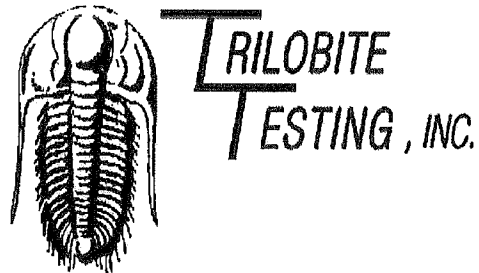


15-009-25375

6-16s-14w

*Rad*



## DRILL STEM TEST REPORT

Prepared For: **Russell Oil, Inc.**

PO Box 1469  
Plainfield, IL 60544

ATTN: Kevin Bailey

**6-16s-14w Barton KS**

**Betty Radke #1**

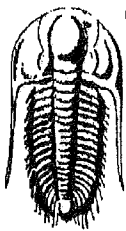
Start Date: 2010.01.30 @ 19:00:24

End Date: 2010.01.31 @ 03:28:23

Job Ticket #: 37201      DST #: 1

RECEIVED  
KANSAS CORPORATION COMMISSION  
MAY 28 2010  
CONSERVATION DIVISION  
WICHITA, KS

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

Russell Oil, Inc.

PO Box 1469  
Plainfield, IL 60544

ATTN: Kevin Bailey

Betty Radke #1

6-16s-14w Barton KS

Job Ticket: 37201

DST#: 1

Test Start: 2010.01.30 @ 19:00:24

### GENERAL INFORMATION:

Formation: **Toronto-LKC "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:00:23

Time Test Ended: 03:28:23

Test Type: Conventional Bottom Hole

Tester: Tyson Flax

Unit No: 44

Interval: 3050.00 ft (KB) To 3150.00 ft (KB) (TVD)

Total Depth: 3150.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1898.00 ft (KB)

1890.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6669 Inside

Press@RunDepth: 49.78 psig @ 3059.00 ft (KB)

Start Date: 2010.01.30

End Date:

2010.01.31

Start Time: 19:00:25

End Time:

03:28:23

Capacity: 8000.00 psig

Last Calib.: 2010.01.31

Time On Btm: 2010.01.30 @ 21:59:23

Time Off Btm: 2010.01.31 @ 02:00:53

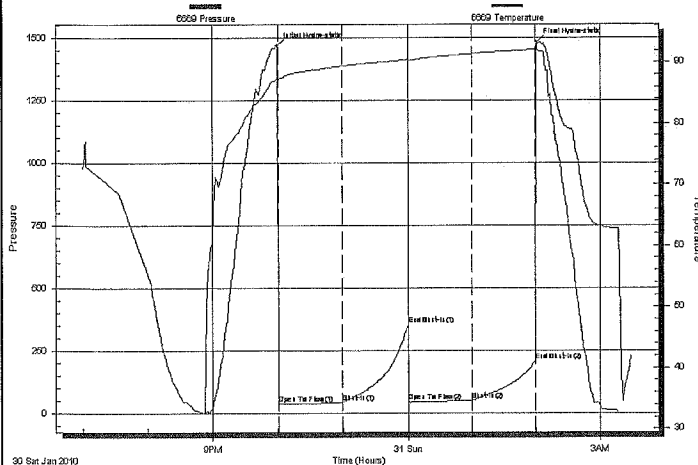
TEST COMMENT: IFF-Tool slid-blow surged to 6" built to BOB in 52 min

ISI-no blow back

FFP-BOB in 34 min

FSI-weak surface blow back died in 20 min

Pressure vs. Time



### PRESSURE SUMMARY

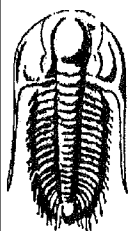
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1467.78         | 87.24        | Initial Hydro-static |
| 1           | 37.58           | 87.03        | Open To Flow (1)     |
| 60          | 42.69           | 89.40        | Shut-In(1)           |
| 121         | 355.02          | 90.48        | End Shut-In(1)       |
| 121         | 45.15           | 90.38        | Open To Flow (2)     |
| 180         | 49.78           | 91.40        | Shut-In(2)           |
| 240         | 209.73          | 92.13        | End Shut-In(2)       |
| 242         | 1482.38         | 92.70        | Final Hydro-static   |

### Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 60.00       | OCM 20%O,80%M       | 0.85         |
| 10.00       | GOCM 10%G,20%O,70%M | 0.14         |
| 0.00        | 230' GIP            | 0.00         |
|             |                     |              |
|             |                     |              |
|             |                     |              |

### Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Russell Oil, Inc.

Betty Radke #1

PO Box 1469  
Plainfield, IL 60544

6-16s-14w Barton KS

Job Ticket: 37201

DST#: 1

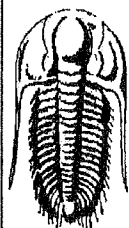
ATTN: Kevin Bailey

Test Start: 2010.01.30 @ 19:00:24

### Tool Information

|                           |            |            |             |             |               |           |                        |             |
|---------------------------|------------|------------|-------------|-------------|---------------|-----------|------------------------|-------------|
| Drill Pipe:               | Length:    | 3038.00 ft | Diameter:   | 3.82 inches | Volume:       | 43.06 bbl | Tool Weight:           | 2200.00 lb  |
| Heavy Wt. Pipe:           | Length:    | 0.00 ft    | Diameter:   | 2.25 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:  | 50000.00 lb |
|                           |            |            |             |             | Total Volume: | 43.06 bbl | Tool Chased            | 8.00 ft     |
| Drill Pipe Above KB:      | 16.00 ft   |            |             |             |               |           | String Weight: Initial | 34000.00 lb |
| Depth to Top Packer:      | 3050.00 ft |            |             |             |               |           | Final                  | 35000.00 lb |
| Depth to Bottom Packer:   | ft         |            |             |             |               |           |                        |             |
| Interval between Packers: | 100.00 ft  |            |             |             |               |           |                        |             |
| Tool Length:              | 128.00 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        |            |          | 3023.00    |                                |
| Shut In Tool       | 5.00        |            |          | 3028.00    |                                |
| Hydraulic tool     | 5.00        |            |          | 3033.00    |                                |
| Jars               | 5.00        |            |          | 3038.00    |                                |
| Safety Joint       | 2.00        |            |          | 3040.00    |                                |
| Packer             | 5.00        |            |          | 3045.00    | 28.00 Bottom Of Top Packer     |
| Packer             | 5.00        |            |          | 3050.00    |                                |
| Stubb              | 1.00        |            |          | 3051.00    |                                |
| Perforations       | 7.00        |            |          | 3058.00    |                                |
| Change Over Sub    | 1.00        |            |          | 3059.00    |                                |
| Recorder           | 0.00        | 8372       | Inside   | 3059.00    |                                |
| Recorder           | 0.00        | 6669       | Inside   | 3059.00    |                                |
| Blank Spacing      | 63.00       |            |          | 3122.00    |                                |
| Change Over Sub    | 1.00        |            |          | 3123.00    |                                |
| Perforations       | 24.00       |            |          | 3147.00    |                                |
| Bullnose           | 3.00        |            |          | 3150.00    | 100.00 Bottom Packers & Anchor |
| Total Tool Length: | 128.00      |            |          |            |                                |



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Russell Oil, Inc.

