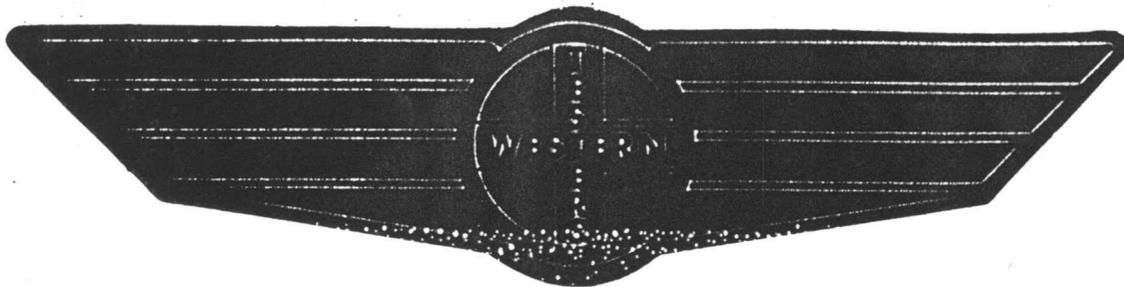


# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

REPORT BY J A ALLISON LEASE & WELL NO. #1 ZETKO SEC. 9 TWP. 18S RGE. 18W TEST NO. 1 DATE 1/13/87

WESTERN TESTERS INC  
SUBSURFACE PRESSURE SURVEY

DATE : 1/13/87 TICKET : 12292  
CUSTOMER : J A ALLISON LEASE : ZETKO  
WELL : 1 TEST: 1 GEOLOGIST : PHELPS  
ELEVATION : 2084 FORMATION : ARBUCKLE  
SECTION : 9 TOWNSHIP : 18S  
RANGE : 18W COUNTY : RUSH STATE : KANSAS  
GAUGE SN# : 4376 RANGE : 4000 CLOCK : 12

INTERVAL FROM : 3820 TO : 3843 TOTAL DEPTH : 3843  
DEPTH OF SELECTIVE ZONE :  
PACKER DEPTH : 3815 SIZE : 6.63  
PACKER DEPTH : 3820 SIZE : 6.63  
PACKER DEPTH : SIZE :  
PACKER DEPTH : SIZE :

DRILLING CON. : WOODMAN-IANNITTI #3  
MUD TYPE : STARCH VISCOSITY : 43  
WEIGHT : 9.8 WATER LOSS (CC) : 11.2  
CHLORIDES (PPM) : 78000  
JARS-MAKE : SERIAL NUMBER :  
DID WELL FLOW ? : REVERSED OUT ? :

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00  
WEIGHT PIPE LENGTH : 382 FT I.D. inch : 2.70  
DRILL PIPE LENGTH : 3416 FT I.D. inch : 3.80  
TEST TOOL LENGTH : 22 FT TOOL SIZE : 4.75  
ANCHOR LENGTH : 23 FT ANCHOR SIZE : 5.50  
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75  
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5XH

BLOW COMMENT #1 : INITIAL FLOW PERIOD WEAK BLOW INCREASING TO  
BLOW COMMENT #2 : 2 INCHES.  
BLOW COMMENT #3 : FINAL FLOW PERIOD WEAK BLOW INCREASING TO  
BLOW COMMENT #4 : 1 INCH.

RECOVERED : 10 FT OF: FREE OIL  
RECOVERED : 60 FT OF: 45% MUD; 5% WATER; 50% OIL  
RECOVERED : 20 FT OF: 75% MUD; 3% WATER; 22% OIL

Total Barrels Fluid = 0.64  
Total Fluid Prod Rate = 10.20 BFPD  
Indicated Oil Rate = 5.03 BOPD  
Indicated Wtr Rate = 0.41 BWPD

REMARK 1 :  
REMARK 2 : CHLORIDES 38000 PPM  
REMARK 3 :  
REMARK 4 :

