



## DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating, Inc.**

PO Box 86  
Plainville, KS 67663

ATTN: Al Downing / Marc Do

### **Campell #18-2**

### **18-6s-23w Graham, KS**

Start Date: 2013.02.18 @ 19:45:00

End Date: 2013.02.19 @ 02:18:45

Job Ticket #: 51198                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.04 @ 15:42:09



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H & C Oil Operating, Inc.

**18-6s-23w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Campell #18-2**

Job Ticket: 51198

**DST#: 1**

ATTN: Al Downing / Marc Do

Test Start: 2013.02.18 @ 19:45:00

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:39:45

Time Test Ended: 02:18:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 43

**Interval: 3650.00 ft (KB) To 3690.00 ft (KB) (TVD)**

Reference Elevations: 2439.00 ft (KB)

Total Depth: 3690.00 ft (KB) (TVD)

2434.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8648**

**Inside**

Press @ Run Depth: 20.87 psig @ 3651.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.02.18

End Date:

2013.02.19

Last Calib.:

2013.02.19

Start Time:

19:45:05

End Time:

02:18:44

Time On Btm:

2013.02.18 @ 22:39:00

Time Off Btm:

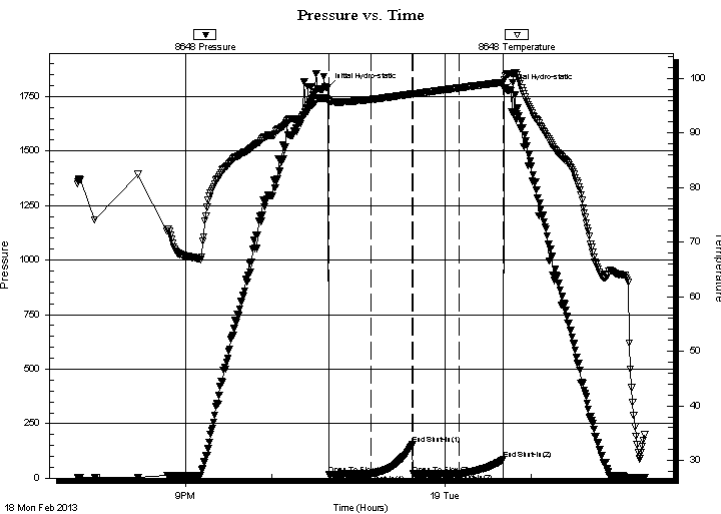
2013.02.19 @ 00:42:00

**TEST COMMENT:** 30 - IF- 3/4" Blow built to 1"

30 - IS- No Return

30 - FF- No Blow

30 - FS- No Return



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1793.13         | 96.12        | Initial Hydro-static |
| 1           | 18.00           | 95.80        | Open To Flow (1)     |
| 30          | 19.67           | 96.12        | Shut-In(1)           |
| 59          | 154.81          | 97.14        | End Shut-In(1)       |
| 60          | 19.51           | 97.10        | Open To Flow (2)     |
| 91          | 20.87           | 98.24        | Shut-In(2)           |
| 122         | 85.55           | 99.27        | End Shut-In(2)       |
| 123         | 1789.06         | 100.45       | Final Hydro-static   |

## Recovery

| Length (ft) | Description          | Volume (bbl) |
|-------------|----------------------|--------------|
| 5.00        | OSM 100M (Oil Spots) | 0.07         |
|             |                      |              |
|             |                      |              |
|             |                      |              |
|             |                      |              |

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

H & C Oil Operating, Inc.

**18-6s-23w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Campell #18-2**

Job Ticket: 51198

**DST#: 1**

ATTN: Al Downing / Marc Do

Test Start: 2013.02.18 @ 19:45:00

**GENERAL INFORMATION:**

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:39:45

Time Test Ended: 02:18:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 43

Interval: **3650.00 ft (KB) To 3690.00 ft (KB) (TVD)**

Reference Elevations: 2439.00 ft (KB)

Total Depth: 3690.00 ft (KB) (TVD)

2434.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6799** Inside

Press @ Run Depth: psig @ 3651.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.02.18

End Date:

2013.02.19

Last Calib.:

1899.12.30

Start Time: 19:43:50

End Time:

02:19:44

Time On Btm:

Time Off Btm:

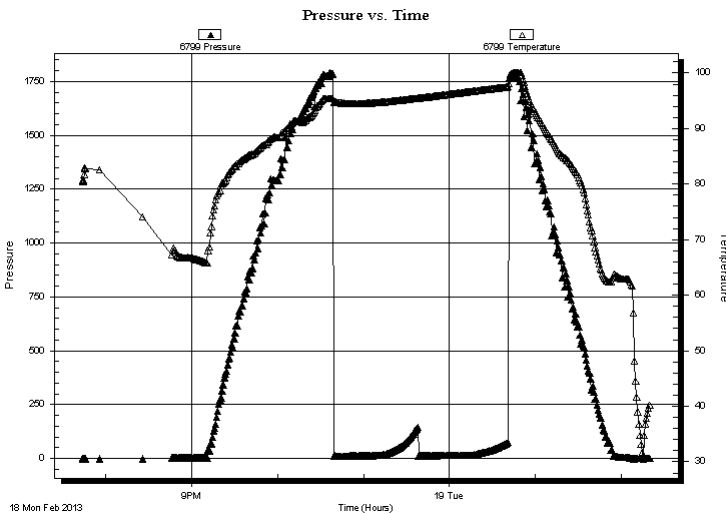
TEST COMMENT: 30 - IF- 3/4" Blow built to 1"

