

MILLER TESTING COMPANY

Box 547

GREAT BEND, KANSAS

Company THUNDERBIRD DRILLING CO.

Lease and Well No. LEIKER A-1

County NESS

State KANSAS

Date DEC 11, 1970

Formation Test No. 1 Total Depth 4410 Elev. 2307 DF
Interval Tested 4063 ⁴⁰⁷³ To 4410 ⁴¹²⁰ Anchor Length 47'
Size Hole 7 7/8 Size Drill Pipe 4 1/2 Size Packer 6 3/4
Mud Weight 9.7 Viscosity 38 Water Loss 10.6 c.c. Bottom Hole Temp. 106 °F
Chokes: Top 1/2 Bottom 1/2 Ticket No. 11057
Length of Drill Collar _____ I. D. _____ Length Flexweight 835 I. D. 2.76

RECOVERY

STRONG BLOW THROUGHOUT TEST.

3200 FEET OF GAS IN PIPE.

270 FEET OF MUDDY GASSY OIL.

USED 2 PACKERS.

Lease and Well No. LEIKER A-1 13 18S 24W NE NE

Formation Test No. 1

COMPANY THUNDERBIRD DRILLING CO.DATE DEC 11, 1970LEASE LEIKERWELL NO. A-1TEST NO. 1TICKET NO. 11057

	TIME	PSI
INITIAL HYDRO MUD PRESSURE		2155
INITIAL CLOSED IN PRESSURE	45 mins.	997
INITIAL FLOW	15 mins.	45 to 62
FINAL FLOW	60 mins.	90 to 139
FINAL CLOSED IN PRESSURE	45 mins.	990
FINAL HYDRO MUD PRESSURE		2133

TOTAL DEPTH 4110PACKER DEPTH 4063BT. NO. 1134 DEPTH 4105

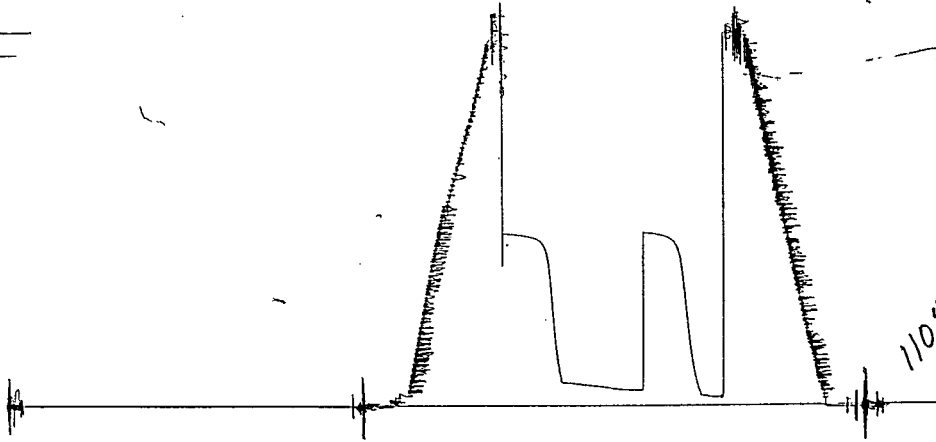
1ST FLOW PRESSURE		INITIAL CIP		2ND FLOW PRESSURE		FINAL CIP	
	45		62		90		139
	49	$\frac{15+5}{5}$ 4.0	134		94	$\frac{60+5}{5}$ 13.0	201
	56	$\frac{15+10}{10}$ 2.5	290		101	$\frac{60+10}{10}$ 7.0	502
	62	$\frac{15+15}{15}$ 2.0	668		112	$\frac{60+15}{15}$ 5.0	901
		$\frac{15+20}{20}$ 1.75	901		119	$\frac{60+20}{20}$ 4.0	952
		$\frac{15+25}{25}$ 1.60	957		130	$\frac{60+25}{25}$ 3.4	968
		$\frac{15+30}{30}$ 1.5	974		139	$\frac{60+30}{30}$ 3.0	977
		$\frac{15+35}{35}$ 1.42	986			$\frac{60+35}{35}$ 2.8	982
		$\frac{15+40}{40}$ 1.37	992			$\frac{60+40}{40}$ 2.5	986
		$\frac{15+45}{45}$ 1.32	997			$\frac{60+45}{45}$ 2.33	990
5 MINUTE INTERVAL		5 MINUTE INTERVAL		10 MINUTE INTERVAL		5 MINUTE INTERVAL	

REMARKS

SPECIAL PRESSURE DATA

R-1134

11057



Tool Open: 1st Flow 15 hr. 15 mins: Shut-in Initial 45 hr. 45 min: 2nd Flow 1 hr. min: Shut-in Final 45 hr. 45 min.

