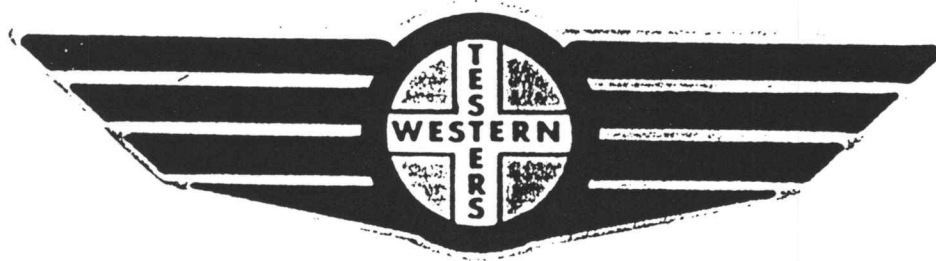


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY PENDLETON LAND & EXPLORATION LEASE & WELL NO. OBERLE #1
& H & C OIL OPERATING CO., INC. SEC. 36 TWP. 17S RGE. 11W TEST NO. 1 DATE 10/31/87

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 10-31-87 TICKET : 11896
CUSTOMER : PENDLETON LAND & EXPLOR. & H&C OIL OPER.
WELL : #1 TEST: 1 LEASE : OBERLE
ELEVATION : 1807 GL GEOLOGIST : R. SMITH
SECTION : 36 FORMATION : DOUGLAS & LANS.
RANGE : 11W COUNTY : BARTON TOWNSHIP : 17S
GAUGE SN# : 13549 RANGE : 4100 STATE : KANSAS
CLOCK : 12

INTERVAL FROM : 28888 TO : 3010 TOTAL DEPTH : 3010
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 2883 SIZE : 6.63
PACKER DEPTH : 2888 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : ALLEN RIG #2
MUD TYPE : CHEMICAL VISCOSITY : 38
WEIGHT : 9.2 WATER LOSS (CC) : 8.4
CHLORIDES (PPM) : 16000
JARS-MAKE : WTC SERIAL NUMBER : 411
DID WELL FLOW ? : - REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 2860 FT I.D. inch : 3.80
TEST TOOL LENGTH : 28 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 122 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-WEAK BLOW-BUILDING IN 6".
BLOW COMMENT #2 : FINAL FLOW-WEAK BLOW-BUILDING IN 1/2".
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 140 FT OF: WATERY MUD / WITH TRACE OF OIL
40% WATER-60% MUD

CHLORIDES: 100000 PPM

Total Barrels Fluid = 1.96
Total Fluid Prod Rate = 31.42 BFPD
Indicated Wtr Rate = 14.59 BWPD

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

SET PACKER(S) : 11:22 PM
WELL TEMPERATURE : 106

TIME STARTED OFF BOTTOM : 3:22 AM

INITIAL HYDROSTATIC PRESSURE

(A) 1423

INITIAL FLOW PERIOD MIN: 30

(B) 45 PSI TO (C) : 54

INITIAL CLOSED IN PERIOD MIN: 63

(D) 944

FINAL FLOW PERIOD MIN: 60

(E) 73 PSI TO (F) : 92

FINAL CLOSED IN PERIOD MIN: 93

(G) 931

FINAL HYDROSTATIC PRESSURE

(H) 1419

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.
RIG : BARTON-KANSAS
FIELD : OBERLE
WELL : #1
DATE : 10-31-87
GAUGE NO : 13549

OPERATIONAL COMMENTS

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.

FIELD : OBERLE

WELL : #1

JOB # : 11896

GAUGE # : 13549

DEPTH : 3010

DATE : 31/10/87

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	11:22: 0	0.000	45.000	106.00	0.000
2	11:26:59	0.083	45.000	106.00	0.000
3	11:32: 0	0.167	48.000	106.00	3.000
4	11:37: 0	0.250	50.000	106.00	2.000
5	11:41:59	0.333	51.000	106.00	1.000
6	11:47: 0	0.417	52.000	106.00	1.000
7	11:52: 0	0.500	54.000	106.00	2.000
8	11:55: 0	0.550	87.000	106.00	33.000
9	11:58: 0	0.600	201.000	106.00	114.000
10	12: 1: 0	0.650	402.000	106.00	201.000
11	12: 4: 0	0.700	580.000	106.00	178.000
12	12: 7: 0	0.750	695.000	106.00	115.000
13	12:10: 0	0.800	756.000	106.00	61.000
14	12:13: 0	0.850	800.000	106.00	44.000
15	12:16: 0	0.900	832.000	106.00	32.000
16	12:19: 0	0.950	852.000	106.00	20.000
17	12:22: 0	1.000	869.000	106.00	17.000
18	12:25: 0	1.050	883.000	106.00	14.000
19	12:28: 0	1.100	895.000	106.00	12.000
20	12:31: 0	1.150	904.000	106.00	9.000
21	12:34: 0	1.200	912.000	106.00	8.000
22	12:37: 0	1.250	919.000	106.00	7.000
23	12:40: 0	1.300	926.000	106.00	7.000
24	12:43: 0	1.350	930.000	106.00	4.000
25	12:46: 0	1.400	934.000	106.00	4.000
26	12:49: 0	1.450	939.000	106.00	5.000
27	12:52: 0	1.500	942.000	106.00	3.000
28	12:55: 0	1.550	944.000	106.00	2.000
29	12:56: 0	1.567	73.000	106.00	-871.000
30	12:59:59	1.633	73.000	106.00	0.000
31	13: 5: 0	1.717	73.000	106.00	0.000
32	13:10: 0	1.800	73.000	106.00	0.000
33	13:14:59	1.883	75.000	106.00	2.000
34	13:20: 0	1.967	77.000	106.00	2.000
35	13:25: 0	2.050	79.000	106.00	2.000
36	13:29:59	2.133	81.000	106.00	2.000
37	13:35: 0	2.217	83.000	106.00	2.000
38	13:40: 0	2.300	85.000	106.00	2.000
39	13:44:59	2.383	87.000	106.00	2.000
40	13:50: 0	2.467	89.000	106.00	2.000
41	13:55: 0	2.550	92.000	106.00	3.000
42	13:58: 0	2.600	125.000	106.00	33.000
43	14: 0:59	2.650	210.000	106.00	85.000
44	14: 4: 0	2.700	342.000	106.00	132.000
45	14: 7: 0	2.750	491.000	106.00	149.000
46	14:10: 0	2.800	602.000	106.00	111.000
47	14:13: 0	2.850	676.000	106.00	74.000
48	14:15:59	2.900	726.000	106.00	50.000
49	14:19: 0	2.950	760.000	106.00	34.000
50	14:22: 0	3.000	787.000	106.00	27.000
51	14:25: 0	3.050	809.000	106.00	22.000
52	14:28: 0	3.100	825.000	106.00	16.000

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.

WELL : #1
GAUGE # : 13549
DATE : 31/10/87

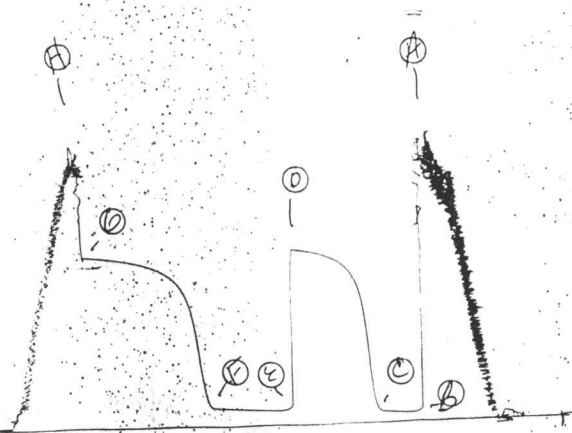
FIELD : OBERLE
JOB # : 11896
DEPTH : 3010
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	14:31: 0	3.150	838.000	106.00	13.000
54	14:33:59	3.200	848.000	106.00	10.000
55	14:37: 0	3.250	860.000	106.00	12.000
56	14:40: 0	3.300	869.000	106.00	9.000
57	14:43: 0	3.350	876.000	106.00	7.000
58	14:46: 0	3.400	883.000	106.00	7.000
59	14:48:59	3.450	889.000	106.00	6.000
60	14:52: 0	3.500	893.000	106.00	4.000
61	14:55: 0	3.550	899.000	106.00	6.000
62	14:58: 0	3.600	903.000	106.00	4.000
63	15: 1: 0	3.650	907.000	106.00	4.000
64	15: 3:59	3.700	909.000	106.00	2.000
65	15: 7: 0	3.750	911.000	106.00	2.000
66	15:10: 0	3.800	915.000	106.00	4.000
67	15:13: 0	3.850	917.000	106.00	2.000
68	15:16: 0	3.900	922.000	106.00	5.000
69	15:19: 0	3.950	925.000	106.00	3.000
70	15:22: 0	4.000	927.000	106.00	2.000
71	15:25: 0	4.050	929.000	106.00	2.000
72	15:28: 0	4.100	931.000	106.00	2.000

WESTERN TESTING CO. INC.

