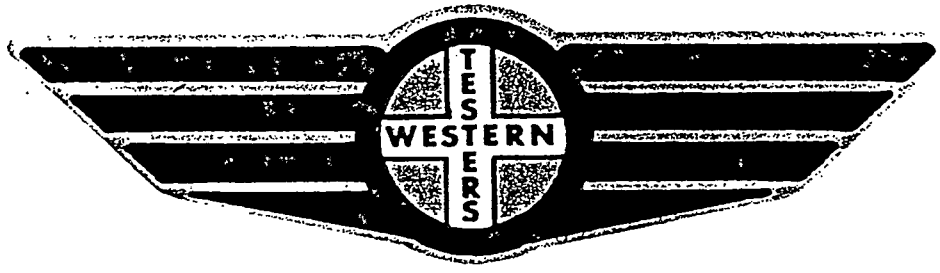
COMPANY NATIONAL COOPERATIVE REFINERY LEASE & WELL NO. REITZ #1 SEC. 29 TWP. 18S RGE. 20W TEST NO. 1 DATE 5/19/90
ASSOCIATION

FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

P.O. Box 1599 Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	: 5-19-90			TICKET	: 16203
CUSTOMER	: NATIONAL COOPERATIVE REFINERY ASSOCIATION				
				LEASE	: REITZ
WELL	: #1 TEST: 1			GEOLOGIST	: BRACKEEN
ELEVATION	: 2080 G.L.			FORMATION	: CHER. SAND
SECTION	: 29			TOWNSHIP	: 18S
RANGE	: 20W	COUNTY	: RUSH	STATE	: KANSAS
GAUGE SN#	: 10270	RANGE	: 4150	CLOCK	: 12

INTERVAL FROM	: 4081	TO	: 4093	TOTAL DEPTH	: 4093
DEPTH OF SELECTIVE ZONE	:				
PACKER DEPTH	: 4076	SIZE	: 6.63		
PACKER DEPTH	: 4081	SIZE	: 6.63		
PACKER DEPTH	:	SIZE	:		
PACKER DEPTH	:	SIZE	:		

DRILLING CON.	: ABERCROMBIE RIG #4		
MUD TYPE	: CHEMICAL	VISCOSITY	: 76
WEIGHT	: 10.4	WATER LOSS (CC)	: 9.6
CHLORIDES (PPM)	: 7000		
JARS-MAKE	: WTC	SERIAL NUMBER	: 422
DID WELL FLOW ?	:	REVERSED OUT ?	:

DRILL COLLAR LENGTH	: 0	FT	I.D. inch	: 0.00	
WEIGHT PIPE LENGTH	: 498	FT	I.D. inch	: 2.70	
DRILL PIPE LENGTH	: 3555	FT	I.D. inch	: 3.80	
TEST TOOL LENGTH	: 28	FT	TOOL SIZE	: 5.50	
ANCHOR LENGTH	: 12	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 THROUGHOUT-
BLOW COMMENT #2 : 1/4 INCH BLOW.
BLOW COMMENT #3 : FINAL FLOW PERIOD WEAK BLOW THROUGHOUT-
BLOW COMMENT #4 : SURFACE OF WATER BLOW.

RECOVERED : 20 FT OF: HEAVY OIL-CUT MUD
RECOVERED : 0 FT OF: 25%OIL 75%MUD
RECOVERED : 5 FT OF: CLEAN OIL GRAVITY 37

Total Barrels Fluid = 0.18
Total Fluid Prod Rate = 7.28 BFPD
Indicated Oil Rate = 2.91 BOPD
Indicated Wtr Rate = 0.44 BWPD