SET PACKER(S) : 1:30 AM                      TIME STARTED OFF BOTTOM : 5:00 AM  
WELL TEMPERATURE : 119  
INITIAL HYDROSTATIC PRESSURE                      (A) 2039  
INITIAL FLOW PERIOD                      MIN: 30                      (B) 46                      PSI TO (C) : 51  
INITIAL CLOSED IN PERIOD                      MIN: 60                      (D) 1221  
FINAL FLOW PERIOD                      MIN: 60                      (E) 66                      PSI TO (F) : 72  
FINAL CLOSED IN PERIOD                      MIN: 60                      (G) 1216  
FINAL HYDROSTATIC PRESSURE                      (H) 2014

WESTERN TESTERS INC  
WITICHA - KANSAS

Pressure Transient Report  
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COMPANY : J A ALLISON  
RIG : RUSH-KANSAS  
FIELD : ZETKO  
WELL : 1  
DATE : 1/13/87  
GAUGE NO : 4376

OPERATIONAL COMMENTS

CHLORIDES 38000 PPM

COMPANY : J A ALLISON  
 WELL : 1  
 GAUGE # : 4376  
 DATE : 13/ 1/87

FIELD : ZETKO  
 JOB # : 12292  
 DEPTH : 3843  
 TEST :

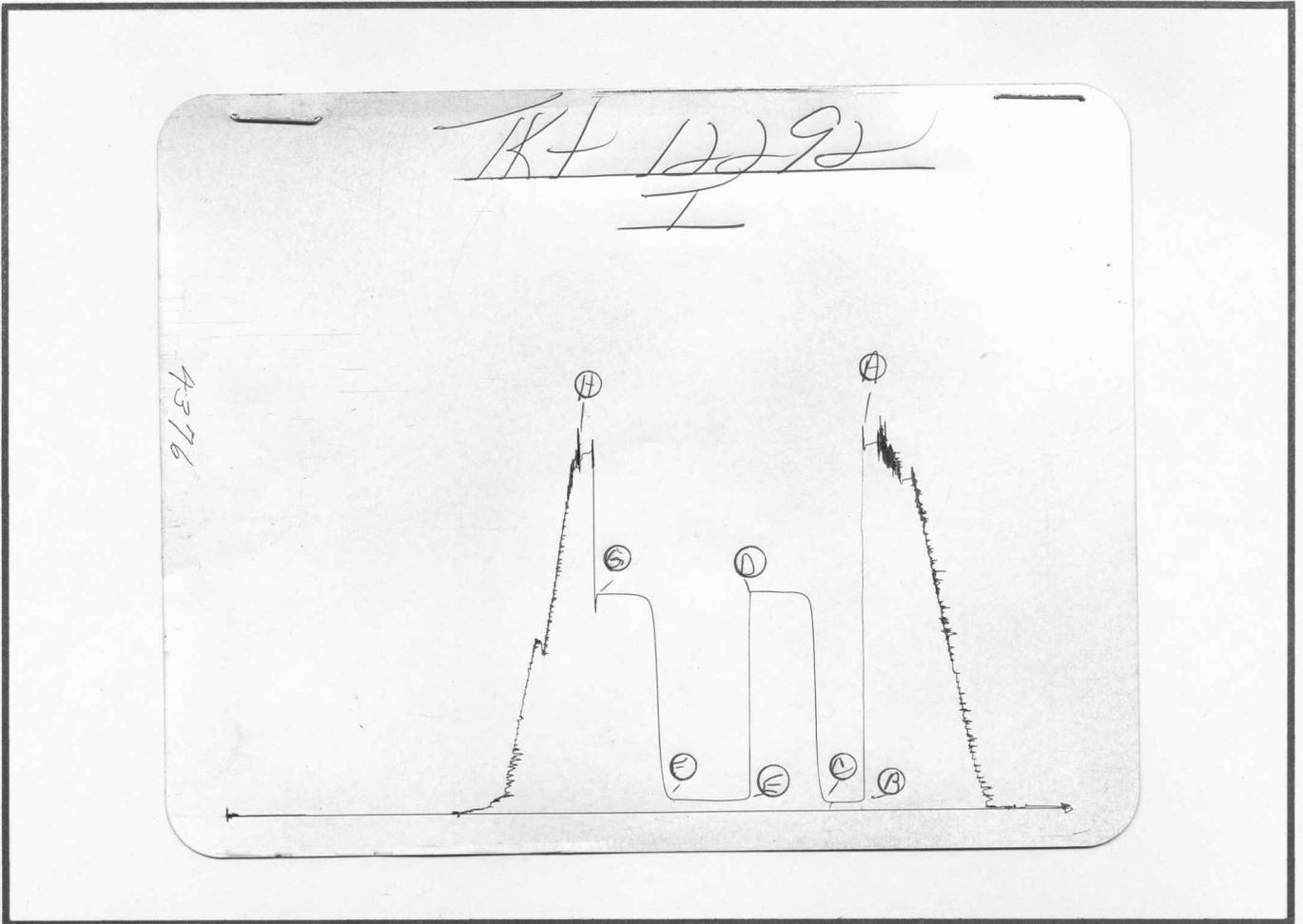
DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	1:30:0	0.000	46.000	119.00	0.000
2	1:34:59	0.083	47.000	119.00	1.000
3	1:40:0	0.167	48.000	119.00	1.000
4	1:45:0	0.250	49.000	119.00	1.000
5	1:49:59	0.333	50.000	119.00	1.000
6	1:55:0	0.417	51.000	119.00	1.000
7	2:0:0	0.500	51.000	119.00	0.000
8	2:3:0	0.550	84.000	119.00	33.000
9	2:6:0	0.600	224.000	119.00	140.000
10	2:9:0	0.650	761.000	119.00	537.000
11	2:12:0	0.700	1134.000	119.00	373.000
