15-163-23664

TRILOBITE TESTING, INC.

# DRILL STEM TEST REPORT

Prepared For: **Zinszer Oil**

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**4 9S 19W Rooks KS**

**McClellan #1**

Start Date: 2007.11.18 @ 18:34:21
End Date: 2007.11.18 @ 23:40:45
Job Ticket #: 30406 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

# DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30406 **DST#: 1**

Test Start: 2007.11.18 @ 18:34:21

## GENERAL INFORMATION:

Formation: **Plattsmouth**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:22:16
Time Test Ended: 23:40:45

Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41

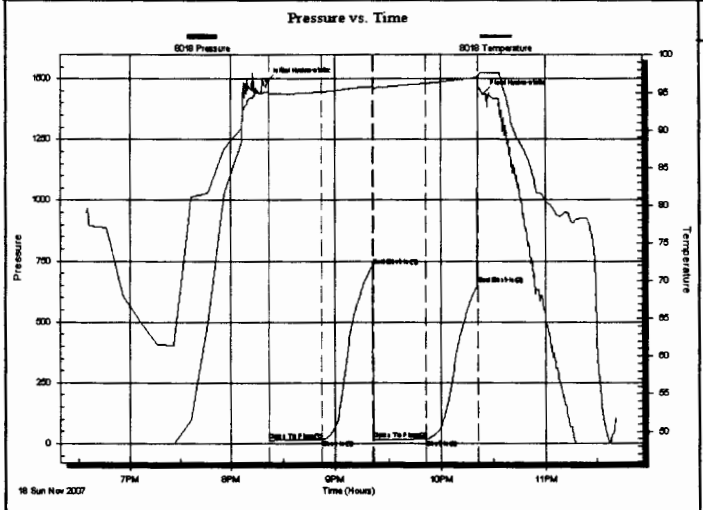
**Interval: 3090.00 ft (KB) To 3113.00 ft (KB) (TVD)**
Total Depth: 3113.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 1981.00 ft (KB)
1973.00 ft (CF)
KB to GR/CF: 8.00 ft

**Serial #: 8018** **Inside**
Press@RunDepth: 17.18 psig @ 3095.01 ft (KB)
Start Date: 2007.11.18 End Date: 2007.11.18
Start Time: 18:34:21 End Time: 23:40:45

Capacity: 7000.00 psig
Last Calib.: 2007.11.18
Time On Btm: 2007.11.18 @ 20:20:46
Time Off Btm: 2007.11.18 @ 22:24:16

TEST COMMENT: IFP Sur blow died 17 min.
ISI No blow back
FFP No blow
FSI No blow back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1490.75 | 95.06 | Initial Hydro-static |
| 2 | 12.17 | 94.83 | Open To Flow (1) |
| 32 | 15.00 | 95.07 | Shut-In(1) |
| 60 | 729.67 | 95.79 | End Shut-In(1) |
| 61 | 15.78 | 95.49 | Open To Flow (2) |
| 91 | 17.18 | 96.22 | Shut-In(2) |
| 120 | 654.44 | 96.95 | End Shut-In(2) |
| 124 | 1437.00 | 97.63 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 5.00 | O spts M 100%M | 0.02 |
| | | |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

TRILOBITE TESTING, INC

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30406 **DST#: 1**

Test Start: 2007.11.18 @ 18:34:21

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 3042.00 ft | Diameter: | 3.80 inches | Volume: | 42.67 bbl | Tool Weight: | | 2500.00 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: | 31.00 ft | Diameter: | 2.25 inches | Volume: | 0.15 bbl | Weight to Pull Loose: | | 50000.00 lb |
| | | | | | Total Volume: | 42.82 bbl | Tool Chased | | 0.00 ft |
| Drill Pipe Above KB: | | 3.00 ft | | | | | String Weight: | Initial | 42000.00 lb |
| Depth to Top Packer: | | 3090.00 ft | | | | | | Final | 42000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | |
| Interval between Packers: | | 23.02 ft | | | | | | | |
| Tool Length: | | 43.02 ft | | | | | | | |
| Number of Packers: | | 2 | Diameter: | 6.75 inches | | | | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths | |
|---|---|---|---|---|---|---|
| Shut In Tool | 5.00 | | | 3075.00 | | |
| Hydraulic tool | 5.00 | | | 3080.00 | | |
| Packer | 5.00 | | | 3085.00 | 20.00 | Bottom Of Top Packer |
| Packer | 5.00 | | | 3090.00 | | |
| Stubb | 1.00 | | | 3091.00 | | |
| Perforations | 4.00 | | | 3095.00 | | |
| Recorder | 0.01 | 8018 | Inside | 3095.01 | | |
| Perforations | 15.00 | | | 3110.01 | | |
| Recorder | 0.01 | 13548 | Outside | 3110.02 | | |
| Bullnose | 3.00 | | | 3113.02 | 23.02 | Bottom Packers & Anchor |
| **Total Tool Length:** | **43.02** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30406 **DST#: 1**

