

DRILL STEM TEST REPORT

Prepared For: **Bach Oil Company**

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

#1 Jessup Unit

11-1s-19w Phillips,KS

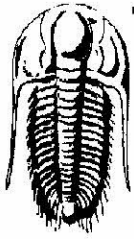
Start Date: 2011.12.27 @ 16:29:35

End Date: 2011.12.27 @ 22:44:20

Job Ticket #: 44708 DST #: 1

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

Printed: 2012.02.06 @ 08:25:29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44708

DST#: 1

ATTN: Bob Peterson

Test Start: 2011.12.27 @ 16:29:35

GENERAL INFORMATION:

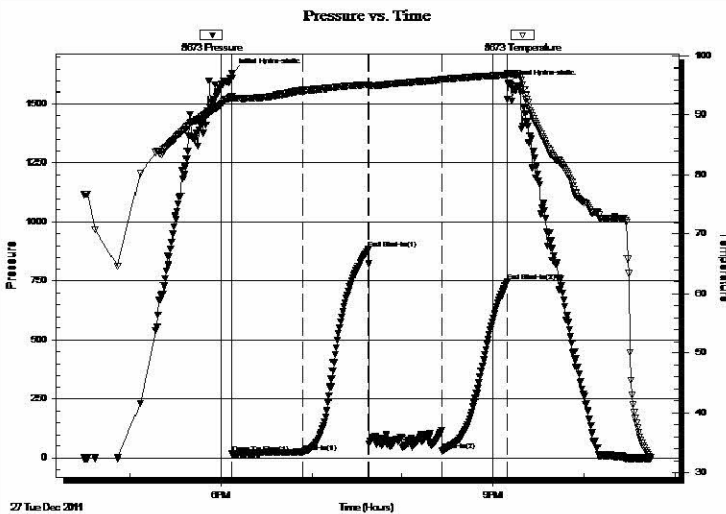
Formation: **A**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:07:35
 Time Test Ended: 22:44:20
 Interval: **3243.00 ft (KB) To 3270.00 ft (KB) (TVD)**
 Total Depth: 3270.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jason McLemore
 Unit No: 54
 Reference Elevations: 2026.00 ft (KB)
 2021.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8673

Inside

Press@RunDepth: 29.21 psig @ 3247.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.12.27 End Date: 2011.12.27 Last Calib.: 2011.12.27
 Start Time: 16:29:37 End Time: 22:44:20 Time On Btm: 2011.12.27 @ 18:07:20
 Time Off Btm: 2011.12.27 @ 21:09:50

TEST COMMENT: IFP-Weak Blow , Built to 2-1/4"
 ISI-Dead
 FFP-Dead
 FSI-Dead



PRESSURE SUMMARY

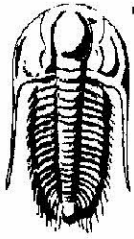
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1632.59 | 93.28 | Initial Hydro-static |
| 1 | 16.80 | 92.80 | Open To Flow (1) |
| 48 | 24.10 | 94.15 | Shut-In(1) |
| 91 | 884.93 | 95.10 | End Shut-In(1) |
| 91 | 61.61 | 94.82 | Open To Flow (2) |
| 139 | 29.21 | 95.99 | Shut-In(2) |
| 182 | 744.90 | 96.75 | End Shut-In(2) |
| 183 | 1585.26 | 96.97 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------|--------------|
| 15.00 | Mud W/Oil Specks | 0.07 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44708

DST#: 1

ATTN: Bob Peterson

Test Start: 2011.12.27 @ 16:29:35

GENERAL INFORMATION:

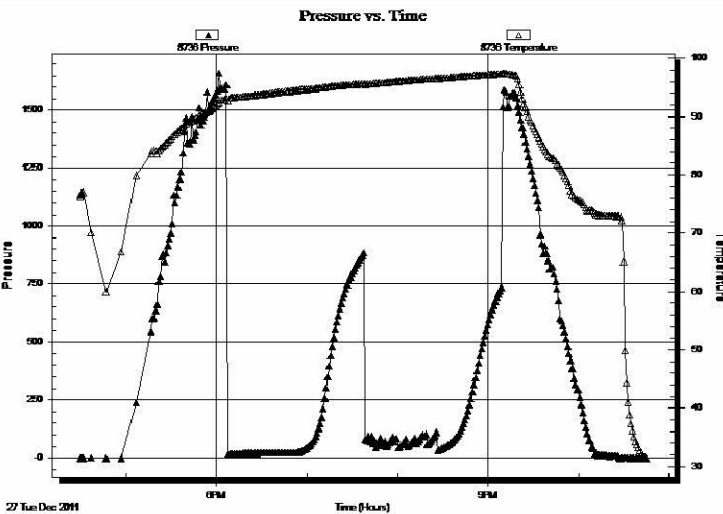
Formation: **A**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:07:35
 Time Test Ended: 22:44:20
 Interval: **3243.00 ft (KB) To 3270.00 ft (KB) (TVD)**
 Total Depth: 3270.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jason McLemore
 Unit No: 54
 Reference Elevations: 2026.00 ft (KB)
 2021.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8736

Outside

Press@RunDepth: psig @ 3247.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.12.27 End Date: 2011.12.27 Last Calib.: 2011.12.27
 Start Time: 16:29:40 End Time: 22:44:34 Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP-Weak Blow , Built to 2-1/4"
 ISI-Dead
 FFP-Dead
 FSI-Dead



PRESSURE SUMMARY

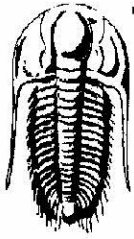
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------|--------------|
| 15.00 | Mud W/Oil Specks | 0.07 |
| | | |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44708

DST#: 1

ATTN: Bob Peterson

Test Start: 2011.12.27 @ 16:29:35

Tool Information

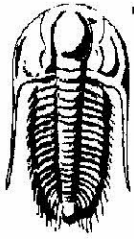
| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3199.00 ft | Diameter: 3.80 inches | Volume: 44.87 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: 45000.00 lb |
| | | | <u>Total Volume: 45.02 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 14.00 ft | | | String Weight: Initial 44000.00 lb |
| Depth to Top Packer: | 3243.00 ft | | | Final 44000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 27.00 ft | | | |
| Tool Length: | 55.00 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 | | | 3216.00 | |
| Shut In Tool | 5.00 | | | 3221.00 | |
| Hydraulic tool | 5.00 | | | 3226.00 | |
| Jars | 5.00 | | | 3231.00 | |
| Safety Joint | 2.00 | | | 3233.00 | |
| Packer | 5.00 | | | 3238.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3243.00 | |
| Stubb | 1.00 | | | 3244.00 | |
| Perforations | 3.00 | | | 3247.00 | |
| Recorder | 0.00 | 8673 | Inside | 3247.00 | |
| Recorder | 0.00 | 8736 | Outside | 3247.00 | |
| Perforations | 20.00 | | | 3267.00 | |
| Bullnose | 3.00 | | | 3270.00 | 27.00 Bottom Packers & Anchor |

Total Tool Length: 55.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44708

DST#: 1

ATTN: Bob Peterson

Test Start: 2011.12.27 @ 16:29:35

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:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|------------------|---------------|
| 15.00 | Mud W/Oil Specks | 0.074 |

