

SUPERIOR TESTERS

368 West Second, Hoisington, Kansas

COMPANY Mull Drilling Company STATE Kansas COUNTY Lane
LEASE & WELL NO. Hanks # 1 ELEVATION 2709 KB. DATE 5/19/83 FORMATION TESTED Lansing
SEC 20 TWP 17 RANGE 27 INTERVAL TESTED 4157 TO 4179 TOTAL DEPTH 4179
TEST NO. # 1 O.K. yes TOP PACKER DEPTH 4152 FT. BOTTOM PACKER DEPTH 4157 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 22 FT.
HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT Circ Sub SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN.
REVERSED OUT no VISCOSITY 46 WEIGHT 9.4 DUAL PACKERS yes DID PACKER HOLD yes DID TOOL PLUG no
DRILLING CONTRACTOR Murfin #21
TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 3956 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" H-90 IN. LENGTH DRILL COLLARS 180 FT. I.D. DRILL COLLARS 2.25 IN.
TOOL OPEN I.F.P. FROM 5:00 p. m to 5:30 p. m Hr 30 min From (B) 106 P.S.I. to (C) 276 P.S.I.
TOOL CLOSED I.C.I.P. FROM 5:30 p. m to 6:15 p. m Hr 45 min (D) 1151 P.S.I.
TOOL OPEN F.F.P. FROM 6:15 p. m to 7:15 p. m Hr 60 min From (E) 340 P.S.I. to (F) 553 P.S.I.
TOOL CLOSED F.C.I.P. FROM 7:15 p. m to 8:15 p. m Hr 60 min (G) 1099 P.S.I.
INITIAL HYDROSTATIC PRESSURE (A) 2151 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2140 MAXIMUM TEMPERATURE 116 °F
BLOW Strong blow off bottom of bucket in 1 1/2 minutes 1st opening.
Strong blow off bottom of bucket on 1 1/2 minutes 2nd opening.
RECOVERY - TOTAL FEET 1560
RECOVERED 1560 FEET OF Clean gassy Oil. (Bottom slightly muddy)
RECOVERED _____ FEET OF (15% mud 20% water, 65% Oil, 3 stands). Gravity 40
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
REMARKS None.

WITNESSED BY: Vernon Schrag TOOL OPERATOR: Ivan Suppes TICKET NO. 7517

SUPERIOR TESTERS INC.

368 West 2nd St.

Hoisington, Kansas 67544

PRESSURE BREAKDOWN

First Flow Press.

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

Initial Shut-In

Breakdown: 8 Inc.
of 5 mins. and a
final inc. of 3 Min.

Second Flow Pressure

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

Final Shut-In

Breakdown: 11 Inc.
of 5 mins. and a
final inc. of 2 Min.

Time
Given

Time
Computed

Time
Given

Time
Computed

Time
Given

Time
Computed

Time
Given

Time
Computed

30 Mins.

30 Mins.

45 Mins.

43 Mins.

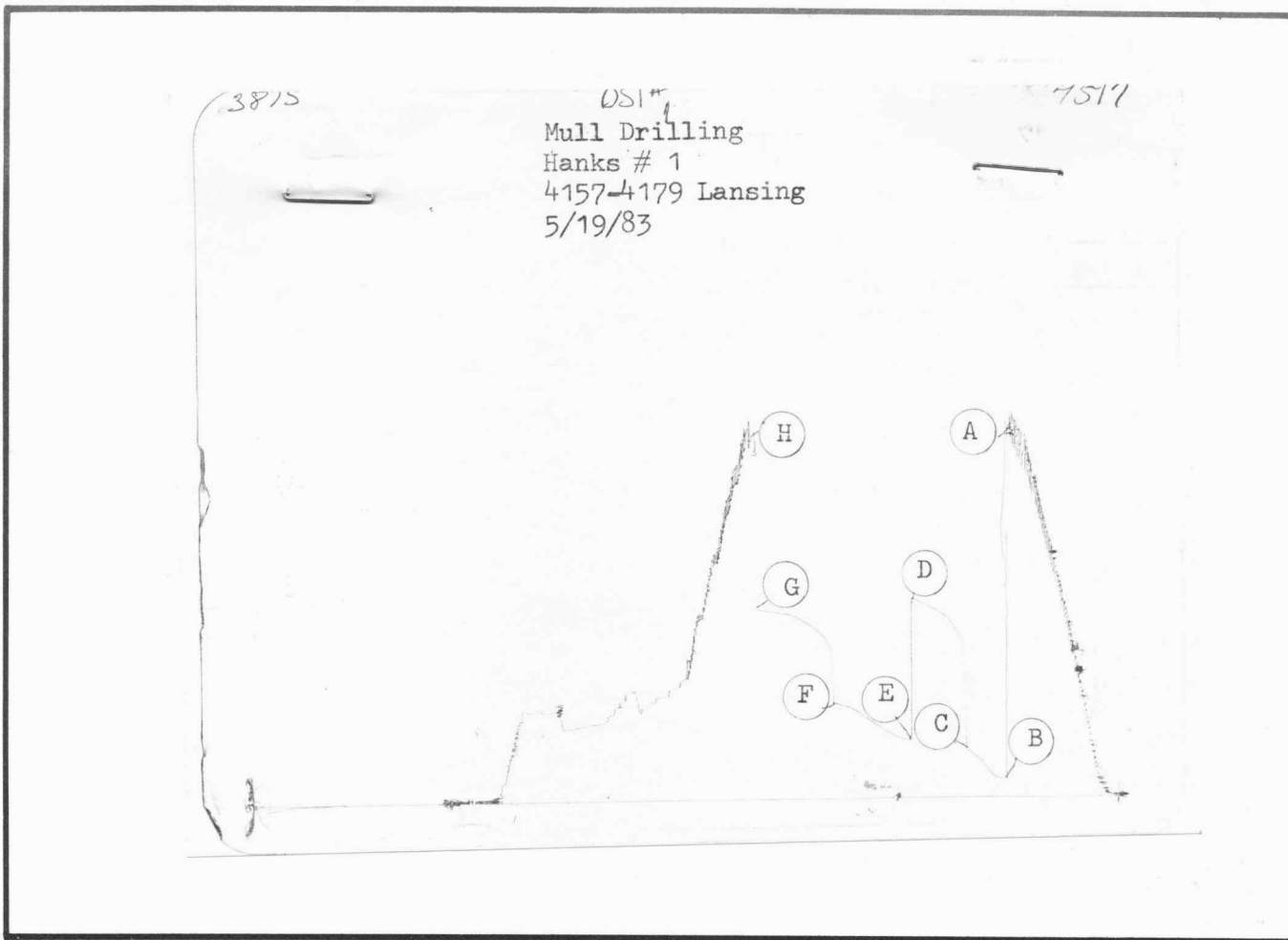
60 Mins.