30 - IS- No Return

30 - FF- No Blow

30 - FS- No Return

**PRESSURE SUMMARY**



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |

**Recovery**

**Gas Rates**

| Length (ft) | Description          | Volume (bbl) |
|-------------|----------------------|--------------|
| 5.00        | OSM 100M (Oil Spots) | 0.07         |
|             |                      |              |
|             |                      |              |
|             |                      |              |
|             |                      |              |
|             |                      |              |

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H & C Oil Operating, Inc.

**18-6s-23w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Campell #18-2**

Job Ticket: 51198

**DST#: 1**

ATTN: Al Downing / Marc Do

Test Start: 2013.02.18 @ 19:45:00

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3639.00 ft | Diameter: 3.80 inches | Volume: 51.05 bbl              | Tool Weight: 2000.00 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: 0.00 ft    | Diameter: 2.25 inches | Volume: 0.00 bbl               | Weight to Pull Loose: 60000.00 lb  |
|                           |                    |                       | <u>Total Volume: 51.05 bbl</u> | Tool Chased ft                     |
| Drill Pipe Above KB:      | 10.00 ft           |                       |                                | String Weight: Initial 40000.00 lb |
| Depth to Top Packer:      | 3650.00 ft         |                       |                                | Final 40000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 40.00 ft           |                       |                                |                                    |
| Tool Length:              | 61.00 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        |            |          | 3630.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3635.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3640.00    |                               |
| Packer           | 5.00        |            |          | 3645.00    | 21.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3650.00    |                               |
| Stubb            | 1.00        |            |          | 3651.00    |                               |
| Recorder         | 0.00        | 6799       | Inside   | 3651.00    |                               |
| Recorder         | 0.00        | 8648       | Inside   | 3651.00    |                               |
| Perforations     | 3.00        |            |          | 3654.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3655.00    |                               |
| Drill Pipe       | 31.00       |            |          | 3686.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3687.00    |                               |
| Bullnose         | 3.00        |            |          | 3690.00    | 40.00 Bottom Packers & Anchor |

**Total Tool Length: 61.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & C Oil Operating, Inc.

**18-6s-23w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Campell #18-2**

Job Ticket: 51198

**DST#: 1**

ATTN: Al Downing / Marc Do

Test Start: 2013.02.18 @ 19:45:00

## 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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description          | Volume<br>bbl |
|--------------|----------------------|---------------|
| 5.00         | OSM 100M (Oil Spots) | 0.070         |

