

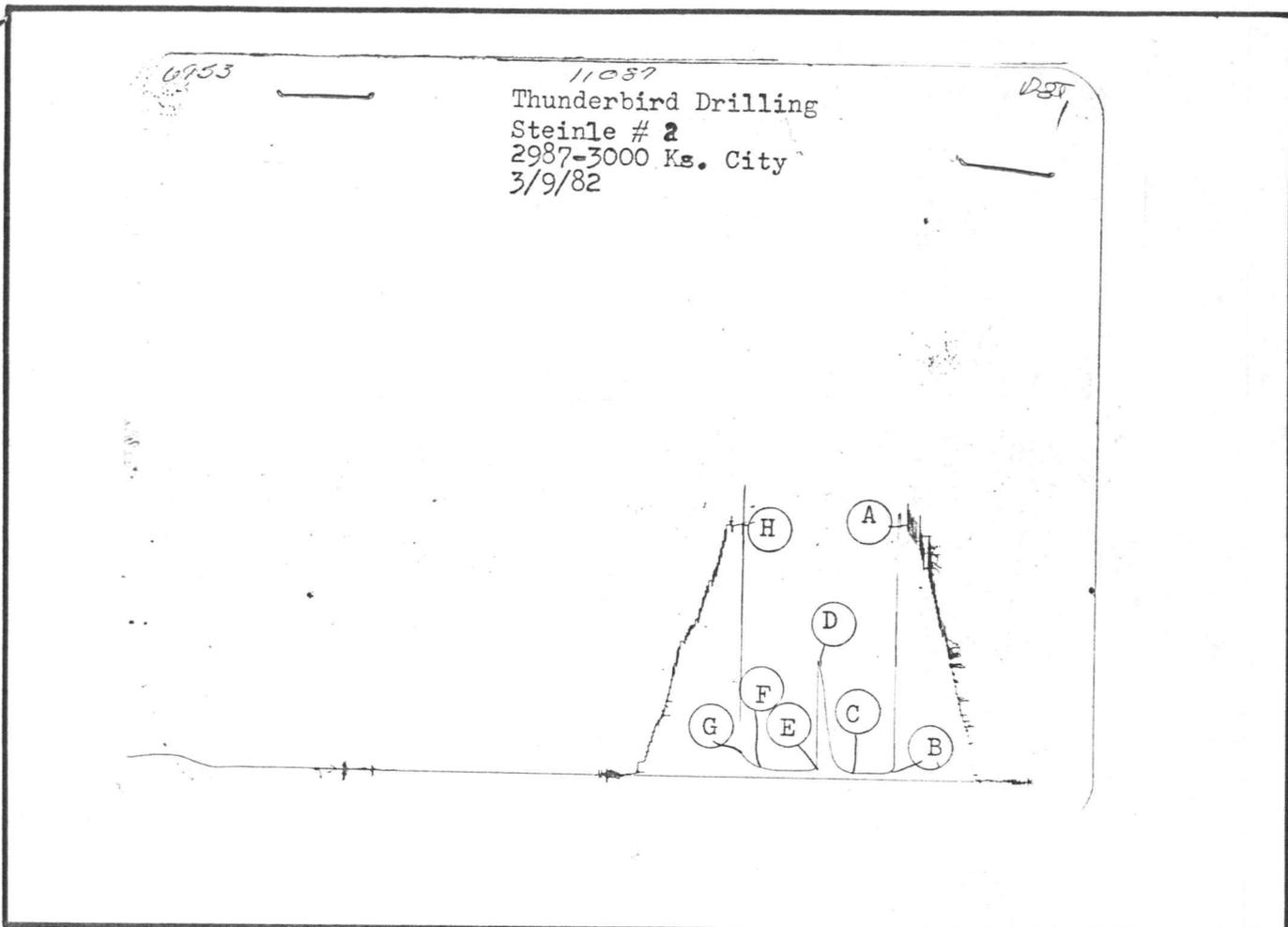
SUPERIOR TESTERS
368 West Second, Hoisington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Russell
 LEASE & WELL NO. Steinle # 2 ELEVATION 1778 KB. DATE 3/9/82 FORMATION TESTED Ks. City
 SEC. 34 TWP. 11 RANGE 14 INTERVAL TESTED 2987 TO 3000 TOTAL DEPTH 3000
 TEST NO. #1 O.K. yes TOP PACKER DEPTH 2982 FT. BOTTOM PACKER DEPTH 2987 FT. PACKER SIZE 6 & 3/4
 STRADDLE no CONV. yes TOOL SIZE 5 1/2 OD TOOL JOINT SIZE 4 1/2 FH. ANCHOR LENGTH 13 FT.
 HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT none SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN.
 REVERSED OUT no VISCOSITY 47 WEIGHT 9.5 DUAL PACKERS yes DID PACKER HOLD yes DID TOOL PLUG no
 DRILLING CONTRACTOR Rains & Williamson #9
 TOOL JOINT SIZE 4 1/2 XH. IN. LENGTH DRILL PIPE 2844 FT. I. D. DRILL PIPE 3.80 IN.
 TOOL JOINT SIZE _____ IN. LENGTH WEIGHT PIPE _____ FT. I. D. WEIGHT PIPE _____ IN.
 TOOL JOINT SIZE 4 1/2 XH. IN. LENGTH DRILL COLLARS 122 FT. I. D. DRILL COLLARS 2.25 IN.
 TOOL OPEN I. F. P. FROM 10:30 p.m. to 11:00 p.m. Hr. 30 min From (B) 33 P.S.I. to (C) 33 P.S.I.
 TOOL CLOSED I. C. I. P. FROM 11:00 p.m. to 11:30 p.m. Hr. 30 min (D) 706 P.S.I.
 TOOL OPEN F. F. P. FROM 11:30 p.m. to 12:00 a.m. Hr. 30 min From (E) 46 P.S.I. to (F) 44 P.S.I.
 TOOL CLOSED F. C. I. P. FROM 12:00 a.m. to 12:30 a.m. Hr. 30 min (G) 276 P.S.I.
 INITIAL HYDROSTATIC PRESSURE (A) 1550 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 1528 MAXIMUM TEMPERATURE 95 °F
 BLOW Very weak both openings.

