



## DRILL STEM TEST REPORT

Prepared For: **MKJ Oil Co. LLC**

705 E. 9th  
Harper, KS 67058

# ORIGINAL

ATTN: Merland Bergman

**34-30s-7w Kingman KS**

**Bergman #2**

Start Date: 2001.04.12 @ 16:51:00

End Date: 2001.04.12 @ 21:40:00

Job Ticket #: 14697                      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

MKJ Oil Co. LLC

705 E. 9th  
Harper, KS 67058

ATTN: Merland Bergman

**Bergman #2**

**34-30s-7w Kingman KS**

Job Ticket: 14697

**DST#: 1**

Test Start: 2001.04.12 @ 16:51:00

### GENERAL INFORMATION:

Formation: **Indian Cave**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 18:16:53

Time Test Ended: 21:40:00

Test Type: **Conventional Bottom Hole**

Tester: **Dan Bangle**

Unit No: **21**

Interval: **2254.00 ft (KB) To 2308.00 ft (KB) (TVD)**

Total Depth: **2308.00 ft (KB)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **1607.00 ft (KB)**

**1599.00 ft (CF)**

KB to GR/CF: **8.00 ft**

Serial #: **2357** Inside

Press@RunDepth: **675.90 psig @ 2260.01 ft (KB)**

Start Date: **2001.04.12**

End Date:

**2001.04.13**

Start Time: **16:53:54**

End Time:

**00:19:53**

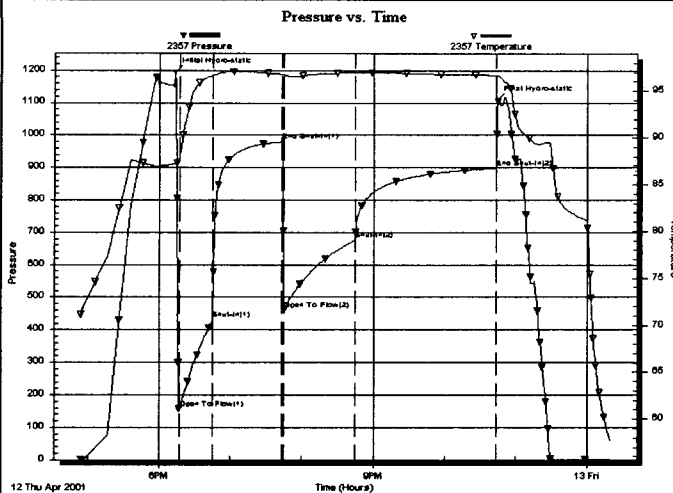
Capacity: **7000.00 psig**

Last Calib.: **2001.04.11**

Time On Btm: **2001.04.12 @ 18:12:53**

Time Off Btm: **2001.04.12 @ 22:44:23**

TEST COMMENT: IF-Strong BOB in 30 sec  
FFStrong BOB in 1.5 min



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 79          | 1193.77         | 87.29        | Initial Hydro-static |
| 83          | 155.38          | 87.92        | Open To Flow (1)     |
| 112         | 430.43          | 96.67        | Shut-In(1)           |
| 170         | 979.54          | 96.81        | End Shut-In(1)       |
| 172         | 461.01          | 96.76        | Open To Flow (2)     |
| 231         | 675.90          | 96.95        | Shut-In(2)           |
| 350         | 898.33          | 96.71        | End Shut-In(2)       |
| 351         | 1108.29         | 96.71        | Final Hydro-static   |

### Recovery

| Length (ft) | Description                          | Volume (bbl) |
|-------------|--------------------------------------|--------------|
| 1410.00     | Mudy wtr 20%lm 80%lw Rw.06@70=150000 | 19.78        |
|             |                                      |              |
|             |                                      |              |
|             |                                      |              |
|             |                                      |              |
|             |                                      |              |