Test Start: 2007.11.18 @ 18:34:21

## 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: | 48.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 10.70 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 2000.00 ppm | | | | |
| Filter Cake: | inches | | | | |

## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 5.00 | O spts M 100%M | 0.025 |

Total Length: 5.00 ft Total Volume: 0.025 bbl

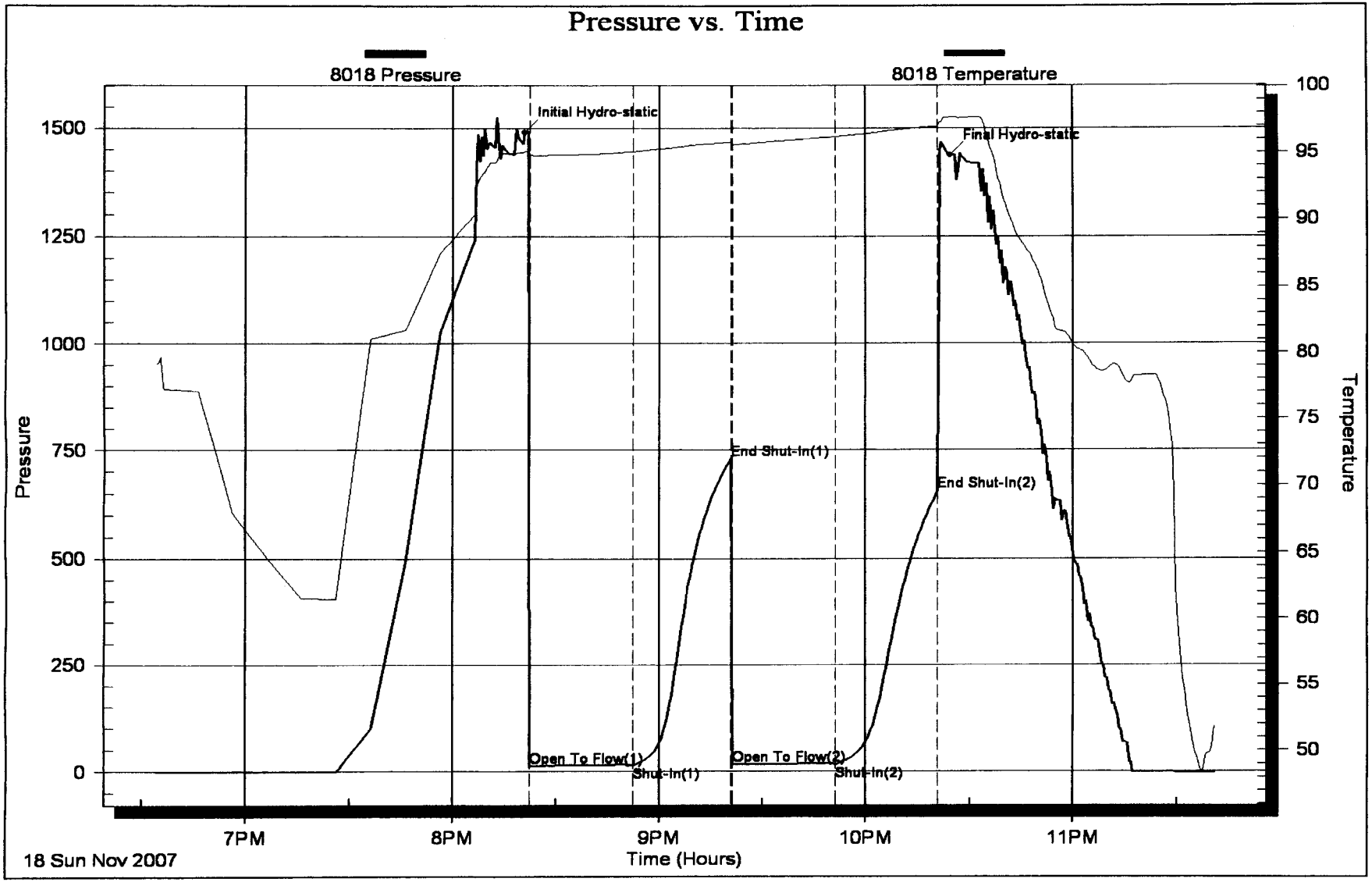
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

McClellan #1

Serial #: 8018 **Inside** Zinszer Oil 4 9S 19W Rooks KS DST Test Number: 1





TRILOBITE TESTING, INC.