JK #1896

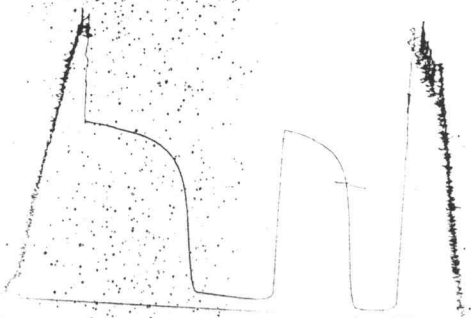
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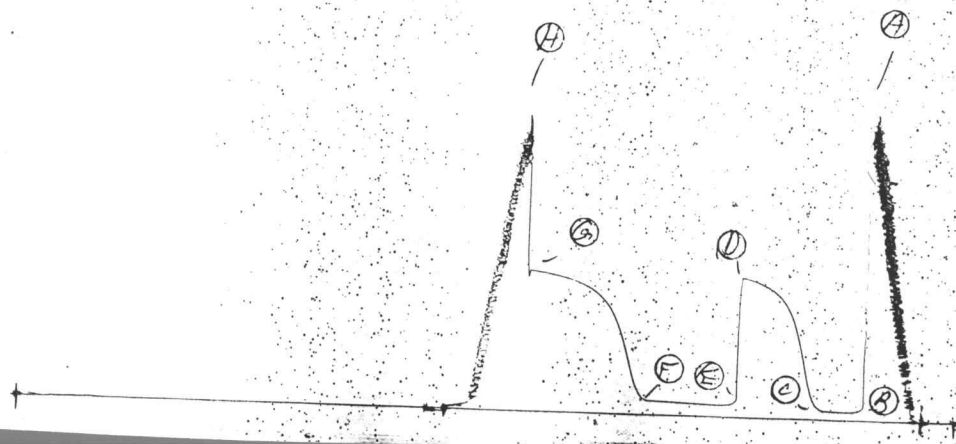
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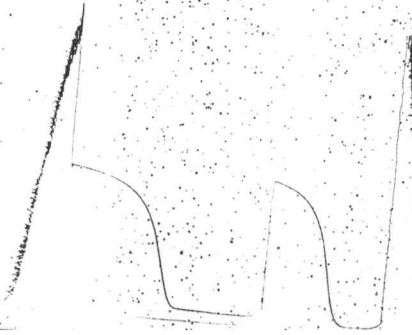
TK4 11897

1



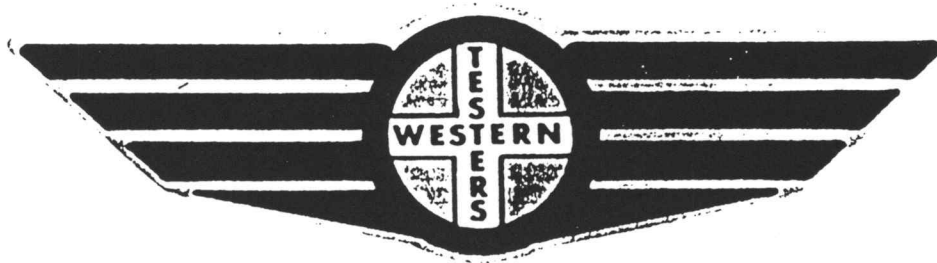
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KT 11897
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1353

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 11-1-87 TICKET : 11897
CUSTOMER : PENDLETON LAND & EXPLOR. & H&C OIL OPER.
WELL : #1 TEST: 2 LEASE : OBERLE
ELEVATION : 1870 GL GEOLOGIST : R. SMITH
SECTION : 36 FORMATION : LANS "B-G"
RANGE : 11W COUNTY : BARTON TOWNSHIP : 17S
GAUGE SN# : 13549 RANGE : 4100 STATE : KANSAS
CLOCK : 12

INTERVAL FROM : 3008 TO : 3090 TOTAL DEPTH : 3090
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 3003 SIZE : 6.63
PACKER DEPTH : 3008 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : ALLEN RIG #2
MUD TYPE : CHEMICAL VISCOSITY : 40
WEIGHT : 9.4 WATER LOSS (CC) : 8.8
CHLORIDES (PPM) : 30000
JARS-MAKE : WTC SERIAL NUMBER : 411
DID WELL FLOW ? : - REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 2990 FT I.D. inch : 3.80
TEST TOOL LENGTH : 28 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 82 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-WEAK BLOW-BUILDING IN 5".
BLOW COMMENT #2 : FINAL FLOW-WEAK BLOW-BUILDING IN 1 1/2".
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 120 FT OF: MUD / WITH TRACE OF OIL

Total Barrels Fluid = 1.68
Total Fluid Prod Rate = 25.51 BFPD
Indicated Wtr Rate = 2.55 BWPD

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

SET PACKER(S) : 1:40 PM

TIME STARTED OFF BOTTOM : 5:40 PM

WELL TEMPERATURE : 107

INITIAL HYDROSTATIC PRESSURE

INITIAL FLOW PERIOD MIN: 30

INITIAL CLOSED IN PERIOD MIN: 60

FINAL FLOW PERIOD MIN: 65

FINAL CLOSED IN PERIOD MIN: 90

FINAL HYDROSTATIC PRESSURE

(A) 1495

(B) 45 PSI TO (C) : 50

(D) 760

(E) 65 PSI TO (F) : 77

(G) 774

(H) 1461

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.
RIG : BARTON-KANSAS
FIELD : OBERLE
WELL : #1
DATE : 11-1-87
GAUGE NO : 13549

OPERATIONAL COMMENTS

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.

FIELD : OBERLE

WELL : #1

JOB # : 11897

GAUGE # : 13549

DEPTH : 3090

DATE : 1/11/87

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	1:40: 0	0.000	45.000	107.00	0.000
2	1:44:59	0.083	45.000	107.00	0.000
3	1:50: 0	0.167	45.000	107.00	0.000
4	1:55: 0	0.250	45.000	107.00	0.000
5	1:59:59	0.333	45.000	107.00	0.000
6	2: 5: 0	0.417	47.000	107.00	2.000
7	2:10: 0	0.500	50.000	107.00	3.000
8	2:13: 0	0.550	60.000	107.00	10.000
9	2:16: 0	0.600	85.000	107.00	25.000
10	2:19: 0	0.650	143.000	107.00	58.000
11	2:22: 0	0.700	231.000	107.00	88.000
12	2:25: 0	0.750	342.000	107.00	111.000
13	2:28: 0	0.800	434.000	107.00	92.000
14	2:31: 0	0.850	509.000	107.00	75.000
15	2:34: 0	0.900	566.000	107.00	57.000
16	2:37: 0	0.950	608.000	107.00	42.000
17	2:40: 0	1.000	637.000	107.00	29.000
18	2:43: 0	1.050	663.000	107.00	26.000
19	2:46: 0	1.100	683.000	107.00	20.000
20	2:49: 0	1.150	701.000	107.00	18.000
21	2:52: 0	1.200	714.000	107.00	13.000
22	2:55: 0	1.250	725.000	107.00	11.000
23	2:58: 0	1.300	735.000	107.00	10.000
24	3: 1: 0	1.350	743.000	107.00	8.000
25	3: 4: 0	1.400	750.000	107.00	7.000
26	3: 7: 0	1.450	756.000	107.00	6.000
27	3:10: 0	1.500	760.000	107.00	4.000
28	3:11: 0	1.517	65.000	107.00	-695.000
29	3:14:59	1.583	65.000	107.00	0.000
30	3:20: 0	1.667	65.000	107.00	0.000
31	3:25: 0	1.750	65.000	107.00	0.000
32	3:29:59	1.833	67.000	107.00	2.000
33	3:35: 0	1.917	68.000	107.00	1.000
34	3:40: 0	2.000	70.000	107.00	2.000
35	3:44:59	2.083	71.000	107.00	1.000
36	3:50: 0	2.167	72.000	107.00	1.000
37	3:55: 0	2.250	73.000	107.00	1.000
38	3:59:59	2.333	74.000	107.00	1.000
39	4: 5: 0	2.417	75.000	107.00	1.000
40	4:10: 0	2.500	76.000	107.00	1.000
41	4:14:59	2.583	77.000	107.00	1.000
42	4:17:59	2.633	87.000	107.00	10.000
43	4:20:59	2.683	110.000	107.00	23.000
44	4:23:59	2.733	152.000	107.00	42.000
45	4:26:59	2.783	225.000	107.00	73.000
46	4:29:59	2.833	308.000	107.00	83.000
47	4:32:59	2.883	389.000	107.00	81.000
48	4:35:59	2.933	456.000	107.00	67.000
49	4:38:59	2.983	515.000	107.00	59.000
50	4:41:59	3.033	560.000	107.00	45.000
51	4:44:59	3.083	591.000	107.00	31.000
52	4:47:59	3.133	619.000	107.00	28.000

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.