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

MKJ Oil Co. LLC

705 E. 9th  
Harper, KS 67058

ATTN: Merland Bergman

**Bergman #2**

**34-30s-7w Kingman KS**

Job Ticket: 14697

**DST#: 1**

Test Start: 2001.04.12 @ 16:51:00

### Tool Information

|                           |                    |                       |                   |                                    |
|---------------------------|--------------------|-----------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 2248.00 ft | Diameter: 3.80 inches | Volume: 31.53 bbl | Tool Weight: 1800.00 lb            |
| Drill Collar:             | Length: 0.01 ft    | Diameter: 0.01 inches | Volume: 0.00 bbl  | Weight set on Packer: 25000.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.01 ft    | Diameter: 0.01 inches | Volume: 0.00 bbl  | Weight to Pull Loose: 60000.00 lb  |
| Drill Pipe Above KB:      | 23.02 ft           |                       |                   | Tool Chased 0.01 ft                |
| Depth to Top Packer:      | 2249.00 ft         |                       |                   | String Weight: Initial 32000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                   | Final 42000.00 lb                  |
| Interval between Packers: | ft                 |                       |                   |                                    |
| Tool Length:              | 83.02 ft           |                       |                   |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                   |                                    |

### Tool Comments

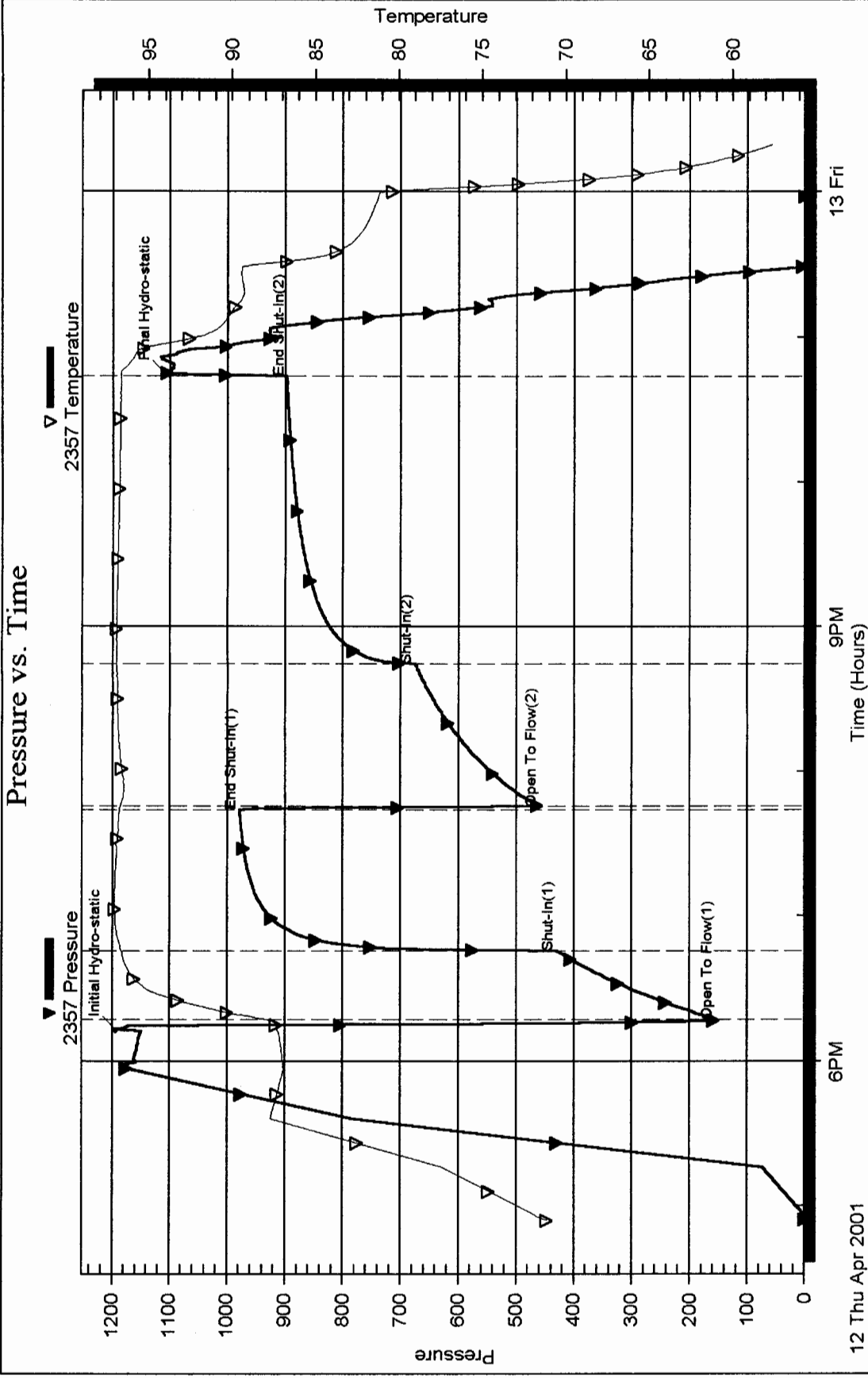
ORIGINAL

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|----------------|
|------------------|-------------|------------|----------|------------|----------------|