# DRILL STEM TEST REPORT

Prepared For: **Zinszer Oil**

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**4 9S 19W Rooks KS**

**McClellan #1**

Start Date: 2007.11.19 @ 08:31:59
End Date: 2007.11.19 @ 14:54:23
Job Ticket #: 30407 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

# DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30407 **DST#: 2**

Test Start: 2007.11.19 @ 08:31:59

## GENERAL INFORMATION:

Formation: **Toroto - LKC "C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:16:54
Time Test Ended: 14:54:23

Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41

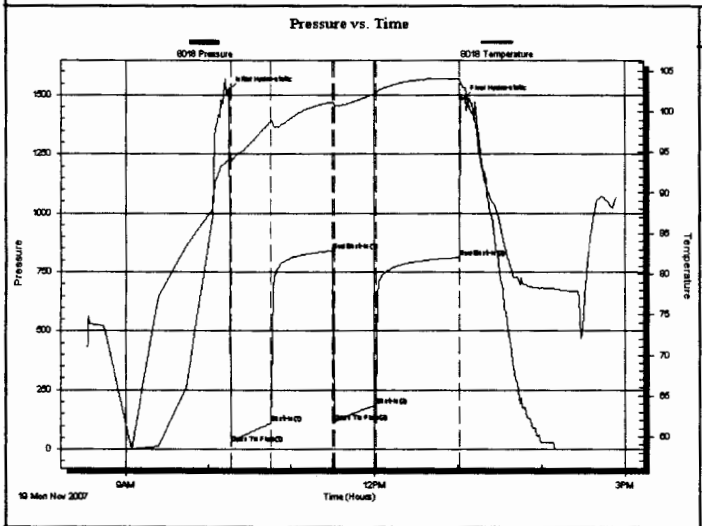
**Interval: 3132.00 ft (KB) To 3223.00 ft (KB) (TVD)**
Total Depth: 3223.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 1981.00 ft (KB)
1973.00 ft (CF)
KB to GR/CF: 8.00 ft

**Serial #: 8018** **Inside**
Press@RunDepth: 185.70 psig @ 3141.01 ft (KB)
Start Date: 2007.11.19 End Date: 2007.11.19
Start Time: 08:31:59 End Time: 14:54:23

Capacity: 7000.00 psig
Last Calib.: 2007.11.19
Time On Btm: 2007.11.19 @ 10:15:24
Time Off Btm: 2007.11.19 @ 13:03:23

TEST COMMENT: IFP BOB 7 min.
ISI 1/4 " blow back
FFP BOB 10 min.
FSI 1/4 " blow back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1520.11 | 93.96 | Initial Hydro-static |
| 2 | 24.56 | 93.75 | Open To Flow (1) |
| 31 | 111.39 | 98.82 | Shut-In(1) |
| 76 | 840.41 | 101.14 | End Shut-In(1) |
| 77 | 116.19 | 100.78 | Open To Flow (2) |
| 106 | 185.70 | 102.22 | Shut-In(2) |
| 166 | 811.66 | 104.05 | End Shut-In(2) |
| 168 | 1483.18 | 103.08 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 30.00 | 100%M | 0.15 |
| 90.00 | MW w/scum O 80%W 20%M | 1.25 |
| 105.00 | GOCMW 5%G 15%O 45%W 35%M | 1.47 |
| 120.00 | GW&MCO 15%G 40%O 25%W 20%M | 1.68 |
| 35.00 | GM&WCO 35%G 50%O 10%W 5%M | 0.49 |
| | | |