Betty Radke #1

PO Box 1469  
Plainfield, IL 60544

6-16s-14w Barton KS

Job Ticket: 37201

DST#: 1

ATTN: Kevin Bailey

Test Start: 2010.01.30 @ 19:00:24

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 7.77 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 3800.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: ppm

deg API

### Recovery Information

Recovery Table

| Length<br>ft | Description         | Volume<br>bbl |
|--------------|---------------------|---------------|
| 60.00        | OCM 20%O,80%M       | 0.851         |
| 10.00        | GOCM 10%G,20%O,70%M | 0.142         |
| 0.00         | 230' GIP            | 0.000         |

Total Length: 70.00 ft

Total Volume: 0.993 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

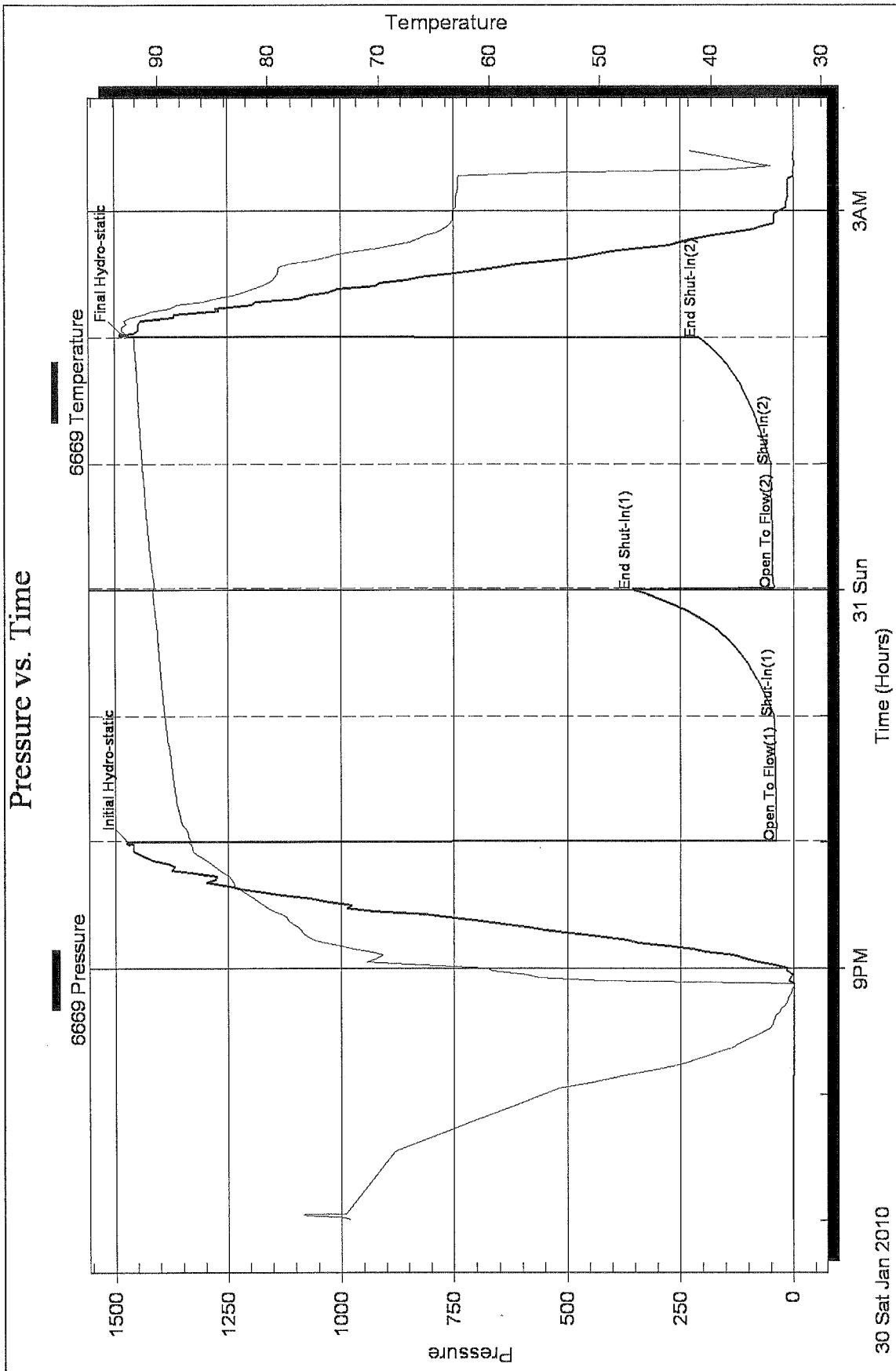
Recovery Comments:

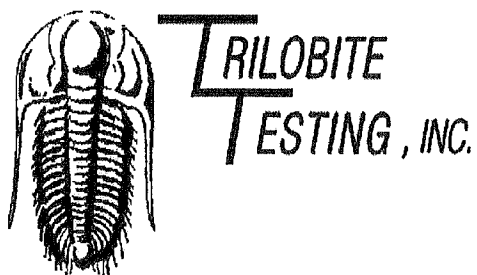
Serial #: 6669

Inside Russell Oil, Inc.

6-16s-14w Barton KS

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Russell Oil, Inc.**

PO Box 1469  
Plainfield, IL 60544

ATTN: Kevin Bailey

**6-16s-14w Barton KS**

**Betty Radke #1**

Start Date: 2010.01.31 @ 12:55:32

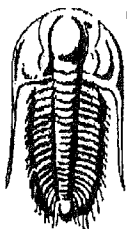
End Date: 2010.01.31 @ 18:29:02

Job Ticket #: 37202                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Russell Oil, Inc.

