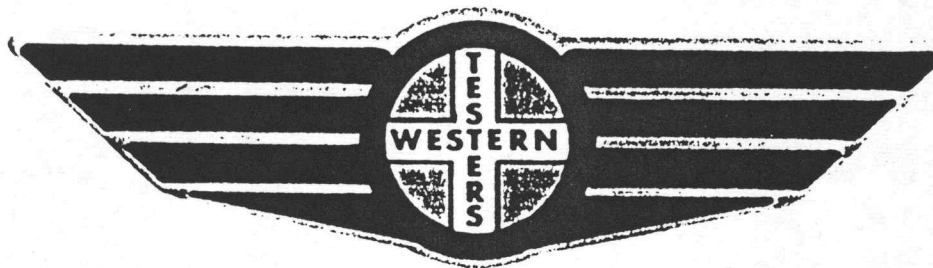


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. CALL #3 SEC. 4 TWP. 34S RGE. 8E TEST NO. 1 DATE 7/21/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	7/21/88	TICKET	:	14059
CUSTOMER	:	RANGE OIL COMPANY INC.	LEASE	:	CALL
WELL	:	3	TEST:	:	1
ELEVATION	:	996 KB	GEOLOGIST	:	LAUER
SECTION	:	4	FORMATION	:	ALTAMONT
RANGE	:	8E	TOWNSHIP	:	34S
GAUGE SN#	:	10979	STATE	:	KANSAS
		COUNTY :	CLOCK	:	12
		RANGE :			

INTERVAL FROM : 1966 TO : 1988 TOTAL DEPTH : 1988

DEPTH OF SELECTIVE ZONE	:	
PACKER DEPTH	:	1961
PACKER DEPTH	:	1966
PACKER DEPTH	:	
PACKER DEPTH	:	

SIZE	:	6.63
SIZE	:	6.63
SIZE	:	
SIZE	:	

DRILLING CON. : RANGE RIG 1
MUD TYPE : CHEMICAL
WEIGHT : 9.3
CHLORIDES (PPM) : 1200
JARS-MAKE :
DID WELL FLOW ? : NO

VISCOSITY : 46
WATER LOSS (CC) : 12.8
SERIAL NUMBER :
REVERSED OUT ? : NO

DRILL COLLAR LENGTH	:	240	FT	I.D. inch	:	2.25
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	1706	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	22	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 THROUGHOUT TEST.
BLOW COMMENT #2 :
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 65 FT OF: DRILLING MUD W/VERY SLIGHT SHOW OIL
RECOVERED : 0 FT OF: (LESS THAN 1% OIL)
RECOVERED : 0 FT OF: CHLORIDES 1200 PPM

Total Barrels Fluid = 0.32
Total Fluid Prod Rate = 5.11 BFPD
Indicated Oil Rate = 0.05 BOPD
Indicated Wtr Rate = 0.51 BWPD
Corrected Oil Rate = 5.46 BOPD
Corrected Wtr Rate = 54.59 BWPD

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

SET PACKER(S) : 11:00 PM
WELL TEMPERATURE : 96

TIME STARTED OFF BOTTOM : 2:00 AM

INITIAL HYDROSTATIC PRESSURE		(A)	1002	
INITIAL FLOW PERIOD	MIN: 30	(B)	29	PSI TO (C) : 38
INITIAL CLOSED IN PERIOD	MIN: 30	(D)	372	
FINAL FLOW PERIOD	MIN: 60	(E)	47	PSI TO (F) : 55
FINAL CLOSED IN PERIOD	MIN: 60	(G)	599	
FINAL HYDROSTATIC PRESSURE		(H)	952	

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RANGE OIL COMPANY INC.
RIG : COWLEY-KANSAS
FIELD : CALL
WELL : 3
DATE : 7/21/88
GAUGE NO : 10979