12	2:15:0	0.750	1185.000	119.00	51.000
13	2:18:0	0.800	1202.000	119.00	17.000
14	2:21:0	0.850	1210.000	119.00	8.000
15	2:24:0	0.900	1215.000	119.00	5.000
16	2:27:0	0.950	1216.000	119.00	1.000
17	2:30:0	1.000	1217.000	119.00	1.000
18	2:33:0	1.050	1218.000	119.00	1.000
19	2:36:0	1.100	1219.000	119.00	1.000
20	2:39:0	1.150	1220.000	119.00	1.000
21	2:42:0	1.200	1221.000	119.00	1.000
22	2:45:0	1.250	1221.000	119.00	0.000
23	2:48:0	1.300	1221.000	119.00	0.000
24	2:51:0	1.350	1221.000	119.00	0.000
25	2:54:0	1.400	1221.000	119.00	0.000
26	2:57:0	1.450	1221.000	119.00	0.000
27	3:0:0	1.500	1221.000	119.00	0.000
28	3:1:0	1.517	66.000	119.00	-1155.000
29	3:4:59	1.583	66.000	119.00	0.000
30	3:10:0	1.667	66.000	119.00	0.000
31	3:15:0	1.750	66.000	119.00	0.000
32	3:19:59	1.833	66.000	119.00	0.000
33	3:25:0	1.917	66.000	119.00	0.000
34	3:30:0	2.000	66.000	119.00	0.000
35	3:34:59	2.083	67.000	119.00	1.000
36	3:40:0	2.167	68.000	119.00	1.000
37	3:45:0	2.250	69.000	119.00	1.000
38	3:49:59	2.333	70.000	119.00	1.000
39	3:55:0	2.417	71.000	119.00	1.000
40	4:0:0	2.500	72.000	119.00	1.000
41	4:3:0	2.550	101.000	119.00	29.000
42	4:6:0	2.600	196.000	119.00	95.000
43	4:9:0	2.650	458.000	119.00	262.000
44	4:12:0	2.700	1036.000	119.00	578.000
45	4:15:0	2.750	1155.000	119.00	119.000
46	4:18:0	2.800	1188.000	119.00	33.000
47	4:21:0	2.850	1201.000	119.00	13.000
48	4:24:0	2.900	1211.000	119.00	10.000
49	4:27:0	2.950	1213.000	119.00	2.000
50	4:30:0	3.000	1214.000	119.00	1.000
51	4:33:0	3.050	1215.000	119.00	1.000
52	4:36:0	3.100	1216.000	119.00	1.000