RECOVERY - TOTAL FEET 20
 RECOVERED 20 FEET OF Gas cut slightly Oil cut mud, with show of Oil in too
 RECOVERED _____ FEET OF _____
 RECOVERED 100 FEET OF Gas in the pipe.
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____

REMARKS None.

TICKET NO. 6953
 WITNESSED BY: Mark Thompson TOOL OPERATOR Craig Bucl



This is an actual photograph of recorder chart.

POINT	PRESSURE		P.S.I.
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	1550	1539	P.S.I.
(B) First Initial Flow Pressure	33	33	P.S.I.
(C) First Final Flow Pressure	33	33	P.S.I.
(D) Initial Closed-in Pressure	706	717	P.S.I.
(E) Second Initial Flow Pressure	46	48	P.S.I.
(F) Second Final Flow Pressure	44	44	P.S.I.
(G) Final Closed-in Pressure	276	165	P.S.I.
(H) Final Hydrostatic Mud	1528	1517	P.S.I.

COMPANY _____
LEASE - WELL NO _____
SEC _____
IWP _____
HGE _____
TEST NO. _____
DATE 3/26/82

SUPERIOR TESTERS
368 West Second, Holsington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Russell
LEASE & WELL NO Steinle # 2 ELEVATION 1778 KB. DATE 3/10/82 FORMATION TESTED KS. City
SEC 34 TWP 11 RANGE 14 INTERVAL TESTED 3022 TO 3040 TOTAL DEPTH 3040
TEST NO# 2 O.K. yes TOP PACKER DEPTH 3017 FT. BOTTOM PACKER DEPTH 3022 FT. PACKER SIZE 6 & 3/4
STRADDLE no CONV. yes TOOL SIZE 5 1/2 OD TOOL JOINT SIZE 4 1/2 FH ANCHOR LENGTH 18 T
HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT none SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN.
REVERSED OUT no VISCOSITY 50 WEIGHT 9.8 DUAL PACKERS yes DID PACKER HOLD yes DID TOOL PLUG no
DRILLING CONTRACTOR Rains & Williamson # 9
TOOL JOINT SIZE 4 1/2 XH IN. LENGTH DRILL PIPE 2941 FT. I.D. DRILL PIPE 3.80 IN.
TOOL JOINT SIZE _____ IN. LENGTH WEIGHT PIPE _____ FT. I.D. WEIGHT PIPE _____ IN.
TOOL JOINT SIZE 4 1/2 XH IN. LENGTH DRILL COLLARS 60 FT. I.D. DRILL COLLARS 2.25 IN.
TOOL OPEN I.F.P. FROM 11:30 a. m to 12:00 p. m Hr. 30 min From (B) 75 P.S.I. to (C) 121 P.S.I.
TOOL CLOSED I.C.I.P. FROM 12:00 p. m to 12:45 p. m Hr. 45 min (D) 903 P.S.I.
TOOL OPEN F.F.P. FROM 12:45 p. m to 1:15 p. m Hr. 30 min From (E) 143 P.S.I. to (F) 199 P.S.I.