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

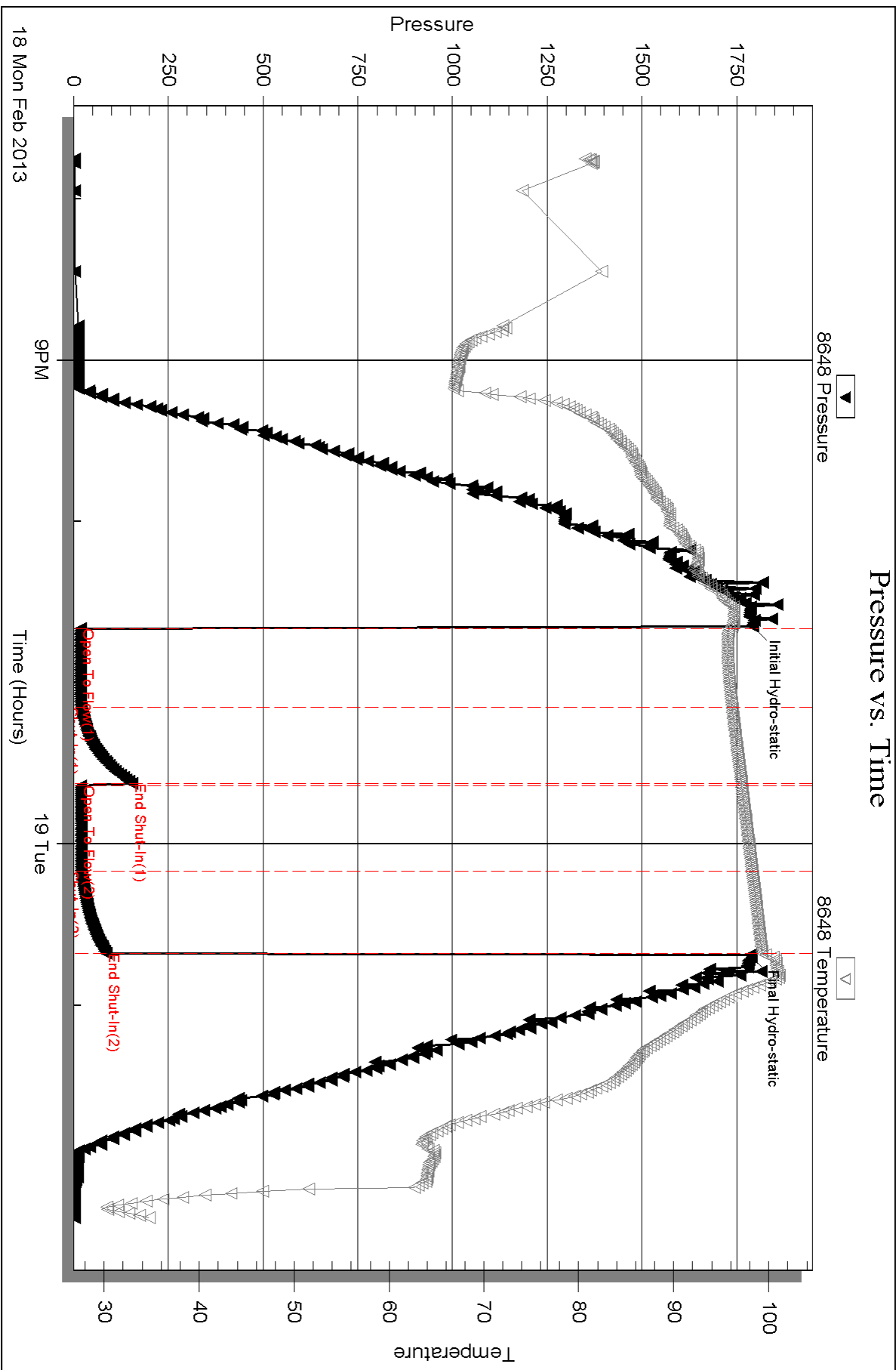
Serial #: 8648

Inside

H & C Oil Operating, Inc.

