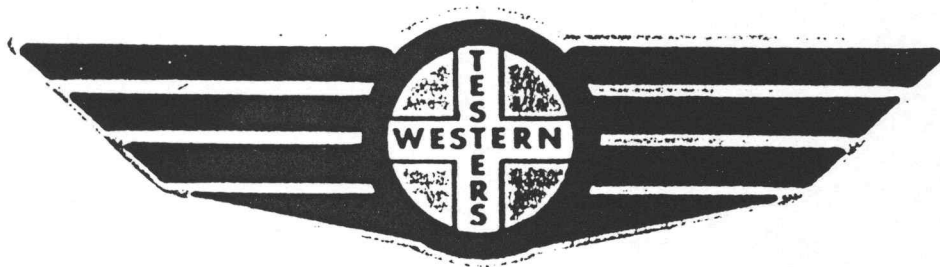


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	12-6-87	TICKET	:	12008
CUSTOMER	:	HESS OIL COMPANY	LEASE	:	MASTER ESTATE
WELL	:	#1	TEST:	:	1
ELEVATION	:	2777 KB	GEOLOGIST	:	J. HESS
SECTION	:	31	FORMATION	:	KANSAS CITY
RANGE	:	28W	TOWNSHIP	:	17S
GAUGE SN#	:	13759	STATE	:	KANSAS
		COUNTY :	LANE		
		RANGE :	3900		
			CLOCK	:	12

INTERVAL FROM	:	4242	TO	:	4285	TOTAL DEPTH	:	4285
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	4237	SIZE	:	6.75			
PACKER DEPTH	:	4242	SIZE	:	6.75			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	MALLARD			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	46
WEIGHT	:	8.9	WATER LOSS (CC)	:	6.4
CHLORIDES (PPM)	:	-			
JARS-MAKE	:	-	SERIAL NUMBER	:	-
DID WELL FLOW ?	:		REVERSED OUT ?	:	

DRILL COLLAR LENGTH	:	300	FT	I.D. inch	:	2.20
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	3922	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	43	FT	ANCHOR SIZE	:	5.50
SURFACE CHOKE SIZE	:	.75	IN	BOTTOM CHOKE SIZE	:	.75
MAIN HOLE SIZE	:	7.875	IN	TOOL JOINT SIZE	:	4.5 XH

BLOW COMMENT #1 : INITIAL FLOW-STRONG BLOW OFF BOTTOM IN 1 MINUTE.
BLOW COMMENT #2 : FINAL FLOW-STRONG OFF BOTTOM-LESS THAN 1 MINUTE.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 20 FT OF: 90% MUD-10% WATER
RECOVERED : 360 FT OF: 40% MUD-60% WATER
RECOVERED : 2210 FT OF: 10% MUD-90% WATER

CHLORIDES: 46000 PPM

Total Barrels Fluid = 33.53
Total Fluid Prod Rate = 804.74 BFPD
Indicated Wtr Rate = 745.70 BWPD

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

SET PACKER(S) : 4:10 PM

TIME STARTED OFF BOTTOM : 6:25 PM

WELL TEMPERATURE : 0

INITIAL HYDROSTATIC PRESSURE

INITIAL FLOW PERIOD MIN: 15

INITIAL CLOSED IN PERIOD MIN: 27

FINAL FLOW PERIOD MIN: 45

FINAL CLOSED IN PERIOD MIN: 39

FINAL HYDROSTATIC PRESSURE

(A) 2046

(B) 623 PSI TO (C) : 934

(D) 1122

(E) 1040 PSI TO (F) : 1130

(G) 1141

(H) 1998

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : HESS OIL COMPANY
RIG : LANE-KANSAS
FIELD : MASTER ESTATE
WELL : #1
DATE : 12-6-87
GAUGE NO : 13759