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

SET PACKER(S) : 8:40 A.M. TIME STARTED OFF BOTTOM : 11:30 A.M.
WELL TEMPERATURE : 117

INITIAL HYDROSTATIC PRESSURE			(A)	2287	
INITIAL FLOW PERIOD	MIN:	5	(B)	31	PSI TO (C) : 31
INITIAL CLOSED IN PERIOD	MIN:	30	(D)	562	
FINAL FLOW PERIOD	MIN:	30	(E)	31	PSI TO (F) : 31
FINAL CLOSED IN PERIOD	MIN:	90	(G)	531	
FINAL HYDROSTATIC PRESSURE			(H)	2260	

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY	: NATIONAL COOPERATIVE REFINERY ASSOCIATION
RIG	: RUSH-KANSAS
FIELD	: REITZ
WELL	: #1
DATE	: 5-19-90
GAUGE NO	: 10270

OPERATIONAL COMMENTS

COMPANY : NATIONAL COOPERATIVE REFINERY ASSOCIATION

FIELD : REITZ

WELL : #1

JOB # : 16203

GAUGE # : 10270

DEPTH : 4093

DATE : 19/ 5/90

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
	INITIAL FLOW PERIOD				
2	8:40: 0	0.000	31.000	117.00	0.000
3	8:44:59	0.083	31.000	117.00	0.000
	INITIAL SHUT-IN PERIOD				
4	8:47:59	0.133	33.000	117.00	2.000
5	8:50:59	0.183	85.000	117.00	52.000
6	8:53:59	0.233	300.000	117.00	215.000
7	8:56:59	0.283	483.000	117.00	183.000
8	8:59:59	0.333	535.000	117.00	52.000
9	9: 2:59	0.383	551.000	117.00	16.000
10	9: 5:59	0.433	558.000	117.00	7.000
11	9: 8:59	0.483	562.000	117.00	4.000
12	9:11:59	0.533	562.000	117.00	0.000
13	9:14:59	0.583	562.000	117.00	0.000
	FINAL FLOW PERIOD				
14	9:16: 0	0.600	31.000	117.00	-531.000
15	9:19:59	0.667	31.000	117.00	0.000
16	9:25: 0	0.750	31.000	117.00	0.000
17	9:29:59	0.833	31.000	117.00	0.000
18	9:34:59	0.917	31.000	117.00	0.000
19	9:40: 0	1.000	31.000	117.00	0.000
20	9:44:59	1.083	31.000	117.00	0.000
	FINAL SHUT-IN PERIOD				
21	9:47:59	1.133	39.000	117.00	8.000
22	9:50:59	1.183	54.000	117.00	15.000
23	9:53:59	1.233	91.000	117.00	37.000
24	9:56:59	1.283	152.000	117.00	61.000
25	9:59:59	1.333	268.000	117.00	116.000
26	10: 2:59	1.383	381.000	117.00	113.000
27	10: 5:59	1.433	431.000	117.00	50.000
28	10: 8:59	1.483	464.000	117.00	33.000
29	10:11:59	1.533	485.000	117.00	21.000
30	10:14:59	1.583	497.000	117.00	12.000
31	10:17:59	1.633	506.000	117.00	9.000
32	10:20:59	1.683	514.000	117.00	8.000
33	10:23:59	1.733	518.000	117.00	4.000
34	10:26:59	1.783	522.000	117.00	4.000
35	10:29:59	1.833	524.000	117.00	2.000
36	10:32:59	1.883	526.000	117.00	2.000
37	10:35:59	1.933	529.000	117.00	3.000
38	10:38:59	1.983	531.000	117.00	2.000
39	10:41:59	2.033	531.000	117.00	0.000
40	10:44:59	2.083	531.000	117.00	0.000
41	10:47:59	2.133	531.000	117.00	0.000
42	10:50:59	2.183	531.000	117.00	0.000
43	10:53:59	2.233	531.000	117.00	0.000
44	10:56:59	2.283	531.000	117.00	0.000
45	10:59:59	2.333	531.000	117.00	0.000
46	11: 2:59	2.383	531.000	117.00	0.000
47	11: 5:59	2.433	531.000	117.00	0.000
48	11: 8:59	2.483	531.000	117.00	0.000