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

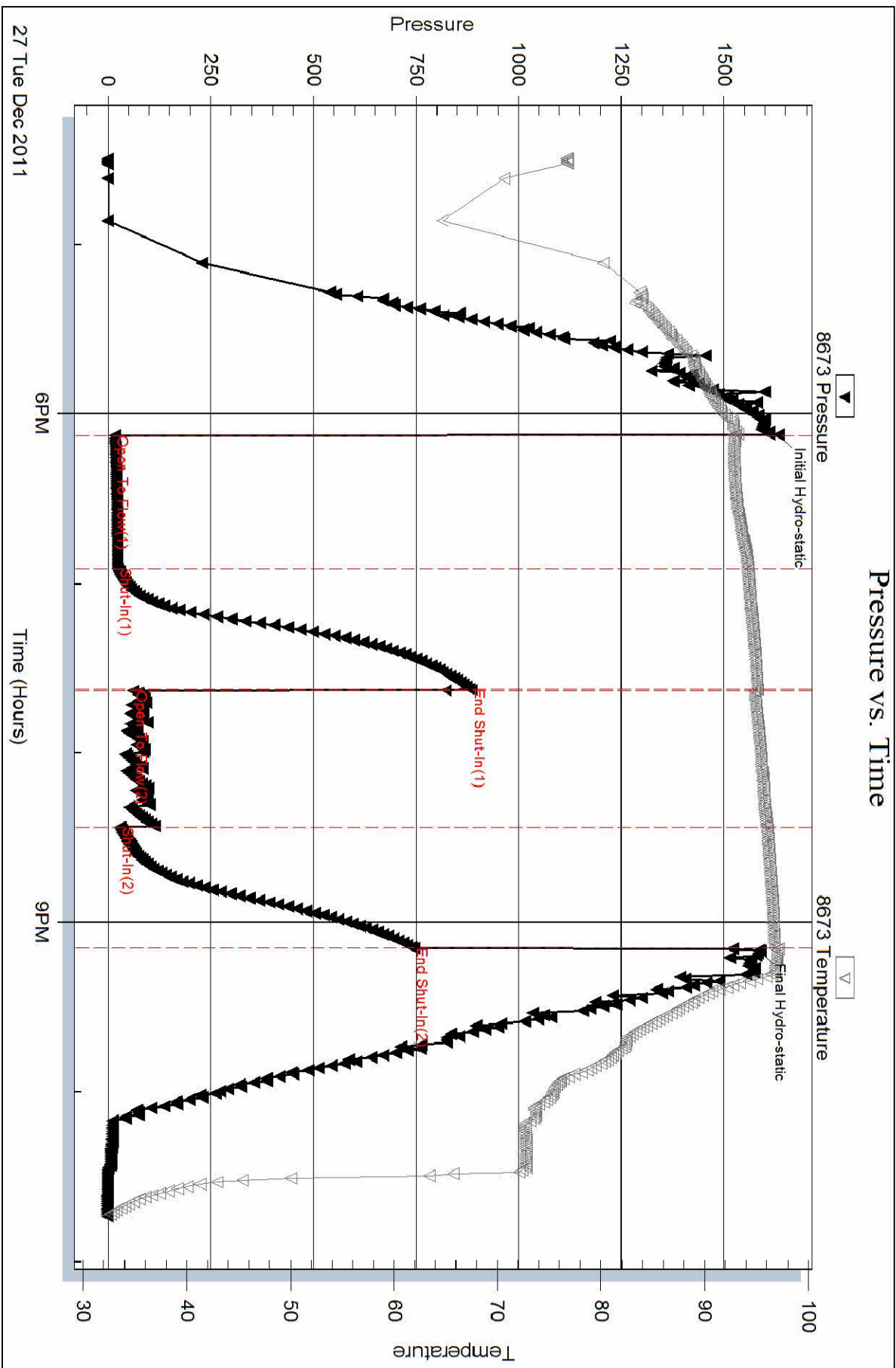
Serial #: 8673

Inside

Bach Oil Company

#1 Jessup Unit

DST Test Number: 1

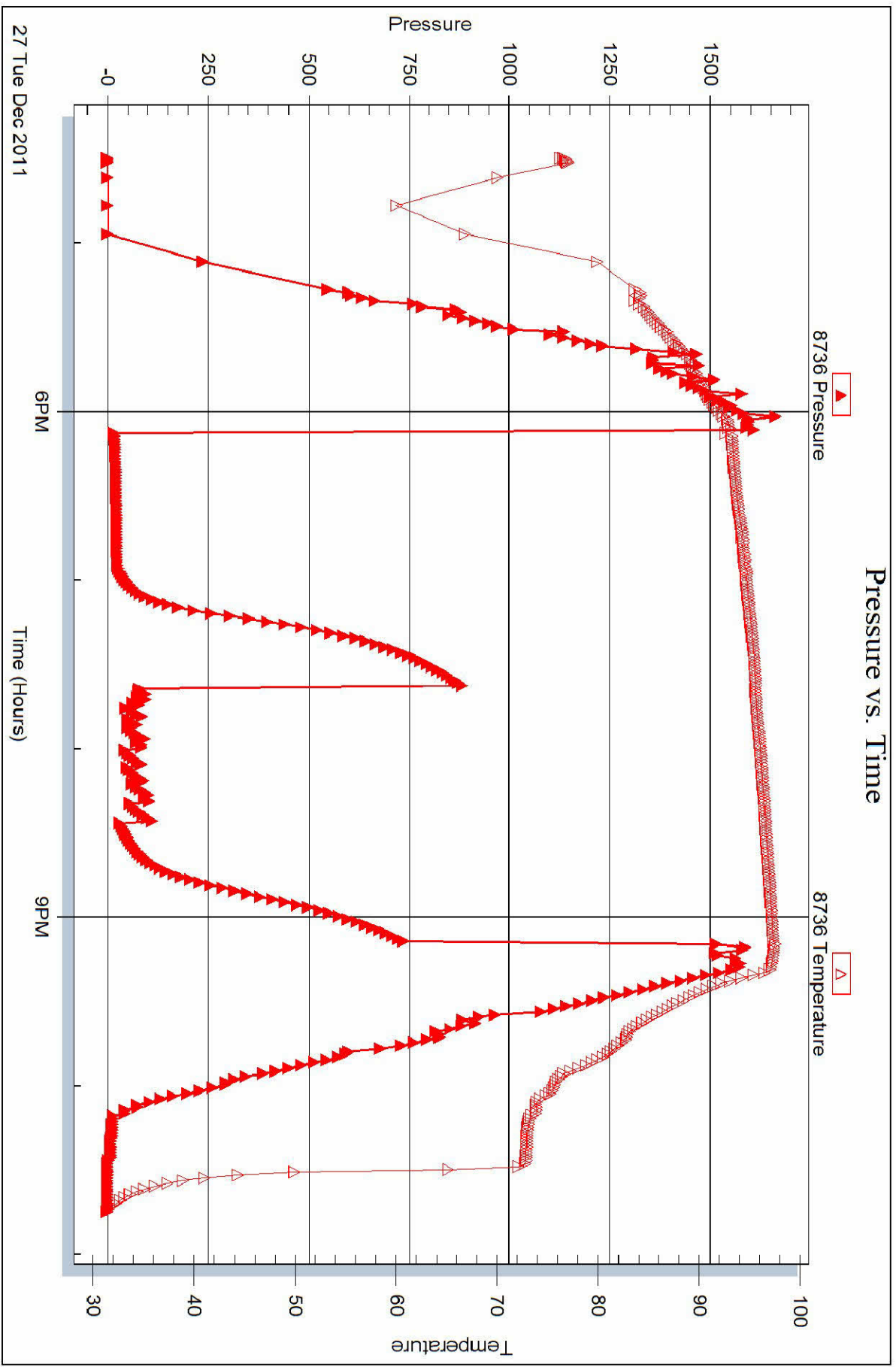


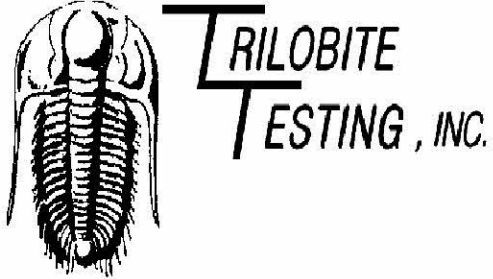
Serial #: 8736

Outside Bach Oil Company

#1 Jessup Unit

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Bach Oil Company**

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

#1 Jessup Unit

11-1s-19w Phillips,KS

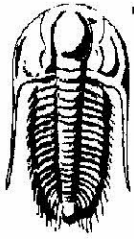
Start Date: 2011.12.28 @ 07:21:39

End Date: 2011.12.28 @ 14:49:24

Job Ticket #: 4479 DST #: 2

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

Printed: 2012.02.06 @ 08:26:44



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

ATTN: Bob Peterson

Job Ticket: 4479

DST#: 2

Test Start: 2011.12.28 @ 07:21:39

GENERAL INFORMATION:

