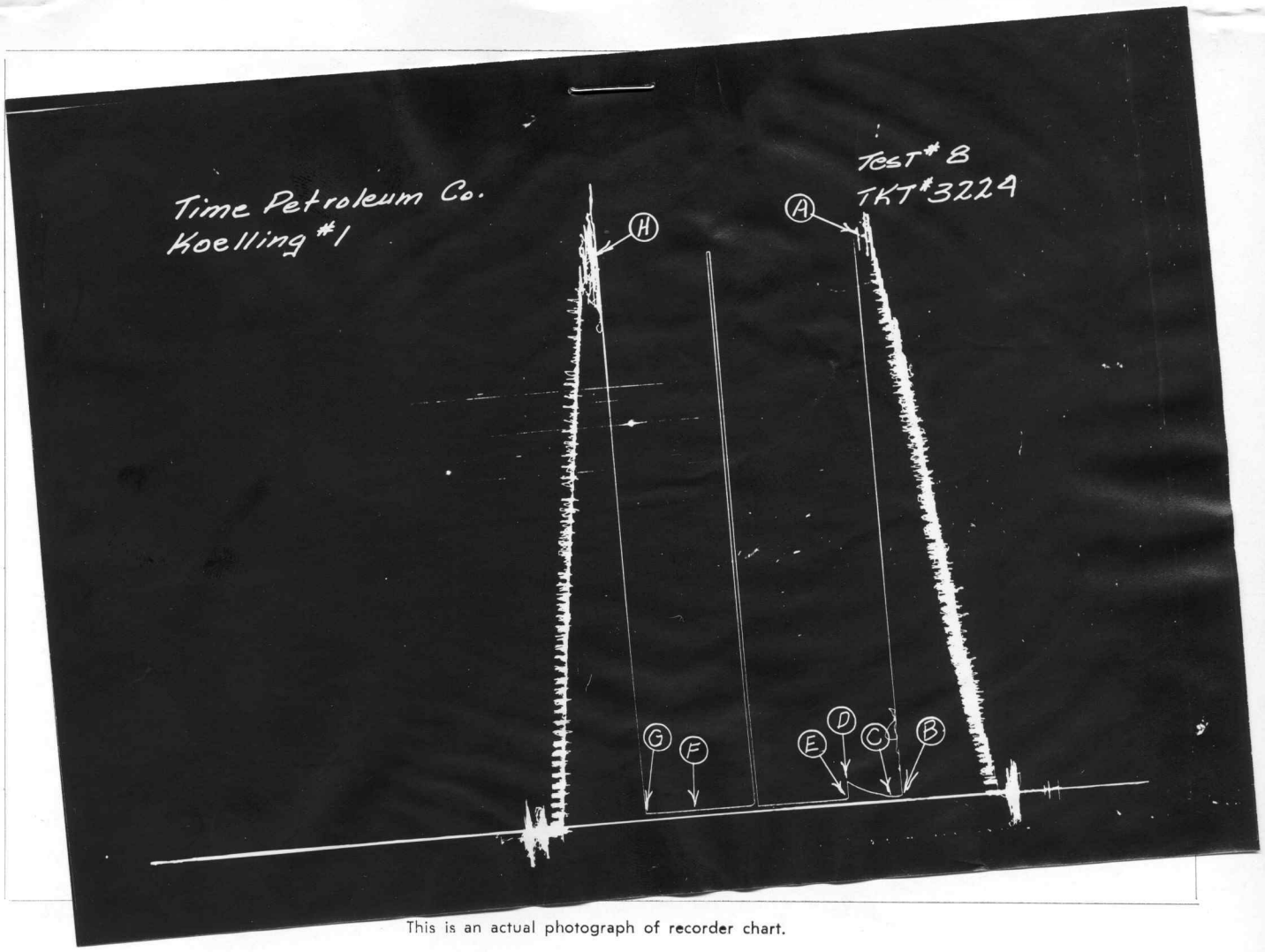

This is an actual photograph of recorder chart.