OPERATIONAL COMMENTS

COMPANY : RANGE OIL COMPANY INC.
WELL : 3
GAUGE # : 10979
DATE : 21/ 7/88

FIELD : CALL
JOB # : 14059
DEPTH : 1988
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	11: 0: 0	0.000	29.000	96.00	0.000
2	11: 4: 59	0.083	29.000	96.00	0.000
3	11:10: 0	0.167	30.000	96.00	1.000
4	11:15: 0	0.250	32.000	96.00	2.000
5	11:19: 59	0.333	35.000	96.00	3.000
6	11:25: 0	0.417	37.000	96.00	2.000
7	11:30: 0	0.500	38.000	96.00	1.000
8	11:33: 0	0.550	41.000	96.00	3.000
9	11:36: 0	0.600	43.000	96.00	2.000
10	11:39: 0	0.650	53.000	96.00	10.000
11	11:42: 0	0.700	64.000	96.00	11.000
12	11:45: 0	0.750	81.000	96.00	17.000
13	11:48: 0	0.800	106.000	96.00	25.000
14	11:51: 0	0.850	144.000	96.00	38.000
15	11:54: 0	0.900	199.000	96.00	55.000
16	11:57: 0	0.950	281.000	96.00	82.000
17	12: 0: 0	1.000	372.000	96.00	91.000
18	12: 1: 0	1.017	47.000	96.00	-325.000
19	12: 4: 59	1.083	47.000	96.00	0.000
20	12:10: 0	1.167	47.000	96.00	0.000
21	12:15: 0	1.250	47.000	96.00	0.000
22	12:19: 59	1.333	47.000	96.00	0.000
23	12:25: 0	1.417	48.000	96.00	1.000
24	12:30: 0	1.500	49.000	96.00	1.000
25	12:34: 59	1.583	50.000	96.00	1.000
26	12:40: 0	1.667	51.000	96.00	1.000
27	12:45: 0	1.750	52.000	96.00	1.000
28	12:49: 59	1.833	53.000	96.00	1.000
29	12:55: 0	1.917	54.000	96.00	1.000
30	13: 0: 0	2.000	55.000	96.00	1.000
31	13: 3: 0	2.050	59.000	96.00	4.000
32	13: 5: 59	2.100	65.000	96.00	6.000
33	13: 9: 0	2.150	75.000	96.00	10.000
34	13:12: 0	2.200	90.000	96.00	15.000
35	13:15: 0	2.250	108.000	96.00	18.000
36	13:18: 0	2.300	129.000	96.00	21.000
37	13:21: 0	2.350	159.000	96.00	30.000
38	13:24: 0	2.400	197.000	96.00	38.000
39	13:27: 0	2.450	245.000	96.00	48.000
40	13:30: 0	2.500	302.000	96.00	57.000
41	13:33: 0	2.550	360.000	96.00	58.000
42	13:36: 0	2.600	408.000	96.00	48.000
43	13:39: 0	2.650	450.000	96.00	42.000
44	13:42: 0	2.700	487.000	96.00	37.000
45	13:45: 0	2.750	515.000	96.00	28.000
46	13:48: 0	2.800	536.000	96.00	21.000
47	13:51: 0	2.850	555.000	96.00	19.000
48	13:54: 0	2.900	573.000	96.00	18.000
49	13:57: 0	2.950	585.000	96.00	12.000
50	14: 0: 0	3.000	599.000	96.00	14.000

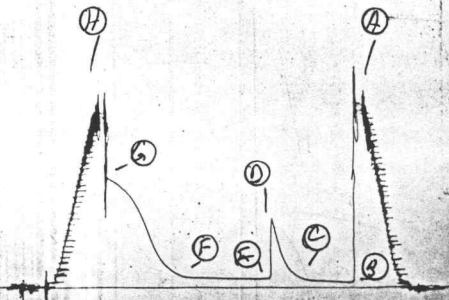
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OST #1