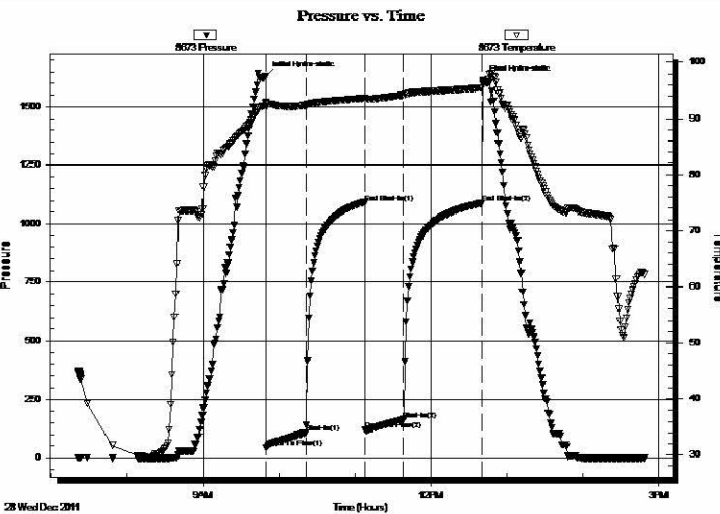
Formation: **B-E**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:50:24
 Time Test Ended: 14:49:24
 Interval: **3268.00 ft (KB) To 3323.00 ft (KB) (TVD)**
 Total Depth: 3323.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jason McLemore
 Unit No: 54
 Reference Elevations: 2026.00 ft (KB)
 2021.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8673

Inside

Press@RunDepth: 163.77 psig @ 3305.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.12.28 End Date: 2011.12.28 Last Calib.: 2011.12.28
 Start Time: 07:21:41 End Time: 14:49:24 Time On Btm: 2011.12.28 @ 09:50:09
 Time Off Btm: 2011.12.28 @ 12:41:24

TEST COMMENT: IFP-Good Blow ,BOB in 8-1/2 Min
 ISI-Blow back Built to 1/2"
 FFP-Good Blow , BOB in 13 Min.
 FSI-Bow back Built to 1"



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1632.79 | 92.88 | Initial Hydro-static |
| 1 | 44.88 | 92.14 | Open To Flow (1) |
| 32 | 107.80 | 92.36 | Shut-In(1) |
| 78 | 1089.87 | 93.65 | End Shut-In(1) |
| 79 | 119.26 | 93.39 | Open To Flow (2) |
| 109 | 163.77 | 94.15 | Shut-In(2) |
| 171 | 1089.33 | 95.48 | End Shut-In(2) |
| 172 | 1614.64 | 96.15 | Final Hydro-static |

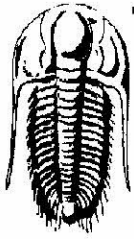
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------|--------------|
| 120.00 | V SOCMM-1%O-89%W-10%M | 1.41 |
| 120.00 | SOCMM-15%O-25%W-60%M | 1.68 |
| 45.00 | Free Oil | 0.63 |
| 0.00 | 60' Gas In Pipe | 0.00 |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 4479

DST#: 2

ATTN: Bob Peterson

Test Start: 2011.12.28 @ 07:21:39

GENERAL INFORMATION:

Formation: **B-E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:50:24

Time Test Ended: 14:49:24

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: **3268.00 ft (KB) To 3323.00 ft (KB) (TVD)**

Reference Elevations: 2026.00 ft (KB)

Total Depth: 3323.00 ft (KB) (TVD)

2021.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8736 Outside

Press@RunDepth: psig @ 3305.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.28 End Date: 2011.12.28

Last Calib.: 2011.12.28

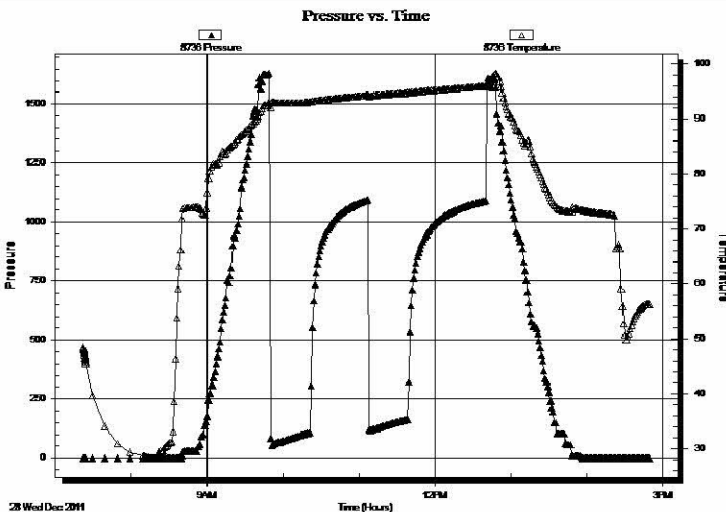
Start Time: 07:22:27 End Time: 14:49:51

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP-Good Blow ,BOB in 8-1/2 Min
ISI-Blow back Built to 1/2"
FFP-Good Blow , BOB in 13 Min.
FSI-Bow back Built to 1"

PRESSURE SUMMARY



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

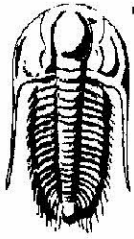
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 120.00 | VSOCMW-1%O-89%W-10%M | 1.41 |
| 120.00 | SOCMM-15%O-25%W-60%M | 1.68 |
| 45.00 | Free Oil | 0.63 |
| 0.00 | 60' Gas In Pipe | 0.00 |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 4479

DST#: 2

ATTN: Bob Peterson

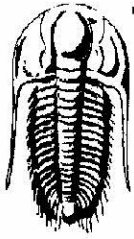
Test Start: 2011.12.28 @ 07:21:39

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3232.00 ft | Diameter: 3.80 inches | Volume: 45.34 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: 48000.00 lb |
| | | | <u>Total Volume: 45.49 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 22.00 ft | | | String Weight: Initial 45000.00 lb |
| Depth to Top Packer: | 3268.00 ft | | | Final 46000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 55.00 ft | | | |
| Tool Length: | 83.00 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 | | | 3241.00 | |
| Shut In Tool | 5.00 | | | 3246.00 | |
| Hydraulic tool | 5.00 | | | 3251.00 | |
| Jars | 5.00 | | | 3256.00 | |
| Safety Joint | 2.00 | | | 3258.00 | |
| Packer | 5.00 | | | 3263.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3268.00 | |
| Stubb | 1.00 | | | 3269.00 | |
| Perforations | 3.00 | | | 3272.00 | |
| Change Over Sub | 1.00 | | | 3273.00 | |
| Blank Spacing | 31.00 | | | 3304.00 | |
| Change Over Sub | 1.00 | | | 3305.00 | |
| Recorder | 0.00 | 8673 | Inside | 3305.00 | |
| Recorder | 0.00 | 8736 | Outside | 3305.00 | |
| Perforations | 15.00 | | | 3320.00 | |
| Bullnose | 3.00 | | | 3323.00 | 55.00 Bottom Packers & Anchor |
| Total Tool Length: | 83.00 | | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 4479

DST#: 2

ATTN: Bob Peterson

Test Start: 2011.12.28 @ 07:21:39

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

32000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-----------------------|---------------|
| 120.00 | VSOCCMW-1%O-89%W-10%M | 1.410 |
| 120.00 | SOCMM-15%O-25%W-60%M | 1.683 |
| 45.00 | Free Oil | 0.631 |
| 0.00 | 60' Gas In Pipe | 0.000 |