POINT		PRESSURE	
(A)	Initial Hydrostatic Mud	2748	PSI
(B)	First Initial Flow Pressure	18	PSI
(C)	First Final Flow Pressure	18	PSI
(D)	Initial Closed-in Pressure	109	PSI
(E)	Second Initial Flow Pressure	23	PSI
(F)	Second Final Flow Pressure	27	PSI
(G)	Final Closed-in Pressure	27	PSI
(H)	Final Hydrostatic Mud	2739	PSI

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Time Petroleum Company Lease & Well No. Koelling #1

Elevation 2438' D.F. Ticket Number 3225

Date 11-24-63 Sec. 6 Twp. 29 Range 21W County Ford State Kansas

Test Approved by Toby Elster Western Representative George Tew

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Formation Test No. 9 O.K. X Misrun ____ Interval Tested From 5206' to 5235' Total Depth 5235'

Size Main Hole 7 7/8" Rat Hole None Conv. X B.T. ____ Damaged ____ Yes X No Conv. ____ B.T. X Damaged ____ Yes X No

Packer Depth 5206 Ft. Size 6 3/4" Packer Depth 5201 Ft. Size 6 3/4"

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

Packer Depth ____ Ft Size ____

Tool Size 5½" OD Tool Jt. Size 4½" FH Anchor Length 29 Ft. Size 5½" OD

RECORDERS Depth 5226 Ft Clock No. 6806 Depth 5229 Ft. Clock No. 60

Top Make Amerada Cap. 4200# No. 1558 Inside Outside Bottom Make Western Cap. 4000# No. 60 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 7:37A M

Tool Open I.F.P. From 7:40A M to 7:45A M - Hr. 5 Min. From (B) 42 P.S.I. To (C) 42 P.S.I.

Tool Closed I.C.I.P. From 7:45A M. to 8:15A M. - Hr. 30 Min. (D) 1323 P.S.I.

Tool Open F.F.P. From 8:15A M. to 9:25A M. - Hr. 1 10 Min. From (E) 44 P.S.I. To (F) 48 P.S.I.

Tool Closed F.C.I.P. From 9:25A M. to 9:40A M. - Hr. 15 Min. (G) 59 P.S.I.

Inital Hydrostatic Pressure (A) 2796 P.S.I. Final Hydrostatic Pressure (H) 2787 P.S.I.

SURFACE INFORMATION Size Choke 1/2 In. Max. Press. P.S.I. Time Description of Flow

____ ____ ____ M. ____

____ ____ ____ M. ____

____ ____ ____ M. ____

BLOW Few bubbles when tool opened Bottom Choke Size 3/4 in.

Did Well Flow ____ Yes X No Recovery Total Ft. 20' Mud

Mud

Reversed Out ____ Yes X No Mud Type Starch Viscosity 45 Weight 9.8 Maximum Temp. 114 °F

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

Type Circ. Sub. Plug Did Tool Plug? No Where? ____ Did Packer Hold? Yes

Length Drill Pipe 5134 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe ____ ft. I.D. Weight Pipe ____ in. Length Drill Collars ____ ft.

I. D. Drill Collars ____ in. Length D. S. T. Tool 51 ft.

Remarks

WHELAN PRINTERS

WESTERN TESTING CO., INC.
Pressure Data

Date 11-21-63 Test Ticket No. 3225

Recorder No. 1558 Capacity 4200# Location 5226 Ft.

Clock No. 6806 Elevation 2438' D.F. Well Temperature 114 °F

Point		Pressure		Time Given		Time Computed	
A	Initial Hydrostatic Mud	2796 P.S.I.	Opened Tool	7:37 A M		7:37 AM	
B	First Initial Flow Pressure	42 P.S.I.	First Flow Pressure	5	Mins.	5	Mins.
C	First Final Flow Pressure	42 P.S.I.	Initial Closed-in Pressure	30	Mins.	30	Mins.
D	Initial Closed-in Pressure	1323 P.S.I.	Second Flow Pressure	70	Mins.	60	Mins.
E	Second Initial Flow Pressure	44 P.S.I.	Final Closed-in Pressure	15	Mins.	18	Mins.
F	Second Final Flow Pressure	48 P.S.I.					
G	Final Closed-in Pressure	59 P.S.I.					
H	Final Hydrostatic Mud	2787 P.S.I.					