## Gas Rates

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

TRILOBITE TESTING, INC

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30407 **DST#: 2**

Test Start: 2007.11.19 @ 08:31:59

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 3099.00 ft | Diameter: | 3.80 inches | Volume: | 43.47 bbl | Tool Weight: | 2500.00 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: | 31.00 ft | Diameter: | 2.25 inches | Volume: | 0.15 bbl | Weight to Pull Loose: | 55000.00 lb |
| | | | | | Total Volume: | 43.62 bbl | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | | 18.00 ft | | | | | String Weight: Initial | 43000.00 lb |
| Depth to Top Packer: | | 3132.00 ft | | | | | Final | 45000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | |
| Interval between Packers: | | 91.02 ft | | | | | | |
| Tool Length: | | 111.02 ft | | | | | | |
| Number of Packers: | | 2 | Diameter: | 6.75 inches | | | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths | |
|---|---|---|---|---|---|---|
| Shut In Tool | 5.00 | | | 3117.00 | | |
| Hydraulic tool | 5.00 | | | 3122.00 | | |
| Packer | 5.00 | | | 3127.00 | 20.00 | Bottom Of Top Packer |
| Packer | 5.00 | | | 3132.00 | | |
| Stubb | 1.00 | | | 3133.00 | | |
| Perforations | 7.00 | | | 3140.00 | | |
| Change Over Sub | 1.00 | | | 3141.00 | | |
| Recorder | 0.01 | 8018 | Inside | 3141.01 | | |
| Blank Spacing | 63.00 | | | 3204.01 | | |
| Change Over Sub | 1.00 | | | 3205.01 | | |
| Perforations | 15.00 | | | 3220.01 | | |
| Recorder | 0.01 | 13548 | Outside | 3220.02 | | |
| Bullnose | 3.00 | | | 3223.02 | 91.02 | Bottom Packers & Anchor |
| **Total Tool Length:** | **111.02** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Dowming

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30407 **DST#: 2**

Test Start: 2007.11.19 @ 08:31:59

## 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: | 48.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 10.68 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 2000.00 ppm | | | | |
| Filter Cake: | inches | | | | |

## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 30.00 | 100%M | 0.148 |
| 90.00 | MW w/scum O 80%W 20%M | 1.253 |
| 105.00 | GOCMW 5%G 15%O 45%W 35%M | 1.473 |
| 120.00 | GW&MCO 15%G 40%O 25%W 20%M | 1.683 |
| 35.00 | GM&WCO 35%G 50%O 10%W 5%M | 0.491 |

Total Length: 380.00 ft Total Volume: 5.048 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