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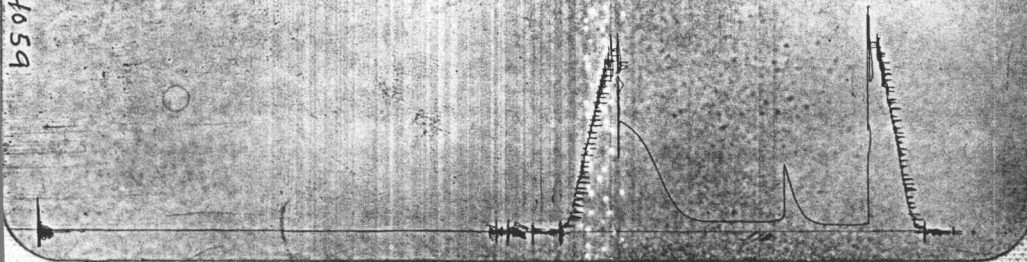
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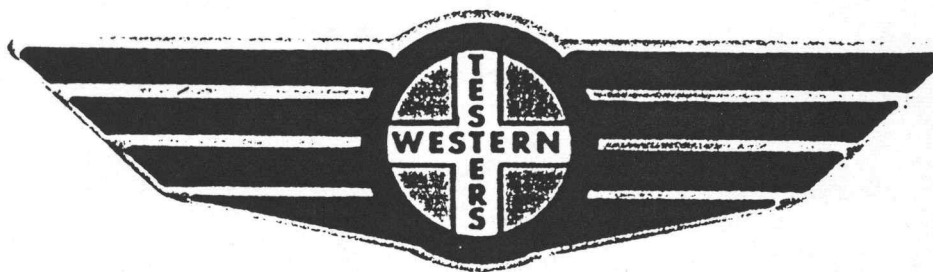
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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. CALL #3 SEC. 4 TWP. 34S RGE. 8E TEST NO. 2 DATE 7/22/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	7/22/88	TICKET	:	14060	
CUSTOMER	:	RANGE OIL COMPANY INC.	LEASE	:	CALL	
WELL	:	3	TEST:	:	2	
ELEVATION	:	996 KB	GEOLOGIST	:	LAUER	
SECTION	:	4	FORMATION	:	PAWNEE-FT SCOTT	
RANGE	:	8E	TOWNSHIP	:	34S	
GAUGE SN#	:	13265	STATE	:	KANSAS	
		COUNTY :	COWLEY			
		RANGE :	3975	CLOCK	:	12

INTERVAL FROM	:	2072	TO	:	2135	TOTAL DEPTH	:	2135
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	2067	SIZE	:	6.63			
PACKER DEPTH	:	2072	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	RANGE RIG 1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	45
WEIGHT	:	9.4	WATER LOSS (CC)	:	12.8
CHLORIDES (PPM)	:	1800			
JARS-MAKE	:		SERIAL NUMBER	:	
DID WELL FLOW ?	:	NO	REVERSED OUT ?	:	NO

DRILL COLLAR LENGTH	:	120	FT	I.D. inch	:	2.25
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	1932	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	63	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 THROUGHOUT TEST.
BLOW COMMENT #2	:	
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED : 75 FT OF: MUDDY SALTWATER 1.4 RES @ 84 DEGREES F
RECOVERED : 0 FT OF: CHLORIDES 58000 PPM

Total Barrels Fluid = 0.37
Total Fluid Prod Rate = 5.90 BFPD
Indicated Wtr Rate = 5.31 BWPD

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

SET PACKER(S) :	2:45 PM	TIME STARTED OFF BOTTOM :	5:45 PM
WELL TEMPERATURE :	105		
INITIAL HYDROSTATIC PRESSURE		(A)	1045
INITIAL FLOW PERIOD MIN:	30	(B)	50 PSI TO (C) : 50
INITIAL CLOSED IN PERIOD MIN:	30	(D)	638
FINAL FLOW PERIOD MIN:	60	(E)	71 PSI TO (F) : 78
FINAL CLOSED IN PERIOD MIN:	63	(G)	687
FINAL HYDROSTATIC PRESSURE		(H)	1024

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RANGE OIL COMPANY INC.
RIG : COWLEY-KANSAS
FIELD : CALL
WELL : 3
DATE : 7/22/88
GAUGE NO : 13265

OPERATIONAL COMMENTS

COMPANY : RANGE OIL COMPANY INC.
WELL : 3
GAUGE # : 13265
DATE : 22/ 7/88

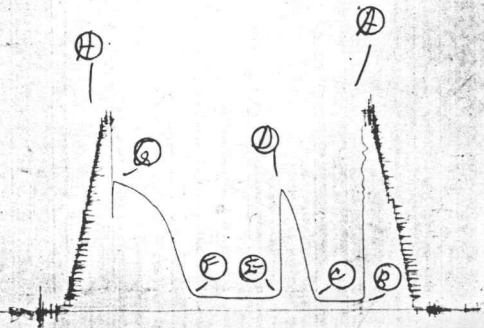
FIELD : CALL
JOB # : 14060
DEPTH : 2135
TEST :