FIELD : OBERLE

WELL : #1

JOB # : 11897

GAUGE # : 13549

DEPTH : 3090

DATE : 1/11/87

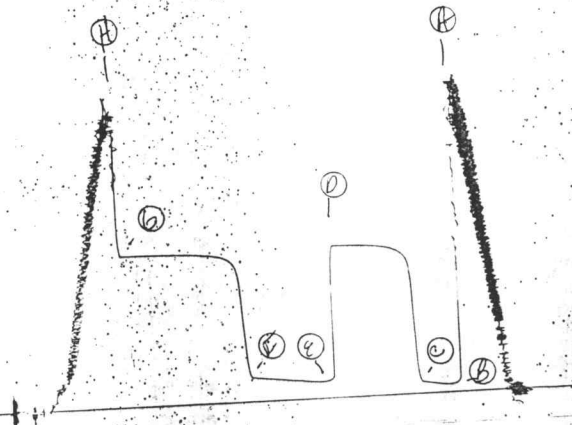
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	4:50:59	3.183	641.000	107.00	22.000
54	4:53:59	3.233	659.000	107.00	18.000
55	4:56:59	3.283	675.000	107.00	16.000
56	4:59:59	3.333	688.000	107.00	13.000
57	5: 2:59	3.383	700.000	107.00	12.000
58	5: 5:59	3.433	709.000	107.00	9.000
59	5: 8:59	3.483	717.000	107.00	8.000
60	5:11:59	3.533	725.000	107.00	8.000
61	5:14:59	3.583	732.000	107.00	7.000
62	5:17:59	3.633	737.000	107.00	5.000
63	5:20:59	3.683	743.000	107.00	6.000
64	5:23:59	3.733	748.000	107.00	5.000
65	5:26:59	3.783	752.000	107.00	4.000
66	5:29:59	3.833	756.000	107.00	4.000
67	5:32:59	3.883	759.000	107.00	3.000
68	5:35:59	3.933	764.000	107.00	5.000
69	5:38:59	3.983	766.000	107.00	2.000
70	5:41:59	4.033	770.000	107.00	4.000
71	5:44:59	4.083	774.000	107.00	4.000

WESTERN TESTING CO. INC.

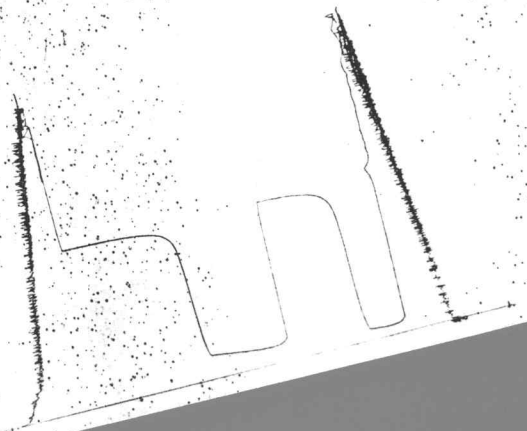
LK # 11898

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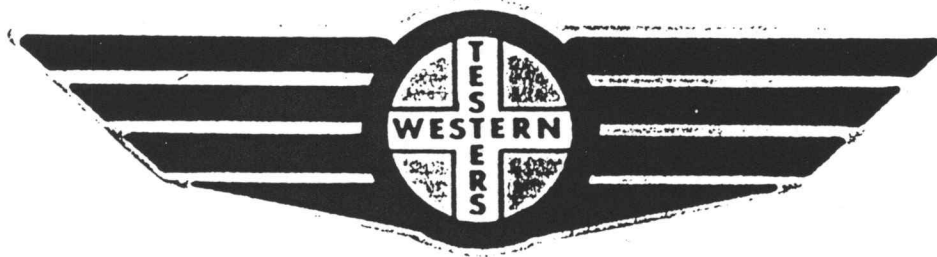
1349

St #11898
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1353

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 11-2-87 TICKET : 11898
CUSTOMER : PENDLETON LAND & EXPLOR. & H&C OIL OPER.
LEASE : OBERLE
WELL : #1 TEST: 3 GEOLOGIST : R. SMITH
ELEVATION : 1870 GL FORMATION : LANS."G-K"
SECTION : 36 TOWNSHIP : 17S
RANGE : 11W COUNTY : BARTON STATE : KANSAS
GAUGE SN# : 13549 RANGE : 4100 CLOCK : 12

INTERVAL FROM : 3097 TO : 3250 TOTAL DEPTH : 3250
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 3092 SIZE : 6.63
PACKER DEPTH : 3097 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : ALLEN RIG #2
MUD TYPE : CHEMICAL VISCOSITY : 40
WEIGHT : 9.4 WATER LOSS (CC) : 8.8
CHLORIDES (PPM) : 30000
JARS-MAKE : WTC SERIAL NUMBER : 411
DID WELL FLOW ? : - REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 3069 FT I.D. inch : 3.80
TEST TOOL LENGTH : 28 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 153 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-WEAK BLOW-BUILDING IN 11".
BLOW COMMENT #2 : FINAL FLOW-WEAK BLOW-BUILDING IN 6".
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 240 FT OF: MUDDY WATER-SLIGHTLY OIL CUT
10% OIL-30% MUD-60% WATER

CHLORIDES: 78000 PPM

Total Barrels Fluid = 3.37
Total Fluid Prod Rate = 53.86 BFPD
Indicated Oil Rate = 5.39 BOPD
Indicated Wtr Rate = 32.77 BWPD

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

SET PACKER(S) : 9:52 AM

TIME STARTED OFF BOTTOM : 1:52 PM

WELL TEMPERATURE : 107

INITIAL HYDROSTATIC PRESSURE

(A) 1551

INITIAL FLOW PERIOD MIN: 30

(B) 46 PSI TO (C) : 69

INITIAL CLOSED IN PERIOD MIN: 63

(D) 831

FINAL FLOW PERIOD MIN: 60

(E) 95 PSI TO (F) : 133

FINAL CLOSED IN PERIOD MIN: 93

(G) 827

FINAL HYDROSTATIC PRESSURE

(H) 1512

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.
RIG : BARTON-KANSAS
FIELD : OBERLE
WELL : #1
DATE : 11-2-87
GAUGE NO : 13549

OPERATIONAL COMMENTS

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.

