



WESTERN TESTING CO., INC. FORMATION TESTING

TICKET No. 12996

P. O. BOX 1599 WICHITA, KANSAS 67201 PHONE (316) 262-5861

Elevation 1774 G.L. Formation Indian Cave Eff. Pay Ft.

District Pratt Date 8/24/87 Customer Order No.

COMPANY NAME F.G. Hall Estate ADDRESS 6427 East Kellogg Wichita, Ks. 67207

LEASE AND WELL NO. Ford A #1-14 COUNTY Pratt STATE Ks Sec. 14 Twp. 29 Rge. 11

Mail Invoice To Same Co. Name No. Copies Requested 5

Mail Charts To Same / copy. At Meeker, P.O. Box 158 Address Belvec, Ks. 67519 No. Copies Requested 5

Formation Test No. 1 Interval Tested From 2645 ft. to 2677 ft. Total Depth 2677 ft.

Packer Depth 2640 ft. Size 6 7/8 in. Packer Depth - ft. Size - in.

Packer Depth 2645 ft. Size 6 3/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2667 ft. Recorder Number 13552 Cap. 4050

Bottom Recorder Depth (Outside) 2670 ft. Recorder Number 13267 Cap. 4050

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

Drilling Contractor Sterling Rig 44 Drill Collar Length 423 I. D. 2 1/4 in.

Mud Type Chemical Viscosity 34 Weight Pipe Length - I. D. - in.

Weight 8.7 Water Loss 16.2 cc. Drill Pipe Length 2193 I. D. 3.8 in.

Chlorides 8,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.

Jars: Make WTC Serial Number 408 Anchor Length 32 ft. Size 5 1/2 OD in.

Did Well Flow? No Reversed Out No Surface Choke Size 3 1/4 in. Bottom Choke Size 3 1/4 in.

Main Hole Size 7 1/2 in. Tool Joint Size 4 1/2 FH in.

Blow: Weak blow throughout first flow Weak blow died in 10 min on second flow

Recovered 20 ft. of Dnlg Mud

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Chlorides - P.P.M. Sample Jars used - Remarks: No chart paper in top recorder

Time On Location 6:00 A.M. Time Pick Up Tool 6:30 P.M. Time Off Location - P.M.

Time Set Packer(s) 8:20 A.M. Time Started Off Bottom 10:20 P.M. Maximum Temperature 115°

Initial Hydrostatic Pressure (A) P.S.I.

Initial Flow Period (B) Minutes 30 P.S.I. to (C) P.S.I.

Initial Closed In Period (D) Minutes 30 P.S.I.

Final Flow Period (E) Minutes 30 P.S.I. to (F) P.S.I.

Final Closed In Period (G) Minutes 30 P.S.I.

Final Hydrostatic Pressure (H) P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made. All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By: [Signature] Signature of Customer or his authorized representative

Western Representative: Jim Wonda Thank You 2376

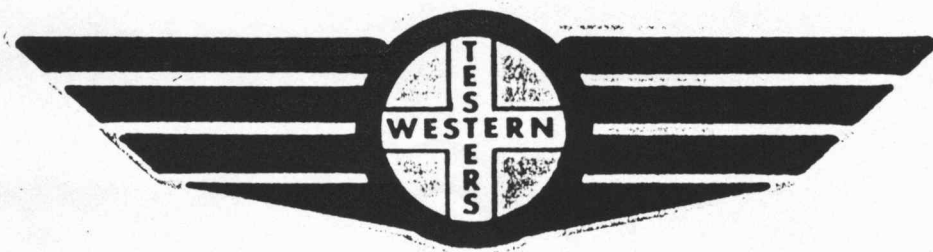
FIELD INVOICE

Table with 2 columns: Item and Price. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL. Prices are marked with checkmarks and 'NIC'.

TKF 12996

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY F. G. HOLL

LEASE & WELL NO.