60 Mins.

60 Mins.

57 Mins.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	= <u>110</u>	<u>0</u>	= <u>280</u>	<u>0</u>	= <u>336</u>	<u>0</u>	= <u>551</u>
P 2 <u>5</u>	= <u>110</u>	<u>5</u>	= <u>909</u>	<u>5</u>	= <u>340</u>	<u>5</u>	= <u>916</u>
P 3 <u>10</u>	= <u>127</u>	<u>10</u>	= <u>991</u>	<u>10</u>	= <u>355</u>	<u>10</u>	= <u>965</u>
P 4 <u>15</u>	= <u>174</u>	<u>15</u>	= <u>1040</u>	<u>15</u>	= <u>378</u>	<u>15</u>	= <u>993</u>
P 5 <u>20</u>	= <u>219</u>	<u>20</u>	= <u>1071</u>	<u>20</u>	= <u>402</u>	<u>20</u>	= <u>1016</u>
P 6 <u>25</u>	= <u>253</u>	<u>25</u>	= <u>1092</u>	<u>25</u>	= <u>421</u>	<u>25</u>	= <u>1042</u>
P 7 <u>30</u>	= <u>280</u>	<u>30</u>	= <u>1113</u>	<u>30</u>	= <u>442</u>	<u>30</u>	= <u>1063</u>
P 8 _____	= _____	<u>35</u>	= <u>1130</u>	<u>35</u>	= <u>470</u>	<u>35</u>	= <u>1071</u>
P 9 _____	= _____	<u>40</u>	= <u>1149</u>	<u>40</u>	= <u>500</u>	<u>40</u>	= <u>1080</u>
P 10 _____	= _____	<u>43</u>	= <u>1154</u>	<u>45</u>	= <u>521</u>	<u>45</u>	= <u>1084</u>
P 11 _____	= _____	_____	= _____	<u>50</u>	= <u>532</u>	<u>50</u>	= <u>1088</u>
P 12 _____	= _____	_____	= _____	<u>55</u>	= <u>545</u>	<u>55</u>	= <u>1094</u>
P 13 _____	= _____	_____	= _____	<u>60</u>	= <u>551</u>	<u>57</u>	= <u>1099</u>
P 14 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 15 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 16 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 17 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 18 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 19 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 20 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 21 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 22 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 23 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 24 _____	= _____	_____	= _____	_____	= _____	_____	= _____
P 25 _____	= _____	_____	= _____	_____	= _____	_____	= _____



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2151	2126	P.S.I.
(B) First Initial Flow Pressure	106	110	P.S.I.
(C) First Final Flow Pressure	276	280	P.S.I.
(D) Initial Closed-in Pressure	1151	1156	P.S.I.
(E) Second Initial Flow Pressure	340	336	P.S.I.
(F) Second Final Flow Pressure	553	551	P.S.I.
(G) Final Closed-in Pressure	1099	1099	P.S.I.
(H) Final Hydrostatic Mud	2140	2102	P.S.I.

SUPERIOR TESTERS

368 West Second, Hoisington, Kansas

COMPANY Mull Drilling Company STATE Kansas COUNTY Lane

LEASE & WELL NO. Hanks # 1 ELEVATION 2709 KB. DATE 5/20/83 FORMATION TESTED Lansing

SEC 20 TWP 17 RANGE 27 INTERVAL TESTED 4187 TO 4205 TOTAL DEPTH 4205

TEST NO. # 2 O.K. yes TOP PACKER DEPTH 4182 FT. BOTTOM PACKER DEPTH 4187 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 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 48 WEIGHT 9.6 DUAL PACKERS yes DID PACKER HOLD yes DID TOOL PLUG no

DRILLING CONTRACTOR Murfin # 21

TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 3986 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" H-90 IN. LENGTH DRILL COLLARS 180 FT. I.D. DRILL COLLARS 2.25 IN.

TOOL OPEN I.F.P. FROM 10:00 a. m to 10:30 a. m Hr. 30 min From (B) 31 P.S.I. to (C) 42 P.S.I.

TOOL CLOSED I.C.I.P. FROM 10:30 a. m to 11:15 a. m Hr. 45 min (D) 74 P.S.I.

TOOL OPEN F.F.P. FROM 11:15 a. m to 11:45 a. m Hr. 30 min From (E) 42 P.S.I. to (F) 42 P.S.I.

TOOL CLOSED F.C.I.P. FROM 11:45 a. m to 12:15 a. m Hr. 30 min (G) 63 P.S.I.

INITIAL HYDROSTATIC PRESSURE (A) 2172 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2151 MAXIMUM TEMPERATURE 115 °F

BLOW Weak intermittent blow 1st opening.

Weak that died in 13 minutes 2nd opening

RECOVERY - TOTAL FEET 50

RECOVERED 50 FEET OF Mud with few specks of Oil. (1% Oil, 19% water, 80% mud.)