	Field Reading	Corrected Reading
(A) Initial Hydrostatic Pressure	<u>2144</u>	<u>2155</u>
(B) Initial 1st Flow Pressure	<u>56</u>	<u>45</u>
(C) Final 1st Flow Pressure	<u>56</u>	<u>62</u>
(D) Initial Shut-in Pressure	<u>978</u>	<u>997</u>
(E) Initial 2nd Flow Pressure	<u>89</u>	<u>90</u>
(F) Final 2nd Flow Pressure	<u>134</u>	<u>139</u>
(G) Final Shut-in Pressure	<u>978</u>	<u>990</u>
(H) Final Hydrostatic Pressure	<u>2121</u>	<u>2133</u>

11057

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GREAT BEND, KANSAS

Company THUNDERBIRD DRILLING CO.

Lease and Well No. LEIKER A-1

County NESS State KANSAS

Date DEC 12, 1970

Formation Test No. 2 Total Depth 4259 Elev. 2307 DF
Interval Tested 4225 4235 To 4259 4269 Anchor Length 34'
Size Hole 7 7/8 Size Drill Pipe 4 1/2 Size Packer 6 3/4
Mud Weight 9.8 Viscosity 40 Water Loss 5 c.c. Bottom Hole Temp. 108 °F
Chokes: Top 1/2 Bottom 1/2 Ticket No. 11058
Length of Drill Collar _____ I. D. _____ Length Flexweight 835 I. D. 2.76

RECOVERY

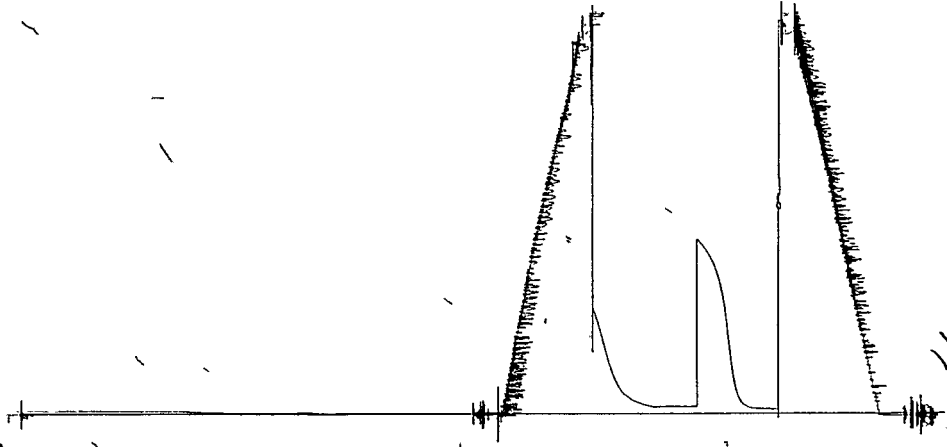
WEAK BLOW FOR 15 MINUTES ON SECOND OPENING. NO BLOW.

15 FEET OF MUD WITH FEW OIL SPOTS.

USED 2 PACKERS.

Lease and Well No. LEIKER A-1 13 18S 24W NE NE

Formation Test No. 2



8-5011

R-1134

6

Tool Open: 1st Flow hr. 15 mins: Shut-in Initial hr. 45 min: 2nd Flow hr. 30 min: Shut-in Final hr. 45 min.

	Field Reading	Corrected Reading
(A) Initial Hydrostatic Pressure	<u>2279</u>	<u>2241</u>
(B) Initial 1st Flow Pressure	<u>33</u>	<u>22</u>
(C) Final 1st Flow Pressure	<u>44</u>	<u>28</u>
(D) Initial Shut-in Pressure	<u>1001</u>	<u>1001</u>
(E) Initial 2nd Flow Pressure	<u>44</u>	<u>45</u>
(F) Final 2nd Flow Pressure	<u>44</u>	<u>45</u>
(G) Final Shut-in Pressure	<u>601</u>	<u>602</u>
(H) Final Hydrostatic Pressure	<u>2234</u>	<u>2223</u>

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GREAT BEND, KANSAS

Company THUNDERBIRD DRILLING CO.