Campbell #18-2

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 51198

Printed: 2013.03.04 @ 15:42:12

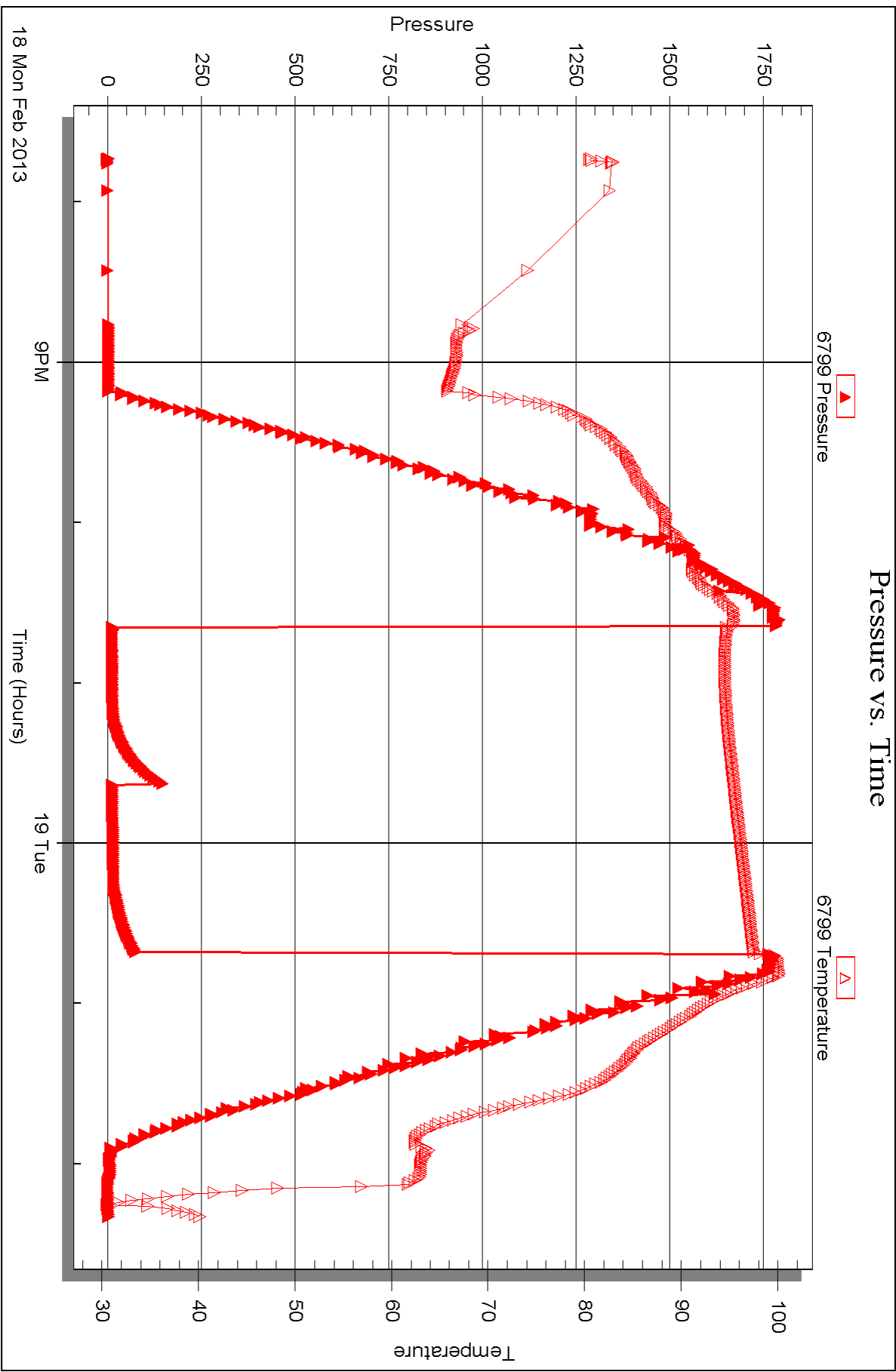
Serial #: 6799

Inside

H & C Oil Operating, Inc.

Campbell #18-2

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 51198

Printed: 2013.03.04 @ 15:42:12



## DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating, Inc.**

PO Box 86  
Plainville, KS 67663

ATTN: Al Downing / Marc Do

### **Campell #18-2**

### **18-6s-23w Graham, KS**

Start Date: 2013.02.19 @ 10:35:00

End Date: 2013.02.19 @ 17:00:15

Job Ticket #: 51199                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.04 @ 15:38:06





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H & C Oil Operating, Inc.

**18-6s-23w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Campell #18-2**

Job Ticket: 51199

**DST#: 2**

ATTN: Al Downing / Marc Do

Test Start: 2013.02.19 @ 10:35:00

## GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:57:30

Time Test Ended: 17:00:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 43

**Interval: 3710.00 ft (KB) To 3736.00 ft (KB) (TVD)**

Reference Elevations: 2439.00 ft (KB)

Total Depth: 3736.00 ft (KB) (TVD)

2434.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

## Serial #: 8648

Inside

Press @ Run Depth: 428.38 psig @ 3711.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.02.19

End Date: 2013.02.19

Last Calib.: 2013.02.19

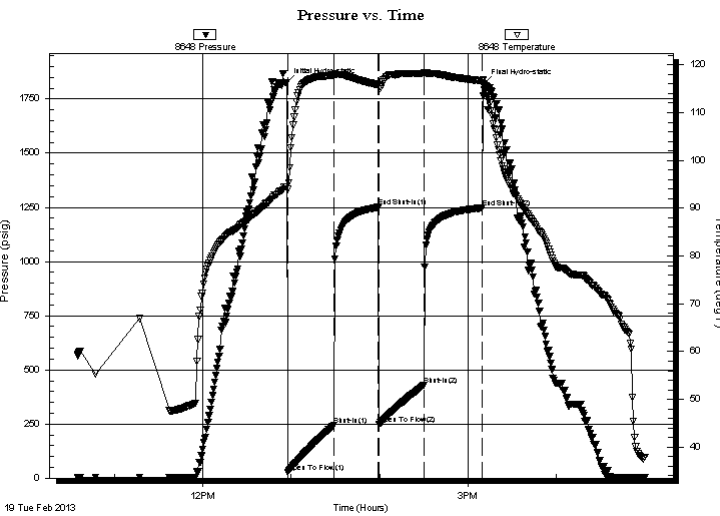
Start Time: 10:35:05

End Time: 17:00:14

Time On Btm: 2013.02.19 @ 12:56:45

Time Off Btm: 2013.02.19 @ 15:10:45

**TEST COMMENT:** 30 - IF- BoB in 8 min.  
30 - IS- No Return  
30 - FF- BoB in 9 min  
30 - FS- No Return



## PRESSURE SUMMARY

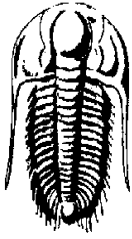
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1825.90         | 94.54        | Initial Hydro-static |
| 1           | 27.65           | 93.98        | Open To Flow (1)     |
| 33          | 244.89          | 117.84       | Shut-In(1)           |
| 63          | 1250.42         | 115.80       | End Shut-In(1)       |
| 63          | 250.11          | 115.34       | Open To Flow (2)     |
| 93          | 428.38          | 118.22       | Shut-In(2)           |
| 133         | 1247.59         | 116.61       | End Shut-In(2)       |
| 134         | 1819.33         | 115.37       | Final Hydro-static   |

## Recovery

| Length (ft) | Description    | Volume (bbl) |
|-------------|----------------|--------------|
| 5.00        | Heavy Mud 100M | 0.07         |
| 567.00      | MW 98W 2M      | 7.95         |
| 378.00      | MW 60w 40m     | 5.30         |
|             |                |              |
|             |                |              |

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H & C Oil Operating, Inc.

