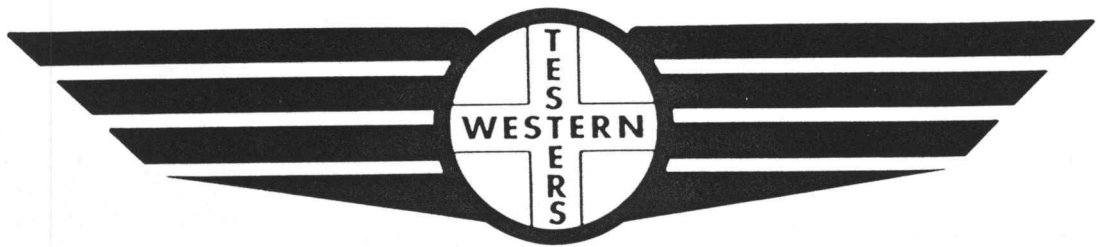


# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY LANDMARK OIL EXPLORATION, INC. LEASE & WELL NO. #1-19 GARTON SEC. 19 TWP. 17S RGE. 28W TEST NO. 2 DATE 5/5/86

SUBSURFACE PRESSURE SURVEY

DATE : 5-5-86 TICKET : 10360  
 CUSTOMER : LANDMARK OIL EXPLORATION INC LEASE : GARTON  
 WELL : #1-19 TEST: 2 GEOLOGIST : M. DIXON  
 ELEVATION : 2710 FORMATION : MARMATON  
 SECTION : 19 TOWNSHIP : 17S  
 RANGE : 28W COUNTY : LANE STATE : KANSAS  
 GAUGE SN# : 13402 RANGE : 4025 CLOCK : 12

INTERVAL FROM : 4234 TO : 4270 TOTAL DEPTH : 4270  
 DEPTH OF SELECTIVE ZONE :  
 PACKER DEPTH : 4229 SIZE : 6.75  
 PACKER DEPTH : 4234 SIZE : 6.75  
 PACKER DEPTH : SIZE :  
 PACKER DEPTH : SIZE :

DRILLING CON. : WHITE & ELLIS  
 MUD TYPE : CHEMICAL VISCOSITY : 45  
 WEIGHT : 9.4 WATER LOSS (CC) : 10.  
 CHLORIDES (PPM) : 8000  
 JARS-MAKE : -- SERIAL NUMBER :  
 DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 360 FT I.D. inch : 2.20  
 WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00  
 DRILL PIPE LENGTH : 3852 FT I.D. inch : 3.80  
 TEST TOOL LENGTH : 22 FT TOOL SIZE : 5.50  
 ANCHOR LENGTH : 36 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 : WEAK BLOW SLOWLY BUILDING TO 1 1/2"  
 BLOW COMMENT #2 : ON THE INITIAL FLOW PERIOD.  
 BLOW COMMENT #3 : VERY WEAK BLOW ON THE FINAL FLOW  
 BLOW COMMENT #4 : PERIOD.

RECOVERED : 210 FT OF: SLT OIL CUT MUD 0.99 Barrels  
 RECOVERED : 0 FT OF: 1% OIL 0.00 Barrels  
 RECOVERED : 0 FT OF: 0.00 Barrels  
 RECOVERED : 0 FT OF: 0.00 Barrels  
 RECOVERED : 0 FT OF: 0.00 Barrels  
 RECOVERED : 0 FT OF: 0.00 Barrels  
 RECOVERED : 0 FT OF: 0.00 Barrels  
 RECOVERED : 0 FT OF: 0.00 Barrels  
 RECOVERED : 0 FT OF: 0.00 Barrels  
 Total Barrels = 1.0 Total Production = 23.7 Bpd

REMARK 1 : CHLORIDES: 22000 PPM  
 REMARK 2 :  
 REMARK 3 :  
 REMARK 4 :

