

# FORMATION TEST REPORT



Home Office:

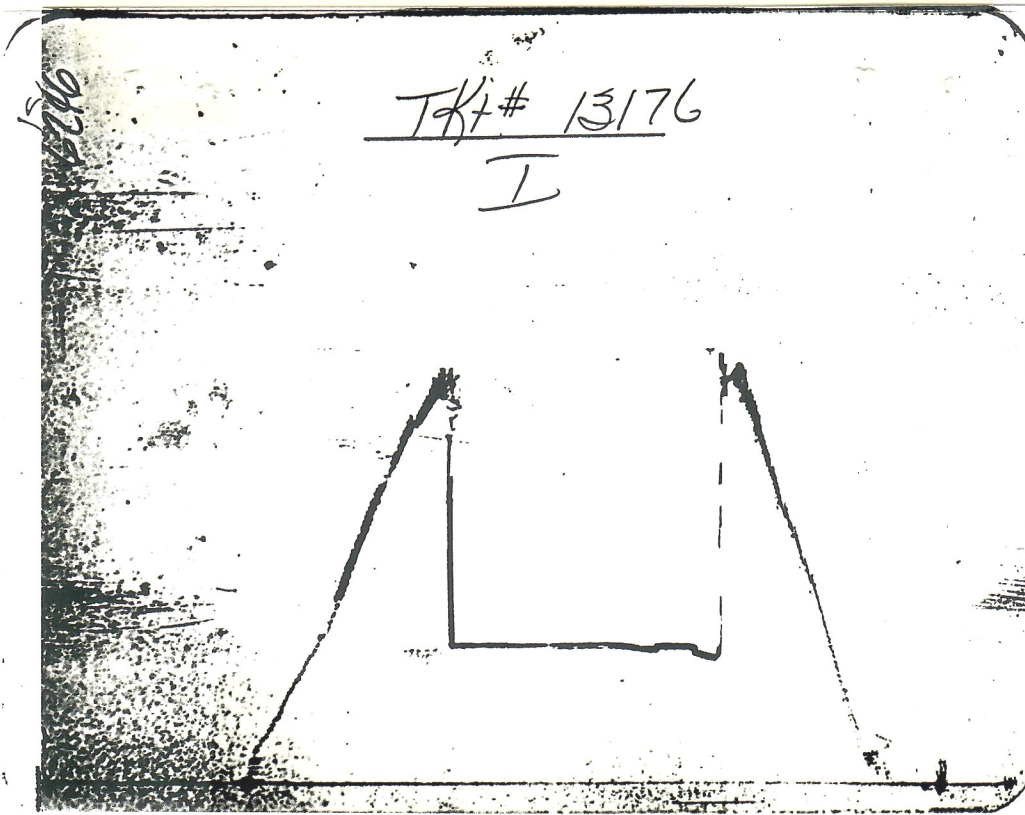
Wichita, Kansas 67201

P.O. Box 1599

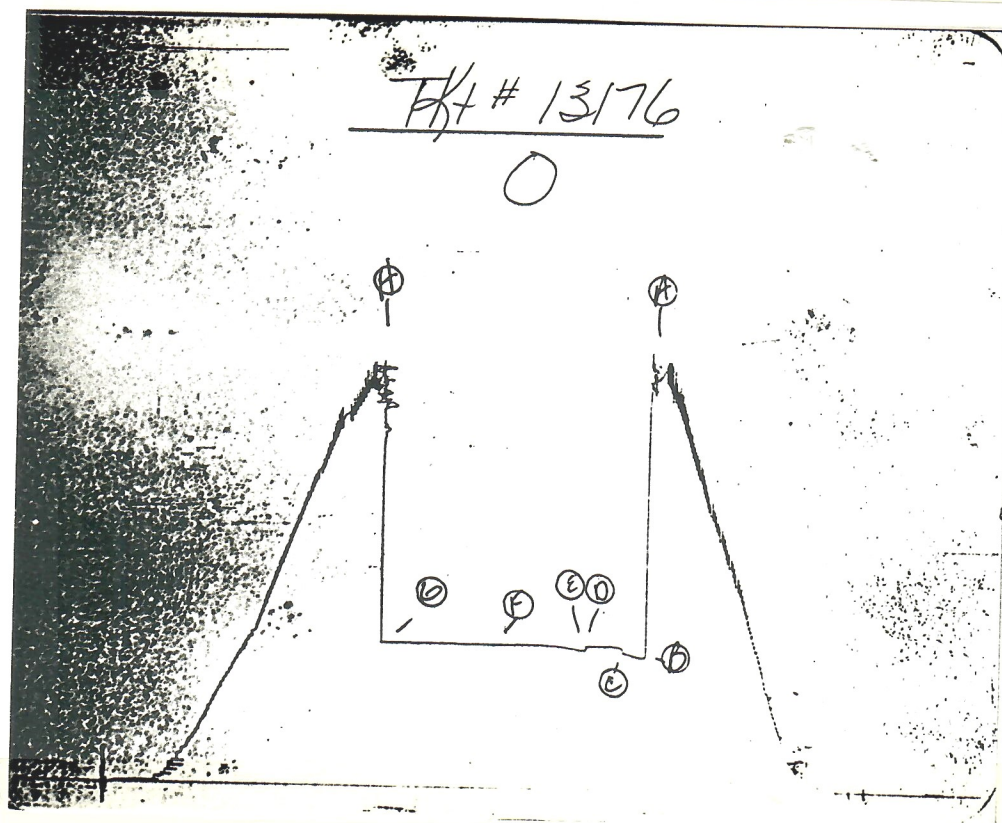
Phone (316) 262-5861



00221778



Inside Recorder



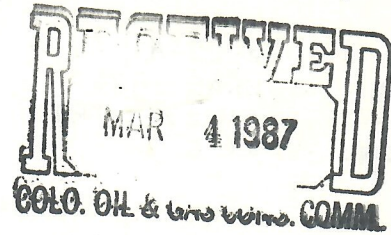
Outside Recorder



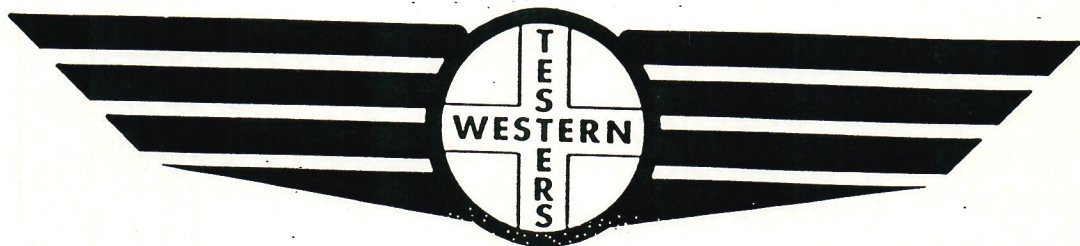
COMPANY BMAB, INC.

LEASE & WELL NO. #1-23 JOHNSON

SEC. 1 TWP. 11S RGE. 46W TEST NO. 1 DATE 2/23/8



# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE : 2-23-87  
CUSTOMER : BWAB INC.  
WELL : #1-23 TEST: 1  
ELEVATION : 4475 GR  
SECTION : 1  
RANGE : 46W COUNTY : KIT CARSON  
GAUGE SN# : 6074 RANGE : 5100  
TICKET : 13176  
LEASE : JOHNSON  
GEOLOGIST : ??  
FORMATION : -  
TOWNSHIP : 11S  
STATE : COLORADO  
CLOCK : 12

INTERVAL FROM : 5476 TO : 5496 TOTAL DEPTH : 5688  
DEPTH OF SELECTIVE ZONE :  
PACKER DEPTH : 5471 SIZE : 6.75  
PACKER DEPTH : 5476 SIZE : 6.75  
PACKER DEPTH : 5496 SIZE : 6.75  
PACKER DEPTH : SIZE :