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	50.000	105.00	0.000
2	2:49:59	0.083	50.000	105.00	0.000
3	2:55: 0	0.167	50.000	105.00	0.000
4	3: 0: 0	0.250	50.000	105.00	0.000
5	3: 4:59	0.333	50.000	105.00	0.000
6	3:10: 0	0.417	50.000	105.00	0.000
7	3:15: 0	0.500	50.000	105.00	0.000
8	3:18: 0	0.550	53.000	105.00	3.000
9	3:21: 0	0.600	74.000	105.00	21.000
10	3:24: 0	0.650	143.000	105.00	69.000
11	3:27: 0	0.700	222.000	105.00	79.000
12	3:30: 0	0.750	331.000	105.00	109.000
13	3:33: 0	0.800	416.000	105.00	85.000
14	3:36: 0	0.850	489.000	105.00	73.000
15	3:39: 0	0.900	549.000	105.00	60.000
16	3:42: 0	0.950	594.000	105.00	45.000
17	3:45: 0	1.000	638.000	105.00	44.000
18	3:46: 0	1.017	71.000	105.00	-567.000
19	3:49:59	1.083	71.000	105.00	0.000
20	3:55: 0	1.167	71.000	105.00	0.000
21	4: 0: 0	1.250	71.000	105.00	0.000
22	4: 4:59	1.333	71.000	105.00	0.000
23	4:10: 0	1.417	71.000	105.00	0.000
24	4:15: 0	1.500	71.000	105.00	0.000
25	4:19:59	1.583	71.000	105.00	0.000
26	4:25: 0	1.667	71.000	105.00	0.000
27	4:30: 0	1.750	75.000	105.00	4.000
28	4:34:59	1.833	77.000	105.00	2.000
29	4:40: 0	1.917	78.000	105.00	1.000
30	4:45: 0	2.000	78.000	105.00	0.000
31	4:48: 0	2.050	86.000	105.00	8.000
32	4:51: 0	2.100	106.000	105.00	20.000
33	4:54: 0	2.150	159.000	105.00	53.000
34	4:57: 0	2.200	216.000	105.00	57.000
35	5: 0: 0	2.250	283.000	105.00	67.000
36	5: 3: 0	2.300	356.000	105.00	73.000
37	5: 6: 0	2.350	418.000	105.00	62.000
38	5: 9: 0	2.400	471.000	105.00	53.000
39	5:12: 0	2.450	512.000	105.00	41.000
40	5:15: 0	2.500	539.000	105.00	27.000
41	5:18: 0	2.550	558.000	105.00	19.000
42	5:21: 0	2.600	581.000	105.00	23.000
43	5:24: 0	2.650	600.000	105.00	19.000
44	5:27: 0	2.700	618.000	105.00	18.000
45	5:30: 0	2.750	633.000	105.00	15.000
46	5:33: 0	2.800	647.000	105.00	14.000
47	5:36: 0	2.850	657.000	105.00	10.000
48	5:39: 0	2.900	667.000	105.00	10.000
49	5:42: 0	2.950	674.000	105.00	7.000
50	5:45: 0	3.000	681.000	105.00	7.000
51	5:48: 0	3.050	687.000	105.00	6.000

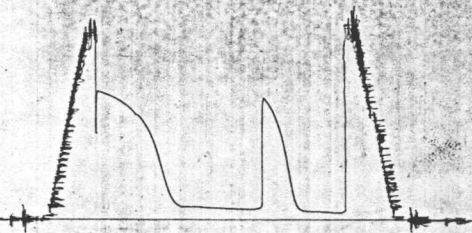
WESTERN TESTING CO. INC.