FIELD : OBERLE

WELL : #1

JOB # : 11898

GAUGE # : 13549

DEPTH : 3250

DATE : 2/11/87

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	9:52: 0	0.000	46.000	107.00	0.000
2	9:56:59	0.083	46.000	107.00	0.000
3	10: 2: 0	0.167	46.000	107.00	0.000
4	10: 7: 0	0.250	50.000	107.00	4.000
5	10:11:59	0.333	55.000	107.00	5.000
6	10:17: 0	0.417	62.000	107.00	7.000
7	10:22: 0	0.500	69.000	107.00	7.000
8	10:25: 0	0.550	247.000	107.00	178.000
9	10:28: 0	0.600	652.000	107.00	405.000
10	10:31: 0	0.650	746.000	107.00	94.000
11	10:34: 0	0.700	772.000	107.00	26.000
12	10:37: 0	0.750	787.000	107.00	15.000
13	10:40: 0	0.800	797.000	107.00	10.000
14	10:43: 0	0.850	806.000	107.00	9.000
15	10:46: 0	0.900	810.000	107.00	4.000
16	10:49: 0	0.950	814.000	107.00	4.000
17	10:52: 0	1.000	818.000	107.00	4.000
18	10:55: 0	1.050	821.000	107.00	3.000
19	10:58: 0	1.100	822.000	107.00	1.000
20	11: 1: 0	1.150	823.000	107.00	1.000
21	11: 4: 0	1.200	824.000	107.00	1.000
22	11: 7: 0	1.250	825.000	107.00	1.000
23	11:10: 0	1.300	826.000	107.00	1.000
24	11:13: 0	1.350	827.000	107.00	1.000
25	11:16: 0	1.400	828.000	107.00	1.000
26	11:19: 0	1.450	829.000	107.00	1.000
27	11:22: 0	1.500	830.000	107.00	1.000
28	11:25: 0	1.550	831.000	107.00	1.000
29	11:26: 0	1.567	95.000	107.00	-736.000
30	11:29:59	1.633	95.000	107.00	0.000
31	11:35: 0	1.717	95.000	107.00	0.000
32	11:40: 0	1.800	95.000	107.00	0.000
33	11:44:59	1.883	99.000	107.00	4.000
34	11:50: 0	1.967	104.000	107.00	5.000
35	11:55: 0	2.050	106.000	107.00	2.000
36	11:59:59	2.133	112.000	107.00	6.000
37	12: 5: 0	2.217	116.000	107.00	4.000
38	12:10: 0	2.300	120.000	107.00	4.000
39	12:14:59	2.383	125.000	107.00	5.000
40	12:20: 0	2.467	129.000	107.00	4.000
41	12:25: 0	2.550	133.000	107.00	4.000
42	12:28: 0	2.600	221.000	107.00	88.000
43	12:30:59	2.650	494.000	107.00	273.000
44	12:34: 0	2.700	703.000	107.00	209.000
45	12:37: 0	2.750	752.000	107.00	49.000
46	12:40: 0	2.800	778.000	107.00	26.000
47	12:43: 0	2.850	789.000	107.00	11.000
48	12:45:59	2.900	798.000	107.00	9.000
49	12:49: 0	2.950	803.000	107.00	5.000
50	12:52: 0	3.000	808.000	107.00	5.000
51	12:55: 0	3.050	810.000	107.00	2.000
52	12:58: 0	3.100	812.000	107.00	2.000

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.

WELL : #1

GAUGE # : 13549

DATE : 2/11/87

FIELD : OBERLE

JOB # : 11898

DEPTH : 3250

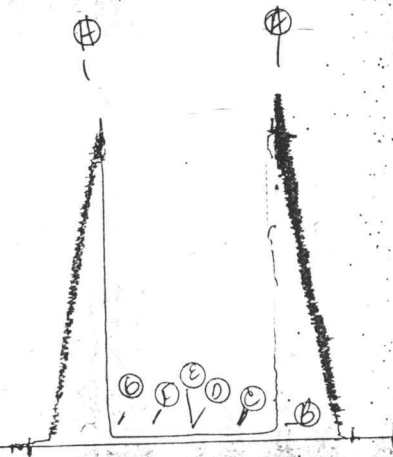
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	13: 1: 0	3.150	814.000	107.00	2.000
54	13: 3:59	3.200	816.000	107.00	2.000
55	13: 7: 0	3.250	818.000	107.00	2.000
56	13:10: 0	3.300	820.000	107.00	2.000
57	13:13: 0	3.350	821.000	107.00	1.000
58	13:16: 0	3.400	822.000	107.00	1.000
59	13:19: 0	3.450	823.000	107.00	1.000
60	13:22: 0	3.500	824.000	107.00	1.000
61	13:25: 0	3.550	824.000	107.00	0.000
62	13:28: 0	3.600	825.000	107.00	1.000
63	13:31: 0	3.650	825.000	107.00	0.000
64	13:34: 0	3.700	826.000	107.00	1.000
65	13:37: 0	3.750	826.000	107.00	0.000
66	13:40: 0	3.800	827.000	107.00	1.000
67	13:43: 0	3.850	827.000	107.00	0.000
68	13:46: 0	3.900	827.000	107.00	0.000
69	13:49: 0	3.950	827.000	107.00	0.000
70	13:52: 0	4.000	827.000	107.00	0.000
71	13:55: 0	4.050	827.000	107.00	0.000
72	13:58: 0	4.100	827.000	107.00	0.000

WESTERN TESTING CO. INC.

Sk # 11899

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135-18

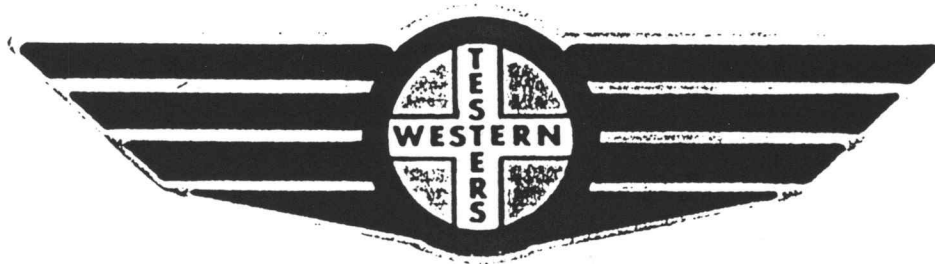
JK #11899

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1353

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY PENDLETON LAND & EXPLORATION LEASE & WELL NO. OBERLE #1
& H & C OIL OPERATING CO., INC. SEC. 36 TWP. 17S RGE. 11W TEST NO. 4 DATE 11/2/87

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 11-2-87 TICKET : 11899
CUSTOMER : PENDLETON LAND & EXPLOR. & H&C OIL OPER.
WELL : #1 TEST: 4 LEASE : OBERLE
ELEVATION : 1870 GL GEOLOGIST : R. SMITH
SECTION : 36 FORMATION : ARBUCKLE
RANGE : 11W COUNTY : BARTON TOWNSHIP : 17S
GAUGE SN# : 13549 RANGE : 4100 STATE : KANSAS
CLOCK : 12

INTERVAL FROM : 3256 TO : 3285 TOTAL DEPTH : 3285
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 3251 SIZE : 6.63
PACKER DEPTH : 3256 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : ALLEN RIG #2
MUD TYPE : CHEMICAL VISCOSITY : 48
WEIGHT : 9.7 WATER LOSS (CC) : 8.4
CHLORIDES (PPM) : 24000
JARS-MAKE : WTC SERIAL NUMBER : 411
DID WELL FLOW ? : - REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 3228 FT I.D. inch : 3.80
TEST TOOL LENGTH : 28 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 29 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-WEAK BLOW-DIED IN 13 MINUTES.
BLOW COMMENT #2 : FINAL FLOW-NO BLOW.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 5 FT OF: MUD

Total Barrels Fluid = 0.07
Total Fluid Prod Rate = 1.68 BFPD
Indicated Wtr Rate = 0.17 BWPD

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

SET PACKER(S) : 10:33 PM

TIME STARTED OFF BOTTOM : 12:33 AM

WELL TEMPERATURE : 108

INITIAL HYDROSTATIC PRESSURE

INITIAL FLOW PERIOD MIN: 30

INITIAL CLOSED IN PERIOD MIN: 30

FINAL FLOW PERIOD MIN: 30

FINAL CLOSED IN PERIOD MIN: 30

FINAL HYDROSTATIC PRESSURE

(A) 1658

(B) 40 PSI TO (C) : 40

(D) 48

(E) 40 PSI TO (F) : 40

(G) 40

(H) 1582

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.
RIG : BARTON-KANSAS
FIELD : OBERLE
WELL : #1
DATE : 11-2-87
GAUGE NO : 13549

OPERATIONAL COMMENTS

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.