COMPANY : NATIONAL COOPERATIVE REFINERY ASSOCIATION

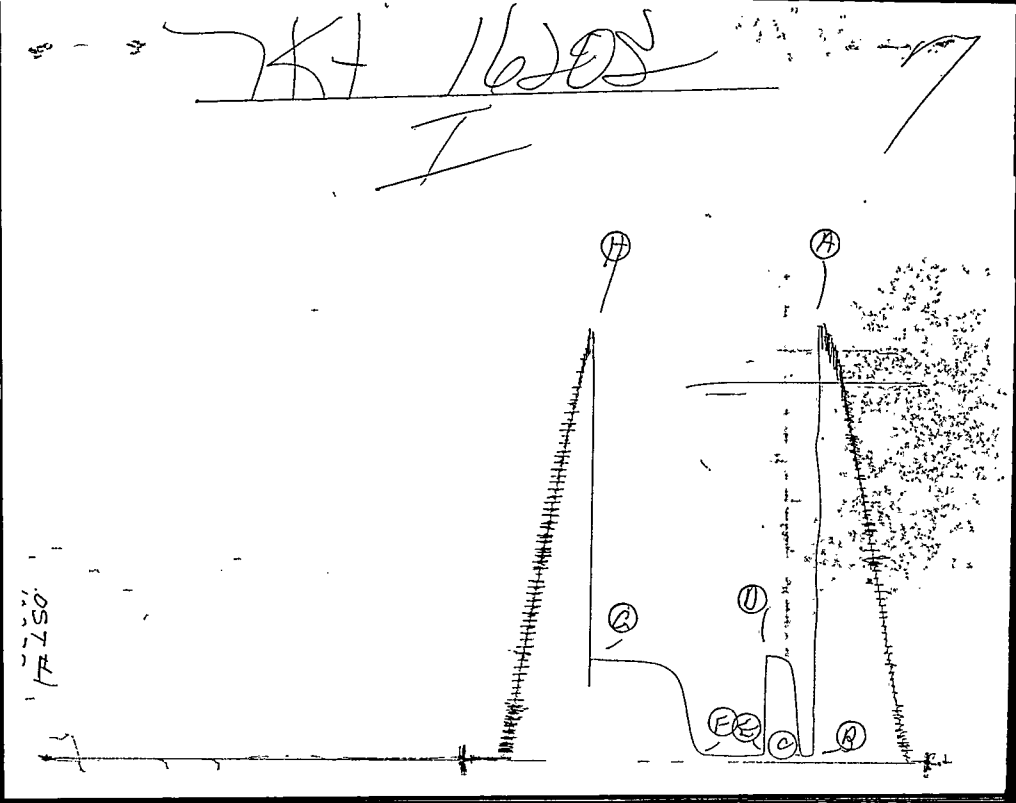
WELL : #1
GAUGE # : 10270
DATE : 19/ 5/90

FIELD : REITZ
JOB # : 16203
DEPTH : 4093
TEST :

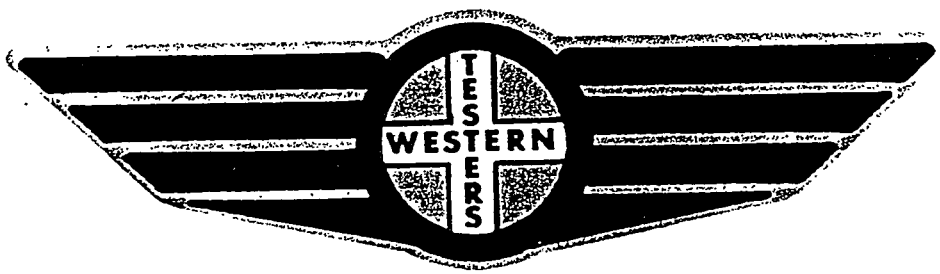
DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	11:11:59	2.533	531.000	117.00	0.000
50	11:14:59	2.583	531.000	117.00	0.000

WESTERN TESTING CO. INC.

