# Ricketts Testing, Inc.

15-135-23962

Company MULL DRILLING CO., INC. Lease & Well No. BORGER #6

Elevation 2337 K.B. Formation MISSISSIPPI Effective Pay ____ ft. Ticket No. 1842

Date 11-8-96 Sec. 5 Twp. 19 Range 24W County NESS State KANSAS

Test Approved by ROGER MARTIN Ricketts Representative JIM RICKETTS

Formation Test No. 1 Interval Tested from 4321 ft. to 4370 ft. Total Depth 4370 ft.

Packer Depth 4321 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Packer Depth 4318 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 4326 ft. Recorder Number 13307 Cap. 4650

Bottom Recorder Depth (Outside) 4329 ft. Recorder Number 13306 Cap. 4625

Below Straddle Recorder Depth ____ ft. Recorder Number ____ Cap. ____

Drilling Contractor Duke Drilling Rig #4 Drill Collar Length ____ I.D. ____ in.

Mud Type Chemical Viscosity 55 Weight Pipe Length ____ I.D. ____ in.

Weight 9.5 Water Loss 9.2 cc. Drill Pipe Length 4301 I.D. 3.25 in.

Chlorides 2500 P.P.M. Test Tool Length 20 ft. Tool Size 5½ in.

Jars: Make ____ Serial Number ____ Anchor Length 49 ft. Size 5½ in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Gravity Oil 36° Main Hole Size 7 7/8 in. Tool Joint Size 4½xh in.

Blow: Strong blow Initial Flow Period. Off bottom in 7 minutes.
Strong blow Final Flow Period. Off bottom in 15 minutes.

Recovered 240 ft. of Gas in pipe.

Recovered 380 ft. of Clean gassy oil (5.4 bbls)

Recovered 104 ft. of Gassy oil cut mud. 17% Gas 3% Oil 80% Mud (1.48 bbls)

Recovered 124 ft. of Gassy heavy oil cut mud. 28% Gas 32% Oil 40% Mud (1.76 bbls)

Recovered 124 ft. of Gassy very slightly oil cut watery mud. 20% Gas 2% Oil 8% Water 70% Mud (1.76 bbls)

Remarks: DST Fluid Chlorides 16,000 ppm

Time Set Packer (s) 4:47 A M. Time Started Off Bottom 8:32 A M. Maximum Temperature 121°

Initial Hydrostatic Pressure ..... (A) 2197 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 81 P.S.I. to (C) 125 P.S.I.

Initial Closed In Period ..... Minutes 45 (D) 1201 P.S.I.

Final Flow Period ..... Minutes 90 (E) 169 P.S.I. to (F) 296 P.S.I.

Final Closed In Period ..... Minutes 60 (G) 1139 P.S.I.

Final Hydrostatic Pressure ..... (H) 2186 P.S.I.

# RICKETTS TESTING, INC.

## Pressure Data

Date 11-8-96 Test Ticket No. 1842

Recorder No. 13307 Capacity 4650 Location 4326 Ft.

Clock No. Elevation 2337 K.B. Well Temperature 121 °F

| Point | | Pressure | |
|---|---|---|---|
| A | Initial Hydrostatic Mud | 2197 | P.S.I. |
| B | First Initial Flow Pressure | 81 | P.S.I. |
| C | First Final Flow Pressure | 125 | P.S.I. |
| D | Initial Closed-in Pressure | 1201 | P.S.I. |
| E | Second Initial Flow Pressure | 169 | P.S.I. |
| F | Second Final Flow Pressure | 296 | P.S.I. |
| G | Final Closed-in Pressure | 1139 | P.S.I. |
| H | Final Hydrostatic Mud | 2186 | P.S.I. |

| | Time Given | Time Computed |
|---|---|---|
| Open Tool | 4:47 AM | |
| First Flow Pressure | 30 Mins. | 30 Mins. |
| Initial Closed-in Pressure | 45 Mins. | 45 Mins. |
| Second Flow Pressure | 90 Mins. | 90 Mins. |
| Final Closed-in Pressure | 60 Mins. | 60 Mins. |

## PRESSURE BREAKDOWN

**First Flow Pressure**
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of Min.

| Point Mins. | Press. |
|---|---|
| P 1 0 | 81 |
| P 2 5 | 81 |
| P 3 10 | 85 |
| P 4 15 | 92 |
| P 5 20 | 102 |
| P 6 25 | 110 |
| P 7 30 | 125 |
| P 8 35 | |
| P 9 40 | |
| P10 45 | |
| P11 50 | |
| P12 55 | |
| P13 60 | |
| P14 65 | |
| P15 70 | |
| P16 75 | |
| P17 80 | |
| P18 85 | |
| P19 90 | |
| P20 95 | |