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

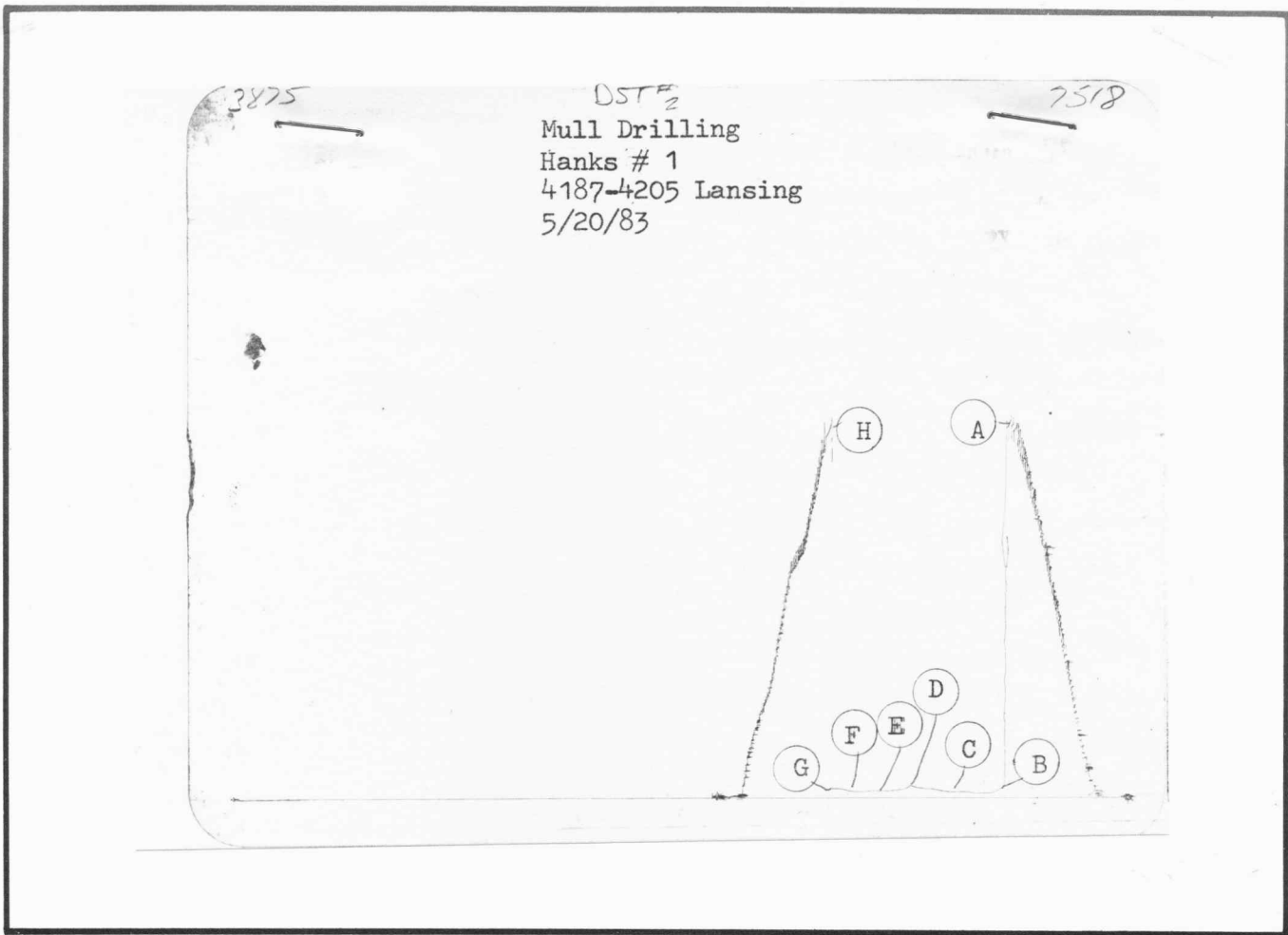
RECOVERED FEET OF

RECOVERED FEET OF

REMARKS None.

TICKET NO. 7518

WITNESSED BY: Vernon Scharg 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	2172	2153	P.S.I.
(B) First Initial Flow Pressure	31	21	P.S.I.
(C) First Final Flow Pressure	42	21	P.S.I.
(D) Initial Closed-in Pressure	74	57	P.S.I.
(E) Second Initial Flow Pressure	42	23	P.S.I.
(F) Second Final Flow Pressure	42	23	P.S.I.
(G) Final Closed-in Pressure	63	42	P.S.I.
(H) Final Hydrostatic Mud	2151	2147	P.S.I.

SUPERIOR TESTERS

368 West Second, Hoisington, Kansas

COMPANY Mull Drilling Company STATE Kansas COUNTY Lane

LEASE & WELL NO. Hanks # 1 ELEVATION 2709 KB. DATE 5/21/83 FORMATION TESTED Kansas City

SEC 20 TWP 17 RANGE 27 INTERVAL TESTED 4217 TO 4254 TOTAL DEPTH 4254

TEST NO. # 3 O.K. yes TOP PACKER DEPTH 4212 FT. BOTTOM PACKER DEPTH 4217 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 37 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 46 WEIGHT 9.6 DUAL PACKERS yes DID PACKER HOLD yes DID TOOL PLUG no

DRILLING CONTRACTOR Murfin # 21

TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 4076 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"H-90 IN. LENGTH DRILL COLLARS 120 FT. I.D. DRILL COLLARS 2.75 IN.

TOOL OPEN I.F.P. FROM 3:00 a. m to 3:30 a. m Hr 30 min From (B) 31 P.S.I. to (C) 31 P.S.I.

TOOL CLOSED I.C.I.P. FROM 3:30 a. m to 4:15 a. m Hr 45 min (D) 982 P.S.I.

TOOL OPEN F.F.P. FROM 4:15 a. m to 4:45 a. m Hr 30 min From (E) 53 P.S.I. to (F) 42 P.S.I.

TOOL CLOSED F.C.I.P. FROM 4:45 a. m to 5:15 a. m Hr 30 min (G) 832 P.S.I.