Total Length: 285.00 ft

Total Volume: 3.724 bbl

Num Fluid Samples: 0

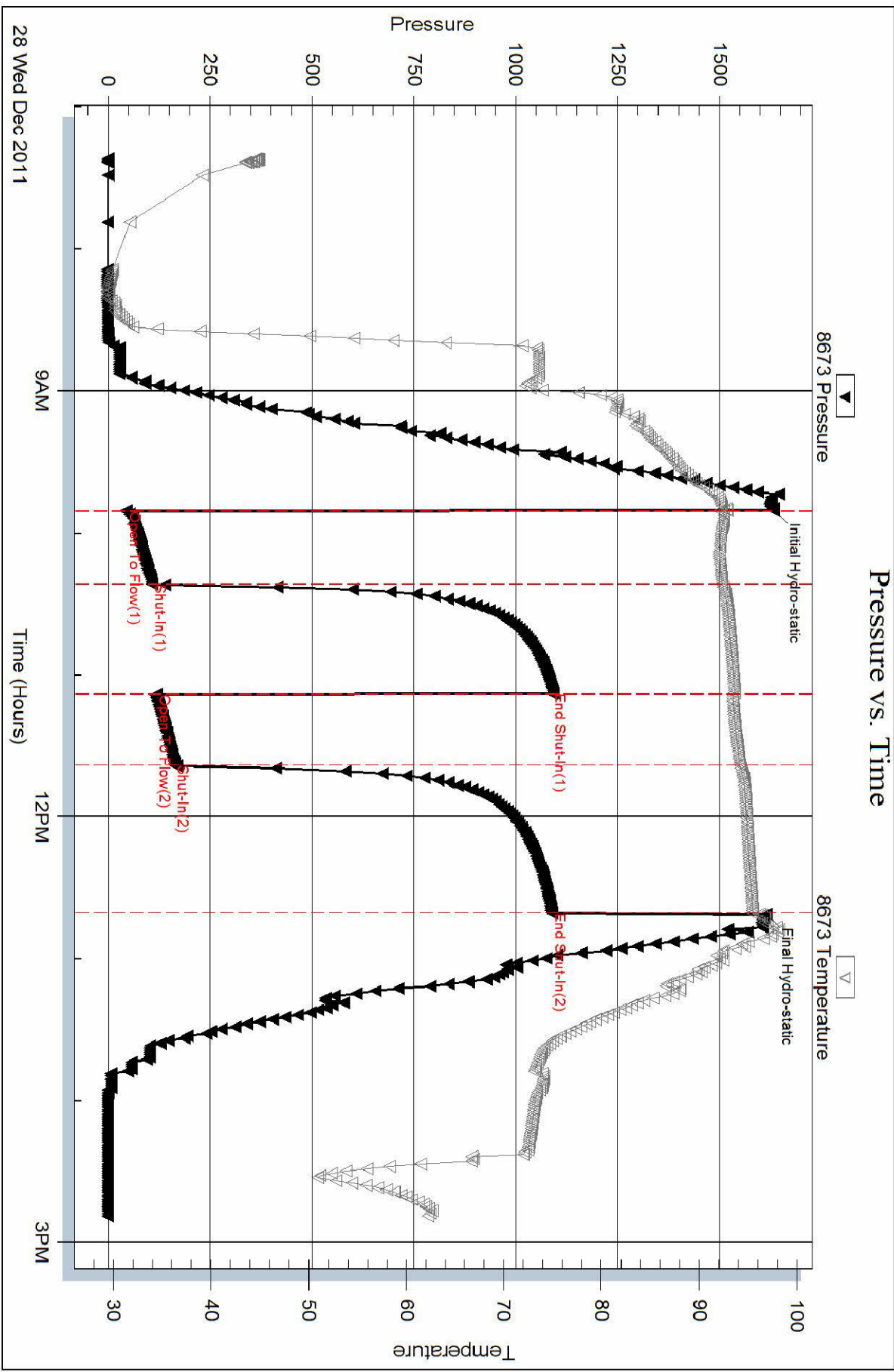
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

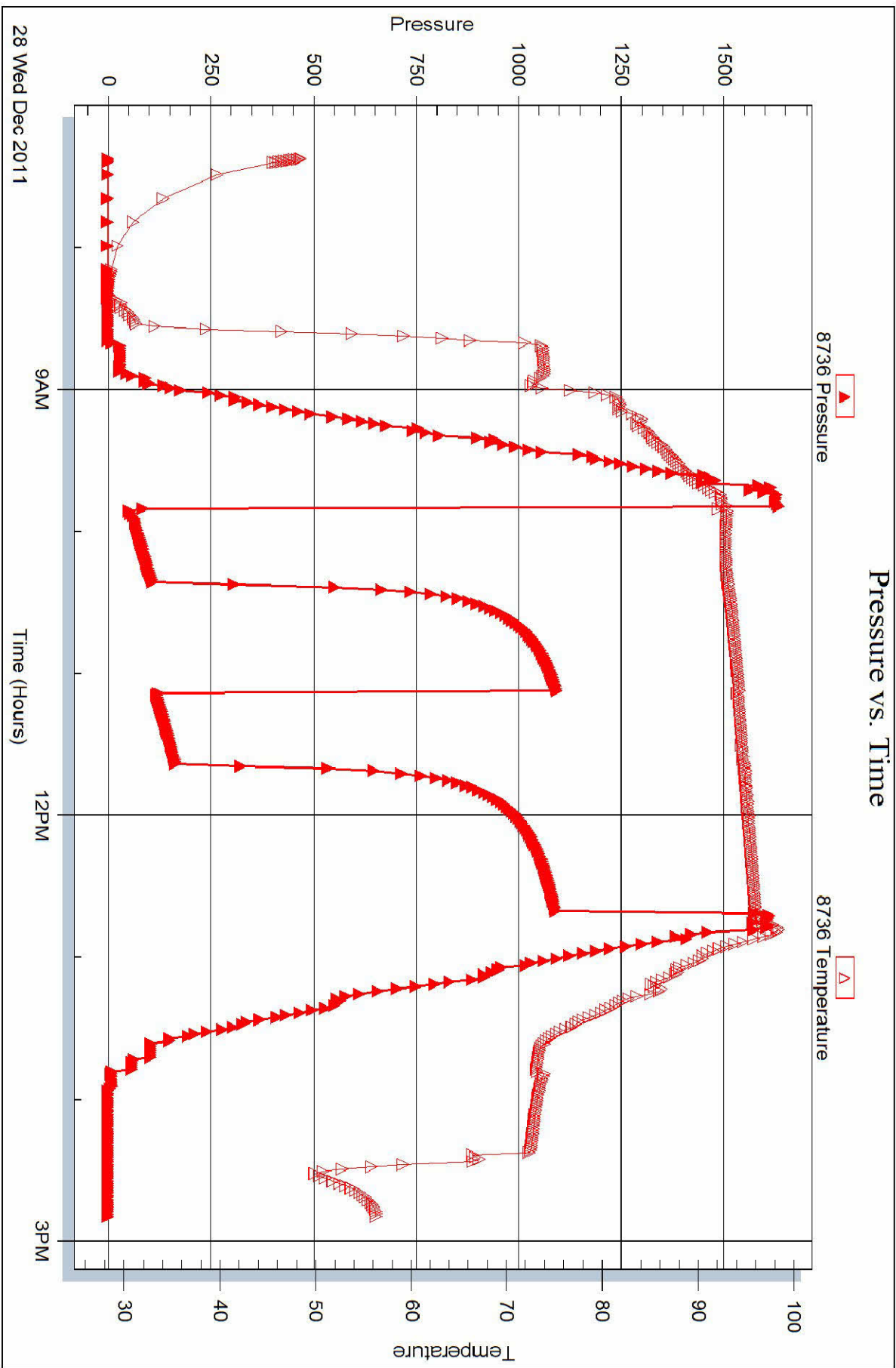


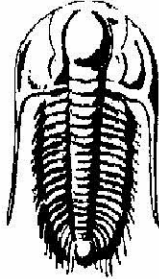
Serial #: 8736

Outside Bach Oil Company

#1 Jessup Unit

DST Test Number: 2





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Bach Oil Company**

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

#1 Jessup Unit

11-1s-19w Phillips,KS

Start Date: 2011.12.28 @ 19:43:30

End Date: 2011.12.29 @ 01:47:15

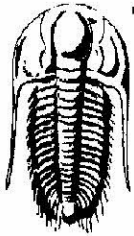
Job Ticket #: 44710 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.06 @ 08:28:36