SET PACKER(S) : 6:25 AM TIME STARTED OFF BOTTOM : 8:55 AM  
 WELL TEMPERATURE : 116  
 INITIAL HYDROSTATIC PRESSURE (A) 2076  
 INITIAL FLOW PERIOD MIN: 30 (B) 51 PSI TO (C) : 82  
 INITIAL CLOSED IN PERIOD MIN: 48 (D) 1266  
 FINAL FLOW PERIOD MIN: 30 (E) 98 PSI TO (F) : 131  
 FINAL CLOSED IN PERIOD MIN: 42 (G) 1262  
 FINAL HYDROSTATIC PRESSURE (H) 2056

Pressure Transient Report

DATA FILE.....  
COMPANY.....LANDMARK OIL EXPLORATION INC  
DATE OF TEST.....5-5-86  
FIELD NAME.....GARTON  
WELL NAME.....#1-19  
LOCATION.....LANE-KANSAS  
JOB NUMBER.....10360  
GAUGE NUMBER.....13402  
GAUGE DEPTH.....4270

COMMENTS  
CHLORIDES: 22000 PPM

START UP TIME      (mo/da/yr)      (hr:min:sec)  
                         5./5/86.            6.: 25.: 0.

WELL : #1-19 JOB # : 10360

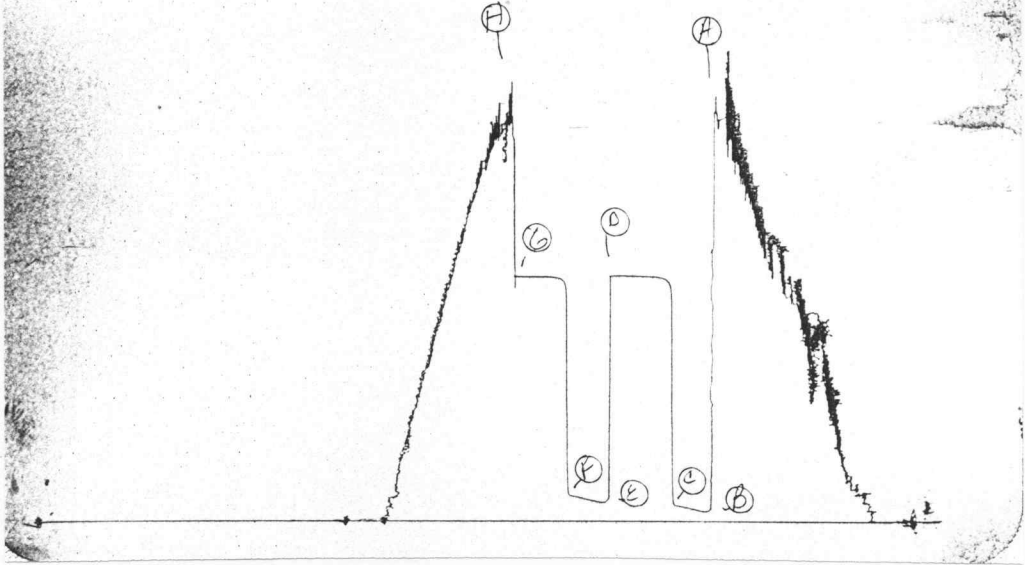
GAUGE # : 13402 DEPTH : 4270

MON/DAY : 5/ 5

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS	HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
1	6:25: 0	0	0.000	51.00	116.0	0.00	0.00
2	6:30: 0	5	0.083	51.00	116.0	0.00	0.00
3	6:35: 0	10	0.167	59.00	116.0	8.00	96.09
4	6:40: 0	15	0.250	66.00	116.0	15.00	83.84
5	6:45: 0	20	0.333	74.00	116.0	23.00	96.09
6	6:50: 0	25	0.417	80.00	116.0	29.00	72.07
7	6:55: 0	30	0.500	82.00	116.0	31.00	23.95
8	6:58: 0	33	0.550	1213.00	116.0	1162.00	22708.71
9	7: 1: 0	36	0.600	1245.00	116.0	1194.00	639.38
10	7: 4: 0	39	0.650	1254.00	116.0	1203.00	179.82
11	7: 7: 0	42	0.700	1256.00	116.0	1205.00	39.96
12	7:10: 0	45	0.750	1260.00	116.0	1209.00	79.92