INITIAL HYDROSTATIC PRESSURE (A) 2172 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2150 MAXIMUM TEMPERATURE 115 °F

BLOW Weak slightly decreasing 1st opening. Weak that died in 18 minutes 2nd opening.

RECOVERY - TOTAL FEET 65

RECOVERED 65 FEET OF Oil specked mud. (2% Oil, 22% water, 76% mud.)

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

RECOVERED FEET OF

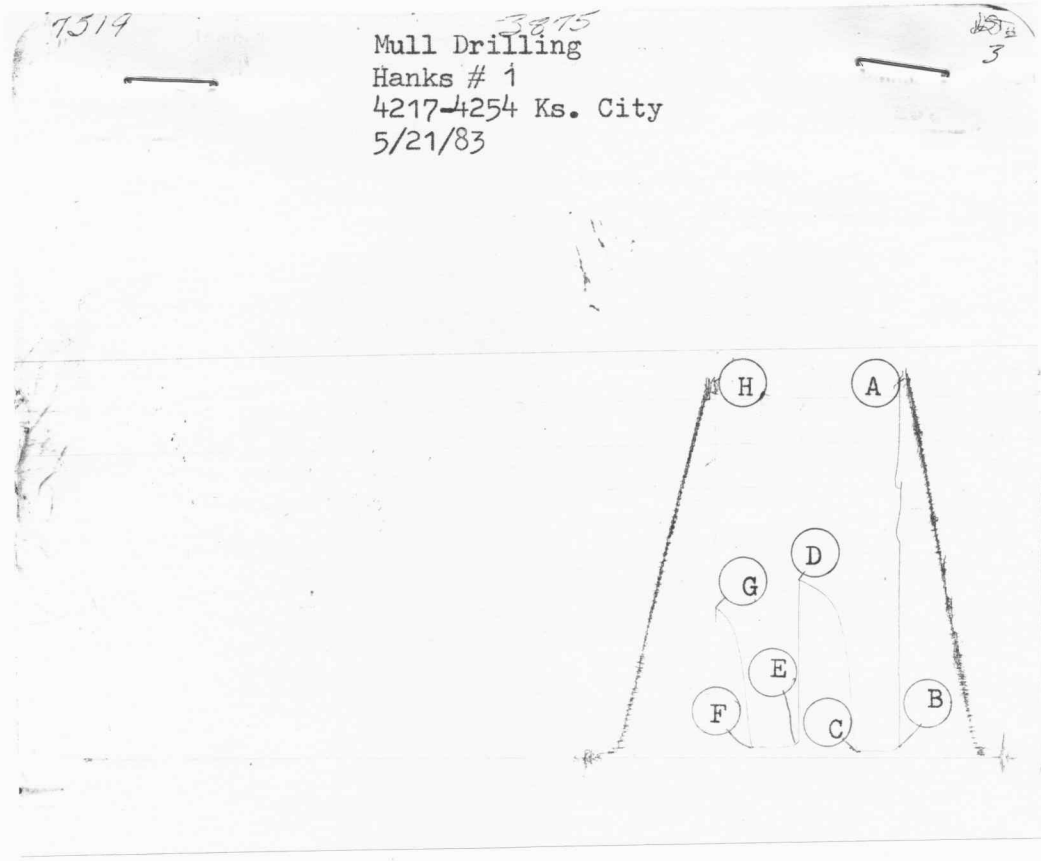
RECOVERED FEET OF

REMARKS None.

Blank lines for additional remarks.

TICKET NO. 7519

WITNESSED BY: Vernon Schrag TOOL OPERATOR Craig Bucl



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2172	2119	P.S.I.
(B) First Initial Flow Pressure	31	36	P.S.I.
(C) First Final Flow Pressure	31	36	P.S.I.
(D) Initial Closed-in Pressure	982	987	P.S.I.
(E) Second Initial Flow Pressure	53	57	P.S.I.
(F) Second Final Flow Pressure	42	57	P.S.I.
(G) Final Closed-in Pressure	832	832	P.S.I.
(H) Final Hydrostatic Mud	2150	2088	P.S.I.

SUPERIOR TESTERS

368 West Second, Hoisington, Kansas

COMPANY Mull Drilling Company STATE Kansas COUNTY Lane

LEASE & WELL NO. Hanks # 1 ELEVATION 2709 KB. DATE 5/21/83 FORMATION TESTED Kansas City

SEC 20 TWP 17 RANGE 27 INTERVAL TESTED 4285 TO 4308 TOTAL DEPTH 4308

TEST NO. # 4 O.K. yes TOP PACKER DEPTH 4280 FT. BOTTOM PACKER DEPTH 4285 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 23 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 45 WEIGHT 9.3 DUAL PACKERS yes DID PACKER HOLD yes DID TOOL PLUG no

DRILLING CONTRACTOR Murfin # 21

TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 4144 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" H-90 IN. LENGTH DRILL COLLARS 120 FT. I.D. DRILL COLLARS 2.25 IN.

TOOL OPEN I.F.P. FROM 8:15 p. m to 8:45 p. m Hr 30 min From (B) 63 P.S.I. to (C) 85 P.S.I.

TOOL CLOSED I.C.I.P. FROM 8:45 p. m to 9:30 p. m Hr 45 min (D) 1025 P.S.I.

TOOL OPEN F.F.P. FROM 9:30 p. m to 10:30 p. m Hr 60 min From (E) 106 P.S.I. to (F) 159 P.S.I.

TOOL CLOSED F.C.I.P. FROM 10:30 p. m to 11:30 p. m Hr 60 min (G) 1004 P.S.I.

INITIAL HYDROSTATIC PRESSURE (A) 2182 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2151 MAXIMUM TEMPERATURE 118 °F

BLOW Weak to strong blow in 5 minutes 1st opening.

Weak to strong blow in 5 minutes 2nd opening.