PO Box 1469  
Plainfield, IL 60544

ATTN: Kevin Bailey

Betty Radke #1

6-16s-14w Barton KS

Job Ticket: 37202

DST#: 2

Test Start: 2010.01.31 @ 12:55:32

### GENERAL INFORMATION:

Formation: **LKC "C-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:32:32

Time Test Ended: 18:29:02

Test Type: Conventional Bottom Hole

Tester: Tyson Flax

Unit No: 44

Interval: **3150.00 ft (KB) To 3206.00 ft (KB) (TVD)**

Total Depth: 3206.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1898.00 ft (KB)

1890.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 6669**

Inside

Press@RunDepth: 28.77 psig @ 3157.00 ft (KB)

Start Date: 2010.01.31

End Date:

2010.01.31

Start Time: 12:55:33

End Time:

18:29:02

Capacity: 8000.00 psig

Last Calib.: 2010.01.31

Time On Btm: 2010.01.31 @ 14:31:02

Time Off Btm: 2010.01.31 @ 17:07:02

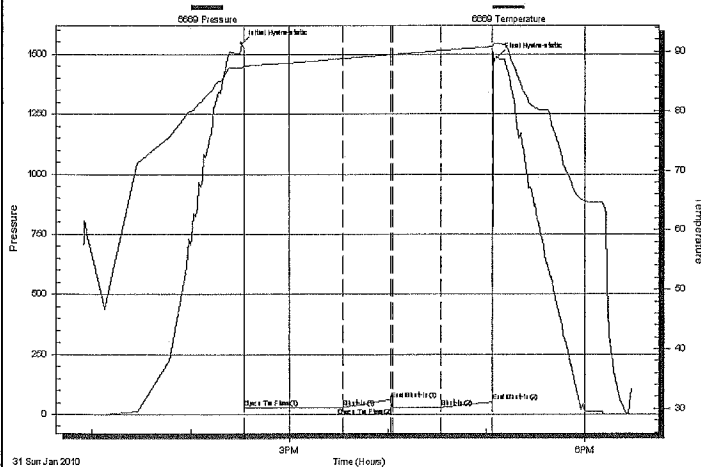
**TEST COMMENT:** IFP-blow surged to 3" built to 3.5 " died to 2.5"

ISI-no blow back

FFP-weak surface blow back throughout

FSI-no blow back

Pressure vs. Time



### PRESSURE SUMMARY

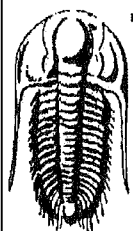
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1543.71         | 87.30        | Initial Hydro-static |
| 2           | 27.50           | 87.38        | Open To Flow (1)     |
| 62          | 30.39           | 88.81        | Shut-In(1)           |
| 91          | 62.25           | 89.46        | End Shut-In(1)       |
| 92          | 27.14           | 89.50        | Open To Flow (2)     |
| 121         | 28.77           | 90.10        | Shut-In(2)           |
| 153         | 51.84           | 90.73        | End Shut-In(2)       |
| 156         | 1485.68         | 91.29        | Final Hydro-static   |

### Recovery

| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 25.00       | SOCM 5%O,95%M | 0.35         |
|             |               |              |
|             |               |              |
|             |               |              |
|             |               |              |
|             |               |              |

### Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Russell Oil, Inc.

**Betty Radke #1**

PO Box 1469  
Plainfield, IL 60544

**6-16s-14w Barton KS**

Job Ticket: 37202

**DST#: 2**

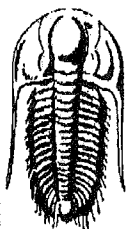
ATTN: Kevin Bailey

Test Start: 2010.01.31 @ 12:55:32

### Tool Information

|                           |                    |                       |                         |                                    |
|---------------------------|--------------------|-----------------------|-------------------------|------------------------------------|
| Drill Pipe:               | Length: 3131.00 ft | Diameter: 3.82 inches | Volume: 44.38 bbl       | Tool Weight: 2200.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.25 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: 50000.00 lb  |
|                           |                    |                       | Total Volume: 44.38 bbl | Tool Chased 6.00 ft                |
| Drill Pipe Above KB:      | 9.00 ft            |                       |                         | String Weight: Initial 35000.00 lb |
| Depth to Top Packer:      | 3150.00 ft         |                       |                         | Final 35000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                         |                                    |
| Interval between Packers: | 56.00 ft           |                       |                         |                                    |
| Tool Length:              | 84.00 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        |            |          | 3123.00    |                               |
| Shut In Tool       | 5.00        |            |          | 3128.00    |                               |
| Hydraulic tool     | 5.00        |            |          | 3133.00    |                               |
| Jars               | 5.00        |            |          | 3138.00    |                               |
| Safety Joint       | 2.00        |            |          | 3140.00    |                               |
| Packer             | 5.00        |            |          | 3145.00    | 28.00 Bottom Of Top Packer    |
| Packer             | 5.00        |            |          | 3150.00    |                               |
| Stubb              | 1.00        |            |          | 3151.00    |                               |
| Perforations       | 5.00        |            |          | 3156.00    |                               |
| Change Over Sub    | 1.00        |            |          | 3157.00    |                               |
| Recorder           | 0.00        | 6668       | Inside   | 3157.00    |                               |
| Recorder           | 0.00        | 6669       | Inside   | 3157.00    |                               |
| Blank Spacing      | 31.00       |            |          | 3188.00    |                               |
| Change Over Sub    | 1.00        |            |          | 3189.00    |                               |
| Perforations       | 14.00       |            |          | 3203.00    |                               |
| Bullnose           | 3.00        |            |          | 3206.00    | 56.00 Bottom Packers & Anchor |
| Total Tool Length: |             | 84.00      |          |            |                               |



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Russell Oil, Inc.