PRESSURE BREAKDOWN

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

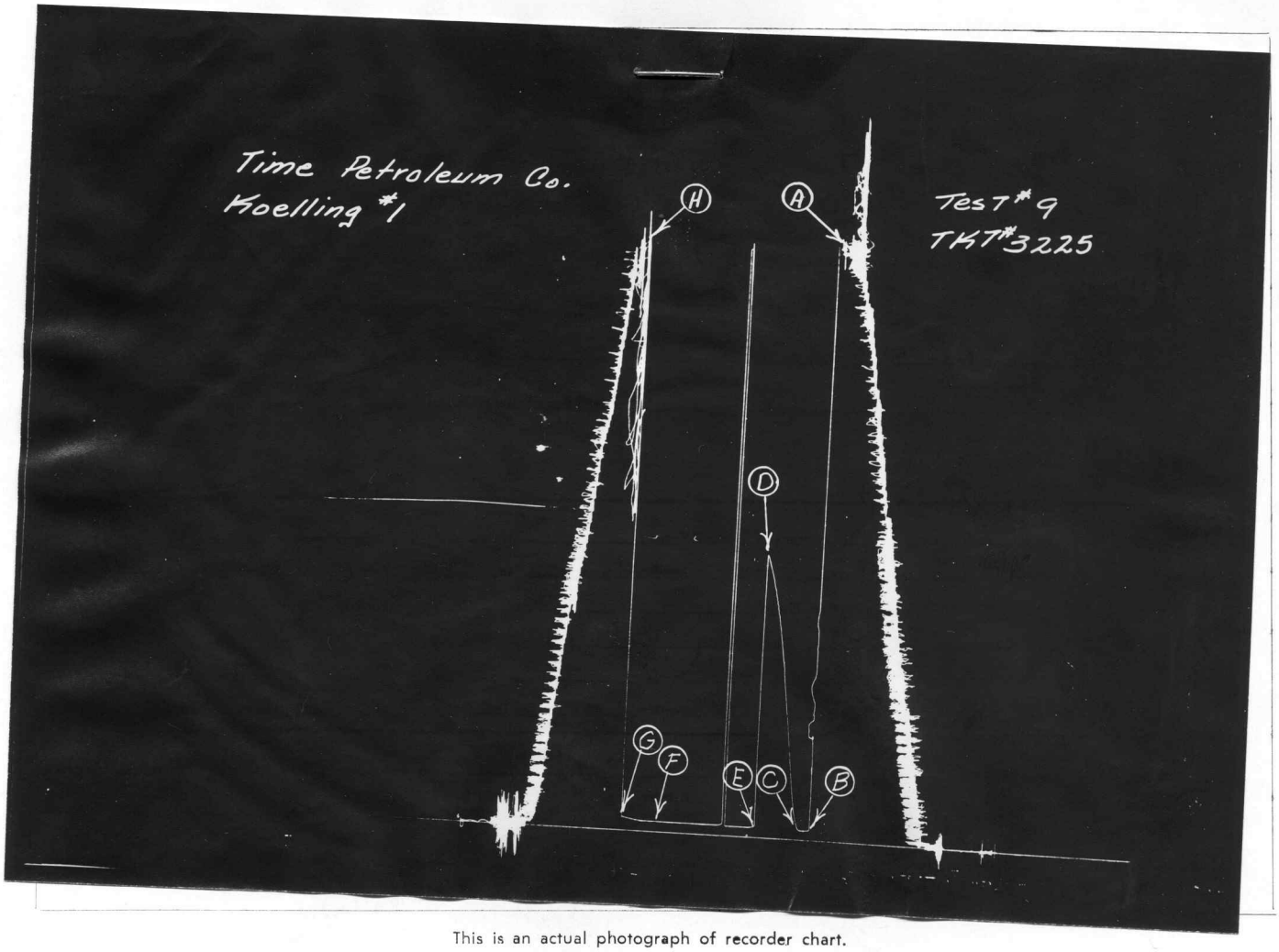
Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 1 Min.