FORD "A" #1-14

SEC. 14

TWP. 29S

RGE. 11W

TEST NO. 1

DATE

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 8/24/87 TICKET : 12996
CUSTOMER : F G HOLL ESTATE LEASE : FORD "A"
WELL : 1-14 TEST: 1 GEOLOGIST : ?
ELEVATION : 1774 GL FORMATION : INDIAN CAVE
SECTION : 14 TOWNSHIP : 29S
RANGE : 11W COUNTY : PRATT STATE : KANSAS
GAUGE SN# : 13552 RANGE : 4050 CLOCK : 12

INTERVAL FROM : 2645 TO : 2677 TOTAL DEPTH : 2677
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 2640 SIZE : 6.63
PACKER DEPTH : 2645 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : STERLING RIG 4
MUD TYPE : CHEMICAL VISCOSITY : 34
WEIGHT : 8.7 WATER LOSS (CC) : 16.2
CHLORIDES (PPM) : 8000
JARS-MAKE : WTC SERIAL NUMBER : 408
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 423 FT I.D. inch : 2.25
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 2193 FT I.D. inch : 3.80
TEST TOOL LENGTH : 29 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 32 FT ANCHOR SIZE : 5.50
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5FH

BLOW COMMENT #1 : INITIAL FLOW PERIOD WEAK BLOW THROUGHOUT.
BLOW COMMENT #2 : FINAL FLOW PERIOD WEAK BLOW - DIED IN
BLOW COMMENT #3 : 10 MINUTES.
BLOW COMMENT #4 :

RECOVERED : 20 FT OF: DRILLING MUD

Total Barrels Fluid = 0.10
Total Fluid Prod Rate = 0.00 BFPD

REMARK 1 :
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) :	8:20 AM	TIME STARTED OFF BOTTOM :	10:20 AM
WELL TEMPERATURE :	115		
INITIAL HYDROSTATIC PRESSURE		(A)	0
INITIAL FLOW PERIOD MIN:	0	(B)	0 PSI TO (C) : 0
INITIAL CLOSED IN PERIOD MIN:	0	(D)	0
FINAL FLOW PERIOD MIN:	0	(E)	0 PSI TO (F) : 0
FINAL CLOSED IN PERIOD MIN:	0	(G)	0
FINAL HYDROSTATIC PRESSURE		(H)	0



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 12997

P. O. BOX 1599 PHONE (316) 262-5861

Elevation 1774 G.L. Formation Simpson Eff. Pay Ft.

WICHITA, KANSAS 67201

District Pratt Date 8/29/87 Customer Order No.

COMPANY NAME F.G. Holl

ADDRESS 6427 East Kellogg Wichita Ks. 67209

LEASE AND WELL NO. Ford #1-14 COUNTY Pratt STATE Ks Sec. 14 Twp. 29 Rge. 11

Mail Invoice To Same Co. Name No. Copies Requested 5

Mail Charts To Same Copy to Art Merrick, P.O. Box 158 Address Belpre, Ks 67519 No. Copies Requested 5

Formation Test No. 2 Interval Tested From 4610 ft. to 4650 ft. Total Depth 4650 ft.

Packer Depth 4605 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 4610 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4640 ft. Recorder Number 13552 Cap. 4050

Bottom Recorder Depth (Outside) 4643 ft. Recorder Number 13267 Cap. 4050

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

Drilling Contractor Sterling Rig #4 Drill Collar Length 423 I. D. 2 1/4 in.

Mud Type Chemical Viscosity 43 Weight Pipe Length - I. D. - in.

Weight 9.3 Water Loss 11.2 cc. Drill Pipe Length 4163 I. D. 3.8 in.

Chlorides 6,000 P.P.M. Test Tool Length 24 ft. Tool Size 5 1/2 00 in.

Jars: Make - Serial Number - Anchor Length 40 ft. Size 5 1/2 00 in.

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

Main Hole Size 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Strong blew throughout flow periods

Recovered 180 ft. of Watery Mud (Scum of oil)

Recovered 120 ft. of Muddy Water

Recovered 1680 ft. of Gassy Salt Water

Recovered - ft. of

Recovered - ft. of

Chlorides 53,000 P.P.M. Sample Jars used - Remarks:

Time On Location 9:00 A.M. P.M. Time Pick Up Tool 11:00 A.M. P.M. Time Off Location A.M. P.M.

Time Set Packer(s) 12140 A.M. P.M. Time Started Off Bottom 4:10 A.M. P.M. Maximum Temperature 148°

Initial Hydrostatic Pressure (A) 2297 P.S.I.

Initial Flow Period Minutes 45 (B) 172 P.S.I. to (C) 518 P.S.I.

Initial Closed In Period Minutes 45 (D) 1661 P.S.I.

Final Flow Period Minutes 60 (E) 619 P.S.I. to (F) 933 P.S.I.

Final Closed In Period Minutes 60 (G) 1661 P.S.I.

Final Hydrostatic Pressure (H) 2277 P.S.I.