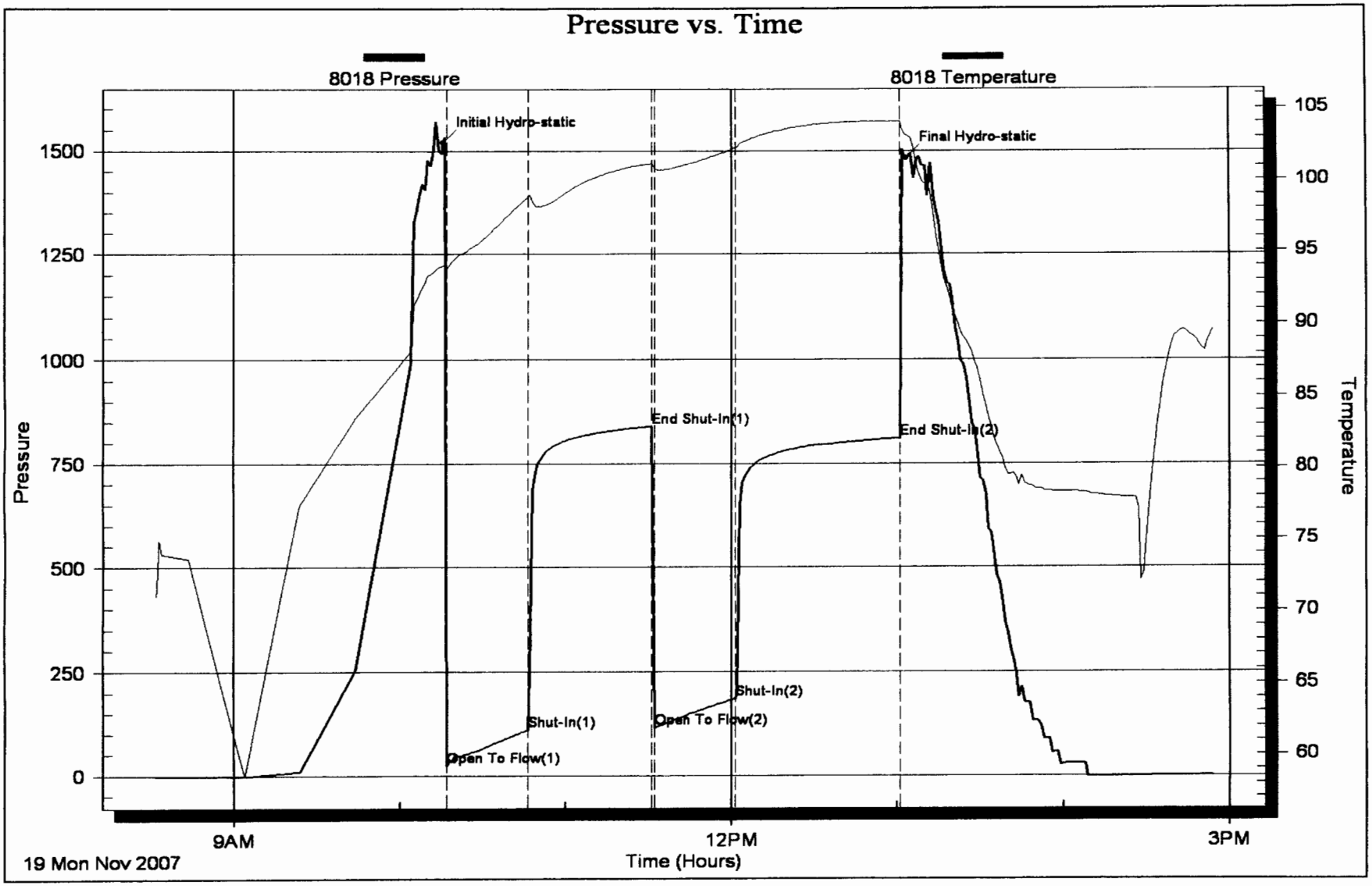
Recovery Comments: 180 ' GIP

McClellan #1

Serial #: 8018 **Inside** Zinszer Oil

4 9S 19W Rooks KS

DST Test Number: 2



TRILOBITE TESTING, INC.

# DRILL STEM TEST REPORT

Prepared For: **Zinszer Oil**

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**4 9S 19W Rooks KS**

**McClellan #1**

Start Date: 2007.11.20 @ 01:56:32
End Date: 2007.11.20 @ 08:09:26
Job Ticket #: 30408 DST #: 3

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

# DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30408 **DST#: 3**

Test Start: 2007.11.20 @ 01:56:32

## GENERAL INFORMATION:

Formation: **LKC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:35:57
Time Test Ended: 08:09:26

Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41

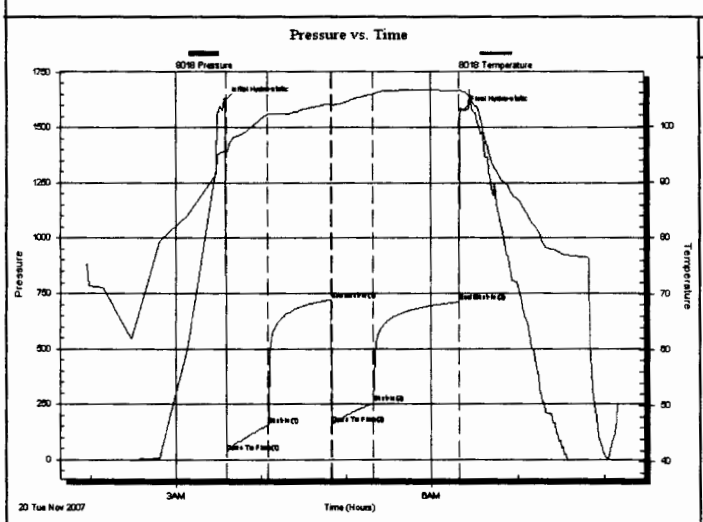
**Interval: 3285.00 ft (KB) To 3348.00 ft (KB) (TVD)**
Total Depth: 3348.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 1981.00 ft (KB)
1973.00 ft (CF)
KB to GR/CF: 8.00 ft

**Serial #: 8018** **Inside**
Press@RunDepth: 254.00 psig @ 3294.01 ft (KB)
Start Date: 2007.11.20 End Date: 2007.11.20
Start Time: 01:56:32 End Time: 08:09:26

Capacity: 7000.00 psig
Last Calib.: 2007.11.20
Time On Btm: 2007.11.20 @ 03:34:57
Time Off Btm: 2007.11.20 @ 06:23:26