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44710

DST#: 3

ATTN: Bob Peterson

Test Start: 2011.12.28 @ 19:43:30

GENERAL INFORMATION:

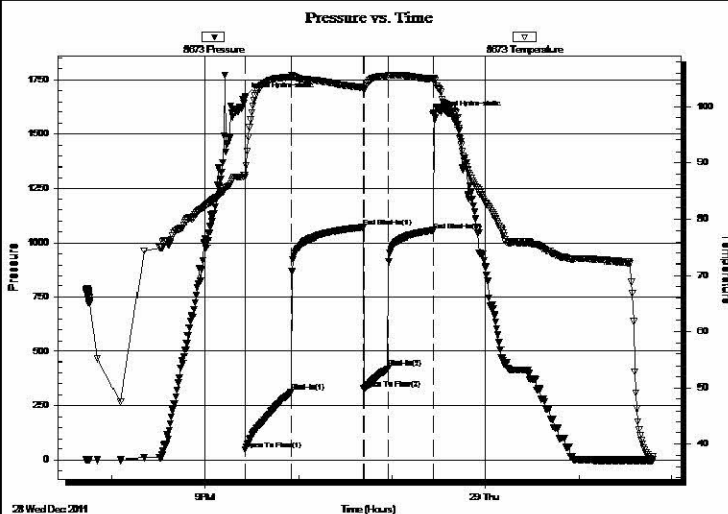
Formation: **F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:25:45
 Time Test Ended: 01:47:15
 Interval: **2214.00 ft (KB) To 3340.00 ft (KB) (TVD)**
 Total Depth: 3340.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jason McLemore
 Unit No: 54
 Reference Elevations: 2026.00 ft (KB)
 2021.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8673

Inside

Press@RunDepth: 422.12 psig @ 3317.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.12.28 End Date: 2011.12.29 Last Calib.: 2011.12.29
 Start Time: 19:43:32 End Time: 01:47:15 Time On Btm: 2011.12.28 @ 21:25:30
 Time Off Btm: 2011.12.28 @ 23:26:45

TEST COMMENT: IFP-Strong, BOB in 2 Min.
 ISI-Dead
 FFP-Strong, BOB in 3-1/2 Min.
 FSI-Dead



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1669.49 | 87.86 | Initial Hydro-static |
| 1 | 48.08 | 87.55 | Open To Flow (1) |
| 30 | 313.91 | 105.31 | Shut-In (1) |
| 76 | 1071.06 | 103.34 | End Shut-In (1) |
| 77 | 327.93 | 103.01 | Open To Flow (2) |
| 92 | 422.12 | 105.47 | Shut-In (2) |
| 121 | 1056.37 | 104.86 | End Shut-In (2) |
| 122 | 1588.35 | 104.99 | Final Hydro-static |

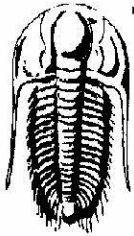
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------------|--------------|
| 825.00 | Muddy Water W/Oil Scum 95%W-5%M | 11.30 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44710

DST#: 3

ATTN: Bob Peterson

Test Start: 2011.12.28 @ 19:43:30

GENERAL INFORMATION:

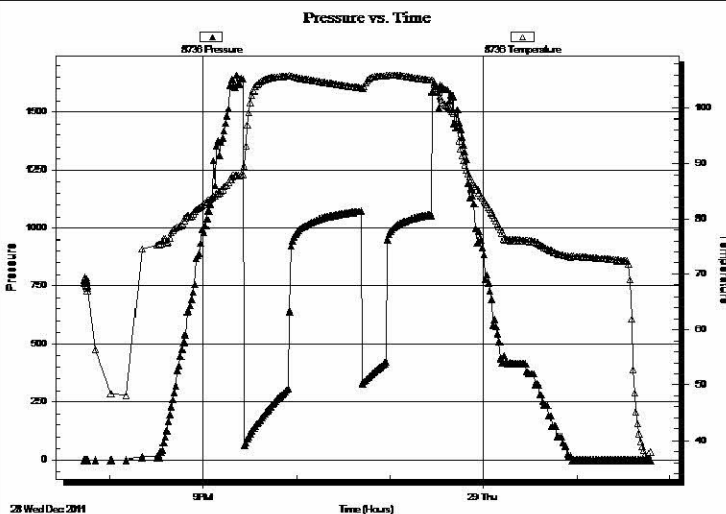
Formation: **F**
 Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole (Reset)**
 Time Tool Opened: **21:25:45** Tester: **Jason McLemore**
 Time Test Ended: **01:47:15** Unit No: **54**
 Interval: **2214.00 ft (KB) To 3340.00 ft (KB) (TVD)** Reference Elevations: **2026.00 ft (KB)**
 Total Depth: **3340.00 ft (KB) (TVD)** **2021.00 ft (CF)**
 Hole Diameter: **7.88 inches** Hole Condition: **Good** KB to GR/CF: **5.00 ft**

Serial #: 8736

Outside

Press@RunDepth: **psig @ 3317.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2011.12.28** End Date: **2011.12.29** Last Calib.: **2011.12.29**
 Start Time: **19:43:20** End Time: **01:47:14** Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP-Strong, BOB in 2 Min.
 ISI-Dead
 FFP-Strong, BOB in 3-1/2 Min.
 FSI-Dead



PRESSURE SUMMARY

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

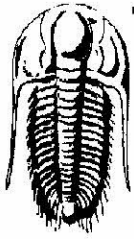
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------------|--------------|
| 825.00 | Muddy Water W/Oil Scum 95%W-5%M | 11.30 |
| | | |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44710

DST#: 3

ATTN: Bob Peterson

Test Start: 2011.12.28 @ 19:43:30

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3263.00 ft | Diameter: 3.80 inches | Volume: 45.77 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: 50000.00 lb |
| | | | <u>Total Volume: 45.92 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 7.00 ft | | | String Weight: Initial 44000.00 lb |
| Depth to Top Packer: | 3314.00 ft | | | Final 48000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 26.00 ft | | | |
| Tool Length: | 54.00 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 | | | 3287.00 | |
| Shut In Tool | 5.00 | | | 3292.00 | |
| Hydraulic tool | 5.00 | | | 3297.00 | |
| Jars | 5.00 | | | 3302.00 | |
| Safety Joint | 2.00 | | | 3304.00 | |
| Packer | 5.00 | | | 3309.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3314.00 | |
| Stubb | 1.00 | | | 3315.00 | |
| Perforations | 2.00 | | | 3317.00 | |
| Recorder | 0.00 | 8673 | Inside | 3317.00 | |
| Recorder | 0.00 | 8736 | Outside | 3317.00 | |
| Perforations | 20.00 | | | 3337.00 | |
| Bullnose | 3.00 | | | 3340.00 | 26.00 Bottom Packers & Anchor |

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44710

DST#: 3

ATTN: Bob Peterson

Test Start: 2011.12.28 @ 19:43:30

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:

32000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------------------------|---------------|
| 825.00 | Muddy Water W/Oil Scum 95%W-5%M | 11.299 |