COMPANY TERMS

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All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature] 8/29/87 Signature of Customer or his authorized representative

Western Representative Jim Wondra Thank You

2376

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test (\$450.00), Safety Joint (\$32.50), and TOTAL (\$482.50).

WESTERN TESTING CO., INC.

Pressure Data

Date 8-29-87 Test Ticket No. 12997
 Recorder No. 13552 Capacity 4050 Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature 148 °F

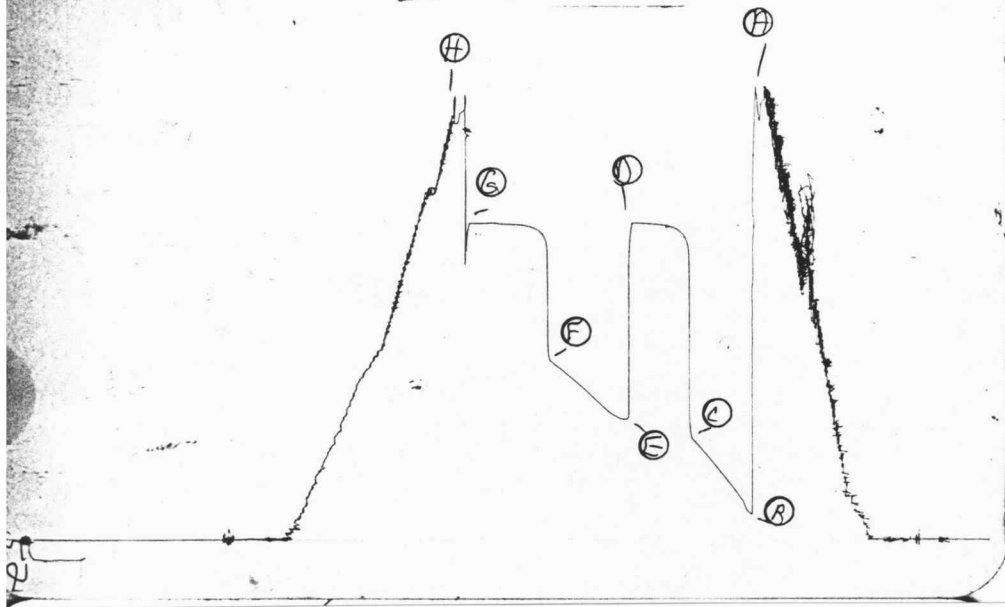
Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2293</u> P.S.I.		<u>12:40 A</u>	<u>4:10 A</u>
B First Initial Flow Pressure	<u>136</u> P.S.I.	First Flow Pressure	<u>45</u> Mins.	<u>45</u> Mins.
C First Final Flow Pressure	<u>530</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>48</u> Mins.
D Initial Closed-in Pressure	<u>1671</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>637</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>943</u> P.S.I.			
G Final Closed-in Pressure	<u>1673</u> P.S.I.			
H Final Hydrostatic Mud	<u>2244</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>136</u>	0		0	<u>637</u>	0	
P 2 5	<u>164</u>	3	<u>827</u>	5	<u>637</u>	3	<u>1336</u>
P 3 10	<u>225</u>	6	<u>1487</u>	10	<u>650</u>	6	<u>1584</u>
P 4 15	<u>276</u>	9	<u>1586</u>	15	<u>675</u>	9	<u>1618</u>
P 5 20	<u>317</u>	12	<u>1616</u>	20	<u>704</u>	12	<u>1637</u>
P 6 25	<u>359</u>	15	<u>1636</u>	25	<u>738</u>	15	<u>1646</u>
P 7 30	<u>402</u>	18	<u>1646</u>	30	<u>770</u>	18	<u>1653</u>
P 8 35	<u>447</u>	21	<u>1654</u>	35	<u>803</u>	21	<u>1658</u>
P 9 40	<u>486</u>	24	<u>1659</u>	40	<u>831</u>	24	<u>1660</u>
P10 45	<u>530</u>	27	<u>1661</u>	45	<u>863</u>	27	<u>1662</u>
P11 50		30	<u>1663</u>	50	<u>894</u>	30	<u>1664</u>
P12 55		33	<u>1665</u>	55	<u>920</u>	33	<u>1666</u>
P13 60		36	<u>1667</u>	60	<u>943</u>	36	<u>1667</u>
P14 65		39	<u>1668</u>	65		39	<u>1668</u>
P15 70		42	<u>1669</u>	70		42	<u>1670</u>
P16 75		45	<u>1670</u>	75		45	<u>1673</u>
P17 80		48	<u>1671</u>	80		48	
P18 85		51		85		51	
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	<u>1673</u>