COMPANY : J A ALLISON  
WELL : 1  
GAUGE # : 4376  
DATE : 13/ 1/87

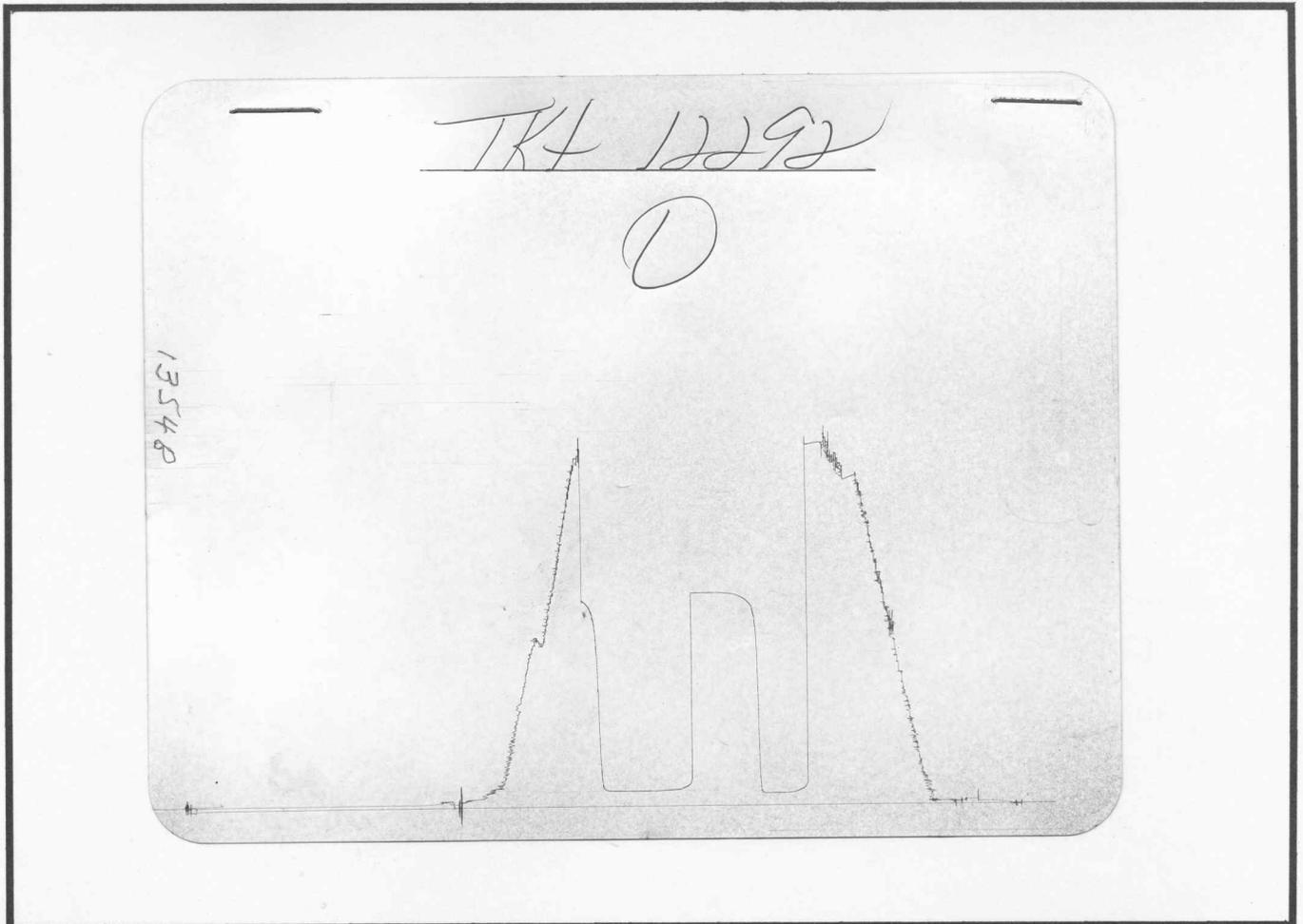
FIELD : ZETKO  
JOB # : 12292  
DEPTH : 3843  
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	4:39: 0	3.150	1216.000	119.00	0.000
54	4:42: 0	3.200	1216.000	119.00	0.000
55	4:45: 0	3.250	1216.000	119.00	0.000
56	4:48: 0	3.300	1216.000	119.00	0.000
57	4:51: 0	3.350	1216.000	119.00	0.000
58	4:54: 0	3.400	1216.000	119.00	0.000
59	4:57: 0	3.450	1216.000	119.00	0.000
60	5: 0: 0	3.500	1216.000	119.00	0.000