Total Length: 825.00 ft Total Volume: 11.299 bbl

Num Fluid Samples: 0

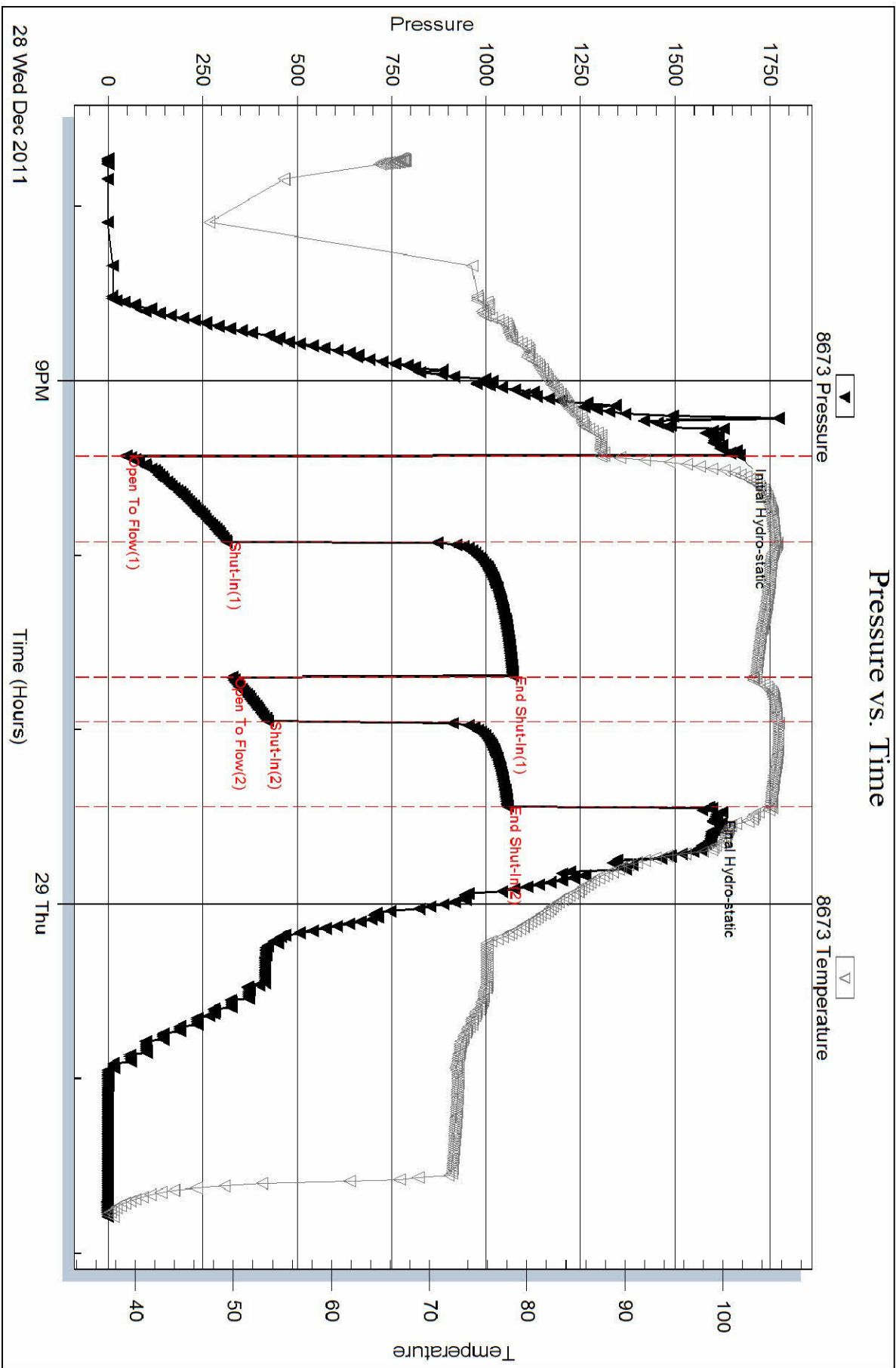
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

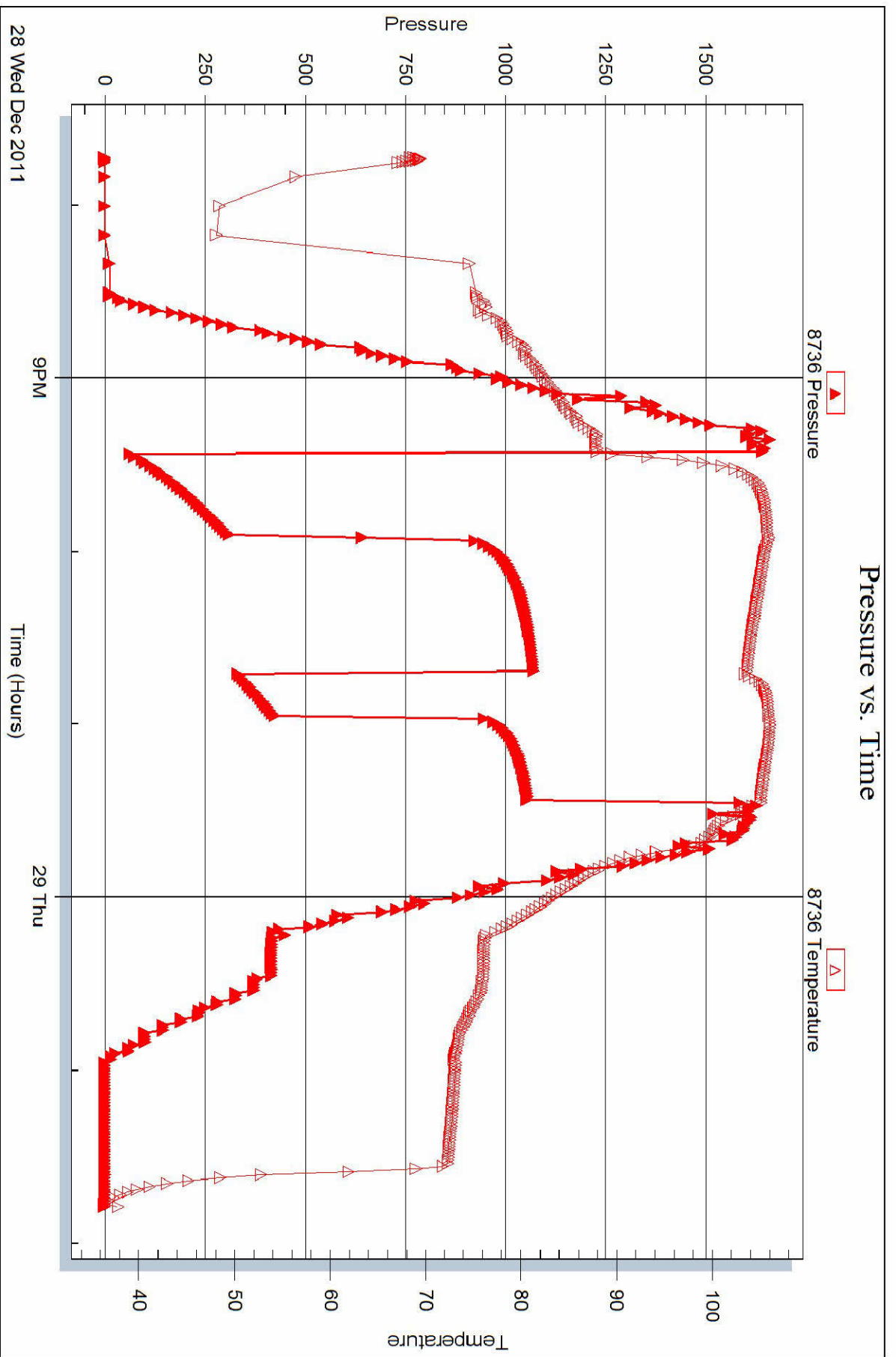


Serial #: 8736

Outside Bach Oil Company

#1 Jessup Unit

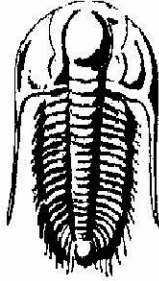
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 44710

Printed: 2012.02.06 @ 08:28:41



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Bach Oil Company**

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

#1 Jessup Unit

11-1s-19w Phillips,KS

Start Date: 2011.12.29 @ 10:20:59

End Date: 2011.12.29 @ 17:15:44

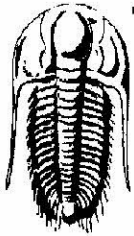
Job Ticket #: 44711 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.06 @ 08:29:51