TOOL CLOSED F.C.I.P. FROM 1:15 p. m to 2:15 p. m Hr. 60 min (G) 903 P.S.I.
INITIAL HYDROSTATIC PRESSURE (A) 1594 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 1572 MAXIMUM TEMPERATURE 95 °F
BLOW Weak to good in 10 minutes 1st opening.
Weak to good in 14 minutes 2nd opening.
RECOVERY - TOTAL FEET 270
RECOVERED 30 FEET OF Gassy thin muddy Oil. (23% gas, 42% oil, 13% water, 22% mud).
RECOVERED 240 FEET OF Gas cut water.
RECOVERED _____ FEET OF _____
RECOVERED 180 FEET OF Gas in the pipe.
RECOVERED _____ FEET OF _____
REMARKS None.

TICKET NO 6954

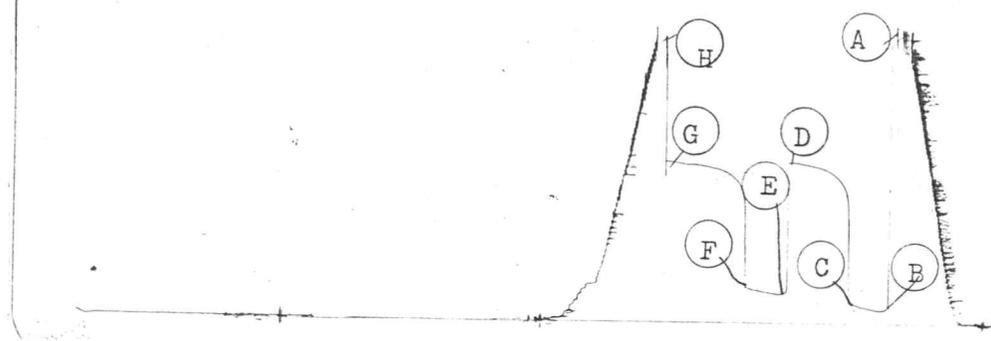
WITNESSED BY Mark Thompson TOOL OPERATOR Craig Bucl

10454

11087

2

Thunderbird Drilling
Steinle #2
3022-3040 Ks. City
3/10/82



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>1594</u>	<u>1601</u>	P.S.I.
(B) First Initial Flow Pressure	<u>75</u>	<u>77</u>	P.S.I.
(C) First Final Flow Pressure	<u>121</u>	<u>121</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>903</u>	<u>903</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>143</u>	<u>154</u>	P.S.I.
(F) Second Final Flow Pressure	<u>199</u>	<u>199</u>	P.S.I.
(G) Final Closed-in Pressure	<u>903</u>	<u>903</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>1572</u>	<u>1583</u>	P.S.I.

SUPERIOR TESTERS

368 West Second, Hoisington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Russell

LEASE & WELL NO. Steinle # 2 ELEVATION 1978 KB DATE 3/11/82 FORMATION TESTED Ks. City

SEC. 34 TWP. 11 RANGE 14 INTERVAL TESTED 3087 TO 3100 TOTAL DEPTH 3100

TEST NO. #3 O.K. yes TOP PACKER DEPTH 3082 FT. BOTTOM PACKER DEPTH 3087 FT. PACKER SIZE 6 8/4

STRADDLE no CONV. yes TOOL SIZE 5 1/2 OD TOOL JOINT SIZE 4 1/2 FH ANCHOR LENGTH 13 FT.

HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT none SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN.

REVERSED OUT no VISCOSITY 50 WEIGHT 9.8 DUAL PACKERS yes DID PACKER HOLD yes DID TOOL PLUG no

DRILLING CONTRACTOR Rains & Williamson

TOOL JOINT SIZE 4 1/2 XH IN. LENGTH DRILL PIPE 3006 FT. I.D. DRILL PIPE 3.80 IN.