13	7:13: 0	48	0.800	1261.00	116.0	1210.00	20.08
14	7:16: 0	51	0.850	1262.00	116.0	1211.00	19.98
15	7:19: 0	54	0.900	1263.00	116.0	1212.00	19.98
16	7:22: 0	57	0.950	1264.00	116.0	1213.00	19.98
17	7:25: 0	60	1.000	1265.00	116.0	1214.00	19.98
18	7:28: 0	63	1.050	1265.00	116.0	1214.00	0.00
19	7:31: 0	66	1.100	1266.00	116.0	1215.00	19.98
20	7:34: 0	69	1.150	1266.00	116.0	1215.00	0.00
21	7:37: 0	72	1.200	1266.00	116.0	1215.00	0.00
22	7:40: 0	75	1.250	1266.00	116.0	1215.00	0.00
23	7:43: 0	78	1.300	1266.00	116.0	1215.00	0.00
24	7:44: 0	79	1.317	98.00	116.0	47.00	-69335.19
25	7:48: 0	83	1.383	98.00	116.0	47.00	0.00
26	7:53: 0	88	1.467	104.00	116.0	53.00	72.07
27	7:58: 0	93	1.550	112.00	116.0	61.00	96.09
28	8: 3: 0	98	1.633	120.00	116.0	69.00	95.81
29	8: 8: 0	103	1.717	127.00	116.0	76.00	84.08
30	8:13: 0	108	1.800	131.00	116.0	80.00	48.05
31	8:16: 0	111	1.850	1219.00	116.0	1168.00	21738.77
32	8:19: 0	114	1.900	1247.00	116.0	1196.00	559.45
33	8:22: 0	117	1.950	1252.00	116.0	1201.00	99.90
34	8:25: 0	120	2.000	1256.00	116.0	1205.00	79.92
35	8:28: 0	123	2.050	1258.00	116.0	1207.00	40.16
36	8:31: 0	126	2.100	1260.00	116.0	1209.00	39.96
37	8:34: 0	129	2.150	1261.00	116.0	1210.00	19.98
38	8:37: 0	132	2.200	1262.00	116.0	1211.00	19.98
39	8:40: 0	135	2.250	1262.00	116.0	1211.00	0.00
40	8:43: 0	138	2.300	1262.00	116.0	1211.00	0.00
41	8:46: 0	141	2.350	1262.00	116.0	1211.00	0.00
42	8:49: 0	144	2.400	1262.00	116.0	1211.00	0.00
43	8:52: 0	147	2.450	1262.00	116.0	1211.00	0.00
44	8:55: 0	150	2.500	1262.00	116.0	1211.00	0.00