Betty Radke #1

PO Box 1469  
Plainfield, IL 60544

6-16s-14w Barton KS

Job Ticket: 37202

DST#: 2

ATTN: Kevin Bailey

Test Start: 2010.01.31 @ 12:55:32

### 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: 42.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

| Length<br>ft | Description   | Volume<br>bbl |
|--------------|---------------|---------------|
| 25.00        | SOCM 5%O,95%M | 0.354         |

Total Length: 25.00 ft

Total Volume: 0.354 bbl

Num Fluid Samples: 0

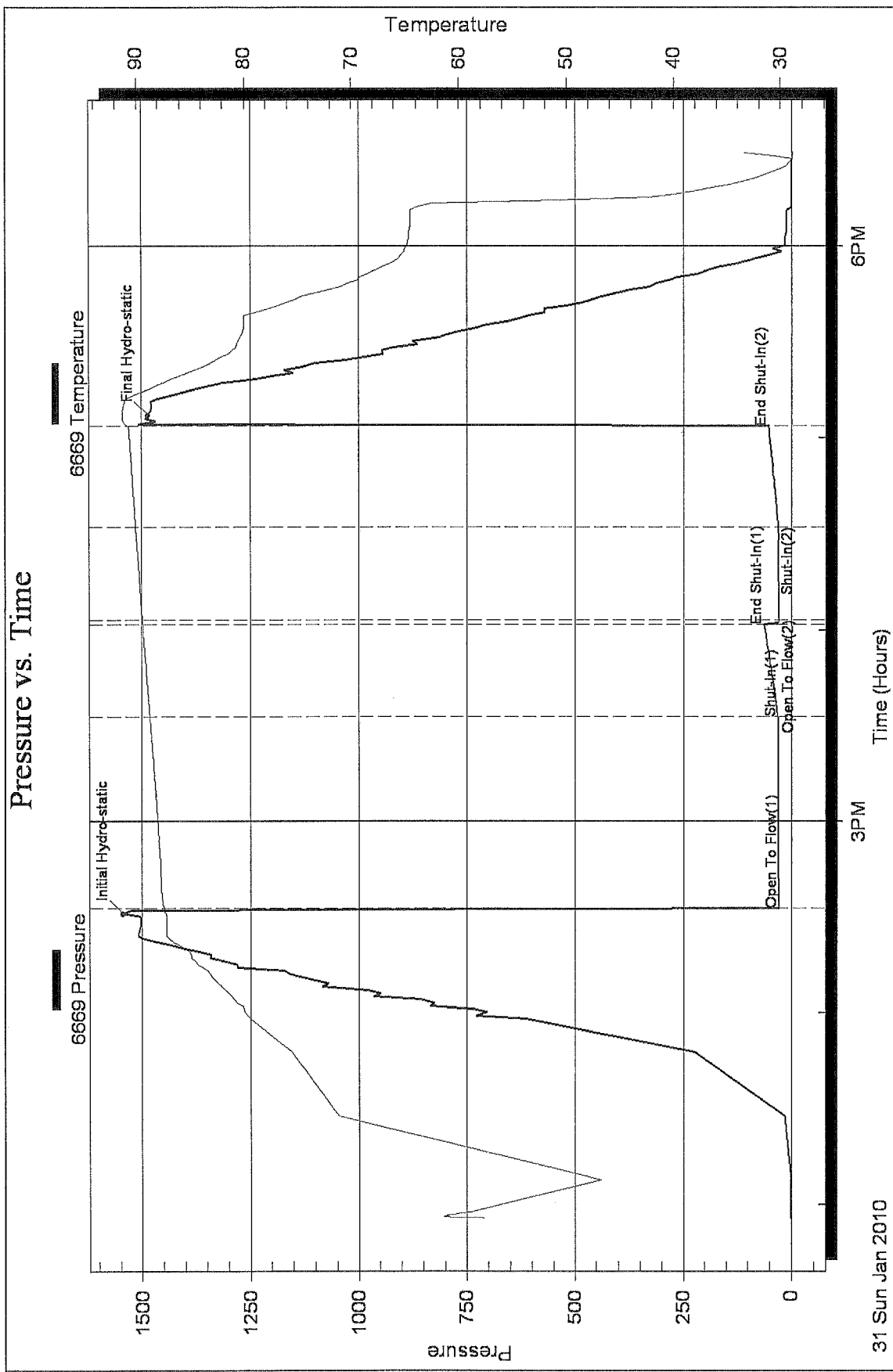
Num Gas Bombs: 0

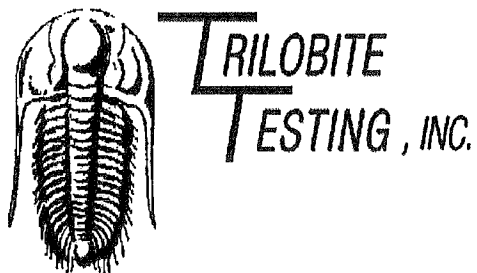
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





## DRILL STEM TEST REPORT

Prepared For: **Russell Oil, Inc.**

PO Box 1469  
Plainfield, IL 60544

ATTN: Kevin Bailey

**6-16s-14w Barton KS**

**Betty Radke #1**

Start Date: 2010.02.01 @ 01:43:19

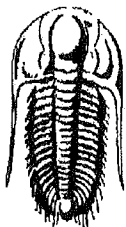
End Date: 2010.02.01 @ 06:22:49

Job Ticket #: 37203                      DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Russell Oil, Inc.

PO Box 1469  
Plainfield, IL 60544

ATTN: Kevin Bailey

**Betty Radke #1**

**6-16s-14w Barton KS**

Job Ticket: 37203

**DST#: 3**

Test Start: 2010.02.01 @ 01:43:19

### GENERAL INFORMATION:

Formation: **LKC "F-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:00:49

Time Test Ended: 06:22:49

Test Type: Conventional Bottom Hole

Tester: Tyson Flax

Unit No: 44

Interval: **3187.00 ft (KB) To 3236.00 ft (KB) (TVD)**

Total Depth: 3236.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1898.00 ft (KB)

1890.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 6668**

**Inside**

Press@RunDepth: 27.29 psig @ 3191.00 ft (KB)

Start Date: 2010.02.01

End Date:

2010.02.01

Start Time: 01:43:20

End Time:

06:22:49

Capacity: 8000.00 psig

Last Calib.: 2010.02.01

Time On Btm: 2010.02.01 @ 02:59:49

Time Off Btm: 2010.02.01 @ 05:01:49

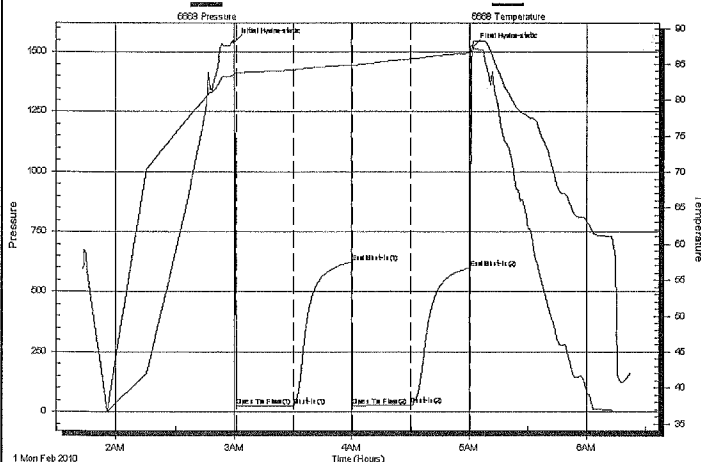
**TEST COMMENT:** IFP-blow surged to 2" built to 3"

ISI-no blow back

FFP-weak surface blow died in 7 min

FSI-no blow back

Pressure vs. Time



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1540.57         | 83.64        | Initial Hydro-static |
| 1           | 22.77           | 83.78        | Open To Flow (1)     |
| 30          | 25.11           | 84.21        | Shut-In(1)           |
| 60          | 623.54          | 84.91        | End Shut-In(1)       |
| 61          | 25.50           | 84.82        | Open To Flow (2)     |
| 90          | 27.29           | 85.76        | Shut-In(2)           |
| 121         | 599.49          | 86.58        | End Shut-In(2)       |
| 122         | 1521.69         | 88.05        | Final Hydro-static   |

### Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 20.00       | Mud         | 0.28         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

### Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Russell Oil, Inc.

Betty Radke #1

PO Box 1469  
Plainfield, IL 60544

6-16s-14w Barton KS

Job Ticket: 37203

DST#: 3

ATTN: Kevin Bailey

Test Start: 2010.02.01 @ 01:43:19

### Tool Information

|                           |                    |                       |                   |                        |             |
|---------------------------|--------------------|-----------------------|-------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3163.00 ft | Diameter: 3.82 inches | Volume: 44.84 bbl | Tool Weight:           | 2200.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.25 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 |
|                           |                    | Total Volume:         | 44.84 bbl         | Tool Chased            | 8.00 ft     |
| Drill Pipe Above KB:      | 4.00 ft            |                       |                   | String Weight: Initial | 35000.00 lb |
| Depth to Top Packer:      | 3187.00 ft         |                       |                   | Final                  | 35000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                   |                        |             |
| Interval between Packers: | 49.00 ft           |                       |                   |                        |             |
| Tool Length:              | 77.00 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        |            |          | 3160.00    |                               |
| Shut In Tool       | 5.00        |            |          | 3165.00    |                               |
| Hydraulic tool     | 5.00        |            |          | 3170.00    |                               |
| Jars               | 5.00        |            |          | 3175.00    |                               |
| Safety Joint       | 2.00        |            |          | 3177.00    |                               |
| Packer             | 5.00        |            |          | 3182.00    | 28.00 Bottom Of Top Packer    |
| Packer             | 5.00        |            |          | 3187.00    |                               |
| Stubb              | 1.00        |            |          | 3188.00    |                               |
| Perforations       | 2.00        |            |          | 3190.00    |                               |
| Change Over Sub    | 1.00        |            |          | 3191.00    |                               |
| Recorder           | 0.00        | 6668       | Inside   | 3191.00    |                               |
| Recorder           | 0.00        | 6669       | Inside   | 3191.00    |                               |
| Blank Spacing      | 31.00       |            |          | 3222.00    |                               |
| Change Over Sub    | 1.00        |            |          | 3223.00    |                               |
| Perforations       | 10.00       |            |          | 3233.00    |                               |
| Bullnose           | 3.00        |            |          | 3236.00    | 49.00 Bottom Packers & Anchor |
| Total Tool Length: | 77.00       |            |          |            |                               |



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Russell Oil, Inc.

**Betty Radke #1**

PO Box 1469  
Plainfield, IL 60544

**6-16s-14w Barton KS**

Job Ticket: 37203

**DST#: 3**

ATTN: Kevin Bailey

Test Start: 2010.02.01 @ 01:43:19

### 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: 7.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3800.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 20.00        | Mud         | 0.284         |

Total Length: 20.00 ft Total Volume: 0.284 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

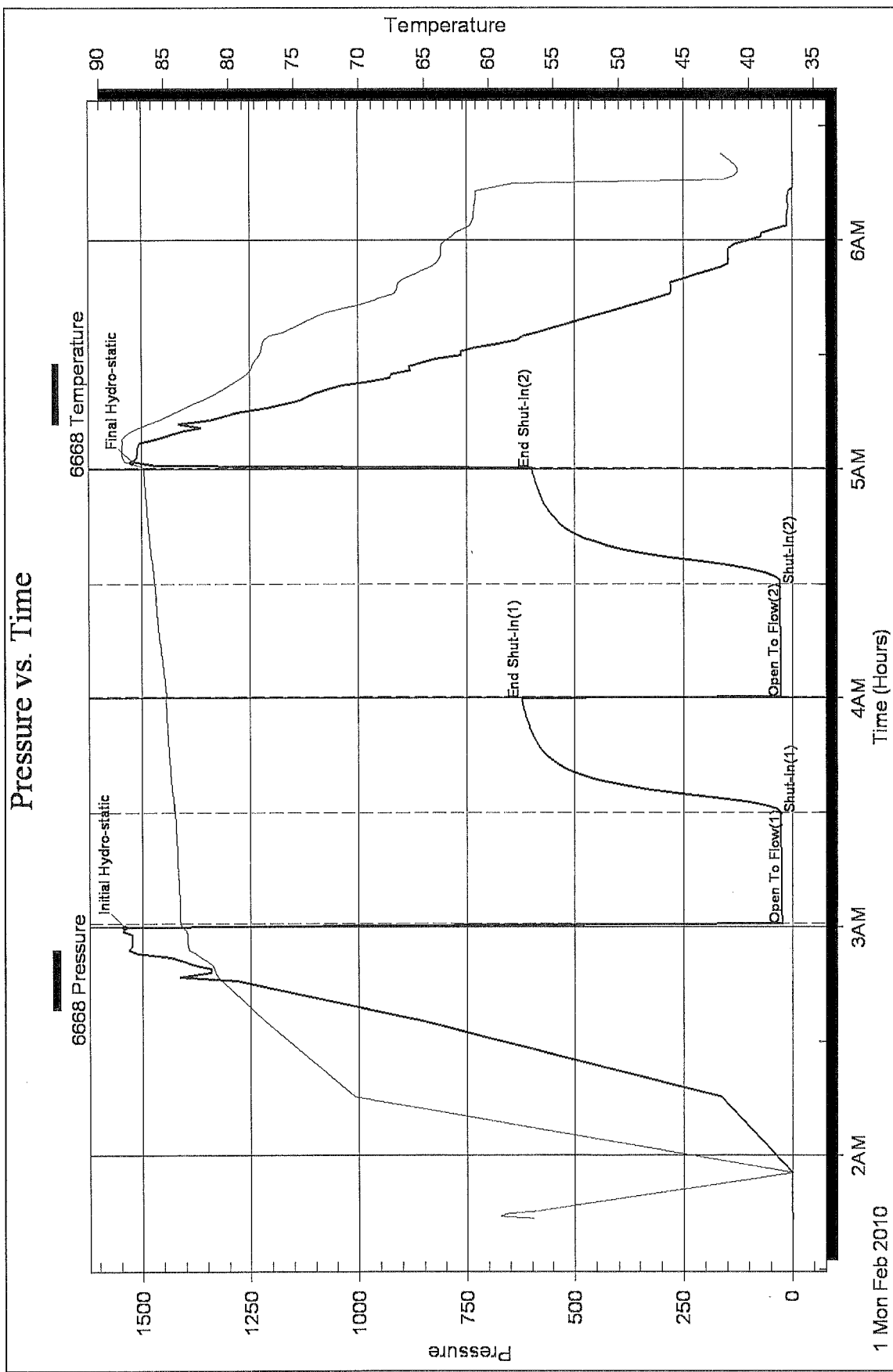
Serial #:

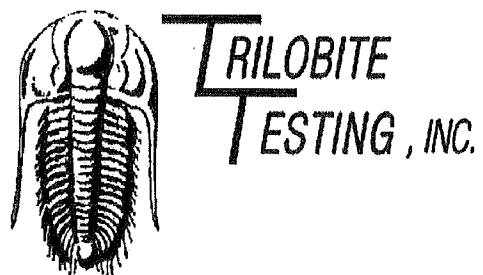
Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Russell Oil, Inc.**

PO Box 1469  
Plainfield, IL 60544

ATTN: Kevin Bailey

**6-16s-14w Barton KS**

**Betty Radke #1**

Start Date: 2010.02.01 @ 17:00:38

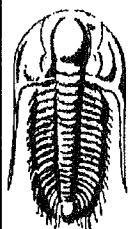
End Date: 2010.02.01 @ 21:20:38

Job Ticket #: 37204                      DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Russell Oil, Inc.

PO Box 1469  
Plainfield, IL 60544

ATTN: Kevin Bailey

**Betty Radke #1**

**6-16s-14w Barton KS**

Job Ticket: 37204

**DST#: 4**

Test Start: 2010.02.01 @ 17:00:38

### GENERAL INFORMATION:

Formation: **LKC "I-J"**

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

Time Tool Opened: 18:34:38

Time Test Ended: 21:20:38

Test Type: **Conventional Bottom Hole**

Tester: **Tyson Flax**

Unit No: **44**

Interval: **3250.00 ft (KB) To 3296.00 ft (KB) (TVD)**

Total Depth: **3296.00 ft (KB) (TVD)**

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

Reference Elevations: **1898.00 ft (KB)**

**1890.00 ft (CF)**

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

**Serial #: 6668**

**Inside**

Press@RunDepth: **19.41 psig @ 3257.00 ft (KB)**

Start Date: **2010.02.01**

End Date:

**2010.02.01**

Start Time: **17:00:39**

End Time:

**21:20:38**

Capacity: **8000.00 psig**

Last Calib.: **2010.02.01**

Time On Btm: **2010.02.01 @ 18:34:08**

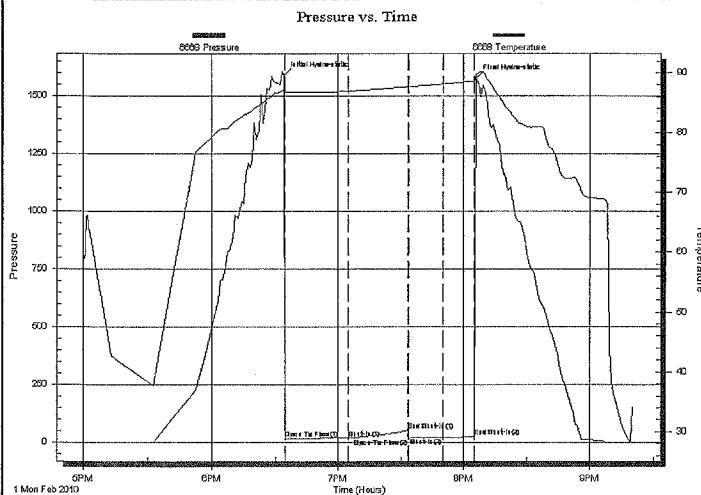
Time Off Btm: **2010.02.01 @ 20:06:08**

TEST COMMENT: **IFP-Weak surface blow built to 1"**

**ISI-no blow back**

**FFP-no blow**

**FSI-no blow back**



### PRESSURE SUMMARY

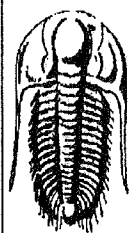
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1589.67         | 87.16        | Initial Hydro-static |
| 1           | 17.75           | 86.70        | Open To Flow (1)     |
| 31          | 18.70           | 86.95        | Shut-In(1)           |
| 59          | 52.25           | 87.68        | End Shut-In(1)       |
| 60          | 18.81           | 87.69        | Open To Flow (2)     |
| 76          | 19.41           | 88.17        | Shut-In(2)           |
| 91          | 26.19           | 88.61        | End Shut-In(2)       |
| 92          | 1577.78         | 89.73        | Final Hydro-static   |

### Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 2.00        | Mud         | 0.03         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

### Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Russell Oil, Inc.