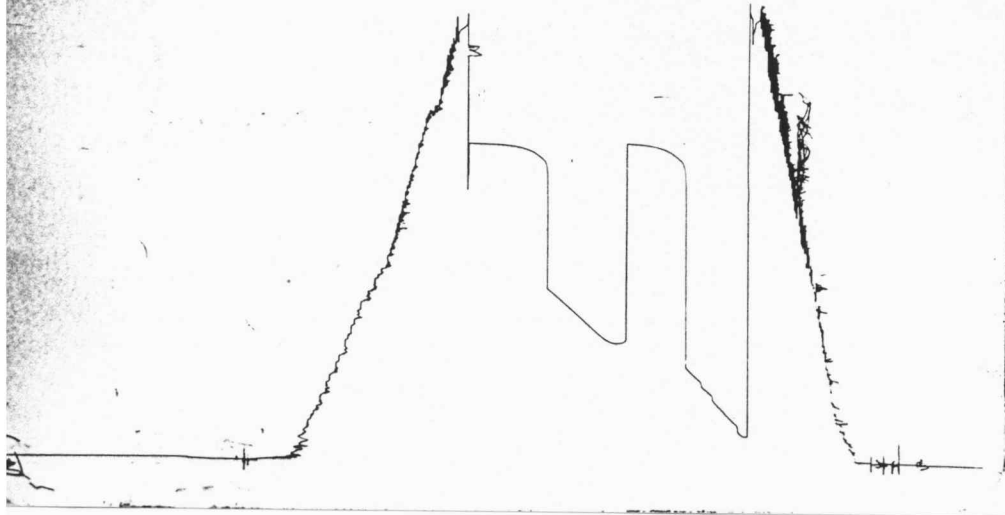
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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 8/29/87 TICKET : 12997
CUSTOMER : F G HOLL ESTATE LEASE : FORD "A"
WELL : 1-14 TEST: 2 GEOLOGIST : ?
ELEVATION : 1774 GL FORMATION : SIMPSON
SECTION : 14 TOWNSHIP : 29S
RANGE : 11W COUNTY : PRATT STATE : KANSAS
GAUGE SN# : 13552 RANGE : 4050 CLOCK : 12

INTERVAL FROM : 4610 TO : 4650 TOTAL DEPTH : 4650
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 4605 SIZE : 6.63
PACKER DEPTH : 4610 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : STERLING RIG 4
MUD TYPE : CHEMICAL VISCOSITY : 43
WEIGHT : 9.3 WATER LOSS (CC) : 11.2
CHLORIDES (PPM) : 6000
JARS-MAKE : SERIAL NUMBER :
DID WELL FLOW ? : NO REVERSED OUT ? :

DRILL COLLAR LENGTH : 423 FT I.D. inch : 2.25
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 4163 FT I.D. inch : 3.80
TEST TOOL LENGTH : 24 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 40 FT ANCHOR SIZE : 5.50
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5FH

BLOW COMMENT #1 : STRONG BLOW THROUGHOUT TEST.
BLOW COMMENT #2 :
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 180 FT OF: WATERY MUD (SCUM OF OIL)
RECOVERED : 120 FT OF: MUDDY WATER
RECOVERED : 1680 FT OF: GASSY SALTWATER

Total Barrels Fluid = 23.92
Total Fluid Prod Rate = 328.03 BFPD
Indicated Wtr Rate = 303.18 BWPD

REMARK 1 :
REMARK 2 : CHLORIDES 53000 PPM
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 12:40 AM TIME STARTED OFF BOTTOM : 4:10 AM
WELL TEMPERATURE : 148
INITIAL HYDROSTATIC PRESSURE (A) 2293
INITIAL FLOW PERIOD MIN: 45 (B) 136 PSI TO (C) : 530
INITIAL CLOSED IN PERIOD MIN: 48 (D) 1671
FINAL FLOW PERIOD MIN: 60 (E) 637 PSI TO (F) : 943
FINAL CLOSED IN PERIOD MIN: 60 (G) 1673
FINAL HYDROSTATIC PRESSURE (H) 2244

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : F G HOLL ESTATE
RIG : PRATT-KANSAS
FIELD : FORD "A"
WELL : 1-14
DATE : 8/29/87
GAUGE NO : 13552