DRILLING CON. : MURFIN RIG #23  
MUD TYPE : CHEMICAL VISCOSITY : 61  
WEIGHT : 9.4 WATER LOSS (CC) : 6.4  
CHLORIDES (PPM) : 500  
JARS-MAKE : WTC SERIAL NUMBER : 414  
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 369 FT I.D. inch : 2.20  
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00  
DRILL PIPE LENGTH : 5075 FT I.D. inch : 3.80  
TEST TOOL LENGTH : 32 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 : 4.5 XH

BLOW COMMENT #1 : INITIAL FLOW-STRONG BLOW-BOTTOM OF BUCKET IN 1 MINUTE.  
BLOW COMMENT #2 : FINAL FLOW-GAS TO SURFACE IN 30 MINUTES-SEE ATTACHED  
FLOW CHART.  
BLOW COMMENT #3 :  
BLOW COMMENT #4 :

RECOVERED : 132 FT OF: MUD  
RECOVERED : 1281 FT OF: WATER  
RECOVERED : 6 FT OF: COAL FRAG & DUST

Total Barrels Fluid = 16.46  
Total Fluid Prod Rate = 316.08 BFPD  
Indicated Wtr Rate = 311.62 BWPD

REMARK 1 :  
REMARK 2 : GAS WOULD BARELY BURN.  
REMARK 3 : RW-REC WTR-.46 @ 58 DEG. RW- PIT MUD- 1.8 @ 58 DEG.  
REMARK 4 : CHLORIDES: 46000 PPM

SET PACKER(S) : 10:50 AM  
WELL TEMPERATURE : 162

TIME STARTED OFF BOTTOM : 2:05 PM

INITIAL HYDROSTATIC PRESSURE	(A)	2747	
INITIAL FLOW PERIOD MIN: 15	(B)	894	PSI TO (C) : 921
INITIAL CLOSED IN PERIOD MIN: 30	(D)	966	
FINAL FLOW PERIOD MIN: 60	(E)	936	PSI TO (F) : 967
FINAL CLOSED IN PERIOD MIN: 93	(G)	971	
FINAL HYDROSTATIC PRESSURE	(H)	2729	



# FLUID SAMPLE REPORT

Date : 2-23-87

Ticket No. : 13176

Company : BWAB INC.

Well Name & No. : JOHNSON #1-23

DST No. 1

County : KIT CARSON

State : COLORADO

Sampler No. :

Test Interval : 5476-5496

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Pressure in Sampler	900 PSIG	BHT	162	Deg F
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Total Volume of Sampler	: 3150	cc
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Total Volume of Sample	: 3100	cc
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Oil:	-	cc
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Water:	3100	cc
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Mud:		cc
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Gas:	1/10 cu	ft
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Other:		cc
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## RESITIVITY

Drilling Mud	.5	@	60 F	Chloride Content	46000 ppm
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Mud Pit Sample	1.8	@	58 F	Chloride Content	500 ppm
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Gas/Oil Ratio		Gravity		API @	Deg F
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Where was sample drained RIG

Remarks:

# GAS FLOW REPORT

Date : 2-23-87  
Customer : BWAB INC.

Ticket # : 13176  
Lease : JOHNSON

Well : #1-23 Test : 1

Geologist : ??