13402  
DST #2

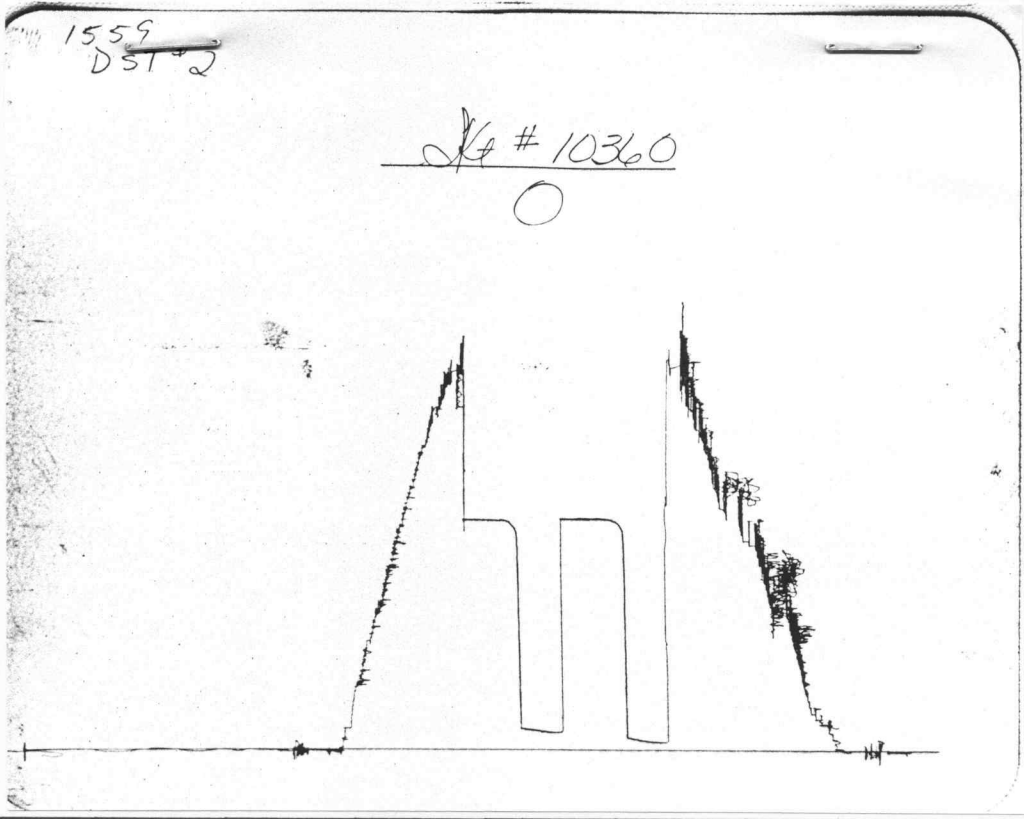
JK # 10360  
I



Inside Recorder

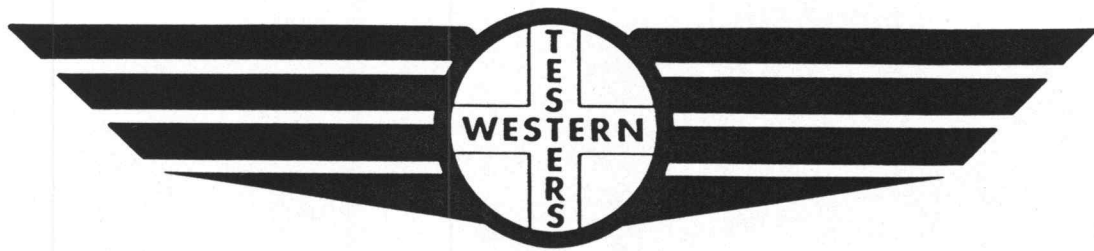
1559  
DST #2

JK # 10360  
O



Outside Recorder

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

SUBSURFACE PRESSURE SURVEY

DATE	: 5-6-86	TICKET	: 10361
CUSTOMER	: LANDMARK OIL EXPLORATION INC.	LEASE	: GARTON
WELL	: #1-19 TEST: 3	GEOLOGIST	: DIXON
ELEVATION	: 2711	FORMATION	: CHEROKEE
SECTION	: 19	TOWNSHIP	: 17S
RANGE	: 28W	COUNTY	: LANE
GAUGE SN#	: 13402	RANGE	: 4025
		STATE	: KANSAS
		CLOCK	: 12

INTERVAL FROM	: 4441	TO	: 4484	TOTAL DEPTH	: 4484
DEPTH OF SELECTIVE ZONE	:				
PACKER DEPTH	: 4436	SIZE	: 6.75		
PACKER DEPTH	: 4441	SIZE	: 6.75		
PACKER DEPTH	:	SIZE	:		
PACKER DEPTH	:	SIZE	:		