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

Final Shut-In
Breakdown: 6 Inc.
of 3 mins. and a
final inc. of - Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	42	0	42	0	44	0	48
P 2 5	42	3	94	5	44	3	48
P 3		6	210	10	44	6	48
P 4		9	356	15	44	9	51
P 5		12	514	20	44	12	53
P 6		15	691	25	48	15	56
P 7		18	874	30	48	18	59
P 8		21	1025	35	48		
P 9		24	1158	40	48		
P10		27	1248	45	48		
P11		30	1323	50	48		
P12				55	48		
P13				60	48		
P14							
P15							
P16							
P17							
P18							
P19							
P20							

WHELAN PRINTERS



This is an actual photograph of recorder chart.

POINT		PRESSURE	
(A)	Initial Hydrostatic Mud	2796	PSI
(B)	First Initial Flow Pressure	42	PSI
(C)	First Final Flow Pressure	42	PSI
(D)	Initial Closed-in Pressure	1323	PSI
(E)	Second Initial Flow Pressure	44	PSI
(F)	Second Final Flow Pressure	48	PSI
(G)	Final Closed-in Pressure	59	PSI
(H)	Final Hydrostatic Mud	2787	PSI

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Time Petroleum Company Lease & Well No. Koelling #1

Elevation 2438' D.F. Ticket Number 3051

Date 11-25-63 Sec. 6 Twp. 29 Range 23W County Ford State Kansas

Test Approved by Toby Elster Western Representative George Tew

Formation Test No. 10 O.K. X Misrun ____ Interval Tested From 5235' to 5295' Total Depth 5295'

Size Main Hole 7 7/8" Rat Hole None Conv. X B.T. ____ Damaged X Yes ____ No Conv. ____ B.T. X Damaged X Yes ____ No

Packer Depth 5235 Ft. Size 6 3/4" Packer Depth 5230 Ft. Size 6 3/4"

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

Packer Depth ____ Ft Size ____

Tool Size 5½" OD Tool Jt. Size 4½" FH Anchor Length 60 Ft. Size 32' D.E. 27' 5½" Anchor

RECORDERS Depth 5247 Ft Clock No. 6806 Depth 5250 Ft. Clock No. 60

Top Make Amerada Cap. 4200# No. 1558 Inside ____ Outside ____ Bottom Make Western Cap. 4000# No. 60 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 2:49 A M

Tool Open I.F.P. From 2:52A M to 2:57A M - Hr. 5 Min. From (B) 35 P.S.I. To (C) 35 P.S.I.

Tool Closed I.C.I.P. From 2:57A M. to 3:27A M. - Hr. 30 Min. (D) 901 P.S.I.

Tool Open F.F.P. From 3:27A M. to 4:27A M. 1 Hr. - Min. From (E) 37 P.S.I. To (F) 37 P.S.I.

Tool Closed F.C.I.P. From 4:27A M. to 4:57A M. - Hr. 30 Min. (G) 156 P.S.I.

Inital Hydrostatic Pressure (A) 2822 P.S.I. Final Hydrostatic Pressure (H) 2804 P.S.I.

SURFACE INFORMATION	Size Choke 1/2 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Few bubbles when tool opened Bottom Choke Size 3/4 in.