HA 14060

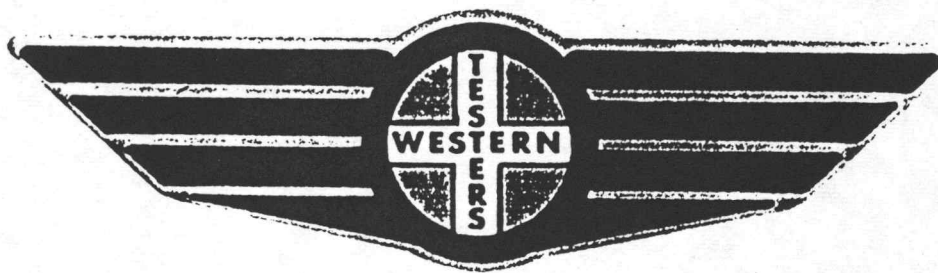
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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. CALL #3 SEC. 4 TWP. 34S RGE. 8E TEST NO. 3 DATE 7/23/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	7/23/88	TICKET	:	14061	
CUSTOMER	:	RANGE OIL COMPANY INC.	LEASE	:	CALL	
WELL	:	3	TEST:	:	3	
ELEVATION	:	996 KB	GEOLOGIST	:	LAUER	
SECTION	:	4	FORMATION	:	CATTLEMAN	
RANGE	:	8E	TOWNSHIP	:	34S	
GAUGE SN#	:	10979	STATE	:	KANSAS	
		COUNTY :	COWLEY		CLOCK :	12
		RANGE :	4100			

INTERVAL FROM	:	2228	TO	:	2246	TOTAL DEPTH	:	2246
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	2223	SIZE	:	6.63			
PACKER DEPTH	:	2228	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	RANGE RIG 1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	45
WEIGHT	:	9.4	WATER LOSS (CC)	:	12.8
CHLORIDES (PPM)	:	1800			
JARS-MAKE	:		SERIAL NUMBER	:	
DID WELL FLOW ?	:	NO	REVERSED OUT ?	:	NO

DRILL COLLAR LENGTH	:	180	FT	I.D. inch	:	2.25
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	2028	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	18	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 : FAIR BLOW THROUGHOUT TEST.
BLOW COMMENT #2 :
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 45 FT OF: VERY SLIGHTLY OIL & GAS CUT MUD
RECOVERED : 0 FT OF: (LESS THAN 1% OIL)
RECOVERED : 210 FT OF: SLIGHTLY MUDDY SALTWATERW/TRACE OIL
RECOVERED : 0 FT OF: .8 RES. @ 70 DEGREES F

Total Barrels Fluid = 1.94
Total Fluid Prod Rate = 30.99 BFPD
Indicated Oil Rate = 0.05 BOPD
Indicated Wtr Rate = 23.52 BWPB
Corrected Oil Rate = 22.06 BOPD
Corrected Wtr Rate = 9483.91 BWPB

REMARK 1 : RECOVERED 75 FT GAS ABOVE FLUID
REMARK 2 :
REMARK 3 : CHLORIDES 94000 PPM
REMARK 4 :

SET PACKER(S) : 4:30 AM
WELL TEMPERATURE : 108
INITIAL HYDROSTATIC PRESSURE (A) 1134
INITIAL FLOW PERIOD MIN: 30 (B) 43 PSI TO (C) : 60
INITIAL CLOSED IN PERIOD MIN: 30 (D) 649
FINAL FLOW PERIOD MIN: 60 (E) 81 PSI TO (F) : 111
FINAL CLOSED IN PERIOD MIN: 60 (G) 655
FINAL HYDROSTATIC PRESSURE (H) 1132

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RANGE OIL COMPANY INC.
RIG : COWLEY-KANSAS
FIELD : CALL
WELL : 3
DATE : 7/23/88
GAUGE NO : 10979