WELL : #1

GAUGE # : 13549

DATE : 2/11/87

FIELD : OBERLE

JOB # : 11899

DEPTH : 3285

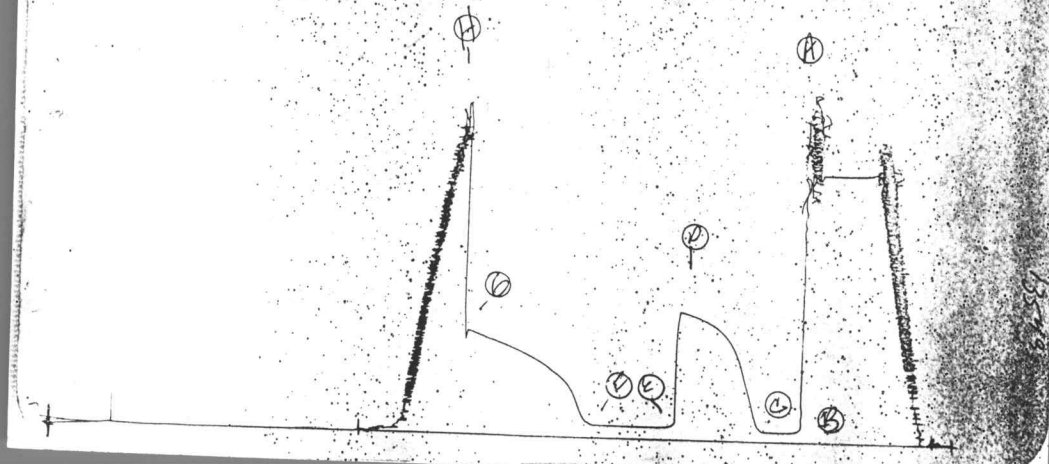
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P $P_i - P(i-1)$
1	10:33: 0	0.000	40.000	108.00	0.000
2	10:37:59	0.083	40.000	108.00	0.000
3	10:43: 0	0.167	40.000	108.00	0.000
4	10:48: 0	0.250	40.000	108.00	0.000
5	10:52:59	0.333	40.000	108.00	0.000
6	10:58: 0	0.417	40.000	108.00	0.000
7	11: 3: 0	0.500	40.000	108.00	0.000
8	11: 6: 0	0.550	40.000	108.00	0.000
9	11: 9: 0	0.600	40.000	108.00	0.000
10	11:12: 0	0.650	40.000	108.00	0.000
11	11:15: 0	0.700	40.000	108.00	0.000
12	11:18: 0	0.750	40.000	108.00	0.000
13	11:21: 0	0.800	40.000	108.00	0.000
14	11:24: 0	0.850	41.000	108.00	1.000
15	11:27: 0	0.900	43.000	108.00	2.000
16	11:30: 0	0.950	44.000	108.00	1.000
17	11:33: 0	1.000	46.000	108.00	2.000
18	11:34: 0	1.017	48.000	108.00	2.000
19	11:37:59	1.083	40.000	108.00	-8.000
20	11:43: 0	1.167	40.000	108.00	0.000
21	11:48: 0	1.250	40.000	108.00	0.000
22	11:52:59	1.333	40.000	108.00	0.000
23	11:58: 0	1.417	40.000	108.00	0.000
24	12: 3: 0	1.500	40.000	108.00	0.000
25	12: 6: 0	1.550	40.000	108.00	0.000
26	12: 9: 0	1.600	40.000	108.00	0.000
27	12:12: 0	1.650	40.000	108.00	0.000
28	12:15: 0	1.700	40.000	108.00	0.000
29	12:18: 0	1.750	40.000	108.00	0.000
30	12:21: 0	1.800	40.000	108.00	0.000
31	12:24: 0	1.850	40.000	108.00	0.000
32	12:27: 0	1.900	40.000	108.00	0.000
33	12:30: 0	1.950	40.000	108.00	0.000
34	12:33: 0	2.000	40.000	108.00	0.000

WESTERN TESTING CO. INC.

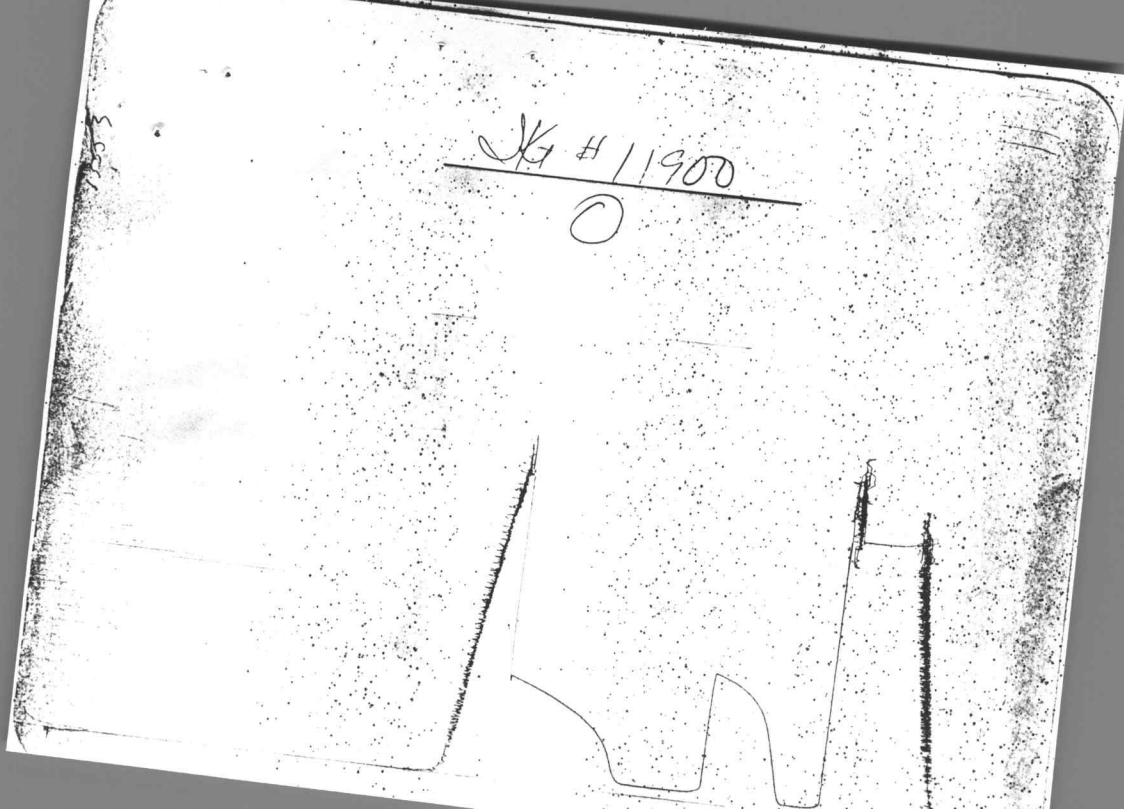
OK # 11900

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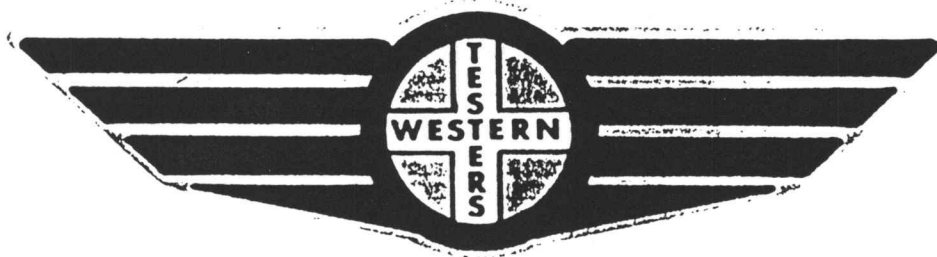


KG # 11900

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY PENDLETON LAND & H&C OIL OPER. LEASE & WELL NO. OBFRLE #1 SEC. 36 TWP. 17S RGE. 11W TEST NO. 5 DATE 11-3-87

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	: 11-3-87	TICKET	: 11900
CUSTOMER	: PENDLETON LAND & H&C OIL OPER.	LEASE	: OBERLE
WELL	: #1 TEST: 5	GEOLOGIST	: ROBERT
ELEVATION	: 1865	FORMATION	: ARBUCKLE
SECTION	: 36	TOWNSHIP	: 17S
RANGE	: 11W	COUNTY	: BARTON
GAUGE SN#	: 13549	RANGE	: 4100
		STATE	: KS
		CLOCK	: 12

INTERVAL FROM	: 3285	TO	: 3300	TOTAL DEPTH	: 3300
DEPTH OF SELECTIVE ZONE	:				
PACKER DEPTH	: 3280	SIZE	: 6.63		
PACKER DEPTH	: 3285	SIZE	: 6.63		
PACKER DEPTH	:	SIZE	:		
PACKER DEPTH	:	SIZE	:		

DRILLING CON.	: ALLEN DRLG. #2		
MUD TYPE	: CHEMICAL	VISCOSITY	: 48
WEIGHT	: 9.7	WATER LOSS (CC)	: 8.4
CHLORIDES (PPM)	: 24000		
JARS-MAKE	: WTC	SERIAL NUMBER	: 411
DID WELL FLOW ?	:	REVERSED OUT ?	:

DRILL COLLAR LENGTH	: 0	FT	I.D. inch	: 0.00
WEIGHT PIPE LENGTH	: 0	FT	I.D. inch	: 0.00
DRILL PIPE LENGTH	: 3267	FT	I.D. inch	: 3.80
TEST TOOL LENGTH	: 28	FT	TOOL SIZE	: 5.50
ANCHOR LENGTH	: 15	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 BLOW BUILDING IN 9"
BLOW COMMENT #2	: ON INITIAL FLOW PERIOD.
BLOW COMMENT #3	: WEAK BLOW BUILDING IN 1 1/2"
BLOW COMMENT #4	: ON FINAL FLOW PERIOD.