TOOL JOINT SIZE _____ IN. LENGTH WEIGHT PIPE _____ FT. I.D. WEIGHT PIPE _____ IN.

TOOL JOINT SIZE 4 1/2 XH IN. LENGTH DRILL COLLARS 60 FT. I.D. DRILL COLLARS 2.25 IN.

TOOL OPEN I.F.P. FROM 2:00 a. m to 2:30 a. m Hr. 30 min From (B) 77 P.S.I. to (C) 265 P.S.I.

TOOL CLOSED I.C.I.P. FROM 2:30 a. m to 3:15 a. m Hr. 45 min (D) 936 P.S.I.

TOOL OPEN F.F.P. FROM 3:15 a. m to 3:45 a. m Hr. 30 min From (E) 309 P.S.I. to (F) 453 P.S.I.

TOOL CLOSED F.C.I.P. FROM 3:45 a. m to 4:45 a. m Hr. 60 min (G) 914 P.S.I.

INITIAL HYDROSTATIC PRESSURE (A) 1616 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 1594 MAXIMUM TEMPERATURE 96 °F

BLOW Weak to good in 6 minutes 1st opening.

Weak to good in 8 minutes 2nd opening.

RECOVERY - TOTAL FEET 870

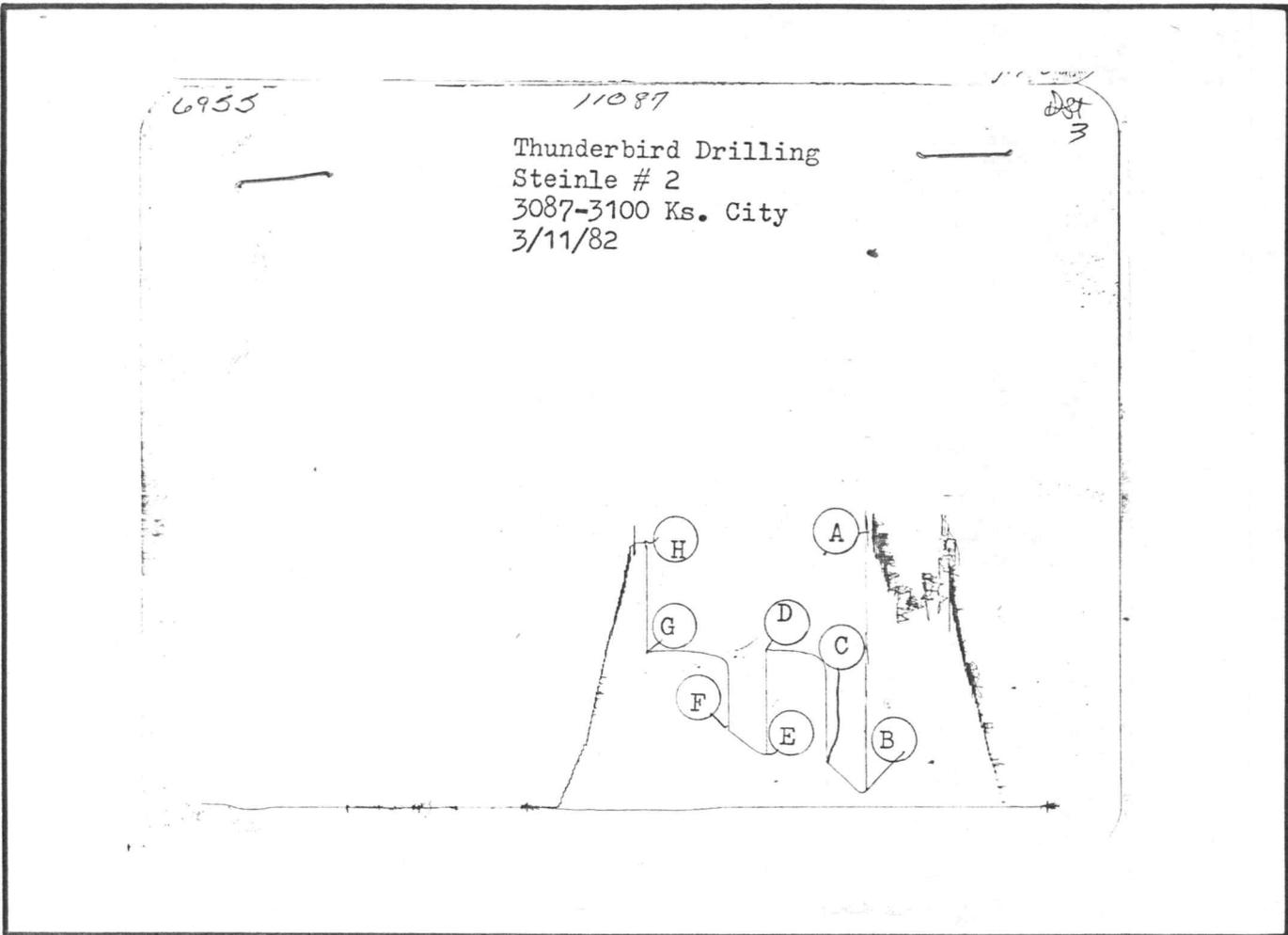
RECOVERED 870 FEET OF Muddy water.