Lease and Well No. LEIKER A-1

County NESS

State KANSAS

Date DEC 12, 1970

Formation Test No. 3 Total Depth 4317 Elev. 2307 DF
Interval Tested 4292 4302 To 4317 4327 Anchor Length 25'
Size Hole 7 7/8 Size Drill Pipe 4 1/2 Size Packer 6 3/4
Mud Weight 9.8 Viscosity 36 Water Loss 13 c.c. Bottom Hole Temp. 111 °F
Chokes: Top 1/2 Bottom 1/2 Ticket No. 11059
Length of Drill Collar I. D. Length Flexweight 835 I. D. 2.76

RECOVERY

WEAK BLOW THROUGHOUT TEST.

120 FEET OF MUDDY OIL.

USED 2 PACKERS.

Lease and Well No. LEIKER A-1 13 18S 24W NE NE

Formation Test No. 3

COMPANY THUNDERBIRD DRILLING CO. DATE DEC 12, 1970
 LEASE LEIKER WELL NO. A-1 TEST NO. 3 TICKET NO. 11059

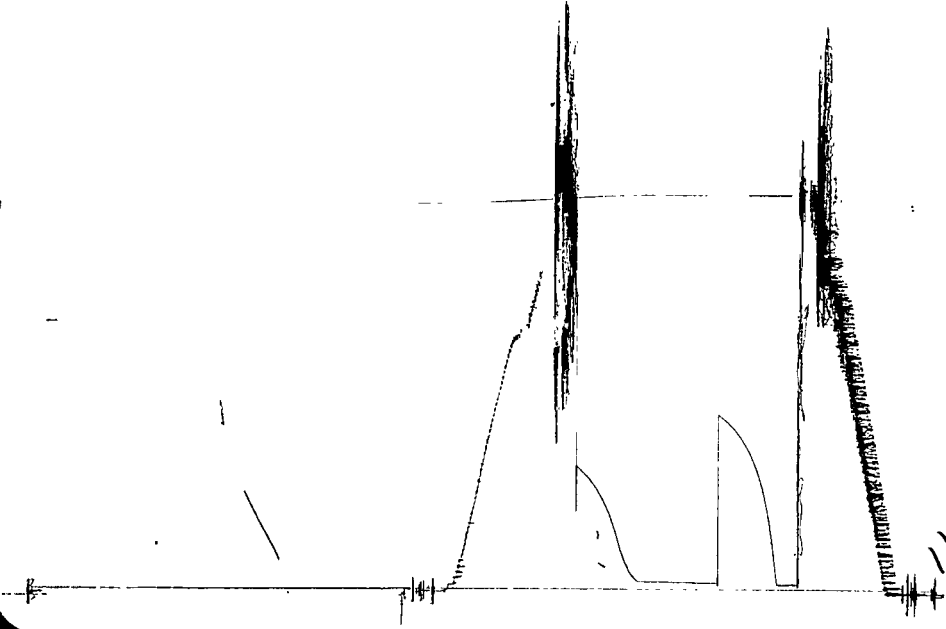
	TIME	PSI
INITIAL HYDRO MUD PRESSURE		2234
INITIAL CLOSED IN PRESSURE	45 mins.	1017
INITIAL FLOW	15 mins.	28 to 28
FINAL FLOW	60 mins.	38 to 49
FINAL CLOSED IN PRESSURE	45 mins.	719
FINAL HYDRO MUD PRESSURE		2234

TOTAL DEPTH 4317
 PACKER DEPTH 4292
 BT. NO. 1134 DEPTH 4312

1ST FLOW PRESSURE		INITIAL CIP		2ND FLOW PRESSURE		FINAL CIP	
	28		28		38		49
	28		279		38		90
	28		480		43		145
	28		657		45		257
			757		45		391
			835		47		491
			890		49		557
			946				624
			979				668
			1017				719
5 MINUTE INTERVAL		5 MINUTE INTERVAL		10 MINUTE INTERVAL		5 MINUTE INTERVAL	

REMARKS _____

SPECIAL PRESSURE DATA



R-1134

11059

Tool Open: 1st Flow hr. 15 mins: Shut-in Initial hr. 45 min: 2nd Flow 1 hr. min: Shut-in Final hr. 45 min.