OPERATIONAL COMMENTS

COMPANY : HESS OIL COMPANY

WELL : #1

GAUGE # : 13759

DATE : 6/12/87

FIELD : MASTER ESTATE

JOB # : 12008

DEPTH : 4285

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	4:10: 0	0.000	623.000	0.00	0.000
2	4:14:59	0.083	703.000	0.00	80.000
3	4:20: 0	0.167	830.000	0.00	127.000
4	4:25: 0	0.250	934.000	0.00	104.000
5	4:28: 0	0.300	1046.000	0.00	112.000
6	4:31: 0	0.350	1067.000	0.00	21.000
7	4:34: 0	0.400	1079.000	0.00	12.000
8	4:37: 0	0.450	1092.000	0.00	13.000
9	4:40: 0	0.500	1101.000	0.00	9.000
10	4:43: 0	0.550	1106.000	0.00	5.000
11	4:46: 0	0.600	1112.000	0.00	6.000
12	4:49: 0	0.650	1117.000	0.00	5.000
13	4:52: 0	0.700	1122.000	0.00	5.000
14	4:53: 0	0.717	1040.000	0.00	-82.000
15	4:56:59	0.783	1050.000	0.00	10.000
16	5: 2: 0	0.867	1078.000	0.00	28.000
17	5: 7: 0	0.950	1095.000	0.00	17.000
18	5:11:59	1.033	1106.000	0.00	11.000
19	5:17: 0	1.117	1111.000	0.00	5.000
20	5:22: 0	1.200	1115.000	0.00	4.000
21	5:26:59	1.283	1119.000	0.00	4.000
22	5:32: 0	1.367	1125.000	0.00	6.000
23	5:37: 0	1.450	1130.000	0.00	5.000
24	5:40: 0	1.500	1134.000	0.00	4.000
25	5:43: 0	1.550	1135.000	0.00	1.000
26	5:46: 0	1.600	1136.000	0.00	1.000
27	5:49: 0	1.650	1137.000	0.00	1.000
28	5:52: 0	1.700	1138.000	0.00	1.000
29	5:55: 0	1.750	1139.000	0.00	1.000
30	5:58: 0	1.800	1140.000	0.00	1.000
31	6: 1: 0	1.850	1141.000	0.00	1.000
32	6: 4: 0	1.900	1141.000	0.00	0.000
33	6: 7: 0	1.950	1141.000	0.00	0.000
34	6:10: 0	2.000	1141.000	0.00	0.000
35	6:13: 0	2.050	1141.000	0.00	0.000
36	6:16: 0	2.100	1141.000	0.00	0.000

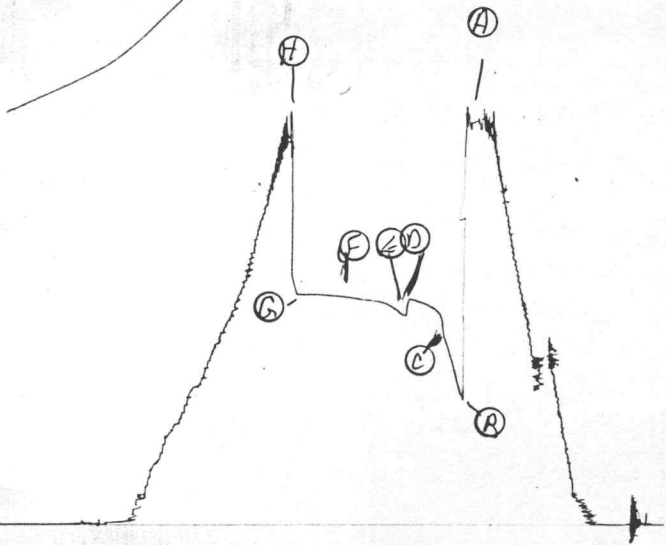
WESTERN TESTING CO. INC.

13759

TR4 12008 DST 1

Hess oil Co.

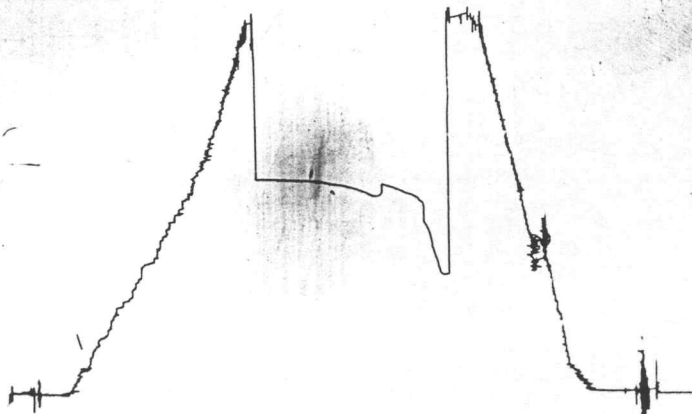
I



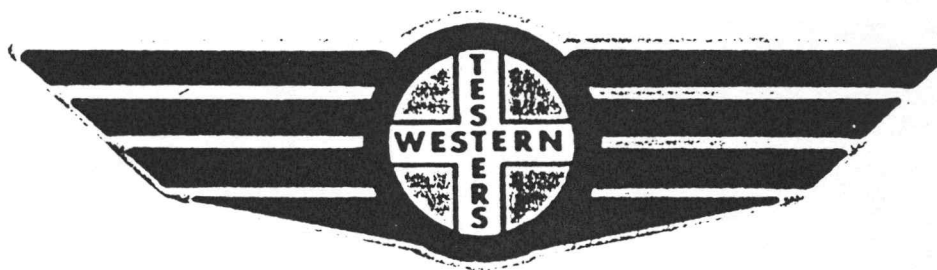
13551

DST 1
K+ DOOSHES OIL CO.