**Betty Radke #1**

PO Box 1469  
Plainfield, IL 60544

**6-16s-14w Barton KS**

Job Ticket: 37204

**DST#: 4**

ATTN: Kevin Bailey

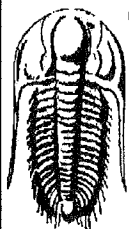
Test Start: 2010.02.01 @ 17:00:38

### Tool Information

|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3226.00 ft | Diameter: 3.82 inches   | Volume: 45.73 bbl | Tool Weight: 2200.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.25 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: 50000.00 lb  |
|                           |                    | Total Volume: 45.73 bbl |                   | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 4.00 ft            |                         |                   | String Weight: Initial 35000.00 lb |
| Depth to Top Packer:      | 3250.00 ft         |                         |                   | Final 35000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 46.00 ft           |                         |                   |                                    |
| Tool Length:              | 74.00 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        |            |          | 3223.00    |                               |
| Shut In Tool       | 5.00        |            |          | 3228.00    |                               |
| Hydraulic tool     | 5.00        |            |          | 3233.00    |                               |
| Jars               | 5.00        |            |          | 3238.00    |                               |
| Safety Joint       | 2.00        |            |          | 3240.00    |                               |
| Packer             | 5.00        |            |          | 3245.00    | 28.00 Bottom Of Top Packer    |
| Packer             | 5.00        |            |          | 3250.00    |                               |
| Stubb              | 1.00        |            |          | 3251.00    |                               |
| Perforations       | 5.00        |            |          | 3256.00    |                               |
| Change Over Sub    | 1.00        |            |          | 3257.00    |                               |
| Recorder           | 0.00        | 6668       | Inside   | 3257.00    |                               |
| Recorder           | 0.00        | 6669       | Inside   | 3257.00    |                               |
| Blank Spacing      | 31.00       |            |          | 3288.00    |                               |
| Change Over Sub    | 1.00        |            |          | 3289.00    |                               |
| Perforations       | 4.00        |            |          | 3293.00    |                               |
| Bullnose           | 3.00        |            |          | 3296.00    | 46.00 Bottom Packers & Anchor |
| Total Tool Length: |             | 74.00      |          |            |                               |



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Russell Oil, Inc.

**Betty Radke #1**

PO Box 1469  
Plainfield, IL 60544

**6-16s-14w Barton KS**

Job Ticket: 37204

**DST#: 4**

ATTN: Kevin Bailey

Test Start: 2010.02.01 @ 17:00:38

### 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: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 2.00         | Mud         | 0.028         |

Total Length: 2.00 ft

Total Volume: 0.028 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6668

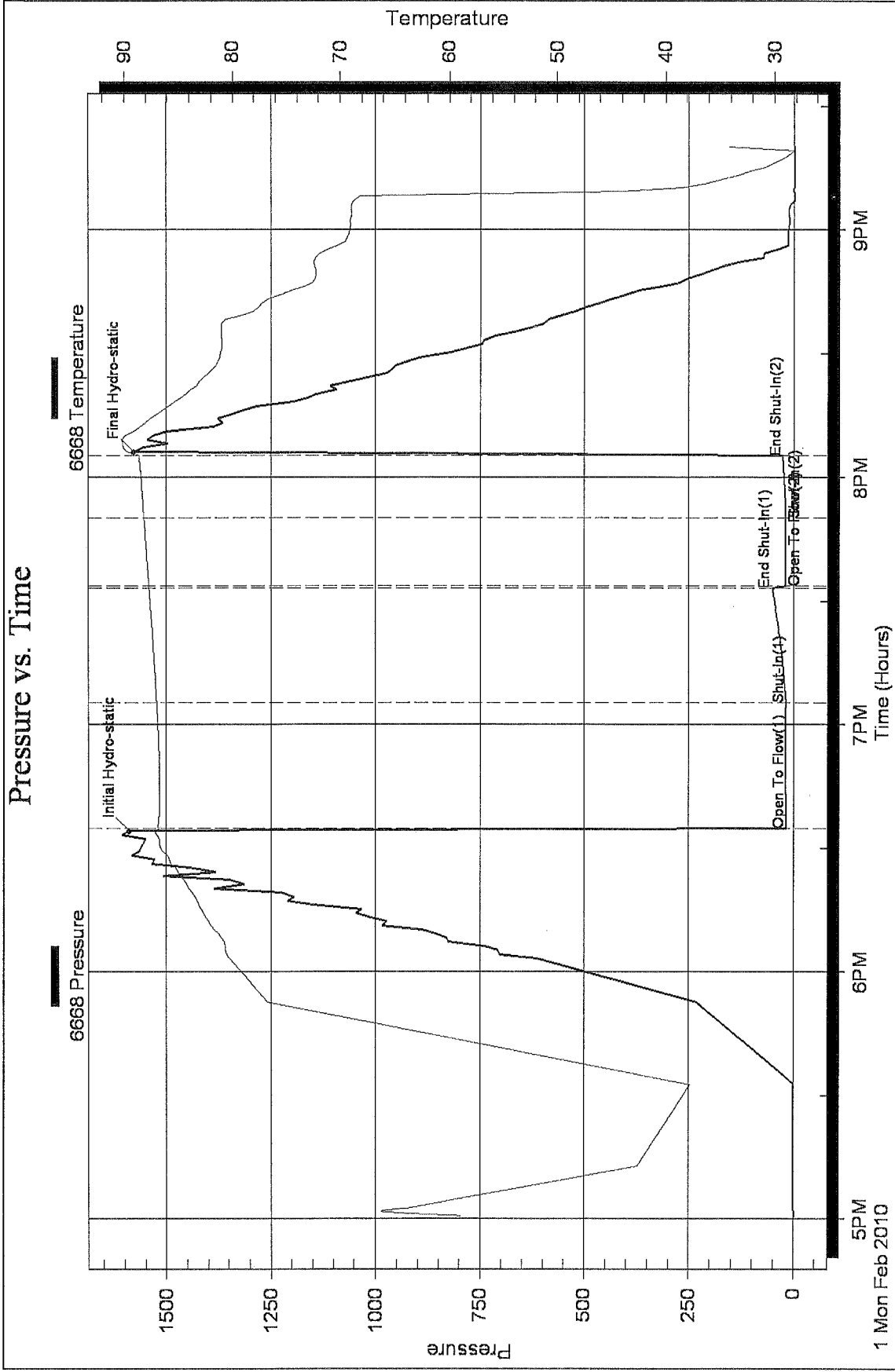
Inside

Russell Oil, Inc.