Elevation (KB) : 4480 Formation : -

Section : 1 Township : 11S

Range : 46W County : KIT CARSON State : COLORADO

Gauge SN # : 6074 Range : 5100 Clock : 12

TIME GAUGE (MIN)	TESTER TYPE	ORFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
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## PRE FLOW

## SECOND FLOW

10	MERLA	1/8"	3	4840 CFPD
20			9	8890 CFPD
30			10	9450 CFPD
35			10	9450 CFPD

Gas Bottle SN # :  
Date Bottle Filled :  
Date to be Invoiced :

WESTERN TESTING CO. INC.  
WICHITA - KANSAS

Pressure Transient Report  
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COMPANY : BWAB INC.  
RIG : KIT CARSON-COLORADO  
FIELD : JOHNSON  
WELL : #1-23  
DATE : 2-23-87  
GAUGE NO : 6074

OPERATIONAL COMMENTS

GAS WOULD BARELY BURN.  
RW-REC WTR-.46 @ 58 DEG. RW- PIT MUD- 1.8 @ 58 DEG.  
CHLORIDES: 46000 PPM



COMPANY : BWAB INC.  
WELL : #1-23  
GAUGE # : 6074  
DATE : 23/ 2/87

FIELD : JOHNSON  
JOB # : 13176  
DEPTH : 5688  
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P P1-P(i-1)
1	10:50: 0	0.000	894.000	162.00	0.000
2	10:54:59	0.083	895.000	162.00	1.000
3	11: 0: 0	0.167	908.000	162.00	13.000
4	11: 5: 0	0.250	921.000	162.00	13.000
5	11: 8: 0	0.300	956.000	162.00	35.000
6	11:11: 0	0.350	963.000	162.00	7.000
7	11:14: 0	0.400	966.000	162.00	3.000
8	11:17: 0	0.450	966.000	162.00	0.000
9	11:20: 0	0.500	966.000	162.00	0.000
10	11:23: 0	0.550	966.000	162.00	0.000
11	11:26: 0	0.600	966.000	162.00	0.000
12	11:29: 0	0.650	966.000	162.00	0.000
13	11:32: 0	0.700	966.000	162.00	0.000
14	11:35: 0	0.750	966.000	162.00	0.000
15	11:36: 0	0.767	936.000	162.00	-30.000
16	11:39:59	0.833	939.000	162.00	3.000
17	11:45: 0	0.917	946.000	162.00	7.000
18	11:50: 0	1.000	954.000	162.00	8.000
19	11:54:59	1.083	962.000	162.00	8.000
20	12: 0: 0	1.167	964.000	162.00	2.000
21	12: 5: 0	1.250	967.000	162.00	3.000
22	12: 9:59	1.333	967.000	162.00	0.000
23	12:15: 0	1.417	967.000	162.00	0.000
24	12:20: 0	1.500	967.000	162.00	0.000
25	12:24:59	1.583	967.000	162.00	0.000
26	12:30: 0	1.667	967.000	162.00	0.000
27	12:35: 0	1.750	967.000	162.00	0.000
28	12:38: 0	1.800	967.000	162.00	0.000
29	12:41: 0	1.850	967.000	162.00	0.000
30	12:44: 0	1.900	967.000	162.00	0.000
31	12:47: 0	1.950	967.000	162.00	0.000
32	12:50: 0	2.000	967.000	162.00	0.000
33	12:53: 0	2.050	967.000	162.00	0.000
34	12:56: 0	2.100	967.000	162.00	0.000
35	12:59: 0	2.150	967.000	162.00	0.000
36	13: 2: 0	2.200	967.000	162.00	0.000
37	13: 5: 0	2.250	967.000	162.00	0.000
38	13: 8: 0	2.300	967.000	162.00	0.000
39	13:11: 0	2.350	967.000	162.00	0.000
40	13:14: 0	2.400	967.000	162.00	0.000
41	13:17: 0	2.450	967.000	162.00	0.000
42	13:20: 0	2.500	967.000	162.00	0.000
43	13:23: 0	2.550	967.000	162.00	0.000
44	13:26: 0	2.600	967.000	162.00	0.000
45	13:29: 0	2.650	967.000	162.00	0.000
46	13:32: 0	2.700	967.000	162.00	0.000
47	13:35: 0	2.750	967.000	162.00	0.000
48	13:38: 0	2.800	967.000	162.00	0.000
49	13:41: 0	2.850	967.000	162.00	0.000
50	13:44: 0	2.900	967.000	162.00	0.000
51	13:47: 0	2.950	967.000	162.00	0.000
52	13:50: 0	3.000	967.000	162.00	0.000