O



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	: 12-7-87	TICKET	: 12009
CUSTOMER	: HESS OIL COMPANY	LEASE	: MASTER ESTATE
WELL	: #1 TEST: 2	GEOLOGIST	: J. HESS
ELEVATION	: 2777 KB	FORMATION	: PAWNEE
SECTION	: 31	TOWNSHIP	: 17S
RANGE	: 28W	COUNTY	: LANE
GAUGE SN#	: 13759	STATE	: KANSAS
		RANGE	: 3900
		CLOCK	: 12

INTERVAL FROM	: 4440	TO	: 4540	TOTAL DEPTH	: 4540
DEPTH OF SELECTIVE ZONE	:				
PACKER DEPTH	: 4435	SIZE	: 6.75		
PACKER DEPTH	: 4440	SIZE	: 6.75		
PACKER DEPTH	:	SIZE	:		
PACKER DEPTH	:	SIZE	:		

DRILLING CON.	: MALLARD RIG #1		
MUD TYPE	: CHEMICAL	VISCOSITY	: 54
WEIGHT	: 8.9	WATER LOSS (CC)	: 6.5
CHLORIDES (PPM)	: 4000		
JARS-MAKE	: -	SERIAL NUMBER	: -
DID WELL FLOW ?	: -	REVERSED OUT ?	: -

DRILL COLLAR LENGTH	: 300 FT	I.D. inch	: 2.20
WEIGHT PIPE LENGTH	: 0 FT	I.D. inch	: 0.00
DRILL PIPE LENGTH	: 4117 FT	I.D. inch	: 3.80
TEST TOOL LENGTH	: 23 FT	TOOL SIZE	: 5.50
ANCHOR LENGTH	: 100 FT	ANCHOR SIZE	: 5.50
SURFACE CHOKE SIZE	: .75 IN	BOTTOM CHOKE SIZE	: .75
MAIN HOLE SIZE	: 7.875 IN	TOOL JOINT SIZE	: 4.5 XH

BLOW COMMENT #1 : INITIAL FLOW-NO BLOW.
BLOW COMMENT #2 : FINAL FLOW-STEADY BLOW 2 1/2 INCHES-THEN BLOW DIED TO ONE INCH AFTER 90 MINUTES.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED 15 FT OF: 98% MUD -LESS THAN 2% OIL

Total Barrels Fluid = 0.07
Total Fluid Prod Rate = 0.85 BFPD
Indicated Oil Rate = 0.01 BOPD
Indicated Wtr Rate = 0.08 BWPD

REMARK 1 : FLUSHED TOOL FINAL FLOW.
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 8:00 PM

TIME STARTED OFF BOTTOM : 11:15 PM

WELL TEMPERATURE : 0

INITIAL HYDROSTATIC PRESSURE

(A) 2135

INITIAL FLOW PERIOD MIN: 10

(B) 47 PSI TO (C) : 47

INITIAL CLOSED IN PERIOD MIN: 27

(D) 658

FINAL FLOW PERIOD MIN: 110

(E) 67 PSI TO (F) : 47

FINAL CLOSED IN PERIOD MIN: 24

(G) 501

FINAL HYDROSTATIC PRESSURE

(H) 2064

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : HESS OIL COMPANY
RIG : LANE-KANSAS
FIELD : MASTER ESTATE
WELL : #1
DATE : 12-7-87
GAUGE NO : 13759

OPERATIONAL COMMENTS

FLUSHED TOOL FINAL FLOW.