OPERATIONAL COMMENTS

RECOVERED 75 FT GAS ABOVE FLUID

CHLORIDES 94000 PPM

COMPANY : RANGE OIL COMPANY INC.
WELL : 3
GAUGE # : 10979
DATE : 23/ 7/88
FLUID

FIELD : CALL
JOB # : 14061
DEPTH : 2246
TEST : RECOVERED 75 FT GAS ABOVE

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	4:30: 0	0.000	43.000	108.00	0.000
2	4:34:59	0.083	43.000	108.00	0.000
3	4:40: 0	0.167	47.000	108.00	4.000
4	4:45: 0	0.250	50.000	108.00	3.000
5	4:49:59	0.333	52.000	108.00	2.000
6	4:55: 0	0.417	58.000	108.00	6.000
7	5: 0: 0	0.500	60.000	108.00	2.000
8	5: 3: 0	0.550	129.000	108.00	69.000
9	5: 6: 0	0.600	336.000	108.00	207.000
10	5: 9: 0	0.650	509.000	108.00	173.000
11	5:12: 0	0.700	579.000	108.00	70.000
12	5:15: 0	0.750	609.000	108.00	30.000
13	5:18: 0	0.800	624.000	108.00	15.000
14	5:21: 0	0.850	632.000	108.00	8.000
15	5:24: 0	0.900	640.000	108.00	8.000
16	5:27: 0	0.950	644.000	108.00	4.000
17	5:30: 0	1.000	649.000	108.00	5.000
18	5:31: 0	1.017	81.000	108.00	-568.000
19	5:34:59	1.083	81.000	108.00	0.000
20	5:40: 0	1.167	83.000	108.00	2.000
21	5:45: 0	1.250	89.000	108.00	6.000
22	5:49:59	1.333	93.000	108.00	4.000
23	5:55: 0	1.417	96.000	108.00	3.000
24	6: 0: 0	1.500	98.000	108.00	2.000
25	6: 4:59	1.583	103.000	108.00	5.000
26	6:10: 0	1.667	108.000	108.00	5.000
27	6:15: 0	1.750	109.000	108.00	1.000
28	6:19:59	1.833	110.000	108.00	1.000
29	6:25: 0	1.917	111.000	108.00	1.000
30	6:30: 0	2.000	111.000	108.00	0.000
31	6:33: 0	2.050	173.000	108.00	62.000
32	6:36: 0	2.100	327.000	108.00	154.000
33	6:39: 0	2.150	471.000	108.00	144.000
34	6:42: 0	2.200	551.000	108.00	80.000
35	6:45: 0	2.250	583.000	108.00	32.000
36	6:48: 0	2.300	604.000	108.00	21.000
37	6:51: 0	2.350	614.000	108.00	10.000
38	6:54: 0	2.400	623.000	108.00	9.000
39	6:57: 0	2.450	629.000	108.00	6.000
40	7: 0: 0	2.500	633.000	108.00	4.000
41	7: 3: 0	2.550	638.000	108.00	5.000
42	7: 6: 0	2.600	640.000	108.00	2.000
43	7: 9: 0	2.650	641.000	108.00	1.000
44	7:12: 0	2.700	642.000	108.00	1.000
45	7:15: 0	2.750	644.000	108.00	2.000
46	7:18: 0	2.800	646.000	108.00	2.000
47	7:21: 0	2.850	648.000	108.00	2.000
48	7:24: 0	2.900	650.000	108.00	2.000
49	7:27: 0	2.950	653.000	108.00	3.000
50	7:30: 0	3.000	655.000	108.00	2.000

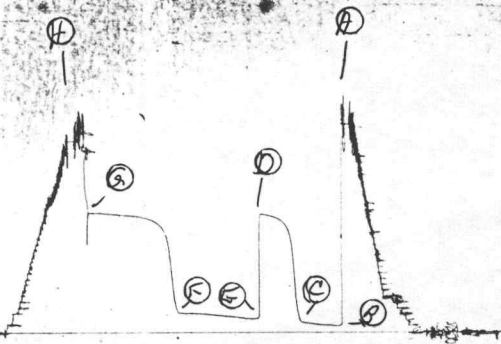
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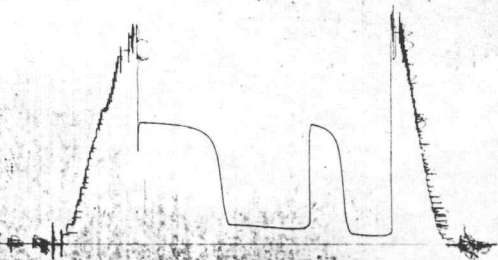
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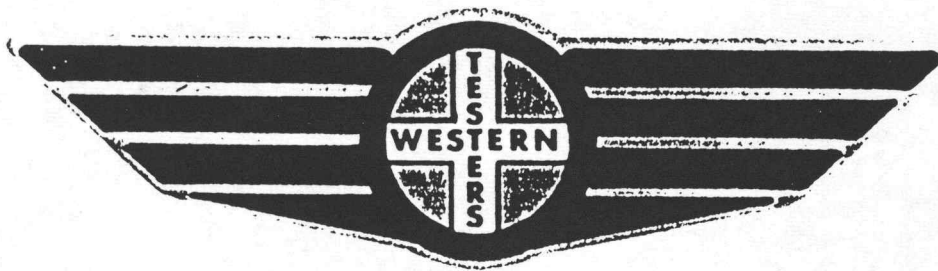
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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. CALL #3 SEC. 4 TWP. 34S RGE. 8E TEST NO. 4 DATE 7/24/88