Xt 16202 7


A
A
B
D
F
E
C
A

FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

P.O. Box 1599 Phone (316) 262-5861

COMPANY NATIONAL COOPERATIVE REFINERY ASSOCIATION LEASE & WELL NO. REITZ #1 SEC. 29 TWP. 18S RGE. 20W TEST NO. 2 DATE 5/19/90

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	5-19-90			TICKET	:	16204
CUSTOMER	:	NATIONAL COOPERATIVE REFINERY ASSOCIATION					
					LEASE	:	REITZ
WELL	:	#1 TEST: 2			GEOLOGIST	:	BRACKEEN
ELEVATION	:	2080 G.L.			FORMATION	:	CHER. SD.
SECTION	:	29			TOWNSHIP	:	18S
RANGE	:	20W	COUNTY	: RUSH	STATE	:	KANSAS
GAUGE SN#	:	10270	RANGE	: 4150	CLOCK	:	12

INTERVAL FROM	:	4081	TO	: 4101	TOTAL DEPTH	:	4101
DEPTH OF SELECTIVE ZONE	:						
PACKER DEPTH	:	4076	SIZE	: 6.63			
PACKER DEPTH	:	4081	SIZE	: 6.63			
PACKER DEPTH	:		SIZE	:			
PACKER DEPTH	:		SIZE	:			

DRILLING CON.	:	ABERCROMBIE RIG #4			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	43
WEIGHT	:	10.3	WATER LOSS (CC)	:	9.6
CHLORIDES (PPM)	:	7000			
JARS-MAKE	:	WTC	SERIAL NUMBER	:	422
DID WELL FLOW ?	:		REVERSED OUT ?	:	YES

DRILL COLLAR LENGTH	:	0	FT	I.D. inch	:	0.00	
WEIGHT PIPE LENGTH	:	498	FT	I.D. inch	:	2.70	
DRILL PIPE LENGTH	:	3555	FT	I.D. inch	:	3.80	
TEST TOOL LENGTH	:	28	FT	TOOL SIZE	:	5.50	
ANCHOR LENGTH	:	20	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 STRONG BLOW IN 1 MINUTE.
BLOW COMMENT #2	:	FINAL FLOW PERIOD STRONG BLOW IN 2 MINUTES.
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED : 120 - FT OF: MUDDY WATER
RECOVERED : 1200 FT OF: WATER
RECOVERED : 0 FT OF: CHLORIDES 3800 P.P.M.

Total Barrels Fluid = 15.06
Total Fluid Prod Rate = 1084.04 BFPD
Indicated Wtr Rate = 1059.40 BWPD

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

SET PACKER(S) : 9:00 P.M. TIME STARTED OFF BOTTOM : 11:20 P.M.
WELL TEMPERATURE : 123

INITIAL HYDROSTATIC PRESSURE			(A)	2295	
INITIAL FLOW PERIOD	MIN:	5	(B)	440	PSI TO (C) : 440
INITIAL CLOSED IN PERIOD	MIN:	30	(D)	556	
FINAL FLOW PERIOD	MIN:	15	(E)	488	PSI TO (F) : 520
FINAL CLOSED IN PERIOD	MIN:	90	(G)	557	
FINAL HYDROSTATIC PRESSURE			(H)	2265	

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY	: NATIONAL COOPERATIVE REFINERY ASSOCIATION
RIG	: RUSH-KANSAS
FIELD	: REITZ
WELL	: #1
DATE	: 5-19-90
GAUGE NO	: 10270