TEST COMMENT: IFP BOB 7 min.
ISI No blow back
FFP BOB 9 min.
FSI No blow back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1623.11 | 95.64 | Initial Hydro-static |
| 1 | 34.35 | 95.41 | Open To Flow (1) |
| 30 | 155.25 | 102.08 | Shut-In(1) |
| 75 | 721.12 | 104.03 | End Shut-In(1) |
| 76 | 162.04 | 103.85 | Open To Flow (2) |
| 105 | 254.00 | 105.81 | Shut-In(2) |
| 165 | 710.57 | 106.40 | End Shut-In(2) |
| 169 | 1578.62 | 106.12 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 360.00 | MW 85%W 15%M | 4.77 |
| 140.00 | WM 5%W 95%M | 1.96 |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

TRILOBITE TESTING, INC

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30408 **DST#: 3**

Test Start: 2007.11.20 @ 01:56:32

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 3257.00 ft | Diameter: | 3.80 inches | Volume: | 45.69 bbl | Tool Weight: | | 2500.00 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: | 31.00 ft | Diameter: | 2.25 inches | Volume: | 0.15 bbl | Weight to Pull Loose: | | 55000.00 lb |
| | | | | | Total Volume: | 45.84 bbl | Tool Chased | | 0.00 ft |
| Drill Pipe Above KB: | | 23.00 ft | | | | | String Weight: | Initial | 44000.00 lb |
| Depth to Top Packer: | | 3285.00 ft | | | | | | Final | 48000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | |
| Interval between Packers: | | 63.02 ft | | | | | | | |
| Tool Length: | | 83.02 ft | | | | | | | |
| Number of Packers: | | 2 | Diameter: | 6.75 inches | | | | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths | |
|---|---|---|---|---|---|---|
| Shut In Tool | 5.00 | | | 3270.00 | | |
| Hydraulic tool | 5.00 | | | 3275.00 | | |
| Packer | 5.00 | | | 3280.00 | 20.00 | Bottom Of Top Packer |
| Packer | 5.00 | | | 3285.00 | | |
| Stubb | 1.00 | | | 3286.00 | | |
| Perforations | 7.00 | | | 3293.00 | | |
| Change Over Sub | 1.00 | | | 3294.00 | | |
| Recorder | 0.01 | 8018 | Inside | 3294.01 | | |
| Blank Spacing | 31.00 | | | 3325.01 | | |
| Change Over Sub | 1.00 | | | 3326.01 | | |
| Perforations | 19.00 | | | 3345.01 | | |
| Recorder | 0.01 | 13548 | Outside | 3345.02 | | |
| Bullnose | 3.00 | | | 3348.02 | 63.02 | Bottom Packers & Anchor |
| **Total Tool Length:** | **83.02** | | | | | |

TRILOBITE TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30408 **DST#: 3**

Test Start: 2007.11.20 @ 01:56:32

## 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: | 16000 ppm |
| Viscosity: | 48.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 9.56 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 4000.00 ppm | | | | |
| Filter Cake: | inches | | | | |

## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 360.00 | MW 85%W 15%M | 4.767 |
| 140.00 | WM 5%W 95%M | 1.964 |