DRILLING CON.	: WHITE & ELLIS #8		
MUD TYPE	: CHEMICAL	VISCOSITY	: 46
WEIGHT	: 9.4	WATER LOSS (CC)	: 10.4
CHLORIDES (PPM)	: 7000		
JARS-MAKE	: --	SERIAL NUMBER	:
DID WELL FLOW ?	: NO	REVERSED OUT ?	: NO

DRILL COLLAR LENGTH	: 360	FT	I.D. inch	: 2.20
WEIGHT PIPE LENGTH	: 0	FT	I.D. inch	: 0.00
DRILL PIPE LENGTH	: 4059	FT	I.D. inch	: 3.80
TEST TOOL LENGTH	: 22	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 FH

BLOW COMMENT #1 : WEAK BLOW BUILDING TO STRONG ON  
 BLOW COMMENT #2 : THE INITIAL FLOW.  
 BLOW COMMENT #3 : WEAK BLOW BUILDING TO FAIR ON  
 BLOW COMMENT #4 : THE FINAL FLOW.

RECOVERED	: 180	FT OF: CLEAN GASSY OIL	1.27 Barrels
RECOVERED	: 0	FT OF: 38 DEGREES GRAVITY	0.00 Barrels
RECOVERED	: 120	FT OF: GASSY FROTHY SLIGHTLY	0.84 Barrels
RECOVERED	: 0	FT OF: MUDDY OIL (10%MUD)	0.00 Barrels
RECOVERED	: 180	FT OF: FROTHY MUDDY OIL	1.27 Barrels
RECOVERED	: 0	FT OF: (20%MUD:5% WTR)	0.00 Barrels
RECOVERED	: 0	FT OF: 0.00 Barrels	
RECOVERED	: 0	FT OF: 0.00 Barrels	
RECOVERED	: 0	FT OF: 0.00 Barrels	
Total Barrels =	3.4	Total Production =	69.4 Bpd

REMARK 1 : RECOVERED 180 FEET GAS ABOVE FLUID.  
 REMARK 2 :  
 REMARK 3 :  
 REMARK 4 :

SET PACKER(S)	: 3:15 AM	TIME STARTED OFF BOTTOM	: 6:15 AM
WELL TEMPERATURE	: 118		
INITIAL HYDROSTATIC PRESSURE		(A)	2204
INITIAL FLOW PERIOD	MIN: 25	(B)	74
INITIAL CLOSED IN PERIOD	MIN: 45	(D)	1225
FINAL FLOW PERIOD	MIN: 45	(E)	185
FINAL CLOSED IN PERIOD	MIN: 60	(G)	1221
FINAL HYDROSTATIC PRESSURE		(H)	2153

Pressure Transient Report

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DATA FILE.....  
COMPANY.....LANDMARK OIL EXPLORATION INC.  
DATE OF TEST.....5-6-86  
FIELD NAME.....GARTON  
WELL NAME.....#1-19  
LOCATION.....LANE-KANSAS  
JOB NUMBER.....10361  
GAUGE NUMBER.....13402  
GAUGE DEPTH.....4484

COMMENTS  
RECOVERED 180 FEET GAS ABOVE FLUID.

START UP TIME (mo/da/yr) (hr:min:sec)  
5./6/86. 3.: 15.: 0.