**18-6s-23w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Campell #18-2**

Job Ticket: 51199

**DST#: 2**

ATTN: Al Downing / Marc Do

Test Start: 2013.02.19 @ 10:35:00

## GENERAL INFORMATION:

Formation: **LKC "C"**

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

Time Tool Opened: 12:57:30

Time Test Ended: 17:00:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 43

Interval: **3710.00 ft (KB) To 3736.00 ft (KB) (TVD)**

Total Depth: 3736.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2439.00 ft (KB)

2434.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6799** Inside

Press@RunDepth: psig @ 3711.00 ft (KB)

Start Date: 2013.02.19

End Date:

2013.02.19

Capacity: 8000.00 psig

Last Calib.:

2013.02.19

Start Time: 10:34:20

End Time:

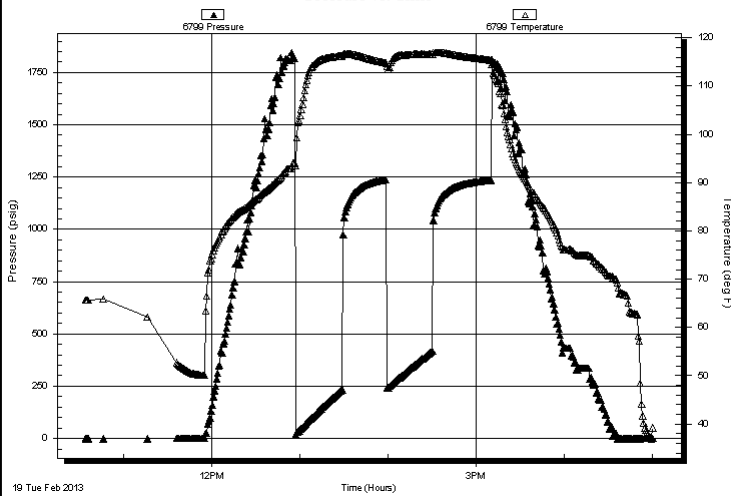
17:00:59

Time On Btm:

Time Off Btm:

**TEST COMMENT:**  
30 - IF- BoB in 8 min.  
30 - IS- No Return  
30 - FF- BoB in 9 min  
30 - FS- No Return

Pressure vs. Time



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |

## Recovery

| Length (ft) | Description    | Volume (bbl) |
|-------------|----------------|--------------|
| 5.00        | Heavy Mud 100M | 0.07         |
| 567.00      | MW 98W 2M      | 7.95         |
| 378.00      | MW 60w 40m     | 5.30         |
|             |                |              |
|             |                |              |

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H & C Oil Operating, Inc.

**18-6s-23w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Campell #18-2**

Job Ticket: 51199

**DST#: 2**

ATTN: Al Downing / Marc Do

Test Start: 2013.02.19 @ 10:35:00

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3711.00 ft | Diameter: 3.80 inches | Volume: 52.06 bbl              | Tool Weight: 2000.00 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: 0.00 ft    | Diameter: 2.25 inches | Volume: 0.00 bbl               | Weight to Pull Loose: 60000.00 lb  |
|                           |                    |                       | <u>Total Volume: 52.06 bbl</u> | Tool Chased ft                     |
| Drill Pipe Above KB:      | 22.00 ft           |                       |                                | String Weight: Initial 40000.00 lb |
| Depth to Top Packer:      | 3710.00 ft         |                       |                                | Final 50000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 26.00 ft           |                       |                                |                                    |
| Tool Length:              | 47.00 ft           |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |

Tool Comments:

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

|                           |              |      |        |         |                               |
|---------------------------|--------------|------|--------|---------|-------------------------------|
| Change Over Sub           | 1.00         |      |        | 3690.00 |                               |
| Shut In Tool              | 5.00         |      |        | 3695.00 |                               |
| Hydraulic tool            | 5.00         |      |        | 3700.00 |                               |
| Packer                    | 5.00         |      |        | 3705.00 | 21.00 Bottom Of Top Packer    |
| Packer                    | 5.00         |      |        | 3710.00 |                               |
| Stubb                     | 1.00         |      |        | 3711.00 |                               |
| Recorder                  | 0.00         | 6799 | Inside | 3711.00 |                               |
| Recorder                  | 0.00         | 8648 | Inside | 3711.00 |                               |
| Perforations              | 20.00        |      |        | 3731.00 |                               |
| Bullnose                  | 5.00         |      |        | 3736.00 | 26.00 Bottom Packers & Anchor |
| <b>Total Tool Length:</b> | <b>47.00</b> |      |        |         |                               |



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & C Oil Operating, Inc.