COMPANY : HESS OIL COMPANY
WELL : #1
GAUGE # : 13759
DATE : 7/12/87

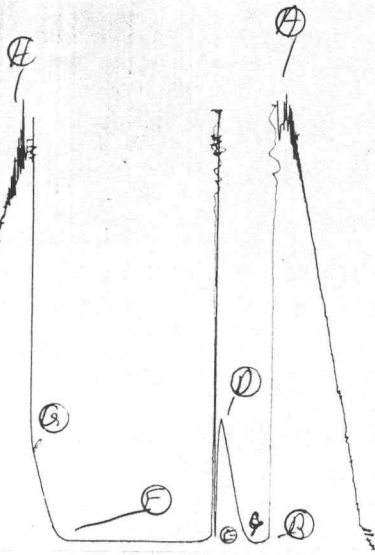
FIELD : MASTER ESTATE
JOB # : 12009
DEPTH : 4540
TEST : FLUSHED TOOL FINAL FLOW.

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	8: 0: 0	0.000	47.000	0.00	0.000
2	8: 4: 59	0.083	47.000	0.00	0.000
3	8: 10: 0	0.167	47.000	0.00	0.000
4	8: 13: 0	0.217	55.000	0.00	8.000
5	8: 16: 0	0.267	80.000	0.00	25.000
6	8: 19: 0	0.317	136.000	0.00	56.000
7	8: 22: 0	0.367	198.000	0.00	62.000
8	8: 25: 0	0.417	283.000	0.00	85.000
9	8: 28: 0	0.467	393.000	0.00	110.000
10	8: 31: 0	0.517	514.000	0.00	121.000
11	8: 34: 0	0.567	598.000	0.00	84.000
12	8: 37: 0	0.617	658.000	0.00	60.000
13	8: 38: 0	0.633	67.000	0.00	-591.000
14	8: 42: 0	0.700	71.000	0.00	4.000
15	8: 47: 0	0.783	52.000	0.00	-19.000
16	8: 52: 0	0.867	46.000	0.00	-6.000
17	8: 57: 0	0.950	45.000	0.00	-1.000
18	9: 2: 0	1.033	45.000	0.00	0.000
19	9: 7: 0	1.117	45.000	0.00	0.000
20	9: 12: 0	1.200	45.000	0.00	0.000
21	9: 17: 0	1.283	45.000	0.00	0.000
22	9: 22: 0	1.367	46.000	0.00	1.000
23	9: 27: 0	1.450	46.000	0.00	0.000
24	9: 32: 0	1.533	46.000	0.00	0.000
25	9: 37: 0	1.617	46.000	0.00	0.000
26	9: 42: 0	1.700	46.000	0.00	0.000
27	9: 47: 0	1.783	46.000	0.00	0.000
28	9: 52: 0	1.867	46.000	0.00	0.000
29	9: 57: 0	1.950	47.000	0.00	1.000
30	10: 2: 0	2.033	47.000	0.00	0.000
31	10: 7: 0	2.117	47.000	0.00	0.000
32	10: 12: 0	2.200	47.000	0.00	0.000
33	10: 17: 0	2.283	47.000	0.00	0.000
34	10: 22: 0	2.367	47.000	0.00	0.000
35	10: 27: 0	2.450	47.000	0.00	0.000
36	10: 30: 0	2.500	79.000	0.00	32.000
37	10: 33: 0	2.550	116.000	0.00	37.000
38	10: 36: 0	2.600	174.000	0.00	58.000
39	10: 39: 0	2.650	236.000	0.00	62.000
40	10: 42: 0	2.700	313.000	0.00	77.000
41	10: 45: 0	2.750	387.000	0.00	74.000
42	10: 48: 0	2.800	460.000	0.00	73.000
43	10: 51: 0	2.850	501.000	0.00	41.000

WESTERN TESTING CO. INC.