WELL : #1-19 JOB # : 10361

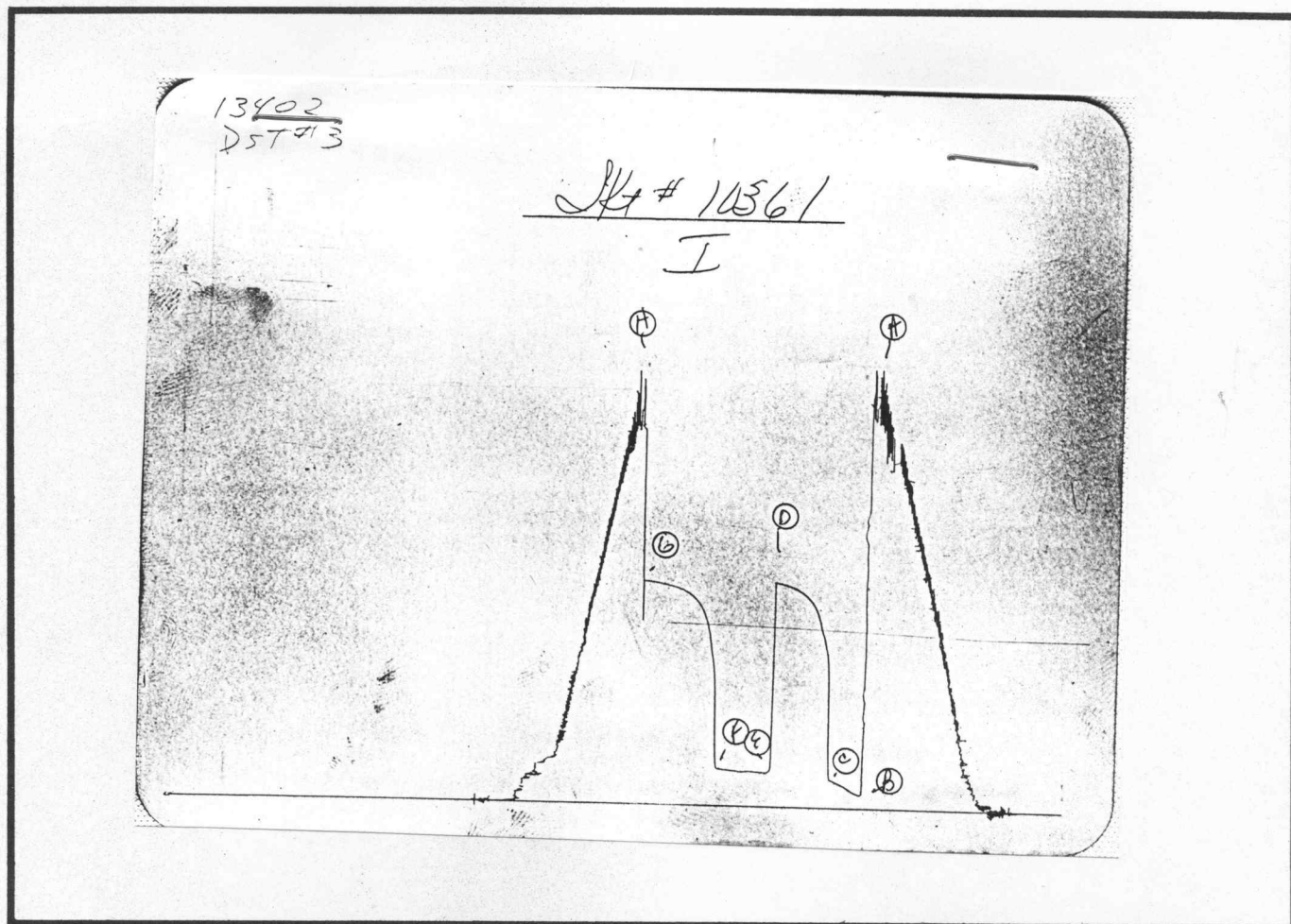
GAUGE # : 13402 DEPTH : 4484

MON/DAY : 5/ 6

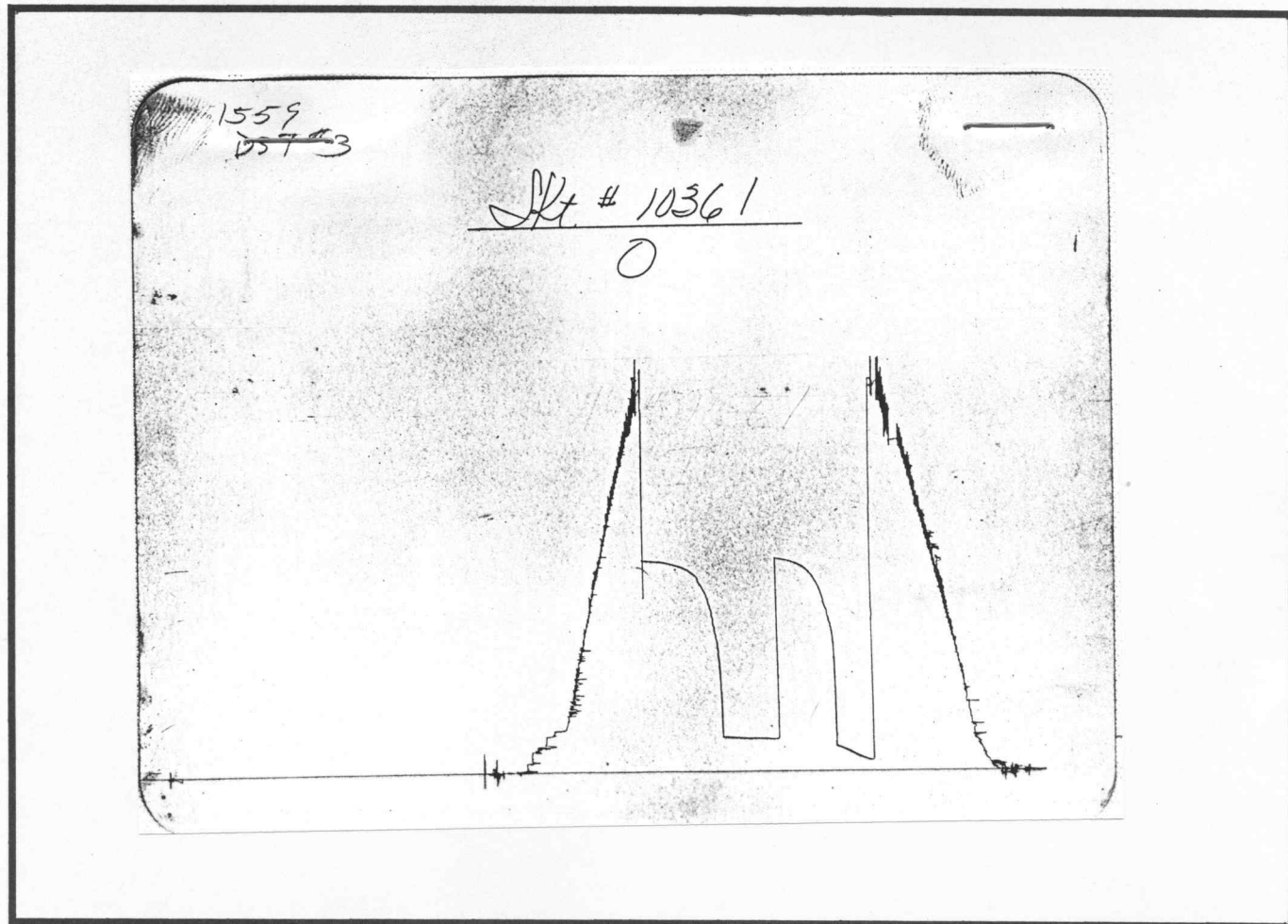
REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS	ELAPSE TIME HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
1	3:15: 0	0	0.000	74.00	118.0	0.00	0.00
2	3:20: 0	5	0.083	82.00	118.0	8.00	96.09
3	3:25: 0	10	0.167	102.00	118.0	28.00	239.53
4	3:30: 0	15	0.250	124.00	118.0	50.00	264.26
5	3:35: 0	20	0.333	139.00	118.0	65.00	180.18
6	3:40: 0	25	0.417	153.00	118.0	79.00	167.67
7	3:43: 0	28	0.467	843.00	118.0	769.00	13854.12
8	3:46: 0	31	0.517	940.00	118.0	866.00	1938.11
9	3:49: 0	34	0.567	1017.00	118.0	943.00	1538.50
10	3:52: 0	37	0.617	1081.00	118.0	1007.00	1278.75
11	3:55: 0	40	0.667	1119.00	118.0	1045.00	759.26
12	3:58: 0	43	0.717	1141.00	118.0	1067.00	441.73
13	4: 1: 0	46	0.767	1161.00	118.0	1087.00	399.61
14	4: 4: 0	49	0.817	1177.00	118.0	1103.00	319.69
15	4: 7: 0	52	0.867	1189.00	118.0	1115.00	239.77
16	4:10: 0	55	0.917	1199.00	118.0	1125.00	199.80