WESTERN TESTERS INC

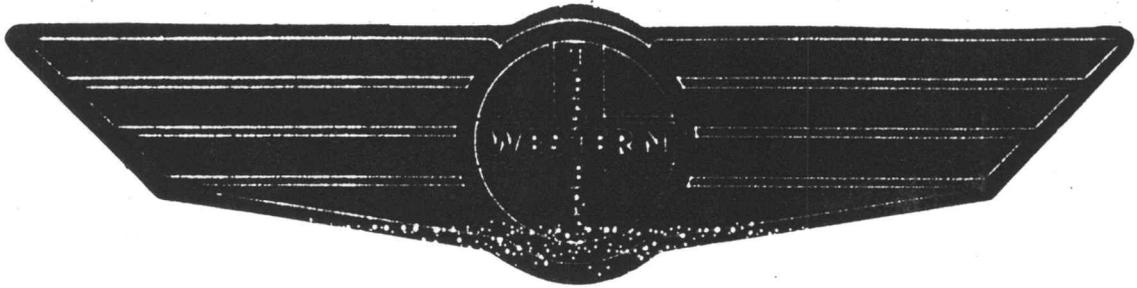


Inside Recorder



Outside Recorder

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

REPORT

J A ALLISON

LEASE & WELL NO.

#1 ZETKO

SEC. 9

TWP. 18S

RGE. 18W

TEST NO.

2

DATE

1/13/87

WESTERN TESTERS INC  
SUBSURFACE PRESSURE SURVEY

DATE : 1-13-87 TICKET : 12293  
CUSTOMER : J.A. ALLISON LEASE : ZETKO  
WELL : #1 TEST: 2 GEOLOGIST : O. PHELPS  
ELEVATION : 2084 FORMATION : ARBUCKLE  
SECTION : 9 TOWNSHIP : 18S  
RANGE : 18W COUNTY : RUSH STATE : KS  
GAUGE SN# : 4376 RANGE : 4000 CLOCK : 12

INTERVAL FROM : 3820 TO : 3845 TOTAL DEPTH : 3845  
DEPTH OF SELECTIVE ZONE :  
PACKER DEPTH : 3815 SIZE : 6.63  
PACKER DEPTH : 3820 SIZE : 6.63  
PACKER DEPTH : SIZE :  
PACKER DEPTH : SIZE :

DRILLING CON. : WOODMAN-IANNITTI #3  
MUD TYPE : STARCH VISCOSITY : 44  
WEIGHT : 9.8 WATER LOSS (CC) : 10.2  
CHLORIDES (PPM) : 78000  
JARS-MAKE : SERIAL NUMBER :  
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00  
WEIGHT PIPE LENGTH : 382 FT I.D. inch : 2.70  
DRILL PIPE LENGTH : 3416 FT I.D. inch : 3.80  
TEST TOOL LENGTH : 22 FT TOOL SIZE : 4.75  
ANCHOR LENGTH : 25 FT ANCHOR SIZE : 5.50  
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75  
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5XH

BLOW COMMENT #1 : WEAK INCREASED TO 5" ON INITIAL  
BLOW COMMENT #2 : FLOW PERIOD.  
BLOW COMMENT #3 : WEAK INCREASED TO 7" ON FINAL  
BLOW COMMENT #4 : FLOW PERIOD.