RECOVERY - TOTAL FEET 410

RECOVERED 110 FEET OF Gassy Oil, 39° corrected.

RECOVERED 120 FEET OF Gassy muddy Oil.

RECOVERED 60 FEET OF Gassy frothy Oil.

RECOVERED 120 FEET OF Gas & Oil cut mud.

RECOVERED _____ FEET OF _____

RECOVERED 1380 FEET OF Gas in the pipe.

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

REMARKS None/.

TICKET NO. 7520

WITNESSED BY Vernon Schrag

TOOL OPERATOR Craig Bucl

SUPERIOR TESTERS INC.
368 West 2nd St.
Hoisington, Kansas 67544
PRESSURE BREAKDOWN

First Flow Press.

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

Initial Shut-In

Breakdown: 8 Inc.
of 5 mins. and a
final inc. of 3 Min.

Second Flow Pressure

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

Final Shut-In

Breakdown: 11 Inc.
of 5 mins. and a
final inc. of 3 Min.

Time Given

Time Computed

Time Given

Time Computed

Time Given

Time Computed

Time Given

Time Computed

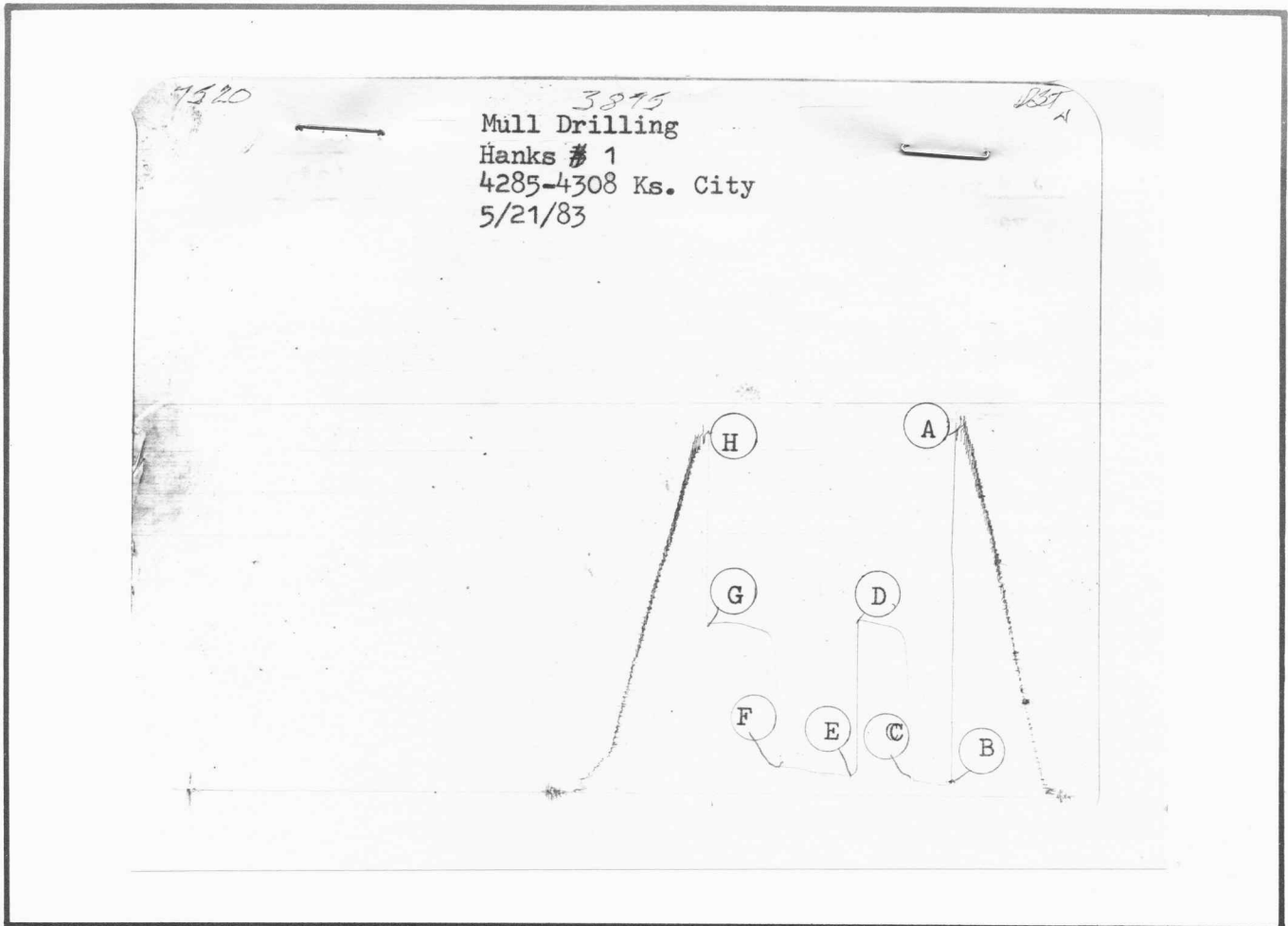
30 Mins. 30 Mins.