17	4:13: 0	58	0.967	1207.00	118.0	1133.00	160.63
18	4:16: 0	61	1.017	1211.00	118.0	1137.00	79.92
19	4:19: 0	64	1.067	1217.00	118.0	1143.00	119.88
20	4:22: 0	67	1.117	1221.00	118.0	1147.00	79.92
21	4:25: 0	70	1.167	1225.00	118.0	1151.00	79.92
22	4:26: 0	71	1.183	185.00	118.0	111.00	-62644.71
23	4:30: 0	75	1.250	185.00	118.0	111.00	0.00
24	4:35: 0	80	1.333	187.00	118.0	113.00	24.02
25	4:40: 0	85	1.417	188.00	118.0	114.00	11.98
26	4:45: 0	90	1.500	189.00	118.0	115.00	12.01
27	4:50: 0	95	1.583	190.00	118.0	116.00	12.01
28	4:55: 0	100	1.667	192.00	118.0	118.00	23.95
29	5: 0: 0	105	1.750	194.00	118.0	120.00	24.02
30	5: 5: 0	110	1.833	198.00	118.0	124.00	48.05
31	5:10: 0	115	1.917	202.00	118.0	128.00	47.91
32	5:13: 0	118	1.967	764.00	118.0	690.00	11284.08
33	5:16: 0	121	2.017	899.00	118.0	825.00	2697.37
34	5:19: 0	124	2.067	996.00	118.0	922.00	1938.11
35	5:22: 0	127	2.117	1057.00	118.0	983.00	1218.81
36	5:25: 0	130	2.167	1093.00	118.0	1019.00	719.30