**Initial Shut-In**
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of Min.

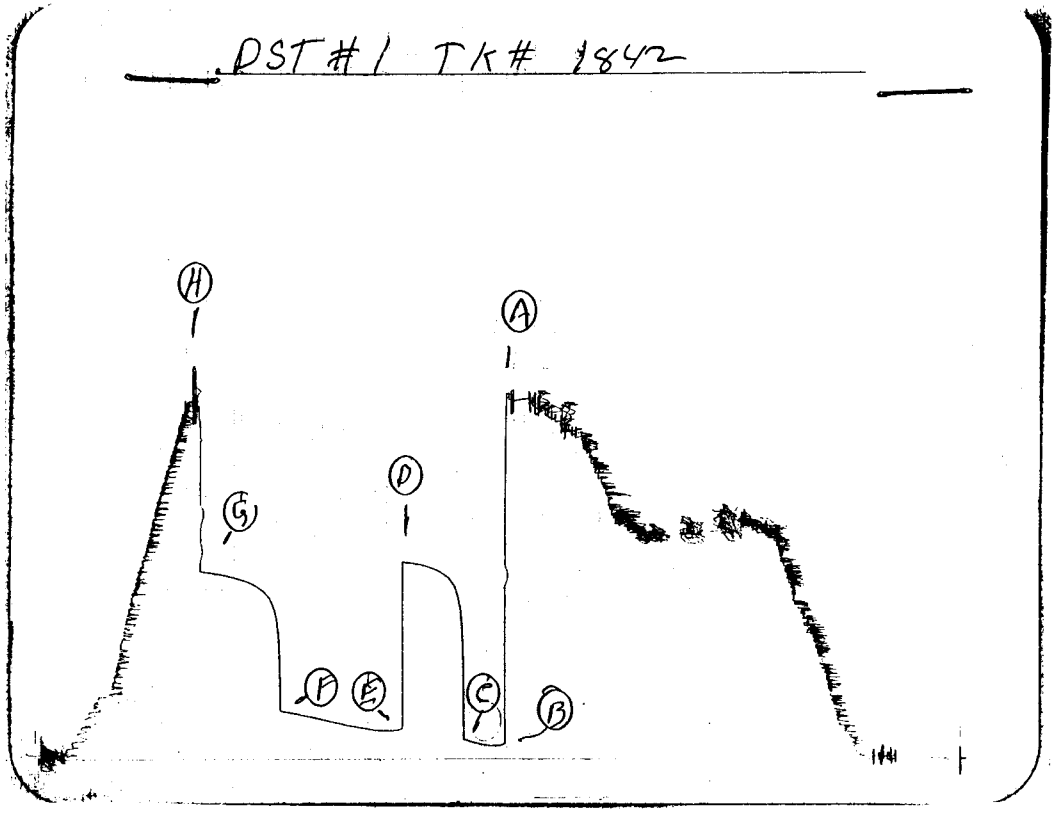
| Point Minutes | Press. |
|---|---|
| 0 | 125 |
| 3 | 924 |
| 6 | 1032 |
| 9 | 1078 |
| 12 | 1113 |
| 15 | 1128 |
| 18 | 1144 |
| 21 | 1155 |
| 24 | 1165 |
| 27 | 1173 |
| 30 | 1180 |
| 33 | 1190 |
| 36 | 1193 |
| 39 | 1195 |
| 42 | 1198 |
| 45 | 1201 |
| 48 | |
| 51 | |
| 54 | |
| 57 | |
| 60 | |

**Second Flow Pressure**
Breakdown: 18 Inc.
of 5 mins. and a
final inc. of Min.

| Point Minutes | Press. |
|---|---|
| 0 | 169 |
| 5 | 169 |
| 10 | 173 |
| 15 | 179 |
| 20 | 183 |
| 25 | 187 |
| 30 | 194 |
| 35 | 202 |
| 40 | 208 |
| 45 | 217 |
| 50 | 222 |
| 55 | 238 |
| 60 | 251 |
| 65 | 259 |
| 70 | 266 |
| 75 | 273 |
| 80 | 280 |
| 85 | 288 |
| 90 | 296 |
| | |
| | |

**Final Shut-In**
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of Min.

| Point Minutes | Press. |
|---|---|
| 0 | 296 |
| 3 | 826 |
| 6 | 921 |
| 9 | 983 |
| 12 | 1010 |
| 15 | 1032 |
| 18 | 1051 |
| 21 | 1065 |
| 24 | 1075 |
| 27 | 1085 |
| 30 | 1094 |
| 33 | 1101 |
| 36 | 1108 |
| 39 | 1116 |
| 42 | 1121 |
| 45 | 1124 |
| 48 | 1127 |
| 51 | 1130 |
| 54 | 1133 |
| 57 | 1136 |
| 60 | 1139 |




This is an actual photograph of recorder chart.

| POINT | | PRESSURE Field Reading | Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 2204 | 2197 | PSI |
| (B) | First Initial Flow Pressure | 69 | 81 | PSI |
| (C) | First Final Flow Pressure | 127 | 125 | PSI |
| (D) | Initial Closed-in Pressure | 1194 | 1201 | PSI |
| (E) | Second Initial Flow Pressure | 150 | 169 | PSI |
| (F) | Second Final Flow Pressure | 301 | 296 | PSI |
| (G) | Final Closed-in Pressure | 1147 | 1139 | PSI |
| (H) | Final Hydrostatic Mud | 2181 | 2186 | PSI |