DST 2 137.59 HESSOIL CO.
TK4 12009

L

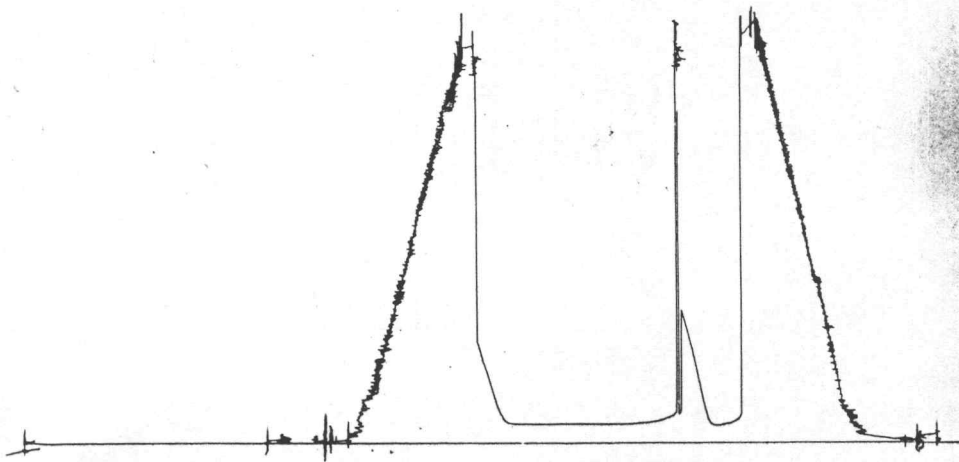


DST 2

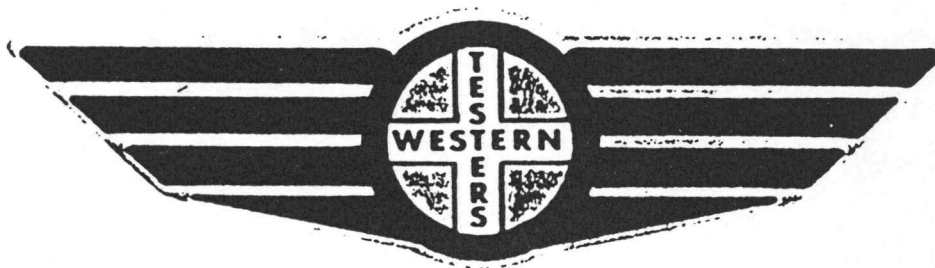
13551
H4 12009

HESS OIL CO.

0



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	12-8-87	TICKET	:	12010
CUSTOMER	:	HESS OIL COMPANY	LEASE	:	MASTER ESTATE
WELL	:	#1	TEST:	:	3
ELEVATION	:	2777 KB	GEOLOGIST	:	J. HESS
SECTION	:	31	FORMATION	:	MISSISSIPPI
RANGE	:	28W	TOWNSHIP	:	17S
GAUGE SN#	:	13551	STATE	:	KANSAS
		COUNTY :	LANE		
		RANGE :	4150		
			CLOCK	:	12

INTERVAL FROM	:	4575	TO	:	4610	TOTAL DEPTH	:	4610
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	4570	SIZE	:	6.75			
PACKER DEPTH	:	4575	SIZE	:	6.75			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	MALLARD RIG #1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	54
WEIGHT	:	9.0	WATER LOSS (CC)	:	6.4
CHLORIDES (PPM)	:	4000			
JARS-MAKE	:	-	SERIAL NUMBER	:	-
DID WELL FLOW ?	:	NO	REVERSED OUT ?	:	-

DRILL COLLAR LENGTH	:	300	FT	I.D. inch	:	2.20
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	4252	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	23	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	35	FT	ANCHOR SIZE	:	5.50
SURFACE CHOKE SIZE	:	.75	IN	BOTTOM CHOKE SIZE	:	.75
MAIN HOLE SIZE	:	7.875	IN	TOOL JOINT SIZE	:	4.5 XH

BLOW COMMENT #1	:	INITIAL FLOW-SLOW BUILDING BLOW-3" IN BUCKET.
BLOW COMMENT #2	:	FINAL FLOW-STEADY WEAK BLOW-1" IN BUCKET.
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED : 50 FT OF: MUD
RECOVERED : 60 FT OF: 75% MUD-25% WATER
RECOVERED : 120 FT OF: 45% MUD-55% WATER

CHLORIDES: 18000 PPM

Total Barrels Fluid = 1.08
Total Fluid Prod Rate = 12.46 BFPD
Indicated Wtr Rate = 6.23 BWPD

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

SET PACKER(S) : 2:45 PM

TIME STARTED OFF BOTTOM : 6:00 PM

WELL TEMPERATURE : 0

INITIAL HYDROSTATIC PRESSURE

(A) 2323

INITIAL FLOW PERIOD MIN: 65

(B) 79 PSI TO (C) : 85

INITIAL CLOSED IN PERIOD MIN: 33

(D) 1130

FINAL FLOW PERIOD MIN: 60

(E) 126 PSI TO (F) : 135

FINAL CLOSED IN PERIOD MIN: 48

(G) 1156

FINAL HYDROSTATIC PRESSURE

(H) 2212

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : HESS OIL COMPANY
RIG : LANE-KANSAS
FIELD : MASTER ESTATE
WELL : #1
DATE : 12-8-87
GAUGE NO : 13551