37	5:28: 0	133	2.217	1119.00	118.0	1045.00	522.04
38	5:31: 0	136	2.267	1143.00	118.0	1069.00	479.53
39	5:34: 0	139	2.317	1159.00	118.0	1085.00	319.69
40	5:37: 0	142	2.367	1169.00	118.0	1095.00	199.80
41	5:40: 0	145	2.417	1177.00	118.0	1103.00	159.84
42	5:43: 0	148	2.467	1187.00	118.0	1113.00	200.78
43	5:46: 0	151	2.517	1193.00	118.0	1119.00	119.88
44	5:49: 0	154	2.567	1199.00	118.0	1125.00	119.88
45	5:52: 0	157	2.617	1201.00	118.0	1127.00	39.96
46	5:55: 0	160	2.667	1207.00	118.0	1133.00	119.88
47	5:58: 0	163	2.717	1211.00	118.0	1137.00	80.31
48	6: 1: 0	166	2.767	1215.00	118.0	1141.00	79.92
49	6: 4: 0	169	2.817	1217.00	118.0	1143.00	39.96

COMPANY : LANDMARK OIL EXPLORATION INC. FIELD : GARTON  
WELL : #1-19 JOB # : 10361  
GAUGE # : 13402 DEPTH : 4484  
MON/DAY : 5/ 6

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS	HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
50	6: 7: 0	172	2.867	1219.00	118.0	1145.00	39.96
51	6:10: 0	175	2.917	1221.00	118.0	1147.00	39.96



Inside Recorder



Outside Recorder