|               |       |       |         |         |                               |
|---------------|-------|-------|---------|---------|-------------------------------|
| C.O. Sub      | 1.00  |       |         | 2226.00 |                               |
| S.I. Tool     | 5.00  |       |         | 2231.00 |                               |
| HYD S.I. Tool | 5.00  |       |         | 2236.00 |                               |
| Jars          | 5.00  |       |         | 2241.00 |                               |
| Safety Joint  | 3.00  |       |         | 2244.00 |                               |
| Packer        | 5.00  |       |         | 2249.00 | 24.00 Bottom Of Top Packer    |
| Packer        | 5.00  |       |         | 2254.00 |                               |
| Stubb         | 1.00  |       |         | 2255.00 |                               |
| Perforations  | 4.00  |       |         | 2259.00 |                               |
| C.O. Sub      | 1.00  |       |         | 2260.00 |                               |
| Recorder      | 0.01  | 2357  | Inside  | 2260.01 |                               |
| Blank Spacing | 31.00 |       |         | 2291.01 |                               |
| C.O. Sub      | 1.00  |       |         | 2292.01 |                               |
| Recorder      | 0.01  | 13254 | Outside | 2292.02 |                               |
| Perforations  | 11.00 |       |         | 2303.02 |                               |
| Bullnose      | 5.00  |       |         | 2308.02 | 59.02 Bottom Packers & Anchor |