6-16s-14w Barton KS

DST Test Number: 4

## Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Russell Oil, Inc.**

PO Box 1469  
Plainfield, IL 60544

ATTN: Kevin Bailey

**6-16s-14w Barton KS**

**Betty Radke #1**

Start Date: 2010.02.02 @ 09:35:20

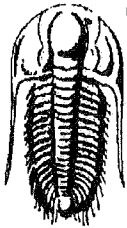
End Date: 2010.02.02 @ 16:14:45

Job Ticket #: 37205      DST #: 5

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Russell Oil, Inc.

PO Box 1469  
Plainfield, IL 60544

ATTN: Kevin Bailey

**Betty Radke #1**

**6-16s-14w Barton KS**

Job Ticket: 37205

DST#: 5

Test Start: 2010.02.02 @ 09:35:20

### GENERAL INFORMATION:

Formation: **LKC "H"-Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:00:46

Time Test Ended: 16:14:45

Test Type: Conventional Bottom Hole

Tester: Tyson Flax

Unit No: 44

Interval: **3300.00 ft (KB) To 3370.00 ft (KB) (TVD)**

Total Depth: 3370.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1898.00 ft (KB)

1890.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 6668** Inside

Press@RunDepth: 56.65 psig @ 3305.00 ft (KB)

Start Date: 2010.02.02

End Date: 2010.02.02

Start Time: 09:35:21

End Time: 16:14:45

Capacity: 8000.00 psig

Last Calib.: 2010.02.02

Time On Btm: 2010.02.02 @ 11:00:16

Time Off Btm: 2010.02.02 @ 14:32:15

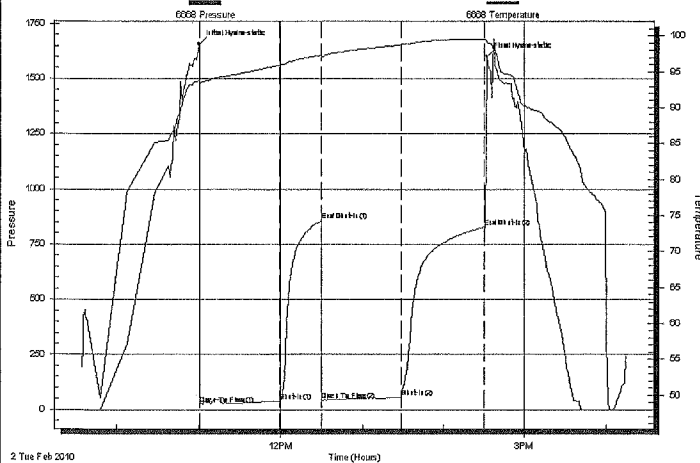
TEST COMMENT: IFP-Weak blow built to 9.5"

ISI-no blow back

FFP-Weak blow built to 4"

FSI-no blow back

Pressure vs. Time



### PRESSURE SUMMARY

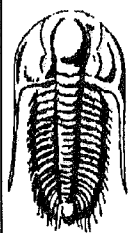
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1656.62         | 93.76        | Initial Hydro-static |
| 1           | 25.20           | 93.37        | Open To Flow (1)     |
| 59          | 39.84           | 95.94        | Shut-In(1)           |
| 90          | 856.68          | 97.30        | End Shut-In(1)       |
| 90          | 44.80           | 97.07        | Open To Flow (2)     |
| 149         | 56.65           | 98.74        | Shut-In(2)           |
| 211         | 827.14          | 99.52        | End Shut-In(2)       |
| 212         | 1601.45         | 99.25        | Final Hydro-static   |

### Recovery

| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 60.00       | WM 40%W, 60%M | 0.85         |
| 19.00       | MW 70%W,30%M  | 0.27         |
| 1.00        | WO 80%O,20%W  | 0.01         |
|             |               |              |
|             |               |              |
|             |               |              |

### Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Russell Oil, Inc.

Betty Radke #1

PO Box 1469  
Plainfield, IL 60544

6-16s-14w Barton KS

Job Ticket: 37205

DST#: 5

ATTN: Kevin Bailey

Test Start: 2010.02.02 @ 09:35:20

### Tool Information

|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3285.00 ft | Diameter: 3.82 inches   | Volume: 46.57 bbl | Tool Weight: 2200.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.25 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: lb           |
|                           |                    | Total Volume: 46.57 bbl |                   | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 13.00 ft           |                         |                   | String Weight: Initial 36000.00 lb |
| Depth to Top Packer:      | 3300.00 ft         |                         |                   | Final 38000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 70.00 ft           |                         |                   |                                    |
| Tool Length:              | 98.00 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        |            |          | 3273.00    |                               |
| Shut In Tool       | 5.00        |            |          | 3278.00    |                               |
| Hydraulic tool     | 5.00        |            |          | 3283.00    |                               |
| Jars               | 5.00        |            |          | 3288.00    |                               |
| Safety Joint       | 2.00        |            |          | 3290.00    |                               |
| Packer             | 5.00        |            |          | 3295.00    | 28.00 Bottom Of Top Packer    |
| Packer             | 5.00        |            |          | 3300.00    |                               |
| Stubb              | 1.00        |            |          | 3301.00    |                               |
| Perforations       | 3.00        |            |          | 3304.00    |                               |
| Change Over Sub    | 1.00        |            |          | 3305.00    |                               |
| Recorder           | 0.00        | 6668       | Inside   | 3305.00    |                               |
| Recorder           | 0.00        | 6669       | Inside   | 3305.00    |                               |
| Blank Spacing      | 60.00       |            |          | 3365.00    |                               |
| Change Over Sub    | 1.00        |            |          | 3366.00    |                               |
| Perforations       | 1.00        |            |          | 3367.00    |                               |
| Bullnose           | 3.00        |            |          | 3370.00    | 70.00 Bottom Packers & Anchor |
| Total Tool Length: |             | 98.00      |          |            |                               |



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Russell Oil, Inc.

**Betty Radke #1**

PO Box 1469  
Plainfield, IL 60544

**6-16s-14w Barton KS**

Job Ticket: 37205

**DST#: 5**

ATTN: Kevin Bailey

Test Start: 2010.02.02 @ 09:35:20

### 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:

38000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

| Length<br>ft | Description   | Volume<br>bbl |
|--------------|---------------|---------------|
| 60.00        | WM 40%W, 60%M | 0.851         |
| 19.00        | MW 70%W, 30%M | 0.269         |
| 1.00         | WO 80%O, 20%W | 0.014         |

Total Length: 80.00 ft

Total Volume: 1.134 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .26 @ 52F = 38000 chlorides

# Pressure vs. Time