Total Length: 500.00 ft Total Volume: 6.731 bbl

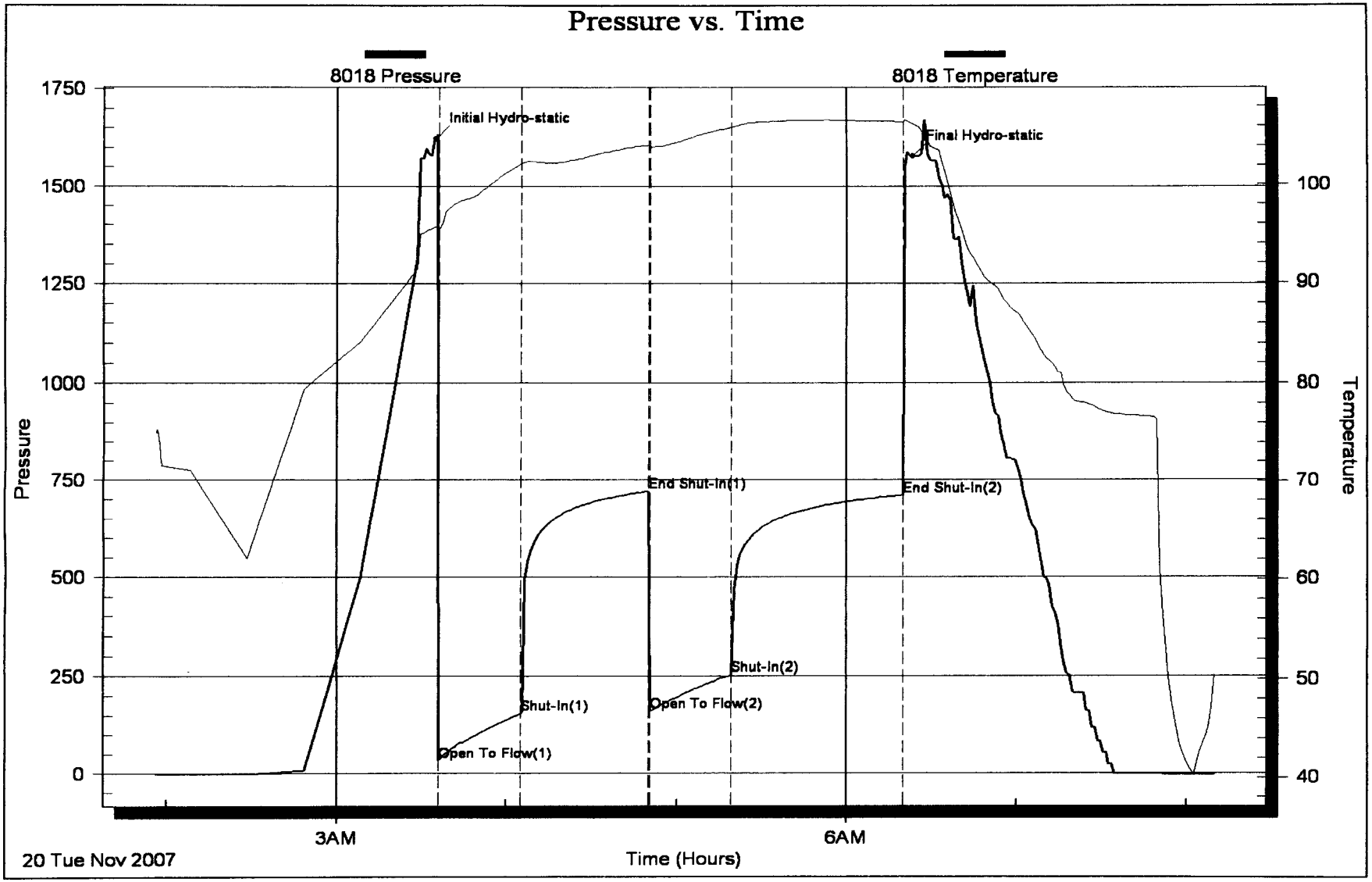
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

McClellan #1

Serial #: 8018 **Inside** Zinszer Oil 4 9S 19W Rooks KS DST Test Number: 3





TRILOBITE TESTING, INC.

# DRILL STEM TEST REPORT

Prepared For: **Zinszer Oil**

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**4 9S 19W Rooks KS**

**McClellan #1**

Start Date: 2007.11.20 @ 20:03:46
End Date: 2007.11.21 @ 03:15:40
Job Ticket #: 30409 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

# DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30409 **DST#: 4**

Test Start: 2007.11.20 @ 20:03:46

## GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:36:11
Time Test Ended: 03:15:40

Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41

**Interval: 3409.00 ft (KB) To 3417.00 ft (KB) (TVD)**
Total Depth: 3417.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

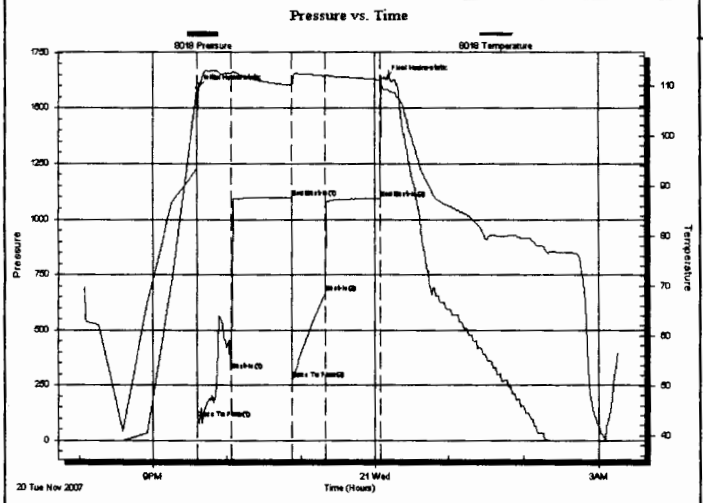
Reference Elevations: 1981.00 ft (KB)
1973.00 ft (CF)
KB to GR/CF: 8.00 ft