**18-6s-23w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Campell #18-2**

Job Ticket: 51199

**DST#: 2**

ATTN: Al Downing / Marc Do

Test Start: 2013.02.19 @ 10:35:00

## 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: 50000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure: psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description    | Volume<br>bbl |
|--------------|----------------|---------------|
| 5.00         | Heavy Mud 100M | 0.070         |
| 567.00       | MW 98W 2M      | 7.954         |
| 378.00       | MW 60w 40m     | 5.302         |

Total Length: 950.00 ft      Total Volume: 13.326 bbl

Num Fluid Samples: 0

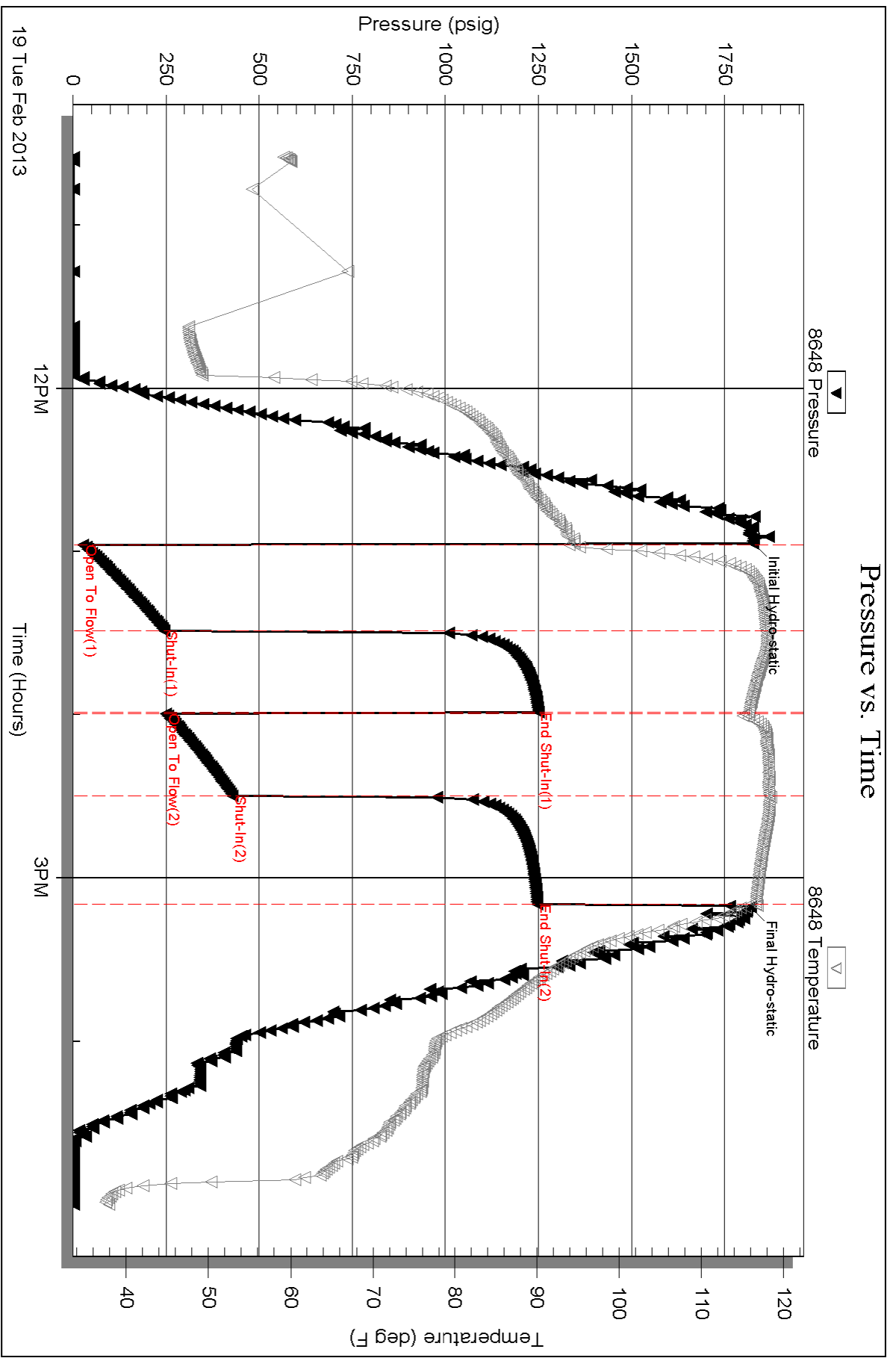
Num Gas Bombs: 0

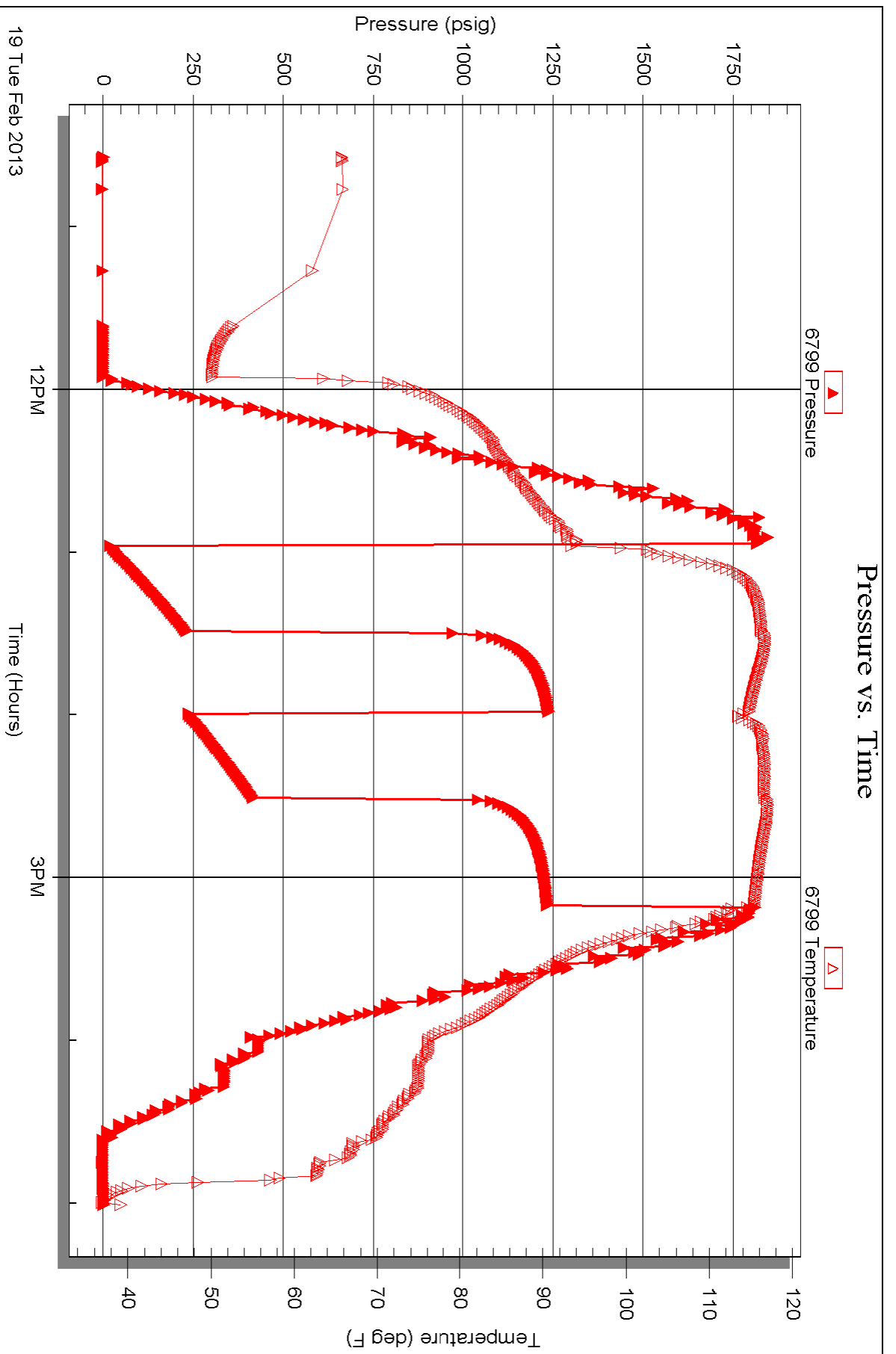
Serial #:

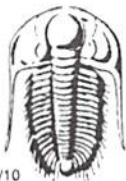
Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .16 @ 57 DEG. = 50,000 PPM







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51198

4/10

Well Name & No. Campbell #18-2 Test No. 1 Date 2-18-13  
 Company H+C Oil Operating, Inc. Elevation 2439 KB 2434 GL  
 Address PO Box 86 Plainville, KS 67663  
 Co. Rep / Geo. Al Downing / Marc Downing Rig American Eagle #3  
 Location: Sec. 18 Twp. 6S Rge. 23W Co. Graham State KS

Interval Tested 3650-3690 Zone Tested Toronto  
 Anchor Length 40' Drill Pipe Run 3639 Mud Wt. 8.9  
 Top Packer Depth 3646 Drill Collars Run 0 Vis 61  
 Bottom Packer Depth 3650 Wt. Pipe Run 0 WL 7.2  
 Total Depth 3690 Chlorides 1,200 ppm System LCM 3#

Blow Description IF - 3/4" Blow built to 1"  
ISI - NO Return  
FF - NO Blow  
FSI - NO Return

| Rec      | Feet of    | %gas         | %oil | %water     | %mud |
|----------|------------|--------------|------|------------|------|
| <u>5</u> | <u>OSM</u> | <u>SPOTS</u> |      | <u>100</u> |      |
| 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 |