Did Well Flow ____ Yes X No Recovery Total Ft. 15' Mud

Reversed Out ____ Yes X No Mud Type Starch Viscosity 47 Weight 9.8 Maximum Temp. 115 °F Mud

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

Type Circ. Sub. Plug Did Tool Plug? No Where? ____ Did Packer Hold? Yes

Length Drill Pipe 5213 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe ____ ft. I.D. Weight Pipe ____ in. Length Drill Collars ____ ft.

I. D. Drill Collars ____ in. Length D. S. T. Tool 82 ft.

Remarks

WHELAN PRINTERS

WESTERN TESTING CO., INC.
Pressure Data

Date 11-25-63 Test Ticket No. 3051

Recorder No. 1558 Capacity 4200# Location 5247 Ft.

Clock No. 6806 Elevation 2438' D.F. Well Temperature 115 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2822 P.S.I.	Opened Tool	2:49 A M	2:49 AM
B First Initial Flow Pressure	35 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C First Final Flow Pressure	35 P.S.I.	Initial Closed-in Pressure	30 Mins.	31 Mins.
D Initial Closed-in Pressure	901 P.S.I.	Second Flow Pressure	60 Mins.	62 Mins.
E Second Initial Flow Pressure	37 P.S.I.	Final Closed-in Pressure	30 Mins.	27 Mins.
F Second Final Flow Pressure	37 P.S.I.			
G Final Closed-in Pressure	156 P.S.I.			
H Final Hydrostatic Mud	2804 P.S.I.			

PRESSURE BREAKDOWN

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

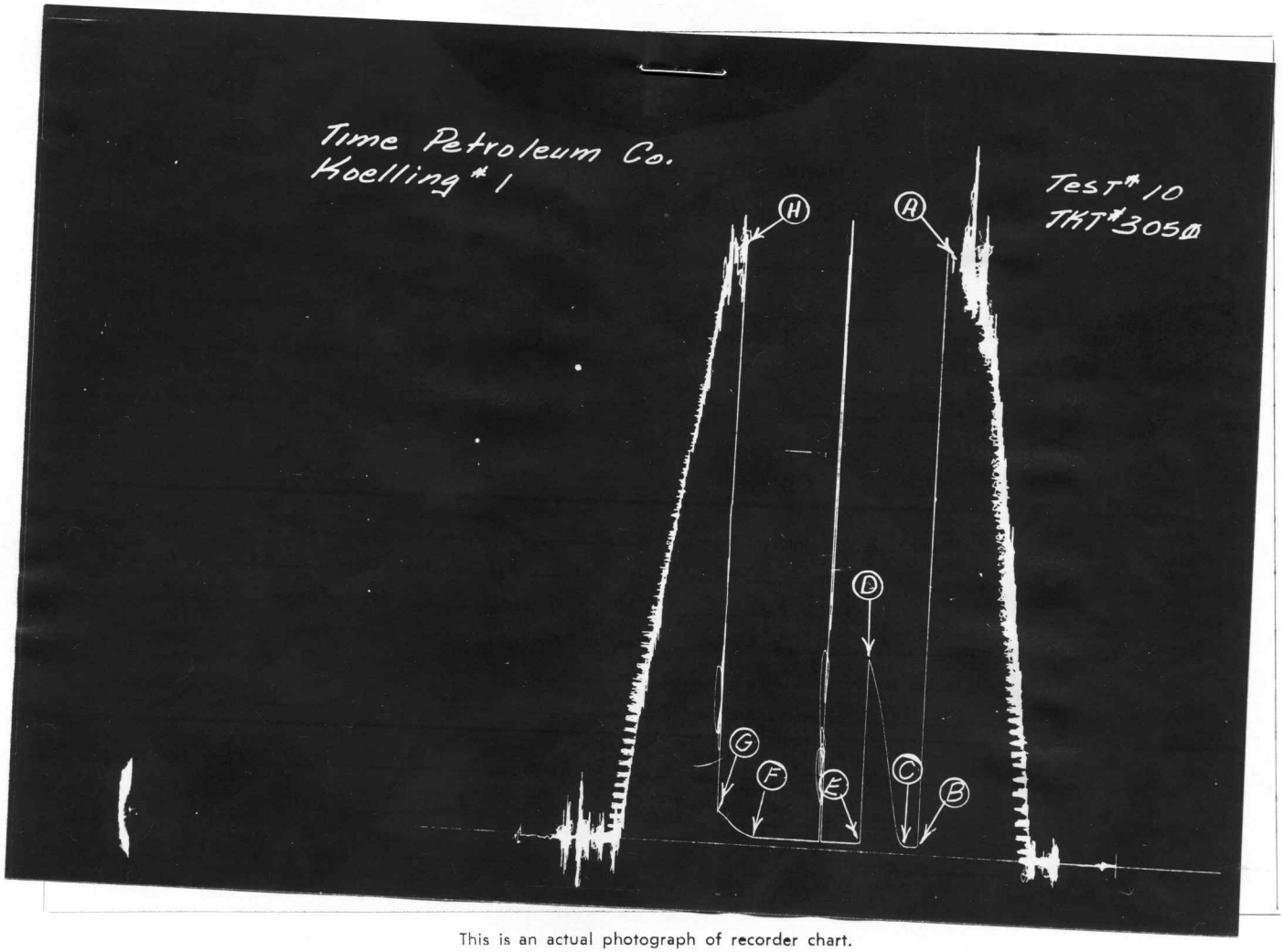
Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 1 Min.