RECOVERED : 0 FT OF:  
RECOVERED : 111 FT OF: OIL  
RECOVERED : 358 FT OF: WATER  
RECOVERED : 86 FT OF: MUD

Total Barrels Fluid = 5.13  
Total Fluid Prod Rate = 82.11 BFPD  
Indicated Oil Rate = 16.42 BOPD  
Indicated Wtr Rate = 65.98 BWPD  
Corrected Oil Rate = 87.64 BOPD  
Corrected Wtr Rate = 352.14 BWPD

REMARK 1 :  
REMARK 2 : RECOVERED 15' OF GAS  
REMARK 3 : CHLORIDES 30000 PPM  
REMARK 4 :

SET PACKER(S) : 2:00 PM  
WELL TEMPERATURE : 121  
INITIAL HYDROSTATIC PRESSURE (A) 2054  
INITIAL FLOW PERIOD MIN: 30 (B) 71 PSI TO (C) : 145  
INITIAL CLOSED IN PERIOD MIN: 60 (D) 1215  
FINAL FLOW PERIOD MIN: 60 (E) 179 PSI TO (F) : 293  
FINAL CLOSED IN PERIOD MIN: 60 (G) 1212  
FINAL HYDROSTATIC PRESSURE (H) 2032

WESTERN TESTERS INC  
WITICHA - KANSAS

Pressure Transient Report  
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COMPANY : J.A. ALLISON  
RIG : RUSH-KS  
FIELD : ZETKO  
WELL : #1  
DATE : 1-13-87  
GAUGE NO : 4376

OPERATIONAL COMMENTS

RECOVERED 15' OF GAS  
CHLORIDES 30000 PPM

COMPANY : J.A. ALLISON  
 WELL : #1  
 GAUGE # : 4376  
 DATE : 13/ 1/87

FIELD : ZETKO  
 JOB # : 12293  
 DEPTH : 3845  
 TEST :