**Total Tool Length: 83.02**

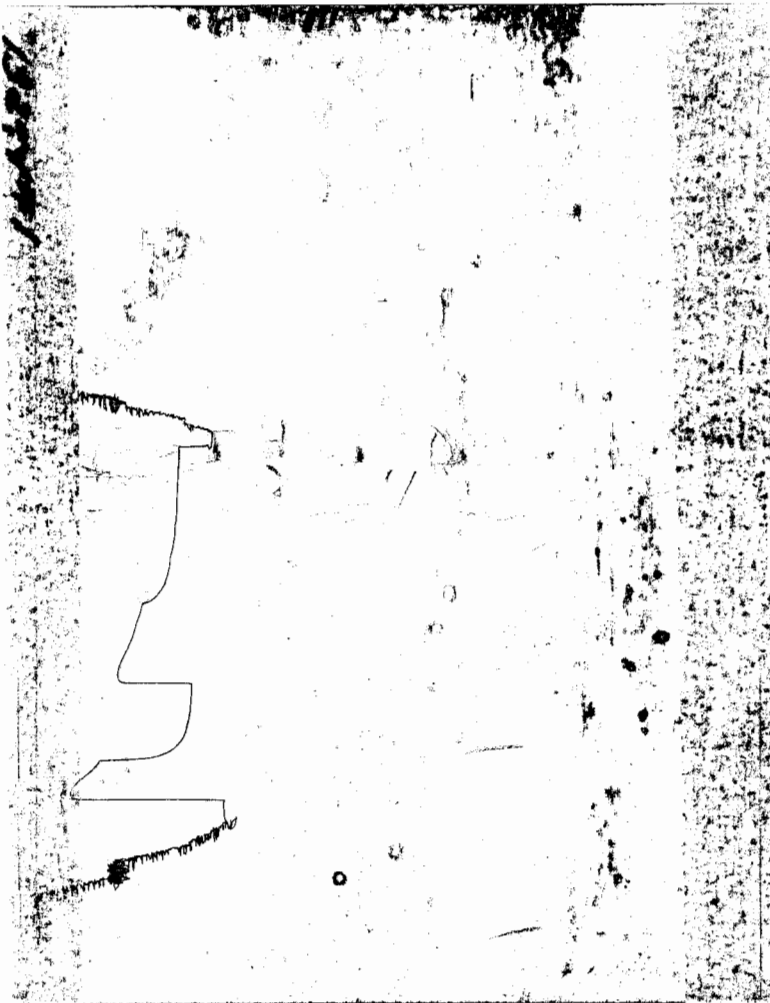
# Pressure vs. Time



ORIGINAL

**CHART PAGE**

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



ORIGINAL



## DRILL STEM TEST REPORT

Prepared For: **MKJ Oil Co. LLC**

705 E. 9th  
Harper, KS 67058

ATTN: Merland Bergman

**34-30s-7w Kingman KS**

**Bergman #2**

Start Date: 2001.04.17 @ 12:51:00

End Date: 2001.04.17 @ 18:45:00

Job Ticket #: 14077      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

MKJ Oil Co. LLC

705 E. 9th  
Harper, KS 67058

ATTN: Merland Bergman

**Bergman #2**

**34-30s-7w Kingman KS**

Job Ticket: 14077

DST#: 2

Test Start: 2001.04.17 @ 12:51:00

### GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:17:52

Time Test Ended: 18:45:00

Test Type: Conventional Bottom Hole

Tester: Lanny Saloga

Unit No: 14

Interval: **4346.00 ft (KB) To 4360.00 ft (KB) (TVD)**

Total Depth: 4360.00 ft (KB)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1607.00 ft (KB)

1599.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: **3289** Inside

Press@RunDepth: 29.76 psig @ 4348.00 ft (KB)

Start Date: 2001.04.17

End Date:

2001.04.17

Capacity: 7000.00 psig

Last Calib.: 2001.04.16

Start Time: 12:53:57

End Time:

20:53:21

Time On Btm: 2001.04.17 @ 14:11:37

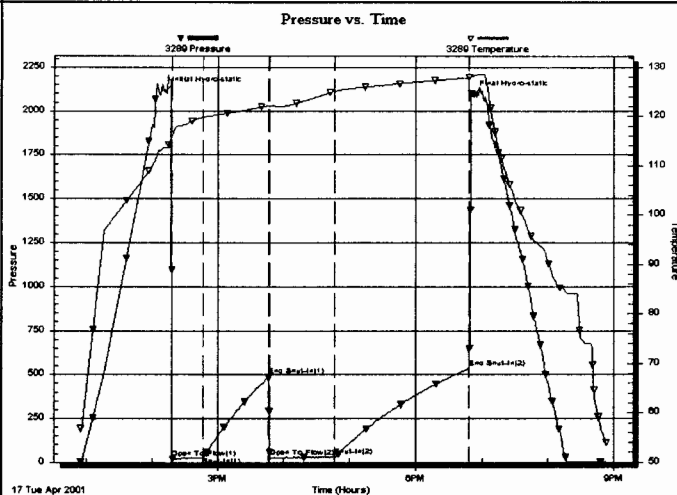
Time Off Btm: 2001.04.17 @ 18:51:52

TEST COMMENT: Fair 3" built to strong OBB in 7 min. I.F.P.

No blow-back. I.S.I.P.

Strong OBB immed. & throughout. F.F.P.

No Blow-back. F.S.I.P.



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 78          | 2113.18         | 113.60       | Initial Hydro-static |
| 84          | 21.05           | 115.95       | Open To Flow (1)     |
| 113         | 24.36           | 119.84       | Shut-In(1)           |
| 173         | 487.67          | 122.17       | End Shut-In(1)       |
| 174         | 23.94           | 122.28       | Open To Flow (2)     |
| 233         | 29.76           | 125.11       | Shut-In(2)           |
| 355         | 533.55          | 127.95       | End Shut-In(2)       |
| 358         | 2092.33         | 128.20       | Final Hydro-static   |