OPERATIONAL COMMENTS

COMPANY : NATIONAL COOPERATIVE REFINERY ASSOCIATION

FIELD : REITZ

WELL : #1

JOB # : 16204

GAUGE # : 10270

DEPTH : 4101

DATE : 19/ 5/90

TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
	INITIAL FLOW PERIOD				
2	9: 0: 0	0.000	440.000	123.00	0.000
3	9: 4:59	0.083	440.000	123.00	0.000
	INITIAL SHUT-IN PERIOD				
4	9: 7:59	0.133	531.000	123.00	91.000
5	9:10:59	0.183	541.000	123.00	10.000
6	9:13:59	0.233	547.000	123.00	6.000
7	9:16:59	0.283	550.000	123.00	3.000
8	9:19:59	0.333	552.000	123.00	2.000
9	9:22:59	0.383	554.000	123.00	2.000
10	9:25:59	0.433	555.000	123.00	1.000
11	9:28:59	0.483	556.000	123.00	1.000
12	9:31:59	0.533	556.000	123.00	0.000
13	9:34:59	0.583	556.000	123.00	0.000
	FINAL FLOW PERIOD				
14	9:36: 0	0.600	488.000	123.00	-68.000
15	9:39:59	0.667	488.000	123.00	0.000
16	9:45: 0	0.750	497.000	123.00	9.000
17	9:49:59	0.833	520.000	123.00	23.000
	FINAL SHUT-IN PERIOD				
18	9:52:59	0.883	538.000	123.00	18.000
19	9:55:59	0.933	545.000	123.00	7.000
20	9:58:59	0.983	548.000	123.00	3.000
21	10: 1:59	1.033	550.000	123.00	2.000
22	10: 4:59	1.083	550.000	123.00	0.000
23	10: 7:59	1.133	551.000	123.00	1.000
24	10:10:59	1.183	552.000	123.00	1.000
25	10:13:59	1.233	553.000	123.00	1.000
26	10:16:59	1.283	554.000	123.00	1.000
27	10:19:59	1.333	554.000	123.00	0.000
28	10:22:59	1.383	554.000	123.00	0.000
29	10:25:59	1.433	555.000	123.00	1.000
30	10:28:59	1.483	555.000	123.00	0.000
31	10:31:59	1.533	555.000	123.00	0.000
32	10:34:59	1.583	555.000	123.00	0.000
33	10:37:59	1.633	555.000	123.00	0.000
34	10:40:59	1.683	555.000	123.00	0.000
35	10:43:59	1.733	556.000	123.00	1.000
36	10:46:59	1.783	556.000	123.00	0.000
37	10:49:59	1.833	556.000	123.00	0.000
38	10:52:59	1.883	556.000	123.00	0.000
39	10:55:59	1.933	556.000	123.00	0.000
40	10:58:59	1.983	557.000	123.00	1.000
41	11: 1:59	2.033	557.000	123.00	0.000
42	11: 4:59	2.083	557.000	123.00	0.000
43	11: 7:59	2.133	557.000	123.00	0.000
44	11:10:59	2.183	557.000	123.00	0.000
45	11:13:59	2.233	557.000	123.00	0.000
46	11:16:59	2.283	557.000	123.00	0.000
47	11:19:59	2.333	557.000	123.00	0.000

FLUID SAMPLE REPORT

Date : 5-19-90 Ticket No. : 16204

Company : NATIONAL COOPERATIVE REFINERY ASSOCIATION

Well Name & No. : REITZ #1

DST No. 2

County : RUSH State : KANSAS

Sampler No. : 1 Test Interval : 4081-4101

==========

Pressure in Sampler 490 PSIG BHT 123 Deg F

Total Volume of Sampler :	3150	cc
Total Volume of Sample :	3025	cc
Oil:		cc
Water:	3025	cc
Mud:		cc
Gas:		cu ft
Other:		cc

==========

RESITIVITY

Drilling Mud .23 @ 67 F Chloride Content 38000 ppm

Mud Pit Sample 1.0 @ 60 F Chloride Content 7000 ppm

Gas/Oil Ratio Gravity API @ Deg F

Where was sample drained RIG

Remarks:

X1 16204

0

JKT 16204

7

