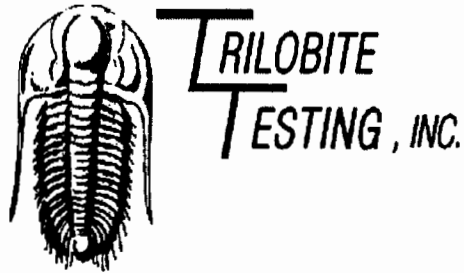


15-163-23421

11-9s-20w



## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc**

P O Box 33  
Russell Ks 67665

ATTN: Allen Bangert

**11-9-20-Rooks-Ks**

**Robertson #1**

Start Date: 2004.08.20 @ 23:20:19

End Date: 2004.08.21 @ 05:47:49

Job Ticket #: 20284                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Mai Oil Operations Inc  
P O Box 33  
Russell Ks 67665  
ATTN: Allen Bangert

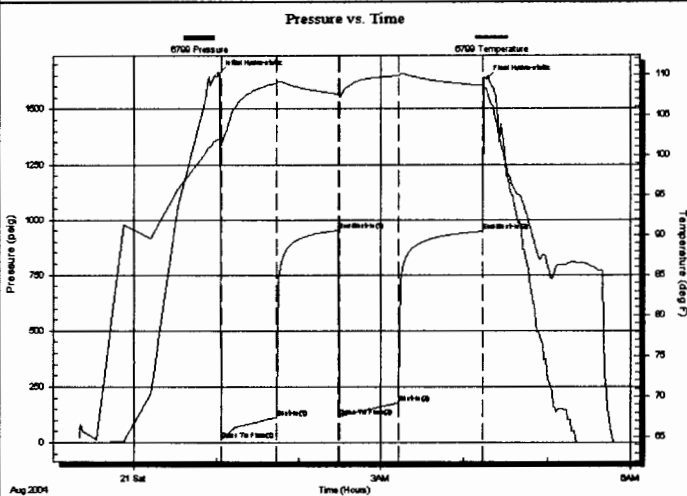
**Robertson #1**  
**11-9-20-Rooks-Ks**  
Job Ticket: 20284      **DST#: 1**  
Test Start: 2004.08.20 @ 23:20:19

### GENERAL INFORMATION:

|   |  |
|---|--|
| Formation: <b>F LKC</b>                                       | Test Type: <b>Conventional Bottom Hble</b>   |
| Deviated: <b>No Whipstock:                      ft (KB)</b>   | Tester: <b>Dan Bangle</b>                    |
| Time Tool Opened: <b>01:03:19</b>                             | Unit No: <b>21</b>                           |
| Time Test Ended: <b>05:47:49</b>                              | Reference Elevations: <b>2123.00 ft (KB)</b> |
| <b>Interval: 3433.00 ft (KB) To 3450.00 ft (KB) (TVD)</b>     | <b>2118.00 ft (CF)</b>                       |
| Total Depth: <b>3450.00 ft (KB) (TVD)</b>                     | <b>KB to GR/CF: 5.00 ft</b>                  |
| Hole Diameter: <b>7.88 inches</b> Hole Condition: <b>Good</b> |  |

|   |   |
|---|---|
| <b>Serial #: 6799</b> <b>Inside</b>                       | Capacity: <b>7000.00 psig</b>               |
| Press@RunDepth: <b>177.77 psig @ 3434.00 ft (KB)</b>      | Last Calib.: <b>2004.08.21</b>              |
| Start Date: <b>2004.08.20</b> End Date: <b>2004.08.21</b> | Time On Btrm: <b>2004.08.21 @ 01:01:19</b>  |
| Start Time: <b>23:20:20</b> End Time: <b>05:47:49</b>     | Time Off Btrm: <b>2004.08.21 @ 04:16:19</b> |

**TEST COMMENT:** F-Weak building to 10"  
FF-Weak building to 4"  
Times-45-45-45-60



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1657.47         | 101.93       | Initial Hydro-static |
| 2           | 12.40           | 101.26       | Open To Flow (1)     |
| 43          | 113.90          | 108.86       | Shut-In(1)           |
| 88          | 951.45          | 107.57       | End Shut-In(1)       |
| 88          | 116.71          | 107.17       | Open To Flow (2)     |
| 132         | 177.77          | 109.84       | Shut-In(2)           |
| 192         | 946.08          | 108.58       | End Shut-In(2)       |
| 195         | 1632.33         | 108.21       | Final Hydro-static   |

### Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 340.00      | Mty Wtr     | 3.64         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

### Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Mai Oil Operations Inc

**Robertson #1**

P O Box 33  
Russell Ks 67665

**11-9-20-Rooks-Ks**

Job Ticket: 20284      DST#: 1

ATTN: Allen Bangert

Test Start: 2004.08.20 @ 23:20:19

**Tool Information**

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3316.00 ft | Diameter: 3.80 inches | Volume: 46.51 bbl              | Tool Weight: 1200.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer: 25000.00 lb  |
| Drill Collar:             | Length: 124.00 ft  | Diameter: 2.25 inches | Volume: 0.61 bbl               | Weight to Full Loose: 70000.00 lb  |
|                           |                    |                       | <u>Total Volume: 47.12 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 28.00 ft           |                       |                                | String Weight: Initial 60000.00 lb |
| Depth to Top Packer:      | 3433.00 ft         |                       |                                | Final 62000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 17.00 ft           |                       |                                |                                    |
| Tool Length:              | 38.00 ft           |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |

Tool Comments:

**Tool Description**

| Tool Description          | Length (ft)  | Serial No. | Position | Depth (ft) | Accum. Lengths                     |
|---------------------------|--------------|------------|----------|------------|------------------------------------|
| Change Over Sub           | 1.00         |            |          | 3413.00    |                                    |
| Shut In Tool              | 5.00         |            |          | 3418.00    |                                    |
| Hydraulic tool            | 5.00         |            |          | 3423.00    |                                    |
| Packer                    | 5.00         |            |          | 3428.00    | 21.00      Bottom Of Top Packer    |
| Packer                    | 5.00         |            |          | 3433.00    |                                    |
| Stubb                     | 1.00         |            |          | 3434.00    |                                    |
| Recorder                  | 0.00         | 6799       | inside   | 3434.00    |                                    |
| Perforations              | 13.00        |            |          | 3447.00    |                                    |
| Recorder                  | 0.00         | 13254      | Outside  | 3447.00    |                                    |
| Bullnose                  | 3.00         |            |          | 3450.00    | 17.00      Bottom Packers & Anchor |
| <b>Total Tool Length:</b> | <b>38.00</b> |            |          |            |                                    |



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc

Robertson #1

P O Box 33  
Russell Ks 67665

11-9-20-Rooks-Ks

Job Ticket: 20284

DST#: 1

ATTN: Allen Bangert

Test Start: 2004.08.20 @ 23:20:19

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 340.00       | Mdy Wtr     | 3.640         |