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 - Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	35	0	35	0	37	0	37
P 2 5	35	3	44	5	37	3	38
P 3		6	88	10	37	6	42
P 4		9	183	15	37	9	90
P 5		12	301	20	37	12	99
P 6		15	432	25	37	15	75
P 7		18	543	30	37	18	92
P 8		21	645	35	37	21	118
P 9		24	739	40	37	24	134
P10		27	814	45	37	27	158
P11		30	891	50	37		
P12		31	901	55	37		
P13				60	37		
P14				62	37		
P15							
P16							
P17							
P18							
P19							
P20							

WHELAN PRINTERS



This is an actual photograph of recorder chart.

POINT		PRESSURE	
(A)	Initial Hydrostatic Mud	2822	PSI
(B)	First Initial Flow Pressure	35	PSI
(C)	First Final Flow Pressure	35	PSI
(D)	Initial Closed-in Pressure	901	PSI
(E)	Second Initial Flow Pressure	37	PSI
(F)	Second Final Flow Pressure	37	PSI
(G)	Final Closed-in Pressure	156	PSI
(H)	Final Hydrostatic Mud	2804	PSI

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Time Petroleum Company Lease & Well No. Koelling #1

Elevation 2439' D.F. Ticket Number 3052

Date 11-25-63 Sec. 6 Twp. 29 Range 21W County Ford State Kansas

Test Approved by Tobey Kister Western Representative George Tew

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Formation Test No. 11 O.K. X Misrun ____ Interval Tested From 5295' to 5310' Total Depth 5310'

Size Main Hole 7 7/8" Rat Hole None Conv. X B.T. ____ Damaged ____ Yes ____ No X Conv. ____ B.T. X Damaged ____ Yes X No

Packer Depth 5295' Ft. Size 6 3/4" Packer Depth 5290 Ft. Size 6 3/4"

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

Packer Depth ____ Ft Size ____

Tool Size 5½" OD Tool Jt. Size 4½" FH Anchor Length 15 Ft. Size 5½" OD

RECORDERS Depth 5300# Ft Clock No. 6806 Depth 5302 Ft. Clock No. 60

Top Make Amerada Cap. 4200# No. 1558 Inside Outside Bottom Make Western Cap. 4000# No. 60 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

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Time Set Packer 2:17 P M

Tool Open I.F.P. From 2:20P M to 2:25P M - Hr. 5 Min. From (B) 29 P.S.I. To (C) 29 P.S.I.

Tool Closed I.C.I.P. From 2:25P M. to 2:55P M. - Hr. 30 Min. (D) 1713 P.S.I.