RECOVERED : 90 FT OF: SLI GSSY HVY OIL C/MDDY WTR
RECOVERED : 0 FT OF: 5%G; 50%O; 25%M; 20%WTR

Total Barrels Fluid = 1.26
Total Fluid Prod Rate = 20.20 BFPD
Indicated Oil Rate = 10.10 BOPD
Indicated Wtr Rate = 4.04 BWPD
Corrected Oil Rate = 9.58 BOPD
Corrected Wtr Rate = 3.83 BWPD

REMARK 1 :
REMARK 2 : CHLORIDES 33000
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 8:56AM

TIME STARTED OFF BOTTOM : 12:56PM

WELL TEMPERATURE : 108

INITIAL HYDROSTATIC PRESSURE

INITIAL FLOW PERIOD MIN: 30 (A) 1650

INITIAL CLOSED IN PERIOD MIN: 60 (B) 56 PSI TO (C) : 56

FINAL FLOW PERIOD MIN: 60 (D) 696

FINAL CLOSED IN PERIOD MIN: 90 (E) 72 PSI TO (F) : 72

FINAL HYDROSTATIC PRESSURE (G) 571

(H) 1627

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : PENDLETON LAND & H&C OIL OPER.
RIG : BARTON-KS
FIELD : OBERLE
WELL : #1
DATE : 11-3-87
GAUGE NO : 13549

OPERATIONAL COMMENTS

CHLORIDES 33000

COMPANY : PENDLETON LAND & H&C OIL OPER.

FIELD : OBERLE

WELL : #1

JOB # : 11900

GAUGE # : 13549

DEPTH : 3300

DATE : 2/11/87

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	8:56: 0	0.000	56.000	108.00	0.000
2	9: 0:59	0.083	56.000	108.00	0.000
3	9: 6: 0	0.167	56.000	108.00	0.000
4	9:11: 0	0.250	56.000	108.00	0.000
5	9:15:59	0.333	56.000	108.00	0.000
6	9:21: 0	0.417	56.000	108.00	0.000
7	9:26: 0	0.500	56.000	108.00	0.000
8	9:29: 0	0.550	75.000	108.00	19.000
9	9:32: 0	0.600	183.000	108.00	108.000
10	9:35: 0	0.650	250.000	108.00	67.000
11	9:38: 0	0.700	337.000	108.00	87.000
12	9:41: 0	0.750	420.000	108.00	83.000
13	9:44: 0	0.800	479.000	108.00	59.000
14	9:47: 0	0.850	526.000	108.00	47.000
15	9:50: 0	0.900	553.000	108.00	27.000
16	9:53: 0	0.950	610.000	108.00	57.000
17	9:56: 0	1.000	618.000	108.00	8.000
18	9:59: 0	1.050	633.000	108.00	15.000
19	10: 2: 0	1.100	645.000	108.00	12.000
20	10: 5: 0	1.150	653.000	108.00	8.000
21	10: 8: 0	1.200	661.000	108.00	8.000
22	10:11: 0	1.250	672.000	108.00	11.000
23	10:14: 0	1.300	678.000	108.00	6.000
24	10:17: 0	1.350	684.000	108.00	6.000
25	10:20: 0	1.400	690.000	108.00	6.000
26	10:23: 0	1.450	693.000	108.00	3.000
27	10:26: 0	1.500	696.000	108.00	3.000
28	10:27: 0	1.517	72.000	108.00	-624.000
29	10:30:59	1.583	72.000	108.00	0.000
30	10:36: 0	1.667	72.000	108.00	0.000
31	10:41: 0	1.750	72.000	108.00	0.000
32	10:45:59	1.833	72.000	108.00	0.000
33	10:51: 0	1.917	72.000	108.00	0.000
34	10:56: 0	2.000	72.000	108.00	0.000
35	11: 0:59	2.083	72.000	108.00	0.000
36	11: 6: 0	2.167	72.000	108.00	0.000
37	11:11: 0	2.250	72.000	108.00	0.000
38	11:15:59	2.333	72.000	108.00	0.000
39	11:21: 0	2.417	72.000	108.00	0.000
40	11:26: 0	2.500	72.000	108.00	0.000
41	11:29: 0	2.550	97.000	108.00	25.000
42	11:32: 0	2.600	185.000	108.00	88.000
43	11:35: 0	2.650	243.000	108.00	58.000
44	11:38: 0	2.700	272.000	108.00	29.000
45	11:41: 0	2.750	302.000	108.00	30.000
46	11:44: 0	2.800	325.000	108.00	23.000
47	11:47: 0	2.850	347.000	108.00	22.000
48	11:50: 0	2.900	362.000	108.00	15.000
49	11:53: 0	2.950	377.000	108.00	15.000
50	11:56: 0	3.000	397.000	108.00	20.000
51	11:59: 0	3.050	414.000	108.00	17.000
52	12: 2: 0	3.100	420.000	108.00	6.000

COMPANY : PENDLETON LAND & H&C OIL OPER.

FIELD : OBERLE

WELL : #1

JOB # : 11900

GAUGE # : 13549

DEPTH : 3300

DATE : 2/11/87

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P $P_i - P(i-1)$
53	12: 5: 0	3.150	425.000	108.00	5.000
54	12: 8: 0	3.200	439.000	108.00	14.000
55	12:11: 0	3.250	462.000	108.00	23.000
56	12:14: 0	3.300	475.000	108.00	13.000
57	12:17: 0	3.350	481.000	108.00	6.000
58	12:20: 0	3.400	487.000	108.00	6.000
59	12:23: 0	3.450	493.000	108.00	6.000
60	12:26: 0	3.500	502.000	108.00	9.000
61	12:29: 0	3.550	510.000	108.00	8.000
62	12:32: 0	3.600	518.000	108.00	8.000
63	12:35: 0	3.650	524.000	108.00	6.000
64	12:38: 0	3.700	530.000	108.00	6.000
65	12:41: 0	3.750	538.000	108.00	8.000
66	12:44: 0	3.800	547.000	108.00	9.000
67	12:47: 0	3.850	557.000	108.00	10.000
68	12:50: 0	3.900	565.000	108.00	8.000
69	12:53: 0	3.950	569.000	108.00	4.000
70	12:56: 0	4.000	571.000	108.00	2.000

WESTERN TESTING CO. INC.

WESTERN TESTING CO. INC.
WICHITA - KANSAS

WELL TEST ANALYSIS REPORT
HORNER METHOD
SHUTIN No. 2

COMPANY. PENDLETON LAND & H&C OIL OPER.
DATE 11-3-87
FIELD. OBERLE
WELL #1
AREA BARTON-KS
JOB NUMBER . . . 11900
GAUGE NUMBER . . 13549
GAUGE DEPTH. . . 3300
ZONE TESTED. . . 3285-3300

PHASE : OIL FUNCTION : PRESSURE

=====I=N=P=U=T====D=A=T=A====S=U=M=M=A=R=Y=====

THICKNESS.	H	6.0000E+00	Feet
POROSITY	POR	1.6000E-01	Frac
VISCOSITY.	U	1.3000E+00	Cp
FORMATION VOLUME FACTOR.	B	1.0000E+00	Rb/stb
TOTAL COMPRESSIBILITY.	Ct	1.2500E-05	Psi ⁻¹
WELLBORE RADIUS.	Rw	5.2000E-01	Feet
DRAINAGE RADIUS.	Re	4.0000E+02	Feet
RESERVOIR TEMPERATURE.	T	1.0800E+02	Deg F
GRAVITY OF FLUID	G	3.2000E+01	
PVT EVALUATION PRESSURE.	P	0.0000E+00	Psig
PRESSURE AT SHUT-IN.	Pwf	7.2000E+01	Psig
FINAL RECORDED PRESSURE.	Ps	5.7100E+02	Psig
PRODUCTION RATE.	Q	1.0100E+01	Bbl/day
TOTAL FLOW TIME.	T	1.0000E+00	Hours

=====R=E=G=R=E=S=S=I=O=N====R=E=S=U=L=T=S=====

LEAST SQUARE RESULTS OVER THE INTERVAL :
FROM 0 TO 0

SLOPE OF THE LINE.	9.2607E+02	psi/cycle
FALSE PRESSURE, PSTAR.	7.7785E+02	psi
PRESSURE AT 1 HOUR	4.9907E+02	psi