OPERATIONAL COMMENTS

CHLORIDES 53000 PPM

COMPANY : F G HOLL ESTATE
 WELL : 1-14
 GAUGE # : 13552
 DATE : 29/ 8/87

FIELD : FORD "A"
 JOB # : 12997
 DEPTH : 4650
 TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P P _i -P _(i-1)
1	12:40: 0	0.000	136.000	148.00	0.000
2	12:44:59	0.083	164.000	148.00	28.000
3	12:50: 0	0.167	225.000	148.00	61.000
4	12:55: 0	0.250	276.000	148.00	51.000
5	12:59:59	0.333	317.000	148.00	41.000
6	13: 5: 0	0.417	359.000	148.00	42.000
7	13:10: 0	0.500	402.000	148.00	43.000
8	13:14:59	0.583	447.000	148.00	45.000
9	13:20: 0	0.667	486.000	148.00	39.000
10	13:25: 0	0.750	530.000	148.00	44.000
11	13:28: 0	0.800	827.000	148.00	297.000
12	13:31: 0	0.850	1487.000	148.00	660.000
13	13:34: 0	0.900	1586.000	148.00	99.000
14	13:37: 0	0.950	1616.000	148.00	30.000
15	13:40: 0	1.000	1636.000	148.00	20.000
16	13:43: 0	1.050	1646.000	148.00	10.000
17	13:46: 0	1.100	1654.000	148.00	8.000
18	13:49: 0	1.150	1659.000	148.00	5.000
19	13:52: 0	1.200	1661.000	148.00	2.000
20	13:55: 0	1.250	1663.000	148.00	2.000
21	13:58: 0	1.300	1665.000	148.00	2.000
22	14: 1: 0	1.350	1667.000	148.00	2.000
23	14: 4: 0	1.400	1668.000	148.00	1.000
24	14: 7: 0	1.450	1669.000	148.00	1.000
25	14:10: 0	1.500	1670.000	148.00	1.000
26	14:13: 0	1.550	1671.000	148.00	1.000
27	14:14: 0	1.567	637.000	148.00	-1034.000
28	14:17:59	1.633	637.000	148.00	0.000
29	14:23: 0	1.717	650.000	148.00	13.000
30	14:28: 0	1.800	675.000	148.00	25.000
31	14:32:59	1.883	704.000	148.00	29.000
32	14:38: 0	1.967	738.000	148.00	34.000
33	14:43: 0	2.050	770.000	148.00	32.000
34	14:47:59	2.133	803.000	148.00	33.000
35	14:53: 0	2.217	831.000	148.00	28.000
36	14:58: 0	2.300	863.000	148.00	32.000
37	15: 2:59	2.383	894.000	148.00	31.000
38	15: 8: 0	2.467	920.000	148.00	26.000
39	15:13: 0	2.550	943.000	148.00	23.000
40	15:16: 0	2.600	1336.000	148.00	393.000
41	15:18:59	2.650	1584.000	148.00	248.000
42	15:22: 0	2.700	1618.000	148.00	34.000
43	15:25: 0	2.750	1637.000	148.00	19.000
44	15:28: 0	2.800	1646.000	148.00	9.000
45	15:31: 0	2.850	1653.000	148.00	7.000
46	15:33:59	2.900	1658.000	148.00	5.000
47	15:37: 0	2.950	1660.000	148.00	2.000
48	15:40: 0	3.000	1662.000	148.00	2.000
49	15:43: 0	3.050	1664.000	148.00	2.000
50	15:46: 0	3.100	1666.000	148.00	2.000
51	15:49: 0	3.150	1667.000	148.00	1.000
52	15:51:59	3.200	1668.000	148.00	1.000

COMPANY : F G HOLL ESTATE
WELL : 1-14
GAUGE # : 13552
DATE : 29/ 8/87

FIELD : FORD "A"
JOB # : 12997
DEPTH : 4650
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(1-1)
53	15:55: 0	3.250	1670.000	148.00	2.000
54	15:58: 0	3.300	1673.000	148.00	3.000
55	16: 1: 0	3.350	1673.000	148.00	0.000
56	16: 4: 0	3.400	1673.000	148.00	0.000
57	16: 6:59	3.450	1673.000	148.00	0.000
58	16:10: 0	3.500	1673.000	148.00	0.000
59	16:13: 0	3.550	1673.000	148.00	0.000

WESTERN TESTING CO. INC.