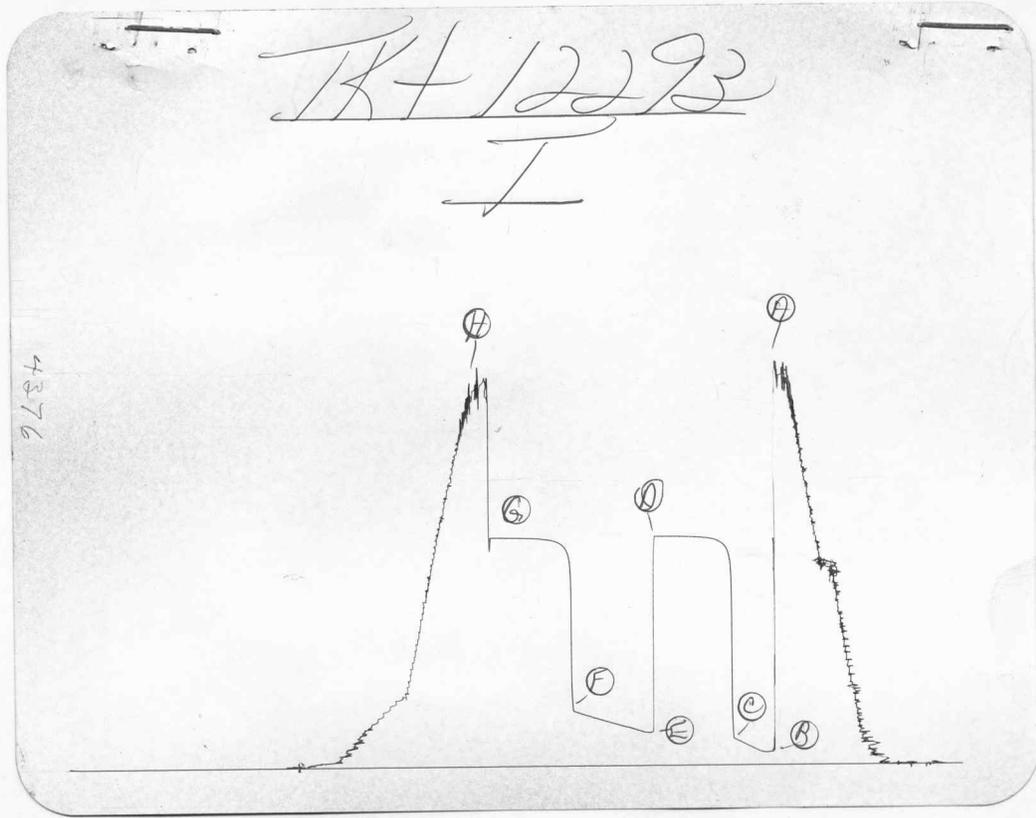
DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	2: 0: 0	0.000	71.000	121.00	0.000
2	2: 4: 59	0.083	71.000	121.00	0.000
3	2:10: 0	0.167	77.000	121.00	6.000
4	2:15: 0	0.250	95.000	121.00	18.000
5	2:19:59	0.333	112.000	121.00	17.000
6	2:25: 0	0.417	128.000	121.00	16.000
7	2:30: 0	0.500	145.000	121.00	17.000
8	2:33: 0	0.550	1101.000	121.00	956.000
9	2:36: 0	0.600	1159.000	121.00	58.000
10	2:39: 0	0.650	1177.000	121.00	18.000
11	2:42: 0	0.700	1189.000	121.00	12.000
12	2:45: 0	0.750	1197.000	121.00	8.000
13	2:48: 0	0.800	1202.000	121.00	5.000
14	2:51: 0	0.850	1204.000	121.00	2.000
15	2:54: 0	0.900	1205.000	121.00	1.000
16	2:57: 0	0.950	1206.000	121.00	1.000
17	3: 0: 0	1.000	1207.000	121.00	1.000
18	3: 2: 59	1.050	1208.000	121.00	1.000
19	3: 6: 0	1.100	1209.000	121.00	1.000
20	3: 9: 0	1.150	1210.000	121.00	1.000
21	3:12: 0	1.200	1211.000	121.00	1.000
22	3:15: 0	1.250	1212.000	121.00	1.000
23	3:18: 0	1.300	1213.000	121.00	1.000
24	3:21: 0	1.350	1214.000	121.00	1.000
25	3:24: 0	1.400	1215.000	121.00	1.000
26	3:27: 0	1.450	1215.000	121.00	0.000
27	3:30: 0	1.500	1215.000	121.00	0.000
28	3:31: 0	1.517	179.000	121.00	-1036.000
29	3:34:59	1.583	180.000	121.00	1.000
30	3:40: 0	1.667	190.000	121.00	10.000
31	3:45: 0	1.750	202.000	121.00	12.000
32	3:49:59	1.833	211.000	121.00	9.000
33	3:55: 0	1.917	222.000	121.00	11.000
34	4: 0: 0	2.000	231.000	121.00	9.000
35	4: 4: 59	2.083	242.000	121.00	11.000
36	4:10: 0	2.167	253.000	121.00	11.000
37	4:15: 0	2.250	263.000	121.00	10.000
38	4:19:59	2.333	273.000	121.00	10.000
39	4:25: 0	2.417	286.000	121.00	13.000
40	4:30: 0	2.500	293.000	121.00	7.000
41	4:33: 0	2.550	1093.000	121.00	800.000
42	4:36: 0	2.600	1153.000	121.00	60.000
43	4:39: 0	2.650	1174.000	121.00	21.000
44	4:42: 0	2.700	1186.000	121.00	12.000
45	4:45: 0	2.750	1193.000	121.00	7.000
46	4:48: 0	2.800	1197.000	121.00	4.000
47	4:51: 0	2.850	1201.000	121.00	4.000
48	4:54: 0	2.900	1204.000	121.00	3.000
49	4:57: 0	2.950	1205.000	121.00	1.000
50	5: 0: 0	3.000	1206.000	121.00	1.000
51	5: 3: 0	3.050	1207.000	121.00	1.000
52	5: 6: 0	3.100	1208.000	121.00	1.000