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44711

DST#: 4

ATTN: Bob Peterson

Test Start: 2011.12.29 @ 10:20:59

GENERAL INFORMATION:

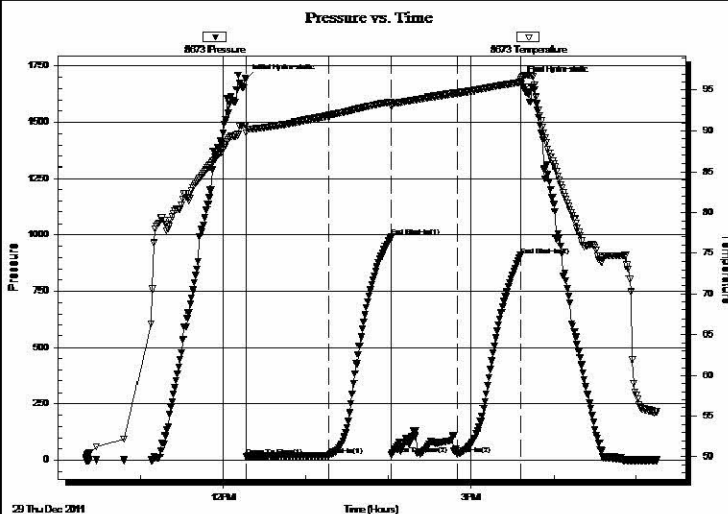
Formation: ""
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:16:59
 Time Test Ended: 17:15:44
 Interval: **3386.00 ft (KB) To 3414.00 ft (KB) (TVD)**
 Total Depth: 3414.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jason McLemore
 Unit No: 54
 Reference Elevations: 2026.00 ft (KB)
 2021.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8673

Inside

Press@RunDepth: 24.12 psig @ 3391.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.12.29 End Date: 2011.12.29 Last Calib.: 2011.12.29
 Start Time: 10:21:01 End Time: 17:15:44 Time On Btm: 2011.12.29 @ 12:16:44
 Time Off Btm: 2011.12.29 @ 15:36:29

TEST COMMENT: IFP-Weak Blow , Built to 1-1/2"
 ISI-Dead
 FFP-Intermittant Surface Blow
 FSI-Dead



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1692.84 | 90.70 | Initial Hydro-static |
| 1 | 15.51 | 89.79 | Open To Flow (1) |
| 61 | 20.65 | 91.90 | Shut-In(1) |
| 105 | 992.77 | 93.58 | End Shut-In(1) |
| 106 | 22.27 | 93.00 | Open To Flow (2) |
| 154 | 24.12 | 94.64 | Shut-In(2) |
| 200 | 908.83 | 95.95 | End Shut-In(2) |
| 200 | 1682.11 | 96.33 | Final Hydro-static |

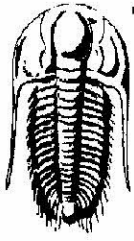
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------|--------------|
| 10.00 | Free Oil | 0.05 |
| 10.00 | HOCM-50%O-50%M | 0.05 |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Bach Oil Company

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

11-1s-19w Phillips,KS

#1 Jessup Unit

Job Ticket: 44711

DST#: 4

Test Start: 2011.12.29 @ 10:20:59

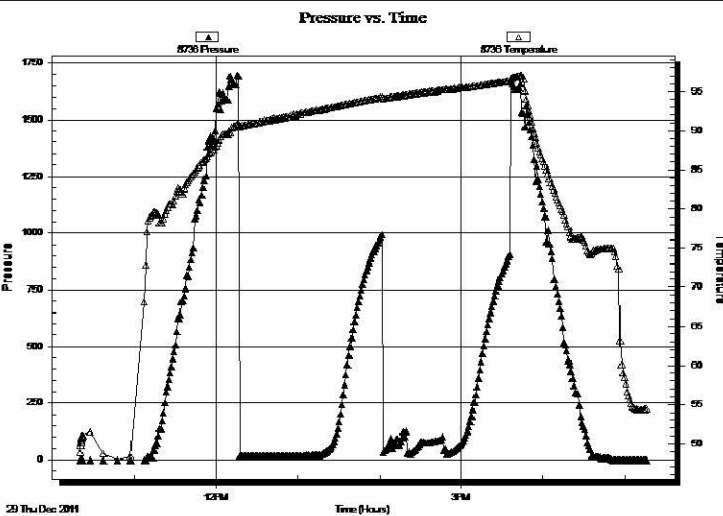
GENERAL INFORMATION:

| | |
|---|---|
| Formation: "I" | Test Type: Conventional Bottom Hole (Reset) |
| Deviated: No Whipstock: ft (KB) | Tester: Jason McLemore |
| Time Tool Opened: 12:16:59 | Unit No: 54 |
| Time Test Ended: 17:15:44 | |
| Interval: 3386.00 ft (KB) To 3414.00 ft (KB) (TVD) | Reference Elevations: 2026.00 ft (KB) |
| Total Depth: 3414.00 ft (KB) (TVD) | 2021.00 ft (CF) |
| Hole Diameter: 7.88 inchesHole Condition: Good | KB to GR/CF: 5.00 ft |

Serial #: 8736 Outside

| | |
|--|-------------------------|
| Press@RunDepth: psig @ 3391.00 ft (KB) | Capacity: 8000.00 psig |
| Start Date: 2011.12.29 | End Date: 2011.12.29 |
| Start Time: 10:20:34 | End Time: 17:15:28 |
| | Last Calib.: 2011.12.29 |
| | Time On Btm: |
| | Time Off Btm: |

TEST COMMENT: IFP-Weak Blow , Built to 1-1/2"
ISI-Dead
FFP-Intermittant Surface Blow
FSI-Dead



PRESSURE SUMMARY

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

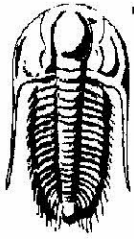
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------|--------------|
| 10.00 | Free Oil | 0.05 |
| 10.00 | HOCM-50%O-50%M | 0.05 |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44711

DST#: 4

ATTN: Bob Peterson

Test Start: 2011.12.29 @ 10:20:59

Tool Information

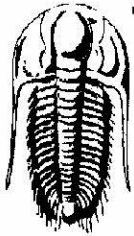
| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3360.00 ft | Diameter: 3.80 inches | Volume: 47.13 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: 55000.00 lb |
| | | | <u>Total Volume: 47.28 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 32.00 ft | | | String Weight: Initial 48000.00 lb |
| Depth to Top Packer: | 3386.00 ft | | | Final 48000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 28.00 ft | | | |
| Tool Length: | 56.00 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 | | | 3359.00 | |
| Shut In Tool | 5.00 | | | 3364.00 | |
| Hydraulic tool | 5.00 | | | 3369.00 | |
| Jars | 5.00 | | | 3374.00 | |
| Safety Joint | 2.00 | | | 3376.00 | |
| Packer | 5.00 | | | 3381.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3386.00 | |
| Stubb | 1.00 | | | 3387.00 | |
| Perforations | 4.00 | | | 3391.00 | |
| Recorder | 0.00 | 8673 | Inside | 3391.00 | |
| Recorder | 0.00 | 8736 | Outside | 3391.00 | |
| Perforations | 20.00 | | | 3411.00 | |
| Bullnose | 3.00 | | | 3414.00 | 28.00 Bottom Packers & Anchor |

Total Tool Length: 56.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Company

11-1s-19w Phillips,KS

PO Box 723
Alma, NE 68920

#1 Jessup Unit

Job Ticket: 44711

DST#: 4

ATTN: Bob Peterson

Test Start: 2011.12.29 @ 10:20:59

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:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|----------------|----------------|
| 10.00 | Free Oil | 0.049 |
| 10.00 | HOCM-50%O-50%M | 0.049 |