OPERATIONAL COMMENTS

COMPANY : HESS OIL COMPANY
WELL : #1
GAUGE # : 13551
DATE : 8/12/87

FIELD : MASTER ESTATE
JOB # : 12010
DEPTH : 4610
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	2:45: 0	0.000	79.000	0.00	0.000
2	2:49:59	0.083	79.000	0.00	0.000
3	2:55: 0	0.167	79.000	0.00	0.000
4	3: 0: 0	0.250	79.000	0.00	0.000
5	3: 4:59	0.333	79.000	0.00	0.000
6	3:10: 0	0.417	79.000	0.00	0.000
7	3:15: 0	0.500	79.000	0.00	0.000
8	3:19:59	0.583	79.000	0.00	0.000
9	3:25: 0	0.667	79.000	0.00	0.000
10	3:30: 0	0.750	79.000	0.00	0.000
11	3:34:59	0.833	81.000	0.00	2.000
12	3:40: 0	0.917	83.000	0.00	2.000
13	3:45: 0	1.000	84.000	0.00	1.000
14	3:49:59	1.083	85.000	0.00	1.000
15	3:52:59	1.133	748.000	0.00	663.000
16	3:55:59	1.183	878.000	0.00	130.000
17	3:58:59	1.233	947.000	0.00	69.000
18	4: 1:59	1.283	982.000	0.00	35.000
19	4: 4:59	1.333	1001.000	0.00	19.000
20	4: 7:59	1.383	1053.000	0.00	52.000
21	4:10:59	1.433	1078.000	0.00	25.000
22	4:13:59	1.483	1094.000	0.00	16.000
23	4:16:59	1.533	1107.000	0.00	13.000
24	4:19:59	1.583	1121.000	0.00	14.000
25	4:22:59	1.633	1130.000	0.00	9.000
26	4:24: 0	1.650	126.000	0.00	-1004.000
27	4:27:59	1.717	126.000	0.00	0.000
28	4:33: 0	1.800	126.000	0.00	0.000
29	4:37:59	1.883	126.000	0.00	0.000
30	4:42:59	1.967	126.000	0.00	0.000
31	4:48: 0	2.050	126.000	0.00	0.000
32	4:52:59	2.133	126.000	0.00	0.000
33	4:57:59	2.217	126.000	0.00	0.000
34	5: 3: 0	2.300	126.000	0.00	0.000
35	5: 7:59	2.383	127.000	0.00	1.000
36	5:12:59	2.467	129.000	0.00	2.000
37	5:18: 0	2.550	132.000	0.00	3.000
38	5:22:59	2.633	135.000	0.00	3.000
39	5:25:59	2.683	547.000	0.00	412.000
40	5:28:59	2.733	804.000	0.00	257.000
41	5:31:59	2.783	891.000	0.00	87.000
42	5:34:59	2.833	947.000	0.00	56.000
43	5:37:59	2.883	990.000	0.00	43.000
44	5:40:59	2.933	1007.000	0.00	17.000
45	5:43:59	2.983	1042.000	0.00	35.000
46	5:46:59	3.033	1055.000	0.00	13.000
47	5:49:59	3.083	1080.000	0.00	25.000
48	5:52:59	3.133	1089.000	0.00	9.000
49	5:55:59	3.183	1100.000	0.00	11.000
50	5:58:59	3.233	1114.000	0.00	14.000
51	6: 1:59	3.283	1125.000	0.00	11.000
52	6: 4:59	3.333	1134.000	0.00	9.000

COMPANY : HESS OIL COMPANY
WELL : #1
GAUGE # : 13551
DATE : 8/12/87

FIELD : MASTER ESTATE
JOB # : 12010
DEPTH : 4610
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	6: 7:59	3.383	1147.000	0.00	13.000
54	6:10:59	3.433	1156.000	0.00	9.000

WESTERN TESTING CO. INC.

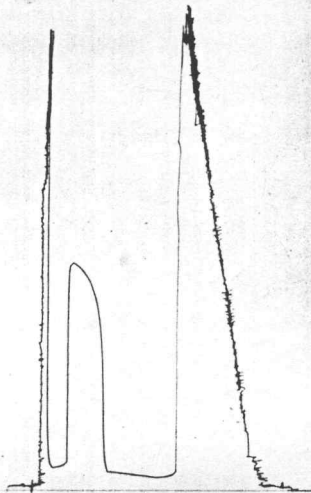
13759

DST 3

Hessoil.

PK 12010

I



13551

DST. 3 Hessoil
K4 12010