Tool Open F.F.P. From 2:55P M. to 4:25P M. 1 Hr. 30 Min. From (E) 52 P.S.I. To (F) 75 P.S.I.

Tool Closed F.C.I.P. From 4:25P M. to 4:55P M. - Hr. 30 Min. (G) 1351 P.S.I.

Inital Hydrostatic Pressure (A) 2812 P.S.I. Final Hydrostatic Pressure (H) 2808 P.S.I.

SURFACE INFORMATION Size Choke 1/2 In. Max. Press. P.S.I. Time Description of Flow

____ ____ ____ M. ____

____ ____ ____ M. ____

____ ____ ____ M. ____

BLOW Few bubbles when tool opened Bottom Choke Size 3/4 in.

Did Well Flow ____ Yes X No Recovery Total Ft. 120' watery mud

Mud

Reversed Out ____ Yes X No Mud Type Starch Viscosity 47 Weight 9.8 Maximum Temp. 113 °F

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

Type Circ. Sub. Plug Did Tool Plug? No Where? ____ Did Packer Hold? Yes

Length Drill Pipe 5183 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe ____ ft. I.D. Weight Pipe ____ in. Length Drill Collars 90 ft.

I. D. Drill Collars 2.25 in. Length D. S. T. Tool 32 ft.

Remarks

WHELAN PRINTERS

WESTERN TESTING CO., INC.
Pressure Data

Date 11-25-63 Test Ticket No. 3052

Recorder No. 1558 Capacity 4200# Location 5300 Ft.

Clock No. 6806 Elevation 2438' D.F. Well Temperature 113 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2812	P.S.I.
B	First Initial Flow Pressure	29	P.S.I.
C	First Final Flow Pressure	29	P.S.I.
D	Initial Closed-in Pressure	1713	P.S.I.
E	Second Initial Flow Pressure	52	P.S.I.
F	Second Final Flow Pressure	75	P.S.I.
G	Final Closed-in Pressure	1351	P.S.I.
H	Final Hydrostatic Mud	2808	P.S.I.

	Time Given	Time Computed
Opened Tool	2:17 P M	2:17 PM
First Flow Pressure	5 Mins.	5 Mins.
Initial Closed-in Pressure	30 Mins.	33 Mins.
Second Flow Pressure	90 Mins.	90 Mins.
Final Closed-in Pressure	30 Mins.	30 Mins.