=====A=N=A=L=Y=S=I=S====R=E=S=U=L=T=S=====

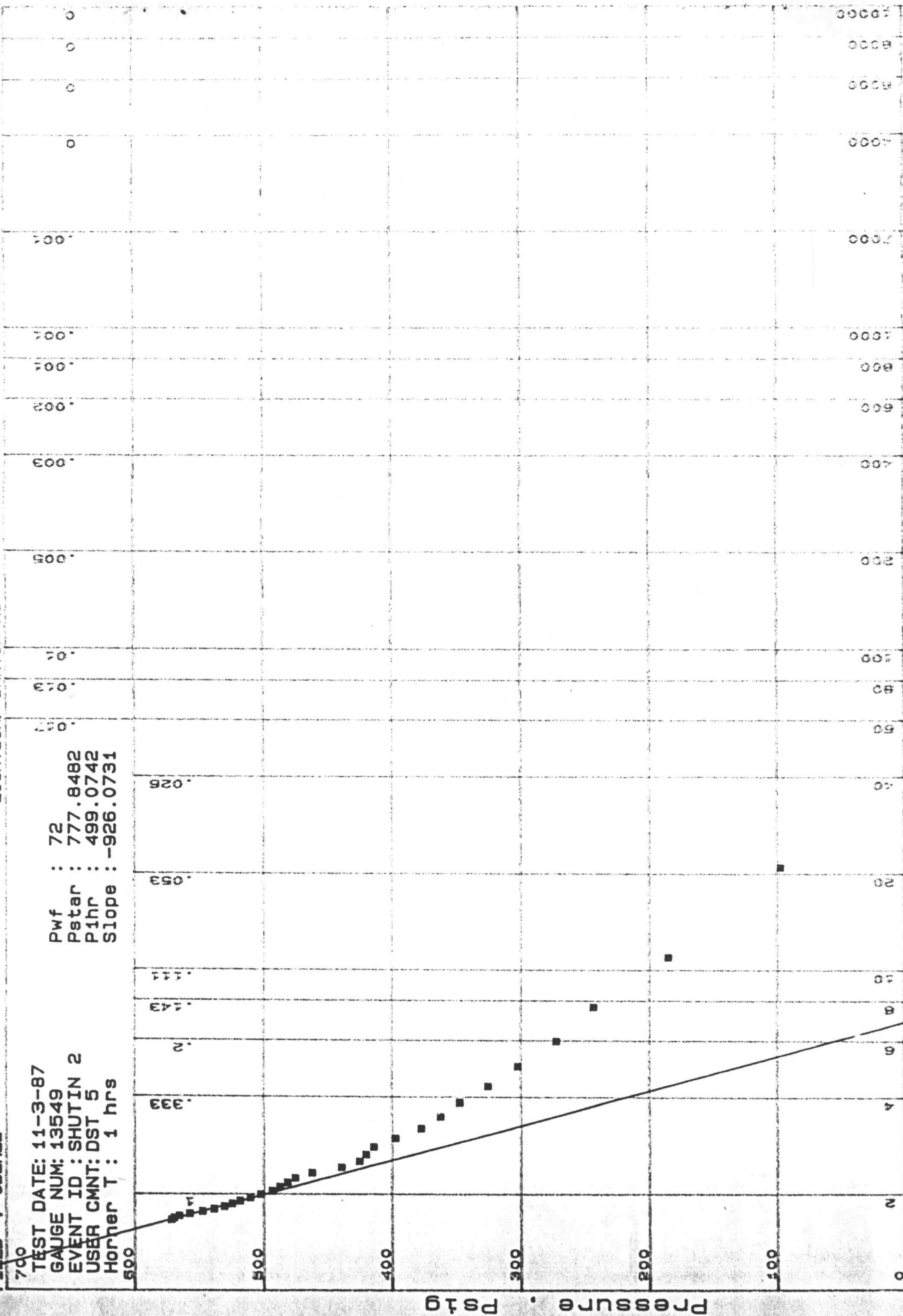
TRANSMISSIBILITY.	Kh/u	1.7734E+00	md-ft/cp
FLOW CAPACITY.	Kh	2.3054E+00	md-ft
PERMEABILITY to PHASE.	K	3.8423E-01	md
DAMAGE RATIO	Dr	3.0398E-01	
RADIUS OF INVESTIGATION.	Rinv	1.2485E+01	ft
SKIN FACTOR.	S	-2.0095E+00	
AVERAGE PRESSURE	Pbar	7.7746E+02	psig
DIMENSIONLESS TIME	Tda	7.7616E-05	
MATTHEWS-BRONS-HAZEBROEK	PDmbh	9.7535E-04	

PROCESSED BY:
ENGINEER: LARRY KING

WELL #11
LOCATION: BARTON-KS

COMPANY: PENDLETON LAND & H&C OIL OPER.
FIELD: OBERLE

TEST DATE: 11-3-87
GAUGE NUM: 13549
EVENT ID: SHUTIN 2
USER CMNT: DST 5
Horner T: 1 hrs
Pwf: 72
Pstar: 777.8482
P1hr: 499.0742
Slope: -926.0731



Job No. 11900
WESTERN TESTING CO. INC.

Horner Ratio, (T+dt)/dt

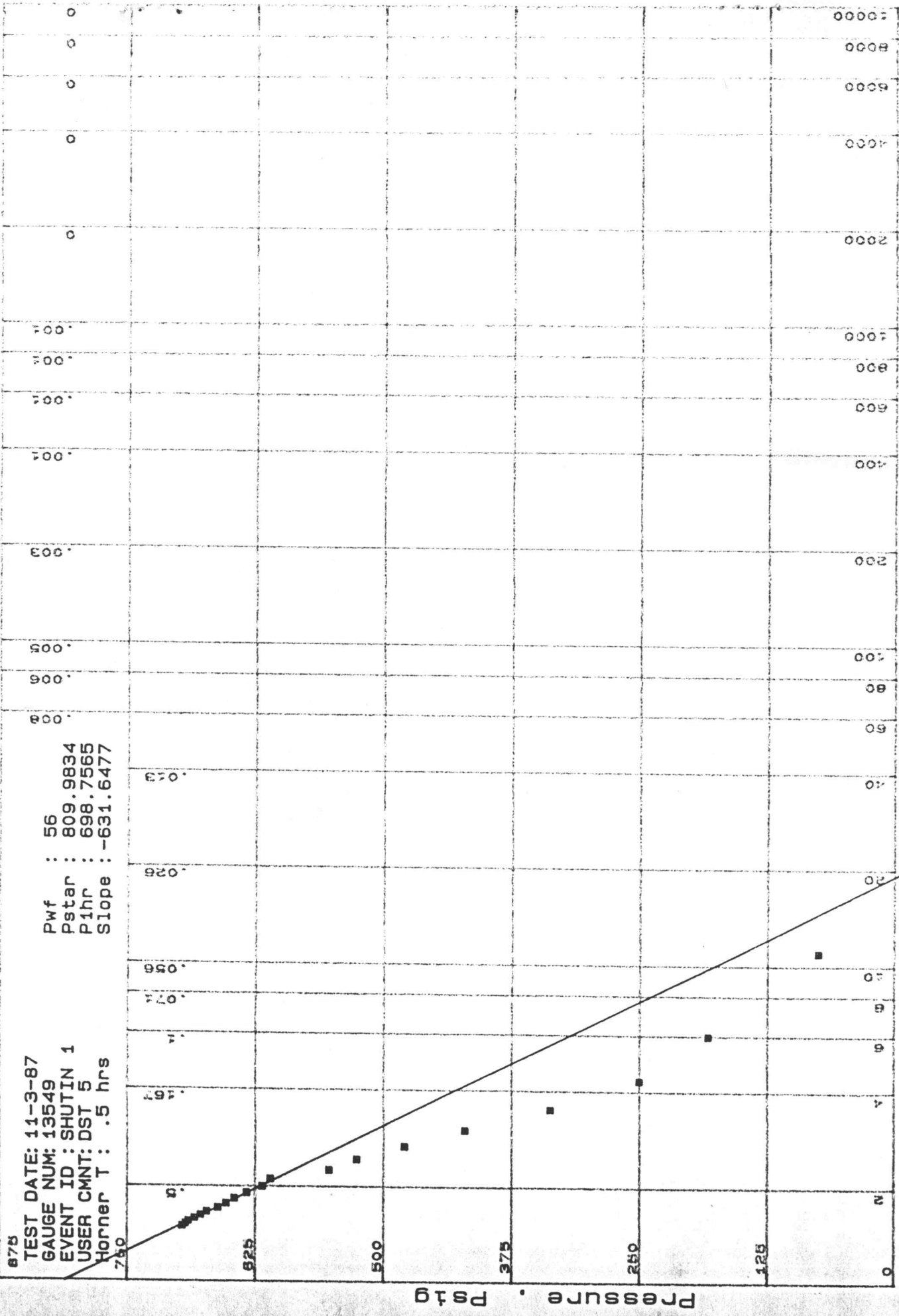
RES-TRAN

COMPANY: PENDLETON LAND & H&C OIL OPER.
FIELD: OBERLE

WELL LOCATION: #1 BARTON-KS

PROCESSED: 11-03-1987
ENGINEER: LARRY KING

TEST DATE: 11-3-87
GAUGE NUM: 13549
EVENT ID: SHUTIN 1
USER CMNT: DST 5
Horner T: .5 hrs
Pwf: 56
Pstar: 809.9834
P1hr: 698.7565
Slope: -631.6477