RECOVERED _____ FEET OF _____

REMARKS None.

TICKET NO. 6955

WITNESSED BY: Mark Thompson TOOL OPERATOR Craig Bucl



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	1616	1638	P.S.I.
(B) First Initial Flow Pressure	77	84	P.S.I.
(C) First Final Flow Pressure	265	265	P.S.I.
(D) Initial Closed-in Pressure	936	942	P.S.I.
(E) Second Initial Flow Pressure	309	320	P.S.I.
(F) Second Final Flow Pressure	453	453	P.S.I.
(G) Final Closed-in Pressure	914	936	P.S.I.
(H) Final Hydrostatic Mud	1594	1594	P.S.I.

SUPERIOR TESTERS
368 West Second, Hoisington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Russell
LEASE & WELL NO. Steinle # 2 ELEVATION 1778 KB. DATE 3/11/82 FORMATION TESTED Ks. City
SEC 34 TWP 11 RANGE 74 INTERVAL TESTED 3148 TO 3180 TOTAL DEPTH 3180
TEST NO # 4 D.K. yes TOP PACKER DEPTH 3143 FT. BOTTOM PACKER DEPTH 3148 FT. PACKER SIZE 6 & 3/4
STRADDLE no CONV. yes TOOL SIZE 5 1/2 OD. TOOL JOINT SIZE 4 1/2 FH. ANCHOR LENGTH 32 FT.
HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT none SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN.
REVERSED OUT no VISCOSITY 50 WEIGHT 9.8 DUAL PACKERS yes DID PACKER HOLD yes DID TOOL PLUG no

DRILLING CONTRACTOR Rains & Williamson #9

TOOL JOINT SIZE 4 1/2 XH. IN. LENGTH DRILL PIPE 3067 FT. I.D. DRILL PIPE 3.80 IN.
TOOL JOINT SIZE _____ IN. LENGTH WEIGHT PIPE _____ FT. I.D. WEIGHT PIPE _____ IN.
TOOL JOINT SIZE 4 1/2 XH. IN. LENGTH DRILL COLLARS 60 FT. I.D. DRILL COLLARS 2.25 IN.
TOOL OPEN I.F.P. FROM 5:30 p. m to 6:00 p. m Hr 30 min From (B) 99 P.S.I. to (C) -- P.S.I.
TOOL CLOSED I.C.I.P. FROM 6:00 p. m to 6:30 p. m Hr 30 min (D) 1177 P.S.I.
TOOL OPEN F.F.P. FROM 6:30 p. m to 7:00 p. m Hr 30 min From (E) 66 P.S.I. to (F) 75 P.S.I.
TOOL CLOSED F.C.I.P. FROM 7:00 p. m to 7:45 p. m Hr 45 min (G) 1100 P.S.I.