	Field Reading	Corrected Reading
(A) Initial Hydrostatic Pressure	<u>2279</u>	<u>2234</u>
(B) Initial 1st Flow Pressure	<u>22</u>	<u>28</u>
(C) Final 1st Flow Pressure	<u>22</u>	<u>28</u>
(D) Initial Shut-in Pressure	<u>1001</u>	<u>1017</u>
(E) Initial 2nd Flow Pressure	<u>33</u>	<u>38</u>
(F) Final 2nd Flow Pressure	<u>33</u>	<u>49</u>
(G) Final Shut-in Pressure	<u>712</u>	<u>719</u>
(H) Final Hydrostatic Pressure	<u>2279</u>	<u>2234</u>

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GREAT BEND, KANSAS

Company THUNDERBIRD DRILLING CO.

Lease and Well No. LEIKER A-1

County NESS State KANSAS Date DEC 13, 1970

Formation Test No. 4 Total Depth 4328 Elev. 2307 DF
Interval Tested 4317 ⁴³²⁷ To 4328 ⁴³³⁸ Anchor Length 11'
Size Hole 7 7/8 Size Drill Pipe 4 1/2 Size Packer 6 3/4
Mud Weight 9.8 Viscosity 37 Water Loss 10.8 c.c. Bottom Hole Temp. °F
Chokes: Top 1/2 Bottom 1/2 Ticket No. 11060
Length of Drill Collar I. D. Length Flexweight 835 I. D. 2.76

RECOVERY

WEAK BLOW FOR 7 MINUTES.

40 FEET OF MUDDY OIL.

USED 2 PACKERS.

Lease and Well No. LEIKER A-1 13 18S 24W NE NE

Formation Test No. 4

COMPANY THUNDERBIRD DRILLING CO.DATE DEC 13, 1970LEASE LEIKERWELL
NO. A-1TEST
NO. 4TICKET NO. 11060

	TIME	PSI
INITIAL HYDRO MUD PRESSURE		2280
INITIAL CLOSED IN PRESSURE	45 mins.	1113
INITIAL FLOW	15 mins.	22 to 22
FINAL FLOW	45 mins.	29 to 29
FINAL CLOSED IN PRESSURE	45 mins.	857
FINAL HYDRO MUD PRESSURE		2246

TOTAL DEPTH 4328PACKER DEPTH 4317BT. NO. 1134 DEPTH 4323

1ST FLOW PRESSURE		INITIAL CIP		2ND FLOW PRESSURE		FINAL CIP	
	22		22		29		29
	22		45		29		112
	22		391		29		302
	22		724		29		480
			857		29		569
			923		29		646
			990		29		701
			1041		29		757
			1084		29		801
			1113		29		857
5 MINUTE INTERVAL		5 MINUTE INTERVAL		5 MINUTE INTERVAL		5 MINUTE INTERVAL	

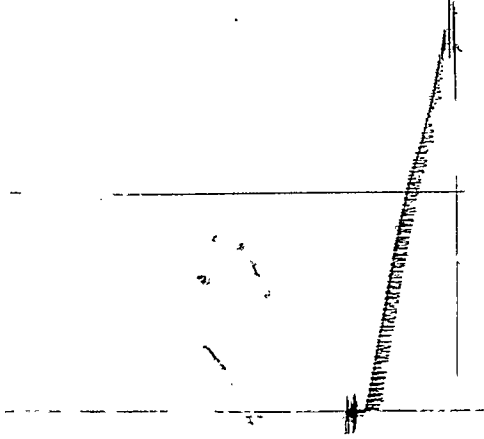
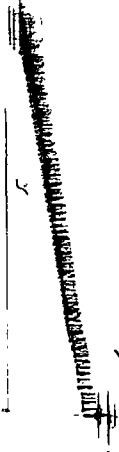
REMARKS _____

SPECIAL PRESSURE DATA

11060

R-1734

6



Tool Open: 1st Flow hr. 15 mins: Shut-in Initial hr. 45 min: 2nd Flow hr. 45 min: Shut-in Final hr. 45 min.

	Field Reading	Corrected Reading
(A) Initial Hydrostatic Pressure	<u>2279</u>	<u>2280</u>
(B) Initial 1st Flow Pressure	<u>22</u>	<u>22</u>
(C) Final 1st Flow Pressure	<u>22</u>	<u>22</u>
(D) Initial Shut-in Pressure	<u>1113</u>	<u>1113</u>
(E) Initial 2nd Flow Pressure	<u>22</u>	<u>29</u>
(F) Final 2nd Flow Pressure	<u>22</u>	<u>29</u>
(G) Final Shut-in Pressure	<u>845</u>	<u>857</u>
(H) Final Hydrostatic Pressure	<u>2279</u>	<u>2246</u>

11060