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	7/24/88	TICKET	:	14062	
CUSTOMER	:	RANGE OIL COMPANY INC.	LEASE	:	CALL	
WELL	:	3	TEST:	:	4	
ELEVATION	:	996 KB	GEOLOGIST	:	LAUER	
SECTION	:	4	FORMATION	:	MISSISSIPPI	
RANGE	:	8E	TOWNSHIP	:	34S	
GAUGE SN#	:	10979	STATE	:	KANSAS	
		COUNTY :	COWLEY		CLOCK :	12
		RANGE :	4100			

INTERVAL FROM	:	2429	TO	:	2446	TOTAL DEPTH	:	2446
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	2424	SIZE	:	6.63			
PACKER DEPTH	:	2429	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	RANGE RIG #1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	54
WEIGHT	:	9.4	WATER LOSS (CC)	:	11.2
CHLORIDES (PPM)	:	2000			
JARS-MAKE	:		SERIAL NUMBER	:	
DID WELL FLOW ?	:	NO	REVERSED OUT ?	:	NO

DRILL COLLAR LENGTH	:	240	FT	I.D. inch	:	2.25
WEIGHT PIPE LENGTH	:	0	FT	I.D. inch	:	0.00
DRILL PIPE LENGTH	:	2169	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	17	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	:	FAIR BLOW THROUGHOUT TEST.
BLOW COMMENT #2	:	
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED : 75 FT OF: OIL & GAS CUT MUD
RECOVERED : 0 FT OF: TOP SAMPLE-70% OIL; 30% MUD
RECOVERED : 0 FT OF: BOTTOM SAMPLE-20% OIL;80% MUD

Total Barrels Fluid = 0.37
Total Fluid Prod Rate = 5.90 BFPD
Indicated Oil Rate = 5.31 BOPD
Indicated Wtr Rate = 0.65 BWPD
Corrected Oil Rate = 4.83 BOPD
Corrected Wtr Rate = 0.59 BWPD

REMARK 1 : RECOVERED 165 FT GAS ABOVE FLUID
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 12:30 AM
WELL TEMPERATURE : 110

TIME STARTED OFF BOTTOM : 3:30 AM

INITIAL HYDROSTATIC PRESSURE		(A)	1255	
INITIAL FLOW PERIOD	MIN: 30	(B)	39	PSI TO (C) : 44
INITIAL CLOSED IN PERIOD	MIN: 33	(D)	443	
FINAL FLOW PERIOD	MIN: 60	(E)	54	PSI TO (F) : 62
FINAL CLOSED IN PERIOD	MIN: 63	(G)	702	
FINAL HYDROSTATIC PRESSURE		(H)	1230	

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RANGE OIL COMPANY INC.
RIG : COWLEY-KANSAS
FIELD : CALL
WELL : 3
DATE : 7/24/88
GAUGE NO : 10979

OPERATIONAL COMMENTS

RECOVERED 165 FT GAS ABOVE FLUID

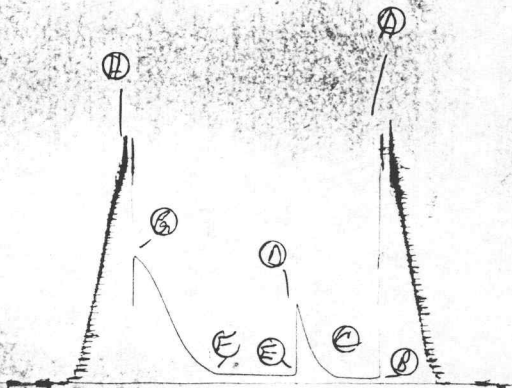
COMPANY : RANGE OIL COMPANY INC.
WELL : 3
GAUGE # : 10979
DATE : 24/ 7/88
E FLUID