Rec Total 5 BHT 1000 Gravity - API RW - @ - ° F Chlorides - ppm

|                         |             |  |                       |  |  |
|-------------------------|-------------|--|-----------------------|--|--|
| (A) Initial Hydrostatic | <u>1793</u> | <input checked="" type="checkbox"/> Test     | <u>1150</u>           | T-On Location                                | <u>3:50 PM</u>   |
| (B) First Initial Flow  | <u>18</u>   | <input type="checkbox"/> Jars                |                       | T-Started                                    | <u>7:45 PM</u>   |
| (C) First Final Flow    | <u>19</u>   | <input type="checkbox"/> Safety Joint        |                       | T-Open                                       | <u>10:40 PM</u>  |
| (D) Initial Shut-In     | <u>154</u>  | <input checked="" type="checkbox"/> Circ Sub | <u>N/C</u>            | T-Pulled                                     | <u>12:40 PM</u>  |
| (E) Second Initial Flow | <u>19</u>   | <input type="checkbox"/> Hourly Standby      |                       | T-Out  | <u>2:20 AM</u>   |
| (F) Second Final Flow   | <u>20</u>   | <input checked="" type="checkbox"/> Mileage  | <u>130 RT + 35</u>    | Comments                                     | <u>Rig had to do an extra 20 stand short trip. + Circulation</u> |
| (G) Final Shut-In       | <u>85</u>   | <input type="checkbox"/> Sampler             | <u>201.50 + 54.25</u> | <input type="checkbox"/> Ruined Shale Packer |  |
| (H) Final Hydrostatic   | <u>1789</u> | <input type="checkbox"/> Straddle            |                       | <input type="checkbox"/> Ruined Packer       |  |

|                 |           |   |  |                                       |                |
|-----------------|-----------|---|--|---------------------------------------|----------------|
| Initial Open    | <u>30</u> | <input type="checkbox"/> Shale Packer   |  | <input type="checkbox"/> Extra Copies |                |
| Initial Shut-In | <u>30</u> | <input type="checkbox"/> Extra Packer   |  | Sub Total                             | <u>0</u>       |
| Final Flow      | <u>30</u> | <input type="checkbox"/> Extra Recorder |  | Total                                 | <u>1405.75</u> |
| Final Shut-In   | <u>30</u> | <input type="checkbox"/> Day Standby    |  | MP/DST Disc't                         |                |
|                 |           | <input type="checkbox"/> Accessibility  |  | Sub Total                             | <u>1405.75</u> |

Approved By \_\_\_\_\_ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged 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.





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51200

Well Name & No. Campbell # 18-2 Test No. 2 Date 2-19-13  
 Company H+C Oil Operating, Inc. Elevation 2439 KB 2434 GL  
 Address PO Box 86 Plainville, KS 67663  
 Co. Rep / Geo. Al Downing Rig American Eagle #3  
 Location: Sec. 18 Twp. 6S Rge. 23 W Co. Graham State KS

Interval Tested 3710 - 3736 Zone Tested 4K "C"  
 Anchor Length 26 Drill Pipe Run 3711 Mud Wt. 89  
 Top Packer Depth 3706 Drill Collars Run 0 Vis 5.6  
 Bottom Packer Depth 3710 Wt. Pipe Run 0 WL 7.2  
 Total Depth 3736 Chlorides 1500 ppm System LCM 4#

Blow Description IF - BoB in 8 min  
ISF - no Return  
FF - BoB in 9 min  
FISF - no Return

| Rec        | Feet of          | %gas | %oil      | %water     | %mud |
|------------|------------------|------|-----------|------------|------|
| <u>378</u> | <u>MW</u>        |      | <u>60</u> | <u>40</u>  |      |
| <u>567</u> | <u>MW</u>        |      | <u>98</u> | <u>2</u>   |      |
| <u>5</u>   | <u>Heavy Mud</u> |      |           | <u>100</u> |      |
|            |                  |      |           |            |      |
|            |                  |      |           |            |      |

Rec Total 950 BHT 117 Gravity — API RW 16 @ 57 °F Chlorides 50,000 ppm

(A) Initial Hydrostatic 1825  Test 1150 T-On Location 10:10 AM  
 (B) First Initial Flow 27  Jars \_\_\_\_\_ T-Started 10:35 AM  
 (C) First Final Flow 244  Safety Joint \_\_\_\_\_ T-Open 1:00 PM  
 (D) Initial Shut-In 1250  Circ Sub N/C T-Pulled 3:00 PM  
 (E) Second Initial Flow 250  Hourly Standby \_\_\_\_\_ T-Out 5:00 PM  
 (F) Second Final Flow 428  Mileage 130RT 201.50  
 (G) Final Shut-In 1247  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1819  Straddle \_\_\_\_\_

Initial Open 30  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Ruined Packer \_\_\_\_\_  
 Final Flow 30  Extra Packer \_\_\_\_\_  
 Final Shut-In 30  Extra Recorder \_\_\_\_\_  
 Sub Total 0  
 Total 1351.50  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1351.50

Approved By \_\_\_\_\_ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged 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.