### Recovery

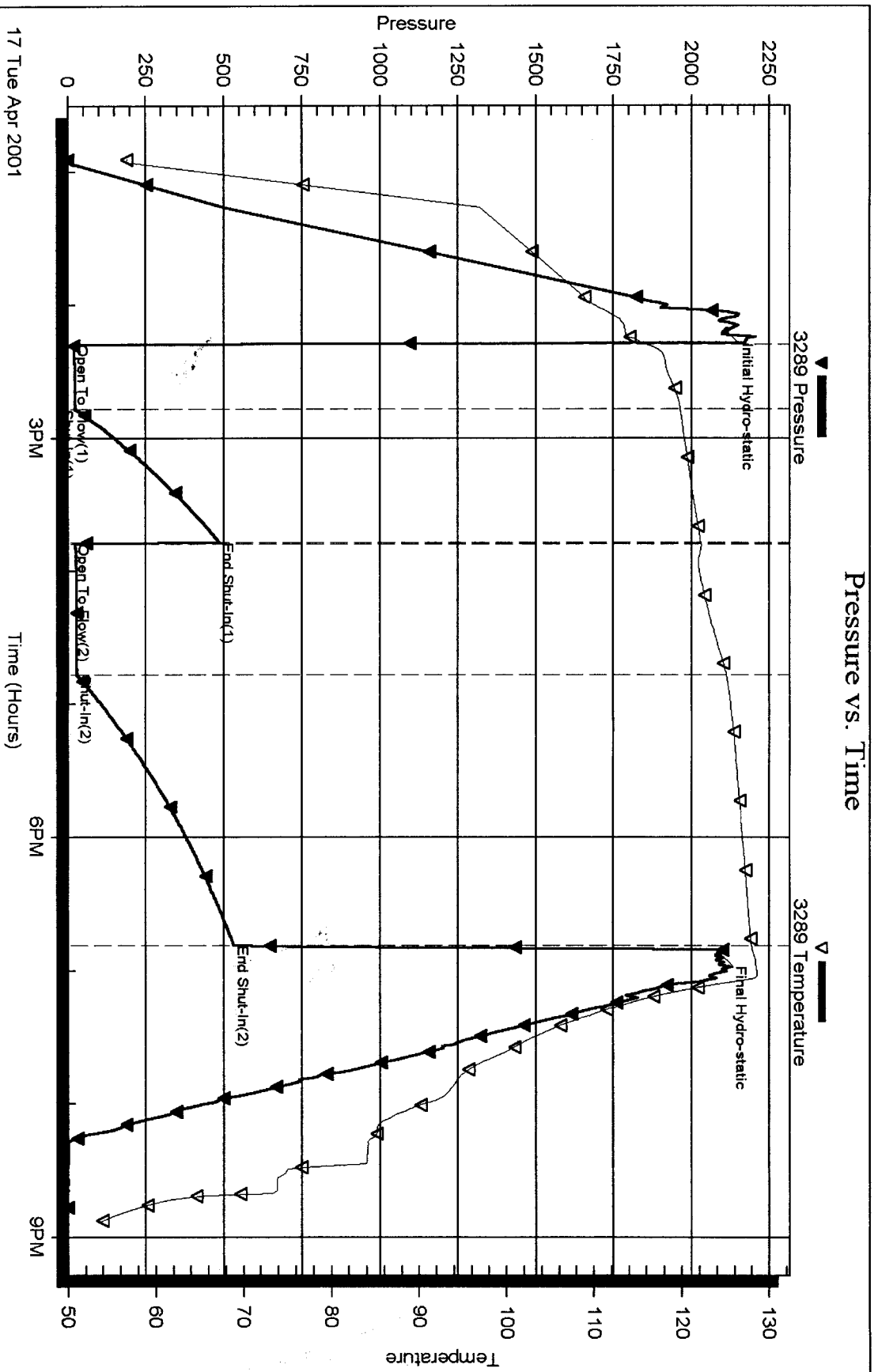
| Length (ft) | Description                        | Volume (bbl) |
|-------------|------------------------------------|--------------|
| 0.00        | 695 Ft. GIP                        | 0.00         |
| 35.00       | SII Oil & Gas cut Mud 3%G 3%O 94%M | 0.49         |
|             |                                    |              |
|             |                                    |              |
|             |                                    |              |
|             |                                    |              |

### Gas Rates

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

Serial #: 3289      Inside      MKU Oil Co. LLC

34-30s-7w Kingman KS




**TRILOBITE  
TESTING, INC**
**DRILL STEM TEST REPORT**
**TOOL DIAGRAM**
**MKJ Oil Co. LLC**
**Bergman #2**

 705 E. 9th  
Harper, KS 67058

**34-30s-7w Kingman KS**

Job Ticket: 14077

**DST#: 2**

ATTN: Merland Bergman

Test Start: 2001.04.17 @ 12:51:00

**Tool Information**

|                           |                    |                       |                   |                                    |
|---------------------------|--------------------|-----------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 4334.00 ft | Diameter: 3.80 inches | Volume: 60.79 bbl | Tool Weight: 1800.00 lb            |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl  | Weight set on Packer: 20000.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl  | Weight to Pull Loose: 23000.00 lb  |
| Drill Pipe Above KB:      | 15.00 ft           |                       |                   | Tool Chased ft                     |
| Depth to Top Packer:      | 4341.00 ft         |                       |                   | String Weight: Initial 57000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                   | Final 57000.00 lb                  |
| Interval between Packers: | ft                 |                       |                   |                                    |
| Tool Length:              | 41.00 ft           |                       |                   |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                   |                                    |

**Tool Comments**

 Fair 3" built to strong OBB in 7 min. I.F.P.  
No blow-back. I.S.I.P.