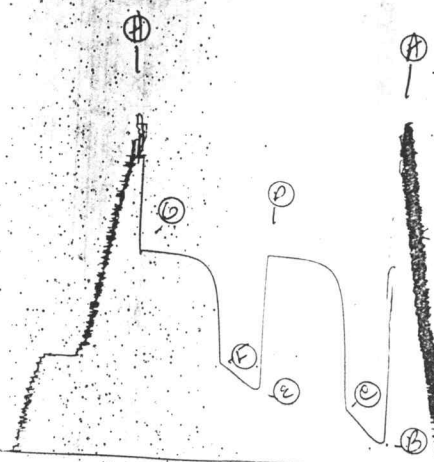
Job No. 11900
WESTERN TESTING CO. INC.

Horner Ratio, (T+dt)/dt

RES-TRAN

JK #12576

I



13079

Sk #12576

0



1353

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 11-3-87 TICKET : 12576
CUSTOMER : PENDLETON LAND & EXPLOR. & H&C OIL OPER.
WELL : #1 TEST: 6 LEASE : OBERLE
ELEVATION : 1870 GL GEOLOGIST : R. SMITH
SECTION : 36 FORMATION : ARBUCKLE
RANGE : 11W COUNTY : BARTON TOWNSHIP : 17S
GAUGE SN# : 13549 RANGE : 4100 STATE : KANSAS
CLOCK : 12

INTERVAL FROM : 3300 TO : 3310 TOTAL DEPTH : 3310
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 3295 SIZE : 6.63
PACKER DEPTH : 3300 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : ALLEN RIG #2
MUD TYPE : CHEMICAL VISCOSITY : 43
WEIGHT : 9.6 WATER LOSS (CC) : 12.0
CHLORIDES (PPM) : 26000
JARS-MAKE : WTC SERIAL NUMBER : 411
DID WELL FLOW ? : - REVERSED OUT ? : -

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 3272 FT I.D. inch : 3.80
TEST TOOL LENGTH : 25 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 10 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 2 MINUTES.
BLOW COMMENT #2 : FINAL FLOW-STRONG BLOW-OFF BOTTOM IN 3 MINUTES.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

* RECOVERED : 1150 FT OF: WATER/ WITH TRACE OF OIL

CHLORIDES: 14000 PPM

Total Barrels Fluid = 16.13
Total Fluid Prod Rate = 387.13 BFPD
Indicated Oil Rate = 3.37 BOPD
Indicated Wtr Rate = 370.30 BWPD

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

SET PACKER(S) : 8:25 PM

TIME STARTED OFF BOTTOM : 11:25 PM

WELL TEMPERATURE : 112

INITIAL HYDROSTATIC PRESSURE

INITIAL FLOW PERIOD MIN: 30

INITIAL CLOSED IN PERIOD MIN: 63

FINAL FLOW PERIOD MIN: 30

FINAL CLOSED IN PERIOD MIN: 63

FINAL HYDROSTATIC PRESSURE

(A) 1685

(B) 139 PSI TO (C) : 305

(D) 1117

(E) 398 PSI TO (F) : 523

(G) 1113

(H) 1617

WESTERN TESTING CO. INC.
WICHITA - KANSAS

Pressure Transient Report

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.
RIG : BARTON-KANSAS
FIELD : OBERLE
WELL : #1
DATE : 11-3-87
GAUGE NO : 13549

OPERATIONAL COMMENTS

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.

FIELD : OBERLE

WELL : #1

JOB # : 12576

GAUGE # : 13549

DEPTH : 3310

DATE : 3/11/87

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	8:25: 0	0.000	139.000	112.00	0.000
2	8:29:59	0.083	139.000	112.00	0.000
3	8:35: 0	0.167	166.000	112.00	27.000
4	8:40: 0	0.250	201.000	112.00	35.000
5	8:44:59	0.333	242.000	112.00	41.000
6	8:50: 0	0.417	276.000	112.00	34.000
7	8:55: 0	0.500	305.000	112.00	29.000
8	8:58: 0	0.550	599.000	112.00	294.000
9	9: 1: 0	0.600	824.000	112.00	225.000
10	9: 4: 0	0.650	938.000	112.00	114.000
11	9: 7: 0	0.700	1001.000	112.00	63.000
12	9:10: 0	0.750	1036.000	112.00	35.000
13	9:13: 0	0.800	1060.000	112.00	24.000
14	9:16: 0	0.850	1076.000	112.00	16.000
15	9:19: 0	0.900	1084.000	112.00	8.000
16	9:22: 0	0.950	1094.000	112.00	10.000
17	9:25: 0	1.000	1097.000	112.00	3.000
18	9:28: 0	1.050	1102.000	112.00	5.000
19	9:31: 0	1.100	1106.000	112.00	4.000
20	9:34: 0	1.150	1108.000	112.00	2.000
21	9:37: 0	1.200	1110.000	112.00	2.000
22	9:40: 0	1.250	1112.000	112.00	2.000
23	9:43: 0	1.300	1113.000	112.00	1.000
24	9:46: 0	1.350	1114.000	112.00	1.000
25	9:49: 0	1.400	1115.000	112.00	1.000
26	9:52: 0	1.450	1116.000	112.00	1.000
27	9:55: 0	1.500	1117.000	112.00	1.000
28	9:58: 0	1.550	1117.000	112.00	0.000
29	9:59: 0	1.567	398.000	112.00	-719.000
30	10: 2:59	1.633	401.000	112.00	3.000
31	10: 8: 0	1.717	424.000	112.00	23.000
32	10:13: 0	1.800	448.000	112.00	24.000
33	10:17:59	1.883	474.000	112.00	26.000
34	10:23: 0	1.967	503.000	112.00	29.000
35	10:28: 0	2.050	523.000	112.00	20.000
36	10:31: 0	2.100	805.000	112.00	282.000
37	10:33:59	2.150	935.000	112.00	130.000
38	10:37: 0	2.200	997.000	112.00	62.000
39	10:40: 0	2.250	1030.000	112.00	33.000
40	10:43: 0	2.300	1054.000	112.00	24.000
41	10:46: 0	2.350	1070.000	112.00	16.000
42	10:48:59	2.400	1081.000	112.00	11.000
43	10:52: 0	2.450	1086.000	112.00	5.000
44	10:55: 0	2.500	1093.000	112.00	7.000
45	10:58: 0	2.550	1097.000	112.00	4.000
46	11: 1: 0	2.600	1100.000	112.00	3.000
47	11: 4: 0	2.650	1103.000	112.00	3.000
48	11: 6:59	2.700	1105.000	112.00	2.000
49	11:10: 0	2.750	1106.000	112.00	1.000
50	11:13: 0	2.800	1107.000	112.00	1.000
51	11:16: 0	2.850	1108.000	112.00	1.000
52	11:19: 0	2.900	1109.000	112.00	1.000

COMPANY : PENDLETON LAND & EXPLOR. & H&C OIL OPER.

WELL : #1
GAUGE # : 13549
DATE : 3/11/87

FIELD : OBERLE
JOB # : 12576
DEPTH : 3310
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P $P_i - P(i-1)$
53	11:21:59	2.950	1110.000	112.00	1.000
54	11:25: 0	3.000	1111.000	112.00	1.000
55	11:28: 0	3.050	1112.000	112.00	1.000
56	11:31: 0	3.100	1113.000	112.00	1.000

WESTERN TESTING CO. INC.