45 Mins. 42 Mins.

60 Mins. 60 Mins.

60 Mins. 58 Mins.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>0</u> = <u>63</u>	<u>0</u> = <u>89</u>	<u>0</u> = <u>131</u>	<u>0</u> = <u>163</u>			
P 2	<u>5</u> = <u>63</u>	<u>5</u> = <u>800</u>	<u>5</u> = <u>110</u>	<u>5</u> = <u>824</u>			
P 3	<u>10</u> = <u>63</u>	<u>10</u> = <u>963</u>	<u>10</u> = <u>114</u>	<u>10</u> = <u>946</u>			
P 4	<u>15</u> = <u>63</u>	<u>15</u> = <u>982</u>	<u>15</u> = <u>119</u>	<u>15</u> = <u>961</u>			
P 5	<u>20</u> = <u>78</u>	<u>20</u> = <u>993</u>	<u>20</u> = <u>123</u>	<u>20</u> = <u>972</u>			
P 6	<u>25</u> = <u>85</u>	<u>25</u> = <u>1002</u>	<u>25</u> = <u>125</u>	<u>25</u> = <u>982</u>			
P 7	<u>30</u> = <u>89</u>	<u>30</u> = <u>1012</u>	<u>30</u> = <u>127</u>	<u>30</u> = <u>995</u>			
P 8	<u> </u> = <u> </u>	<u>35</u> = <u>1018</u>	<u>35</u> = <u>131</u>	<u>35</u> = <u>1004</u>			
P 9	<u> </u> = <u> </u>	<u>40</u> = <u>1027</u>	<u>40</u> = <u>142</u>	<u>40</u> = <u>1004</u>			
P 10	<u> </u> = <u> </u>	<u>43</u> = <u>1031</u>	<u>45</u> = <u>151</u>	<u>45</u> = <u>1004</u>			
P 11	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u>50</u> = <u>157</u>	<u>50</u> = <u>1002</u>			
P 12	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u>55</u> = <u>161</u>	<u>55</u> = <u>1002</u>			
P 13	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u>60</u> = <u>163</u>	<u>58</u> = <u>1002</u>			
P 14	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 15	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 16	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 17	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 18	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 19	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 20	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 21	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 22	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 23	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 24	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			
P 25	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>	<u> </u> = <u> </u>			



This is an actual photograph of recorder chart.

POINT	PRESSURE		P.S.I.
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2182	2136	P.S.I.
(B) First Initial Flow Pressure	63	63	P.S.I.
(C) First Final Flow Pressure	85	89	P.S.I.
(D) Initial Closed-in Pressure	1025	1031	P.S.I.
(E) Second Initial Flow Pressure	106	131	P.S.I.
(F) Second Final Flow Pressure	159	163	P.S.I.
(G) Final Closed-in Pressure	1004	1002	P.S.I.
(H) Final Hydrostatic Mud	2151	2113	P.S.I.

SUPERIOR TESTERS

368 West Second, Hoisington, Kansas

COMPANY Mull Drilling Company STATE Kansas COUNTY Lane
LEASE & WELL NO. Hanks # 1 ELEVATION 2709 KB DATE 5/22/83 FORMATION TESTED Marmaton
SEC. 20 TWP. 17 RANGE 27 INTERVAL TESTED 4321 TO 4336 TOTAL DEPTH 4336
TEST NO. #5 O.K. yes TOP PACKER DEPTH 4316 FT. BOTTOM PACKER DEPTH 4321 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 15 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 52 WEIGHT 9.4 DUAL PACKERS yes DID PACKER HOLD yes DID TOOL PLUG no
DRILLING CONTRACTOR Murfin # 21

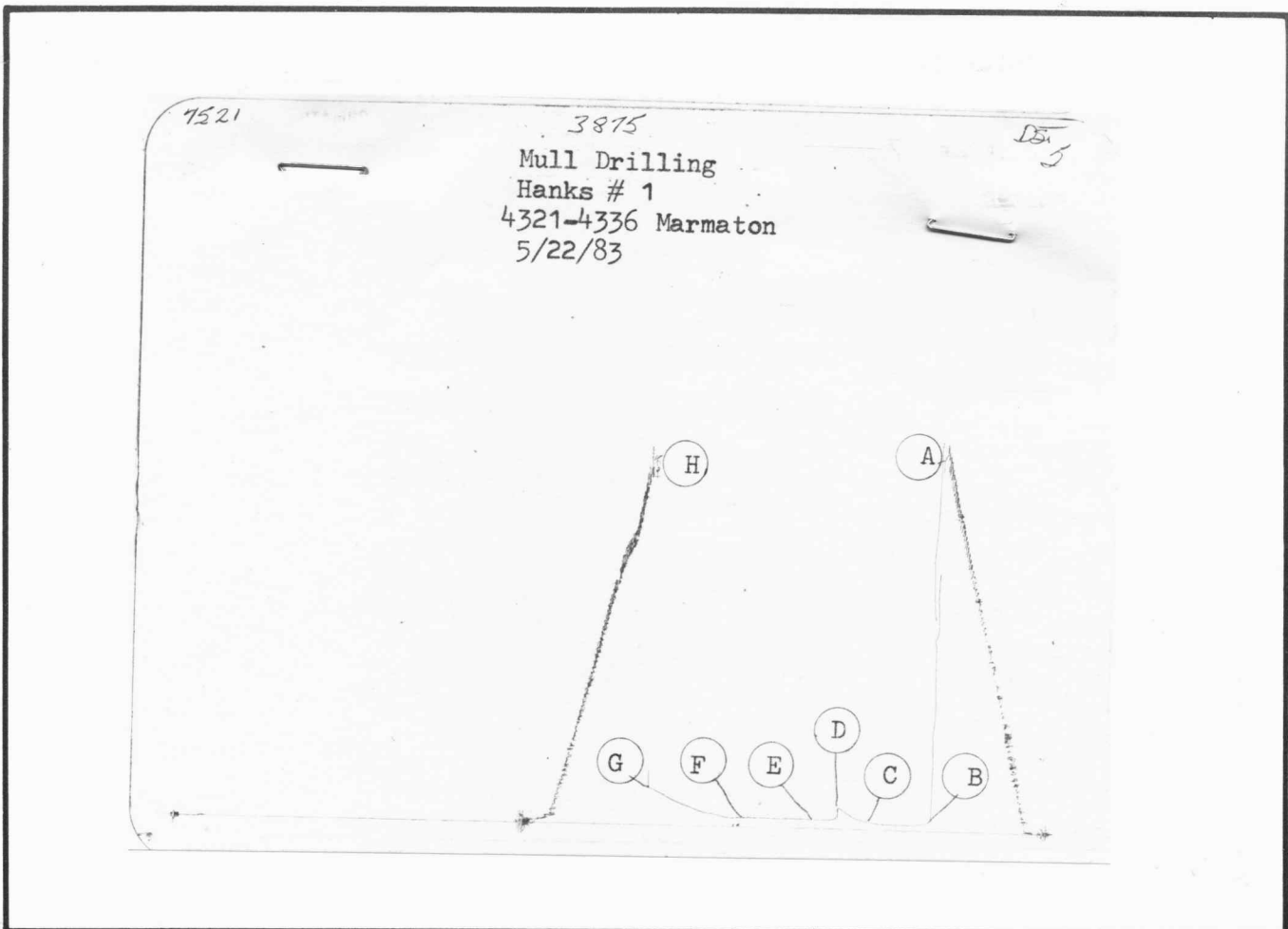
TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 4180 FT. I.D. DRILL PIPE 3.80 IN.
TOOL JOINT SIZE ----- IN. LENGTH WEIGHT PIPE ----- FT. I.D. WEIGHT PIPE ----- IN.
TOOL JOINT SIZE 4" H-90 IN. LENGTH DRILL COLLARS 120 FT. I.D. DRILL COLLARS 2.25 IN.
TOOL OPEN I.F.P. FROM 11:30 a. m to 12:00 p. m Hr 30 min From (B) 31 P.S.I. to (C) 31 P.S.I.
TOOL CLOSED I.C.I.P. FROM 12:00 p. m to 12:45 p. m Hr 45 min (D) 117 P.S.I.
TOOL OPEN F.F.P. FROM 12:45 p. m to 2:15 p. m Hr 90 min From (E) 42 P.S.I. to (F) 42 P.S.I.
TOOL CLOSED F.C.I.P. FROM 2:15 p. m to 3:15 p. m Hr 60 min (G) 218 P.S.I.
INITIAL HYDROSTATIC PRESSURE (A) 2182 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2151 MAXIMUM TEMPERATURE 118 °F