PRESSURE BREAKDOWN

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

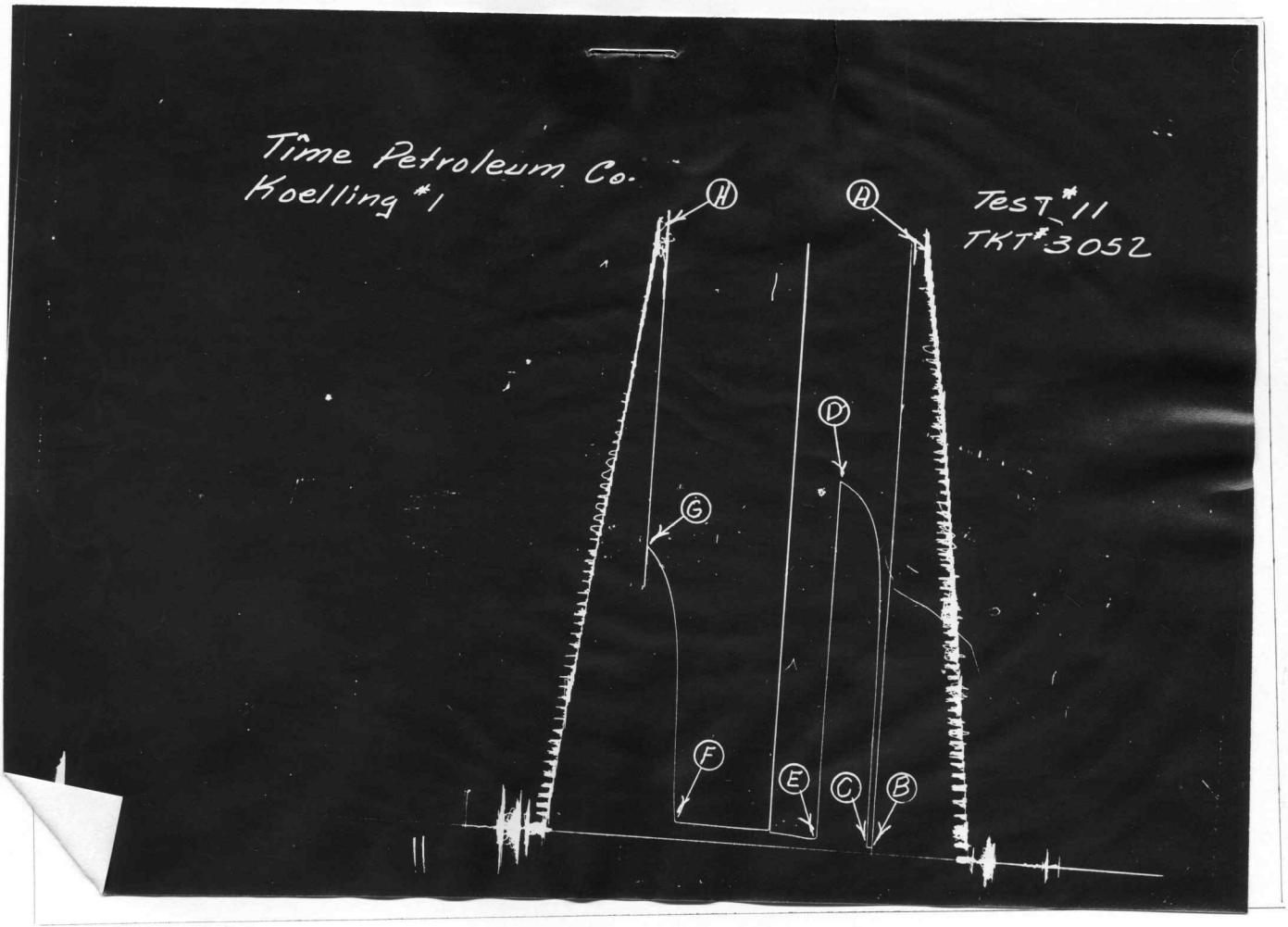
Initial Shut-In
Breakdown: 11 Inc.
of 3 mins. and a
final inc. of — Min.

Second Flow Pressure
Breakdown: 18 Inc.
of 5 mins. and a
final inc. of — Min.

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

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	0 29	0	29	0	52	0	75
P 2	5 29	3	1014	5	52	3	383
P 3		6	1346	10	53	6	776
P 4		9	1466	15	58	9	991
P 5		12	1535	20	63	12	1096
P 6		15	1582	25	64	15	1173
P 7		18	1618	30	75	18	1225
P 8		21	1647	35	75	21	1267
P 9		24	1668	40	75	24	1296
P10		27	1685	45	75	27	1328
P11		30	1696	50	75	30	1351
P12		33	1713	55	75		
P13				60	75		
P14				65	75		
P15				70	75		
P16				75	75		
P17				80	75		
P18				85	75		
P19				90	75		
P20							

WHELAN PRINTERS



This is an actual photograph of recorder chart.

POINT		PRESSURE
(A)	Initial Hydrostatic Mud	2812 PSI
(B)	First Initial Flow Pressure	29 PSI
(C)	First Final Flow Pressure	29 PSI
(D)	Initial Closed-in Pressure	1713 PSI
(E)	Second Initial Flow Pressure	52 PSI
(F)	Second Final Flow Pressure	75 PSI
(G)	Final Closed-in Pressure	1351 PSI
(H)	Final Hydrostatic Mud	2808 PSI