COMPANY : J.A. ALLISON  
WELL : #1  
GAUGE # : 4376  
DATE : 13/ 1/87

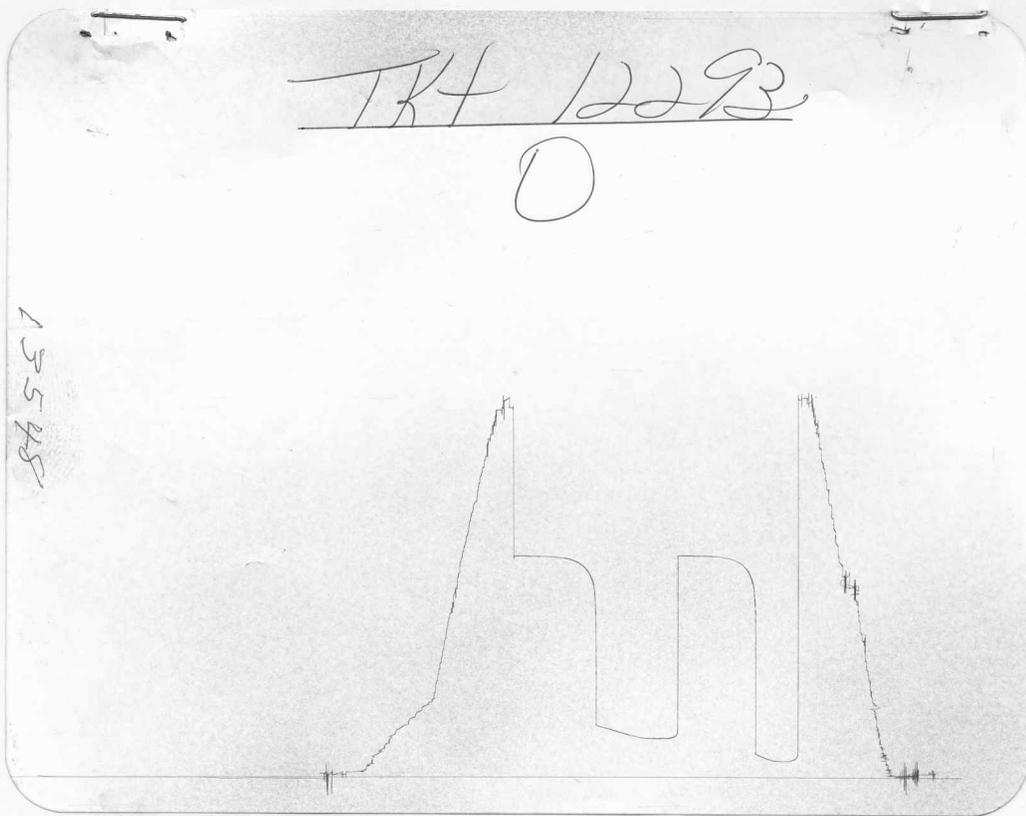
FIELD : ZETKO  
JOB # : 12293  
DEPTH : 3845  
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	5: 9: 0	3.150	1209.000	121.00	1.000
54	5:12: 0	3.200	1210.000	121.00	1.000
55	5:15: 0	3.250	1211.000	121.00	1.000
56	5:18: 0	3.300	1212.000	121.00	1.000
57	5:21: 0	3.350	1212.000	121.00	0.000
58	5:24: 0	3.400	1212.000	121.00	0.000
59	5:27: 0	3.450	1212.000	121.00	0.000
60	5:30: 0	3.500	1212.000	121.00	0.000

WESTERN TESTERS INC



Inside Recorder



Outside Recorder