BLOW Weak increasing to 4" in water 1st opening.
Very weak increased slowly to 3/4 in. in water, 2nd opening.

RECOVERY - TOTAL FEET 90
RECOVERED 90 FEET OF Oil & gas cut mud.
RECOVERED _____ FEET OF upper-(30' 10%Oil, 9%water, 81% mud.)
RECOVERED _____ FEET OF lower 60' (20%gas, 20%Oil, 7%water, 53% mud.)
RECOVERED 90 FEET OF Gas in the pipe.
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____

REMARKS None

TICKET NO. 7521
WITNESSED BY: Vernon Schrag 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	2182	2161	P.S.I.
(B) First Initial Flow Pressure	31	27	P.S.I.
(C) First Final Flow Pressure	31	27	P.S.I.
(D) Initial Closed-in Pressure	117	117	P.S.I.
(E) Second Initial Flow Pressure	42	44	P.S.I.
(F) Second Final Flow Pressure	42	44	P.S.I.
(G) Final Closed-in Pressure	218	208	P.S.I.
(H) Final Hydrostatic Mud	2151	2126	P.S.I.

SUPERIOR TESTERS

368 West Second, Hoisington, Kansas

COMPANY Mull Drilling Company STATE Kansas COUNTY Lane

LEASE & WELL NO. Hanks # 1 ELEVATION 2709 KB. DATE 5/24/83 FORMATION TESTED Cherokee

SEC. 20 TWP. 17 RANGE 27 INTERVAL TESTED 4575 TO 4600 TOTAL DEPTH 4600

TEST NO. # 6 D.K. yes TOP PACKER DEPTH 4570 FT. BOTTOM PACKER DEPTH 4575 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 25 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 46 WEIGHT 9.8 DUAL PACKERS yes DID PACKER HOLD yes DID TOOL PLUG no

DRILLING CONTRACTOR Murfin # 21

TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 4434 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" H-90 IN. LENGTH DRILL COLLARS 120 FT. I. D. DRILL COLLARS 2.25 IN.

TOOL OPEN I. F. P. FROM 5:45 a. m to 6:15 a. m Hr 30 min From (B) 95 P.S.I. to (C) 138 P.S.I.

TOOL CLOSED I. C. I. P. FROM 6:15 a. m to 7:00 a. m Hr 45 min (D) 1162 P.S.I.

TOOL OPEN F. F. P. FROM 7:00 a. m to 8:00 a. m Hr 60 min From (E) 202 P.S.I. to (F) 308 P.S.I.

TOOL CLOSED F. C. I. P. FROM 8:00 a. m to 9:00 a. m Hr 60 min (G) 1162 P.S.I.

INITIAL HYDROSTATIC PRESSURE (A) 2340 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2308 MAXIMUM TEMPERATURE 121 °F

BLOW Weak to strong in 8 minutes 1st opening.

Weak to strong blow in 10 minutes 2nd opening.

RECOVERY - TOTAL FEET 790

RECOVERED 570 FEET OF Gassy Oil. (14% gas, 86% Oil.)

RECOVERED 50 FEET OF Oil & Gas cut mud (20% gas, 55% Oil, 2% water, 23% mud.)

RECOVERED 170 FEET OF Slightly Oil cut muddy water. (2% Oil, 50% water, 48% mud.)

RECOVERED 300 FEET OF Gas in the pipe.

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

RECOVERED _____ FEET OF _____

REMARKS None.

TICKET NO. 7522

WITNESSED BY: Vernon Scharg TOOL OPERATOR: Craig Bucl

SUPERIOR TESTERS INC.
 368 West 2nd St.
 Hoisington, Kansas 67544
PRESSURE BREAKDOWN

First Flow Press.
 Breakdown: 5 Inc.
 of 5 mins. and a
 final inc. of 3 Min.