INITIAL HYDROSTATIC PRESSURE (A) 1671 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 1649 MAXIMUM TEMPERATURE 96 °F

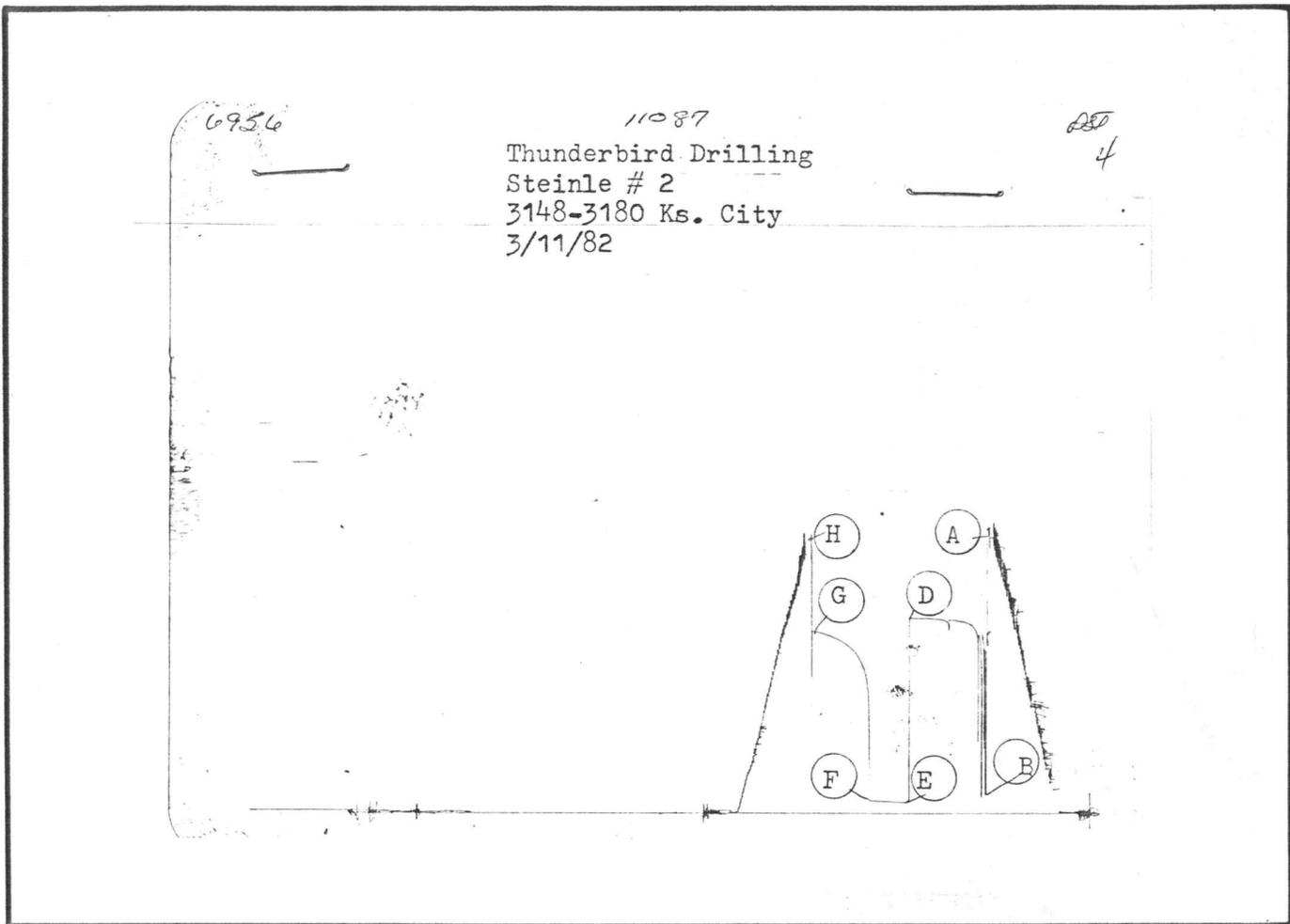
BLOW Weak that died in 29 minutes 1st opening.
Weak built to 5 inches in bucket in 2nd opening.

RECOVERY - TOTAL FEET 100
RECOVERED 100 FEET OF Muddy water with Oil specks on top.
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____

REMARKS None

TICKET NO. 6956

WITNESSED BY: Mark Thompson TOOL OPERATOR Craig Bucl



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	1671	1669	P.S.I.
(B) First Initial Flow Pressure	99	110	P.S.I.
(C) First Final Flow Pressure	--	--	P.S.I.
(D) Initial Closed-in Pressure	1177	1177	P.S.I.
(E) Second Initial Flow Pressure	66	66	P.S.I.
(F) Second Final Flow Pressure	75	77	P.S.I.
(G) Final Closed-in Pressure	1100	1100	P.S.I.
(H) Final Hydrostatic Mud	1649	1656	P.S.I.