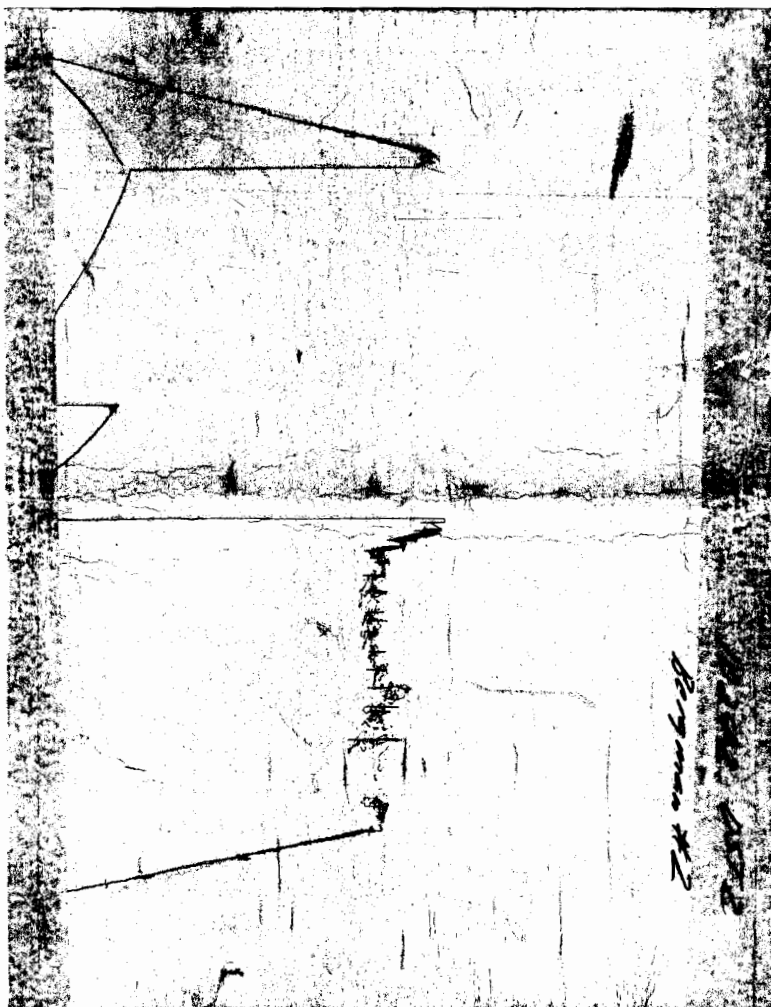
| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|------------------|-------------|------------|----------|------------|-------------------------------|
| C.O. Sub         | 1.00        |            |          | 4320.00    |                               |
| S.I. Tool        | 5.00        |            |          | 4325.00    |                               |
| HMV              | 5.00        |            |          | 4330.00    |                               |
| Jars             | 5.00        |            |          | 4335.00    |                               |
| Safety Joint     | 2.00        |            |          | 4337.00    |                               |
| Packer           | 4.00        |            |          | 4341.00    | 22.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 4346.00    |                               |
| Stubb            | 1.00        |            |          | 4347.00    |                               |
| Perforations     | 1.00        |            |          | 4348.00    |                               |
| Recorder         | 0.00        | 3289       | Inside   | 4348.00    |                               |
| Perforations     | 10.00       |            |          | 4358.00    |                               |
| Recorder         | 0.00        | 10242      | Inside   | 4358.00    |                               |
| Bullnose         | 2.00        |            |          | 4360.00    | 19.00 Bottom Packers & Anchor |