**Serial #: 8018** **Inside**

Press@RunDepth: 667.42 psig @ 3410.01 ft (KB)
Start Date: 2007.11.20 End Date: 2007.11.21
Start Time: 20:03:46 End Time: 03:15:40

Capacity: 7000.00 psig
Last Calib.: 2007.11.21
Time On Btm: 2007.11.20 @ 21:35:41
Time Off Btm: 2007.11.21 @ 00:08:11

TEST COMMENT: IFP BOB 2 min.
ISI Weak intermittent sur blow back
FFP BOB 2 min.
FSI Weak intermittent sur blow back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1589.14 | 93.45 | Initial Hydro-static |
| 1 | 98.63 | 102.91 | Open To Flow (1) |
| 28 | 318.92 | 112.52 | Shut-In(1) |
| 77 | 1096.97 | 110.03 | End Shut-In(1) |
| 77 | 279.33 | 109.56 | Open To Flow (2) |
| 104 | 667.42 | 111.93 | Shut-In(2) |
| 149 | 1092.58 | 111.11 | End Shut-In(2) |
| 153 | 1633.13 | 109.15 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 30.00 | 100%M | 0.15 |
| 310.00 | MW w/scum O 95%W 5%M | 4.34 |
| 840.00 | VSOCMW 5%O 90%W 5%M | 11.78 |
| 185.00 | GHOCMW 5%G 50%O 35%W 10%M | 2.60 |
| 85.00 | GW&MCO 5%G 60%O 15%W 20%M | 1.19 |
| | | |

## Gas Rates

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

TRILOBITE TESTING, INC

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Downing

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30409 **DST#: 4**

Test Start: 2007.11.20 @ 20:03:46

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 3384.00 ft | Diameter: | 3.80 inches | Volume: | 47.47 bbl | Tool Weight: | | 2500.00 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: | 31.00 ft | Diameter: | 2.25 inches | Volume: | 0.15 bbl | Weight to Pull Loose: | | 55000.00 lb |
| | | | | | Total Volume: | 47.62 bbl | Tool Chased | | 0.00 ft |
| Drill Pipe Above KB: | | 26.00 ft | | | | | String Weight: | Initial | 45000.00 lb |
| Depth to Top Packer: | | 3409.00 ft | | | | | | Final | 50000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | |
| Interval between Packers: | | 8.02 ft | | | | | | | |
| Tool Length: | | 28.02 ft | | | | | | | |
| Number of Packers: | | 2 | Diameter: | 6.75 inches | | | | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths | |
|---|---|---|---|---|---|---|
| Shut In Tool | 5.00 | | | 3394.00 | | |
| Hydraulic tool | 5.00 | | | 3399.00 | | |
| Packer | 5.00 | | | 3404.00 | 20.00 | Bottom Of Top Packer |
| Packer | 5.00 | | | 3409.00 | | |
| Stubb | 1.00 | | | 3410.00 | | |
| Recorder | 0.01 | 8018 | Inside | 3410.01 | | |
| Perforations | 4.00 | | | 3414.01 | | |
| Recorder | 0.01 | 13548 | Outside | 3414.02 | | |
| Bullnose | 3.00 | | | 3417.02 | 8.02 | Bottom Packers & Anchor |
| **Total Tool Length:** | **28.02** | | | | | |

TRILOBITE TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Zinszer Oil

PO Box 211
Hays KS 67601

ATTN: Marc Dowming

**McClellan #1**

**4 9S 19W Rooks KS**

Job Ticket: 30409 **DST#: 4**

Test Start: 2007.11.20 @ 20:03:46

## 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: | 54.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 9.57 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 3000.00 ppm | | | | |
| Filter Cake: | inches | | | | |

## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 30.00 | 100%M | 0.148 |
| 310.00 | MW w/scum O 95%W 5%M | 4.339 |
| 840.00 | VSOCMW 5%O 90%W 5%M | 11.783 |
| 185.00 | GHOCMW 5%G 50%O 35%W 10%M | 2.595 |
| 85.00 | GW&MCO 5%G 60%O 15%W 20%M | 1.192 |

Total Length: 1450.00 ft Total Volume: 20.057 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 30 ' GIP

McClellan #1

Serial #: 8018 **Inside** Zinszer Oil 4 9S 19W Rooks KS DST Test Number: 4