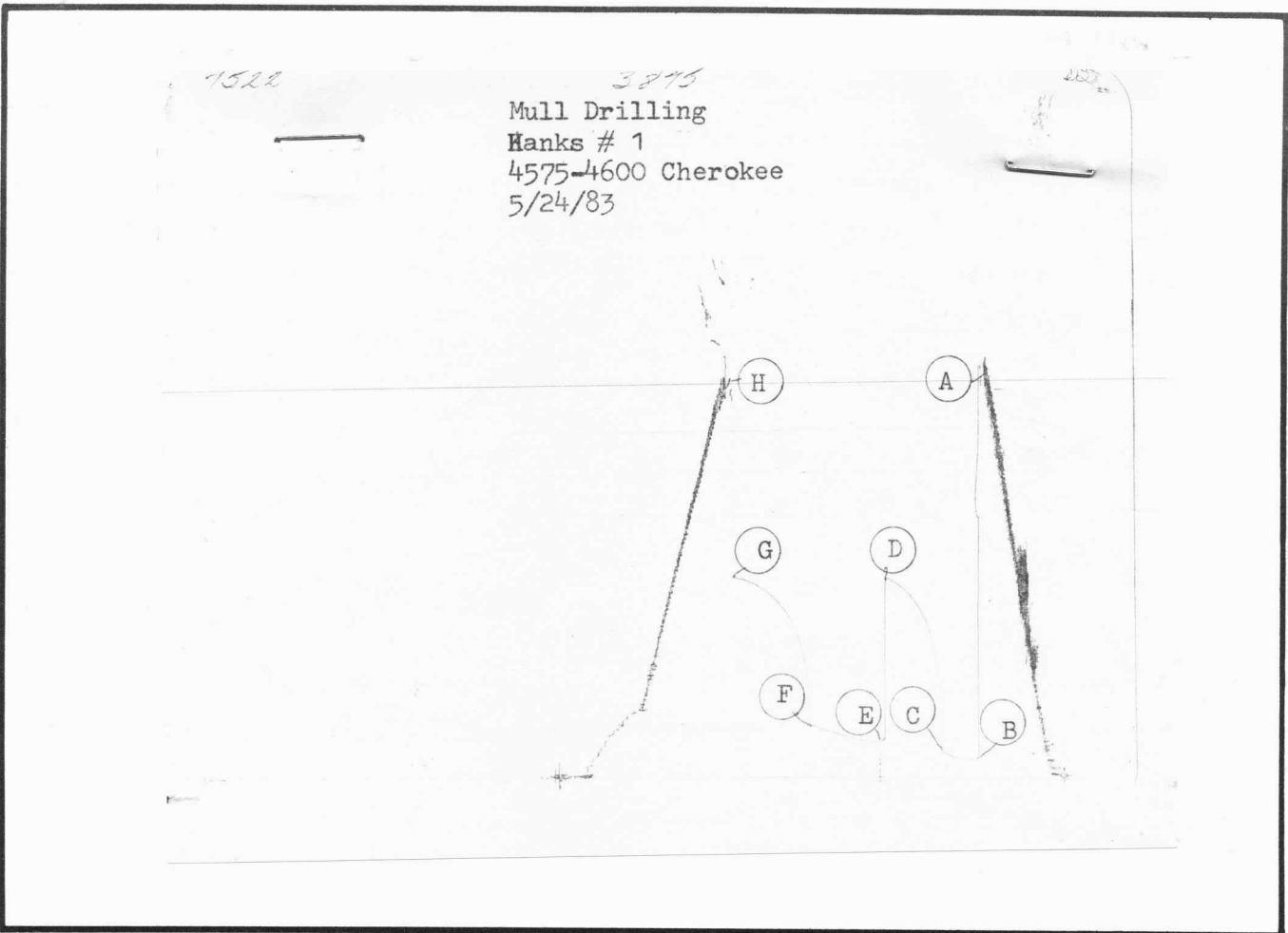
Initial Shut-In
 Breakdown: 9 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

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

Final Shut-In
 Breakdown: 12 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Time Given	Time Computed	Time Given	Time Computed	Time Given	Time Computed	Time Given	Time Computed
<u>30</u> Mins.	<u>28</u> Mins.	<u>45</u> Mins.	<u>45</u> Mins.	<u>60</u> Mins.	<u>60</u> Mins.	<u>60</u> Mins.	<u>60</u> Mins.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	0 = 100	0	= 136	0	= 206	0	= 308
P 2	5 = 100	5	= 684	5	= 197	5	= 731
P 3	10 = 100	10	= 845	10	= 202	10	= 849
P 4	15 = 104	15	= 939	15	= 206	15	= 929
P 5	20 = 117	20	= 1004	20	= 214	20	= 989
P 6	25 = 131	25	= 1056	25	= 223	25	= 1031
P 7	28 = 136	30	= 1088	30	= 234	30	= 1063
P 8	=	35	= 1122	35	= 244	35	= 1090
P 9	=	40	= 1143	40	= 255	40	= 1116
P 10	=	45	= 1164	45	= 265	45	= 1135
P 11	=		=	50	= 278	50	= 1149
P 12	=		=	55	= 293	55	= 1160
P 13	=		=	60	= 308	60	= 1164
P 14	=		=		=		=
P 15	=		=		=		=
P 16	=		=		=		=
P 17	=		=		=		=
P 18	=		=		=		=
P 19	=		=		=		=
P 20	=		=		=		=
P 21	=		=		=		=
P 22	=		=		=		=
P 23	=		=		=		=
P 24	=		=		=		=
P 25	=		=		=		=
	=		=		=		=



This is an actual photograph of recorder chart.

POINT	PRESSURE		P.S.I.
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>2340</u>	<u>2392</u>	P.S.I.
(B) First Initial Flow Pressure	<u>95</u>	<u>100</u>	P.S.I.
(C) First Final Flow Pressure	<u>138</u>	<u>136</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>1162</u>	<u>1164</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>202</u>	<u>206</u>	P.S.I.
(F) Second Final Flow Pressure	<u>308</u>	<u>308</u>	P.S.I.
(G) Final Closed-in Pressure	<u>1162</u>	<u>1164</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>2308</u>	<u>2325</u>	P.S.I.