**Total Tool Length: 41.00**

ORIGINAL

**CHART PAGE**

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



# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

Nº 14077

## Test Ticket

|                                                              |                                         |                                                |
|--------------------------------------------------------------|-----------------------------------------|------------------------------------------------|
| Well Name & No. <u>Bergman #2</u>                            | Test No. <u>2</u>                       | Date <u>4-17-2001</u>                          |
| Company <u>MKT Oil Co.</u>                                   | Zone Tested <u>Miss.</u>                |                                                |
| Address <u>205 E. Ninth Hays, KS 67058</u>                   | Elevation <u>1607</u> KB <u>1592</u> GL |                                                |
| Co. Rep / Geo. <u>Harold Trapp</u>                           | Cont. <u>Duke Rig 2</u>                 | Est. Ft. of Pay <u>    </u> Por. <u>    </u> % |
| Location: Sec. <u>34</u> Twp. <u>30 S</u> Rge. <u>7 W</u>    | Co. <u>Kingman</u> State <u>K.S.</u>    |                                                |
| No. of Copies <u>Req.</u> Distribution Sheet (Y, N) <u>N</u> | Turnkey (Y, N) <u>N</u>                 | Evaluation (Y, N) <u>    </u>                  |

Interval Tested 4346-4360 Initial Str Wt./Lbs. 57000 Unseated Str Wt./Lbs. 57000  
 Anchor Length 14' Test = 27' Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 23000  
 Top Packer Depth 4341 Tool Weight 1800  
 Bottom Packer Depth 4346 Hole Size — 7 7/8" Rubber Size — 6 3/4"  
 Total Depth 4360 Wt. Pipe Run      Drill Collar Run 0  
 Mud Wt. 9.4 LCM 0 Vis. 46 WL 10.4 Drill Pipe Size 4 1/2 XH Ft. Run 4334 15' up  
 Blow Description Fail 3" built to strong OBB in 7 min. T.F.P.  
No blow-back. F.S.T.P.  
Strong OBB increased & throughout F.F.P.  
No blow-back. F.S.T.P.

Recovery — Total Feet 35 GIP 685 Ft. in DC 0 Ft. in DP 35  
 Rec. 35 Feet Of 51% Oil & Gas out Mud 3 %gas 3 %oil %water 94 %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 127 °F Gravity      °API D@      °F Corrected Gravity      °API  
 RW      @      °F Chlorides      ppm Recovery Chlorides 4500 ppm System

|                                  | AK-1        | Alpine      |                                      |                               |  |
|----------------------------------|-------------|-------------|--------------------------------------|-------------------------------|--|
| (A) Initial Hydrostatic Mud      | <u>2183</u> | <u>2113</u> | PSI Recorder No. <u>3289 "12:51"</u> | T-On Location <u>11:30 AM</u> |  |
| (B) First Initial Flow Pressure  | <u>56</u>   | <u>21</u>   | PSI (depth) <u>4348</u>              | T-Started <u>12:51 PM</u>     |  |
| (C) First Final Flow Pressure    | <u>56</u>   | <u>24</u>   | PSI Recorder No. <u>10242</u>        | T-Open <u>2:15 PM</u>         |  |
| (D) Initial Shut-In Pressure     | <u>481</u>  | <u>487</u>  | PSI (depth) <u>4357</u>              | T-Pulled <u>6:45 PM</u>       |  |
| (E) Second Initial Flow Pressure | <u>79</u>   | <u>23</u>   | PSI Recorder No. <u>    </u>         | T-Out <u>8:50 PM</u>          |  |
| (F) Second Final Flow Pressure   | <u>79</u>   | <u>29</u>   | PSI (depth) <u>    </u>              | T-Off Location <u>    </u>    |  |
| (G) Final Shut-in Pressure       | <u>558</u>  | <u>533</u>  | PSI Initial Opening <u>30</u>        | Test <u>✓</u>                 |  |
| (Q) Final Hydrostatic Mud        | <u>2186</u> | <u>2092</u> | PSI Initial Shut-in <u>60</u>        | Jars <u>✓</u>                 |  |
|                                  |             |             | Final Flow <u>60</u>                 | Safety Joint <u>✓</u>         |  |
|                                  |             |             | Final Shut-in <u>120</u>             | Straddle <u>    </u>          |  |
|                                  |             |             |                                      | Circ. Sub <u>✓</u>            |  |
|                                  |             |             |                                      | Sampler <u>    </u>           |  |
|                                  |             |             |                                      | Extra Packer <u>    </u>      |  |
|                                  |             |             |                                      | Elec. Rec <u>✓</u>            |  |
|                                  |             |             |                                      | Mileage <u>60</u>             |  |
|                                  |             |             |                                      | Other <u>    </u>             |  |

41711253.289  
 TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Harold Trapp

Our Representative Harold Trapp

TOTAL PRICE \$ 4260.00