COMPANY : BWAB INC.  
WELL : #1-23  
GAUGE # : 6074  
DATE : 23/ 2/87

FIELD : JOHNSON  
JOB # : 13176  
DEPTH : 5688  
TEST :

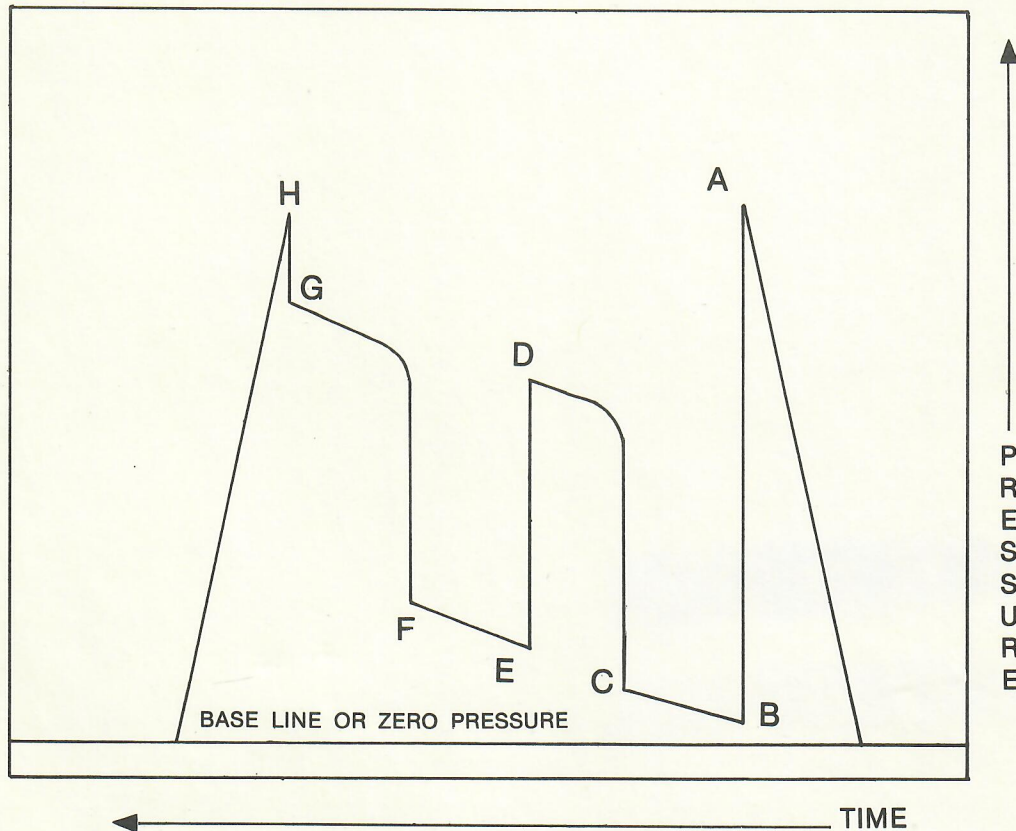
DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
53	13:53: 0	3.050	967.000	162.00	0.000
54	13:56: 0	3.100	978.000	162.00	11.000
55	13:59: 0	3.150	979.000	162.00	1.000
56	14: 2: 0	3.200	970.000	162.00	-9.000
57	14: 5: 0	3.250	971.000	162.00	1.000
58	14: 8: 0	3.300	971.000	162.00	0.000

WESTERN TESTING CO. INC.

### COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

### AK-1 Recorders



A - Initial Hydrostatic

B - First Initial Flow

C - First Final Flow

D - Initial Shut-In

E - Second Initial Flow

F - Second Final Flow

G - Final Shut-In

H - Final Hydrostatic