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

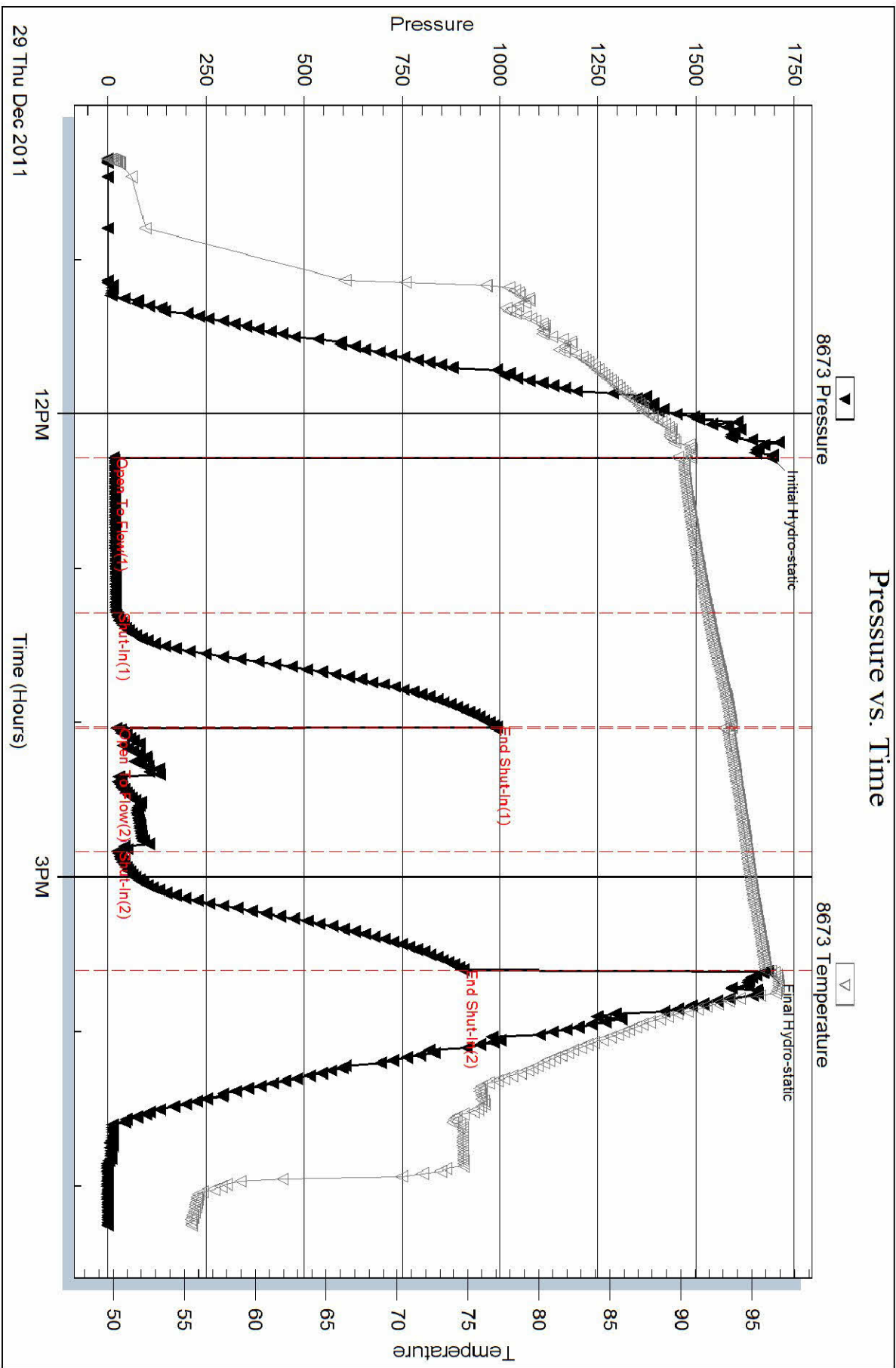
Serial #: 8673

Inside

Bach Oil Company

#1 Jessup Unit

DST Test Number: 4

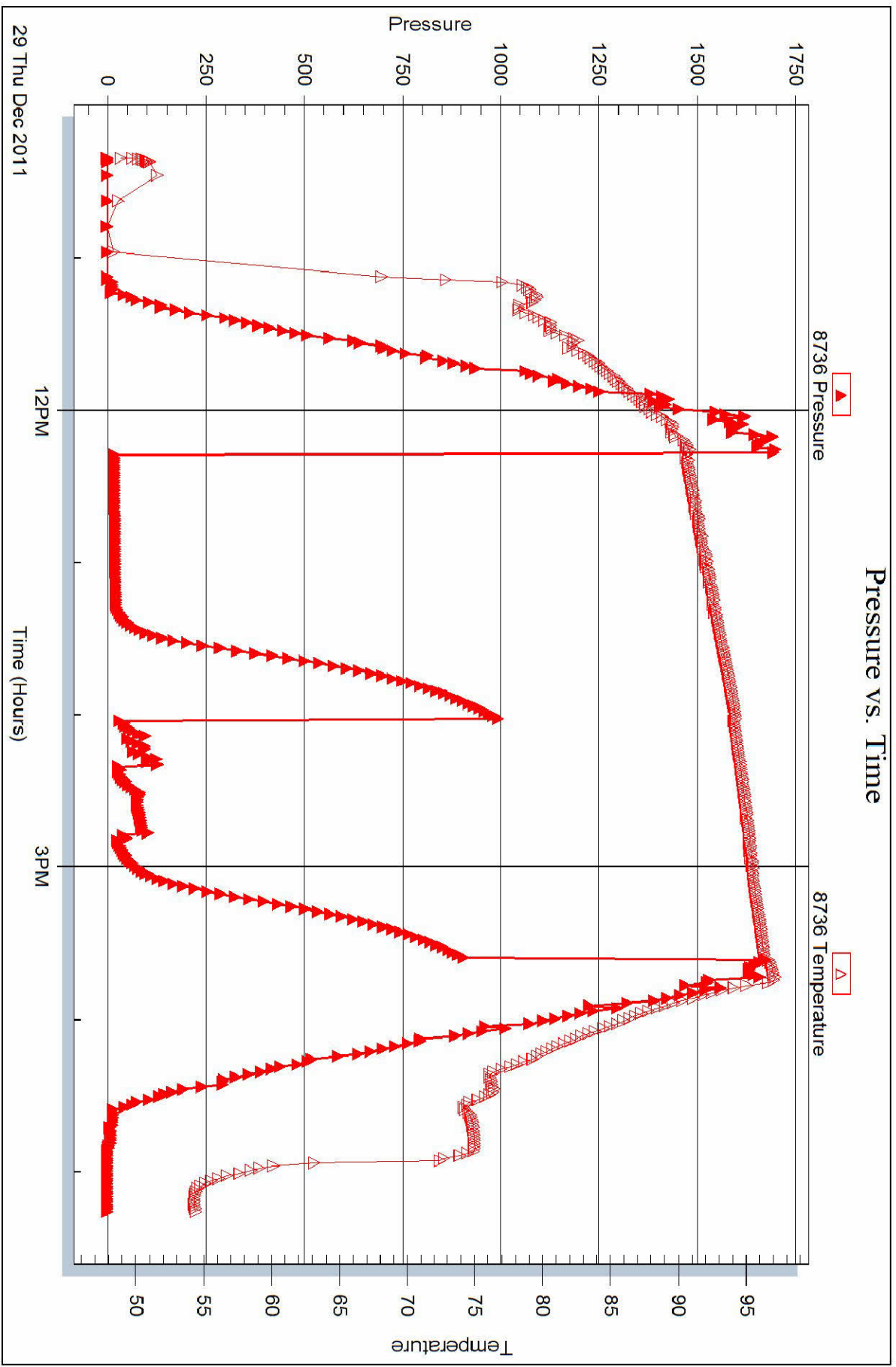


Serial #: 8736

Outside Bach Oil Company

#1 Jessup Unit

DST Test Number: 4



Trilobe Testing, Inc

Ref. No: 44711

Printed: 2012.02.06 @ 08:29:56