FIELD : CALL
JOB # : 14062
DEPTH : 2446
TEST : RECOVERED 165 FT GAS ABOVE

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	12:30: 0	0.000	39.000	110.00	0.000
2	12:34:59	0.083	39.000	110.00	0.000
3	12:40: 0	0.167	39.000	110.00	0.000
4	12:45: 0	0.250	39.000	110.00	0.000
5	12:49:59	0.333	40.000	110.00	1.000
6	12:55: 0	0.417	43.000	110.00	3.000
7	13: 0: 0	0.500	44.000	110.00	1.000
8	13: 3: 0	0.550	48.000	110.00	4.000
9	13: 6: 0	0.600	62.000	110.00	14.000
10	13: 9: 0	0.650	80.000	110.00	18.000
11	13:12: 0	0.700	96.000	110.00	16.000
12	13:15: 0	0.750	120.000	110.00	24.000
13	13:18: 0	0.800	155.000	110.00	35.000
14	13:21: 0	0.850	199.000	110.00	44.000
15	13:24: 0	0.900	259.000	110.00	60.000
16	13:27: 0	0.950	324.000	110.00	65.000
17	13:30: 0	1.000	407.000	110.00	83.000
18	13:33: 0	1.050	443.000	110.00	36.000
19	13:34: 0	1.067	54.000	110.00	-389.000
20	13:37:59	1.133	54.000	110.00	0.000
21	13:43: 0	1.217	54.000	110.00	0.000
22	13:48: 0	1.300	54.000	110.00	0.000
23	13:52:59	1.383	54.000	110.00	0.000
24	13:58: 0	1.467	56.000	110.00	2.000
25	14: 3: 0	1.550	58.000	110.00	2.000
26	14: 7:59	1.633	59.000	110.00	1.000
27	14:13: 0	1.717	60.000	110.00	1.000
28	14:18: 0	1.800	61.000	110.00	1.000
29	14:22:59	1.883	62.000	110.00	1.000
30	14:28: 0	1.967	62.000	110.00	0.000
31	14:33: 0	2.050	62.000	110.00	0.000
32	14:36: 0	2.100	67.000	110.00	5.000
33	14:38:59	2.150	77.000	110.00	10.000
34	14:42: 0	2.200	94.000	110.00	17.000
35	14:45: 0	2.250	109.000	110.00	15.000
36	14:48: 0	2.300	125.000	110.00	16.000
37	14:51: 0	2.350	148.000	110.00	23.000
38	14:53:59	2.400	176.000	110.00	28.000
39	14:57: 0	2.450	205.000	110.00	29.000
40	15: 0: 0	2.500	242.000	110.00	37.000
41	15: 3: 0	2.550	285.000	110.00	43.000
42	15: 6: 0	2.600	333.000	110.00	48.000
43	15: 9: 0	2.650	378.000	110.00	45.000
44	15:11:59	2.700	431.000	110.00	53.000
45	15:15: 0	2.750	481.000	110.00	50.000
46	15:18: 0	2.800	526.000	110.00	45.000
47	15:21: 0	2.850	574.000	110.00	48.000
48	15:24: 0	2.900	612.000	110.00	38.000
49	15:26:59	2.950	643.000	110.00	31.000
50	15:30: 0	3.000	673.000	110.00	30.000
51	15:33: 0	3.050	691.000	110.00	18.000
52	15:36: 0	3.100	702.000	110.00	11.000

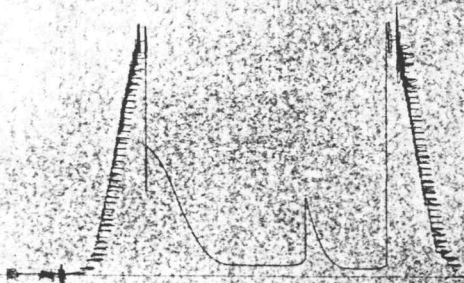
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