Total Length: 340.00ft Total Volume: 3.640 bbl

Num Fluid Samples: 0

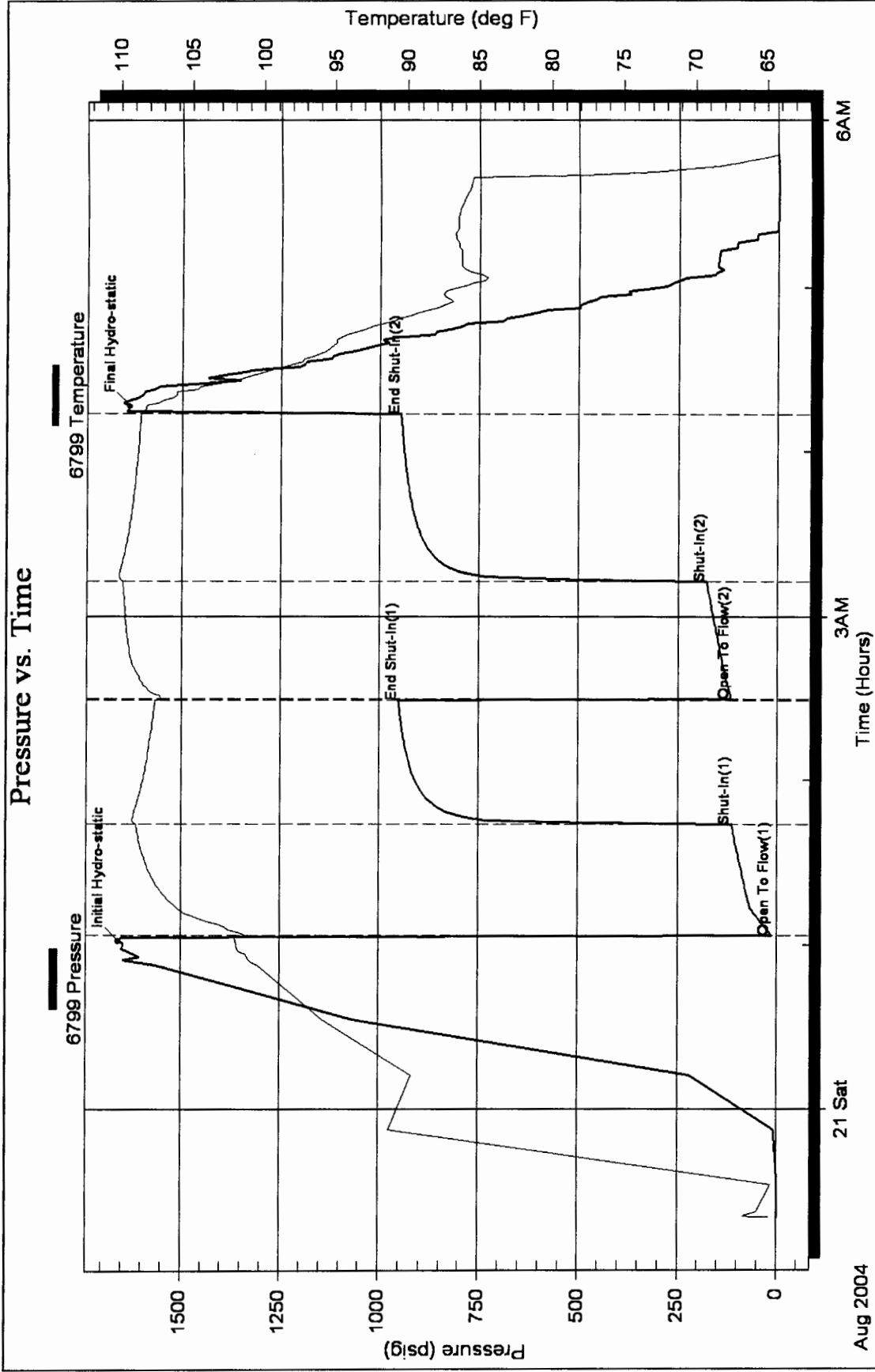
Num Gas Bombs: 0

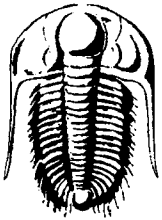
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .o2 @ 76 = 80000 ppm





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INV  
6703

No 20284

05/03

## Test Ticket

Well Name & No. Robertson #1 Test No. 1 Date 8-20-04  
 Company Mai Oil Operations, Inc Zone Tested F LFC  
 Address P.O. Box 33 Russell, Ks. 67665 Elevation 2123 KB 2118 GL  
 Co. Rep / Geo. Todd Mangarten Cont. Murfin #16 Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 11 Twp. 9 Rge. 20 Co. Rooks State Ks  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 3433 — 3450 Initial Str Wt./Lbs. 60,000 Unseated Str Wt./Lbs. 62,000  
 Anchor Length 17 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 70,000  
 Top Packer Depth 3428 Tool Weight 1200  
 Bottom Packer Depth 3433 Hole Size 7 7/8" Rubber Size 6 3/4"  
 Total Depth 3450 Wt. Pipe Run \_\_\_\_\_ Drill Collar Run 124  
 Mud Wt. 8.9 LCM \_\_\_\_\_ Vis. 45 WL 8.4 Drill Pipe Size 4.5 XH Ft. Run 3316  
 Blow Description F.F. Weak building to 10

F.F. Weak - building to 4"

Recovery - Total Feet 340 GIP \_\_\_\_\_ Ft. in DC \_\_\_\_\_ Ft. in DP \_\_\_\_\_  
 Rec. 340 Feet of mdy wtr. %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 BHT 108 °F Gravity \_\_\_\_\_ °API D @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW 102 @ 26 °F Chlorides 80,000 ppm Recovery \_\_\_\_\_ Chlorides 1500 ppm System

|                                  | AK-1 | Alpine          | Recorder No.              | Test                |
|----------------------------------|------|-----------------|---------------------------|---------------------|
| (A) Initial Hydrostatic Mud      |      | <u>1657</u> PSI | <u>6799</u>               | <u>900</u>          |
| (B) First Initial Flow Pressure  |      | <u>12</u> PSI   | (depth)                   | Elec. Rec. <u>X</u> |
| (C) First Final Flow Pressure    |      | <u>113</u> PSI  | Recorder No. <u>13254</u> | Jars _____          |
| (D) Initial Shut-In Pressure     |      | <u>951</u> PSI  | (depth)                   | Safety Jt. _____    |
| (E) Second Initial Flow Pressure |      | <u>116</u> PSI  | Recorder No. _____        | Circ Sub _____      |
| (F) Second Final Flow Pressure   |      | <u>177</u> PSI  | (depth)                   | Sampler _____       |
| (G) Final Shut-In Pressure       |      | <u>946</u> PSI  | Initial Opening <u>45</u> | Straddle _____      |
| (Q) Final Hydrostatic Mud        |      | <u>1632</u> PSI | Initial Shut-In <u>45</u> | Ext. Packer _____   |

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Approved By \_\_\_\_\_  
 Our Representative Dan Bangle

|               |              |                                |
|---------------|--------------|--------------------------------|
| Final Flow    | <u>45</u>    | Shale Packer _____             |
| Final Shut-In | <u>60</u>    | Mileage <u>86</u> <u>73.10</u> |
| T-On Location | <u>22:30</u> | Sub Total: <u>973.10</u>       |
| T-Started     | <u>23:20</u> | Std. By _____                  |
| T-Open        | <u>01:00</u> | Other _____                    |
| T-Pulled      | <u>04:15</u> | Total: _____                   |
| T-Out         | <u>05:47</u> |                                |

**CHART PAGE**

This is a photocopy of the actual AK-1 recorder chart

