



DRILL STEM TEST REPORT

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

10500 E Berkeley SQ Pkwy STE 100
Wichita KS, 67206

ATTN: Kitt Noah

Sproul #29-1

29-4s-22w Norton KS

Start Date: 2014.04.14 @ 14:48:00

End Date: 2014.04.15 @ 00:41:30

Job Ticket #: 54027 DST #: 1

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

Printed: 2014.04.19 @ 12:40:39



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hartman Oil, Inc.
 10500 E Berkeley SQ Pkwy STE 100
 Wichita KS, 67206
 ATTN: Kitt Noah

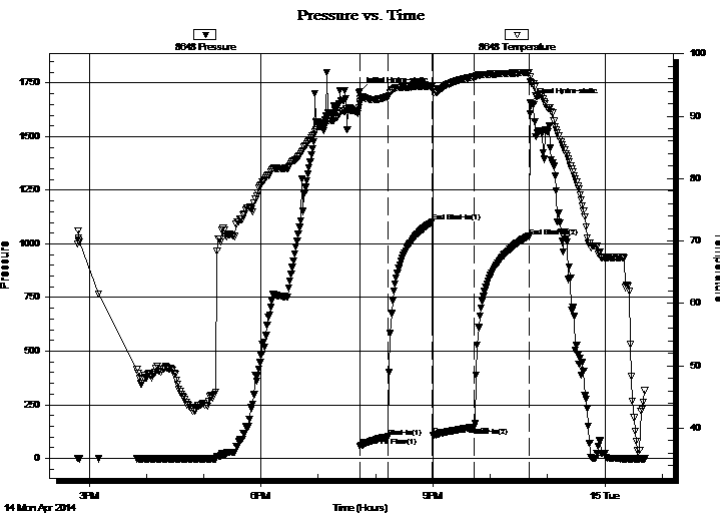
29-4s-22w Norton KS
Sproul #29-1
 Job Ticket: 54027 **DST#: 1**
 Test Start: 2014.04.14 @ 14:48:00

GENERAL INFORMATION:

Formation: **Tor - A**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:43:45
 Time Test Ended: 00:41:30
 Interval: **3415.00 ft (KB) To 3480.00 ft (KB) (TVD)**
 Total Depth: 3480.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Cody Bloedorn
 Unit No: 73
 Reference Elevations: 2274.00 ft (KB)
 2264.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8648 Inside
 Press@RunDepth: 146.44 psig @ 3454.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.14 End Date: 2014.04.15 Last Calib.: 2014.04.15
 Start Time: 14:48:05 End Time: 00:41:30 Time On Btm: 2014.04.14 @ 19:43:30
 Time Off Btm: 2014.04.14 @ 22:42:00

TEST COMMENT: 30 - IF- 6" blow
 45 - IS- No return
 45 - FF- 1" blow
 60 - FS- No return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1710.83 | 92.30 | Initial Hydro-static |
| 1 | 55.59 | 91.99 | Open To Flow (1) |
| 30 | 100.91 | 93.14 | Shut-In(1) |
| 76 | 1101.65 | 94.84 | End Shut-In(1) |
| 77 | 106.35 | 94.34 | Open To Flow (2) |
| 120 | 146.44 | 96.32 | Shut-In(2) |
| 177 | 1032.63 | 97.01 | End Shut-In(2) |
| 179 | 1655.88 | 95.59 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 140.00 | Mud, 100%M | 0.69 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil, Inc.

29-4s-22w Norton KS

10500 E Berkeley SQ Pkwy STE 100
Wichita KS, 67206

Sproul #29-1

Job Ticket: 54027

DST#: 1

ATTN: Kitt Noah

Test Start: 2014.04.14 @ 14:48:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3174.00 ft | Diameter: 3.80 inches | Volume: 44.52 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: 30000.00 lb |
| Drill Collar: | Length: 240.00 ft | Diameter: 2.25 inches | Volume: 1.18 bbl | Weight to Pull Loose: 70000.00 lb |
| | | | <u>Total Volume: 45.70 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 28.00 ft | | | String Weight: Initial 59000.00 lb |
| Depth to Top Packer: | 3415.00 ft | | | Final 59000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 65.00 ft | | | |
| Tool Length: | 94.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments: slid 10' to bottom.

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|---------------------------|--------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3387.00 | |
| Shut In Tool | 5.00 | | | 3392.00 | |
| Hydraulic tool | 5.00 | | | 3397.00 | |
| Jars | 5.00 | | | 3402.00 | |
| Safety Joint | 3.00 | | | 3405.00 | |
| Packer | 5.00 | | | 3410.00 | 29.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3415.00 | |
| Stubb | 1.00 | | | 3416.00 | |
| Perforations | 5.00 | | | 3421.00 | |
| Change Over Sub | 1.00 | | | 3422.00 | |
| Drill Pipe | 31.00 | | | 3453.00 | |
| Change Over Sub | 1.00 | | | 3454.00 | |
| Recorder | 0.00 | 8648 | Inside | 3454.00 | |
| Recorder | 0.00 | 8940 | Outside | 3454.00 | |
| Perforations | 23.00 | | | 3477.00 | |
| Bullnose | 3.00 | | | 3480.00 | 65.00 Bottom Packers & Anchor |
| Total Tool Length: | 94.00 | | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil, Inc.

29-4s-22w Norton KS

10500 E Berkeley SQ Pkw y STE 100
Wichita KS, 67206

Sproul #29-1

Job Ticket: 54027

DST#: 1

ATTN: Kitt Noah

Test Start: 2014.04.14 @ 14:48:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 140.00 | Mud, 100%M | 0.688 |

Total Length: 140.00 ft Total Volume: 0.688 bbl

Num Fluid Samples: 0

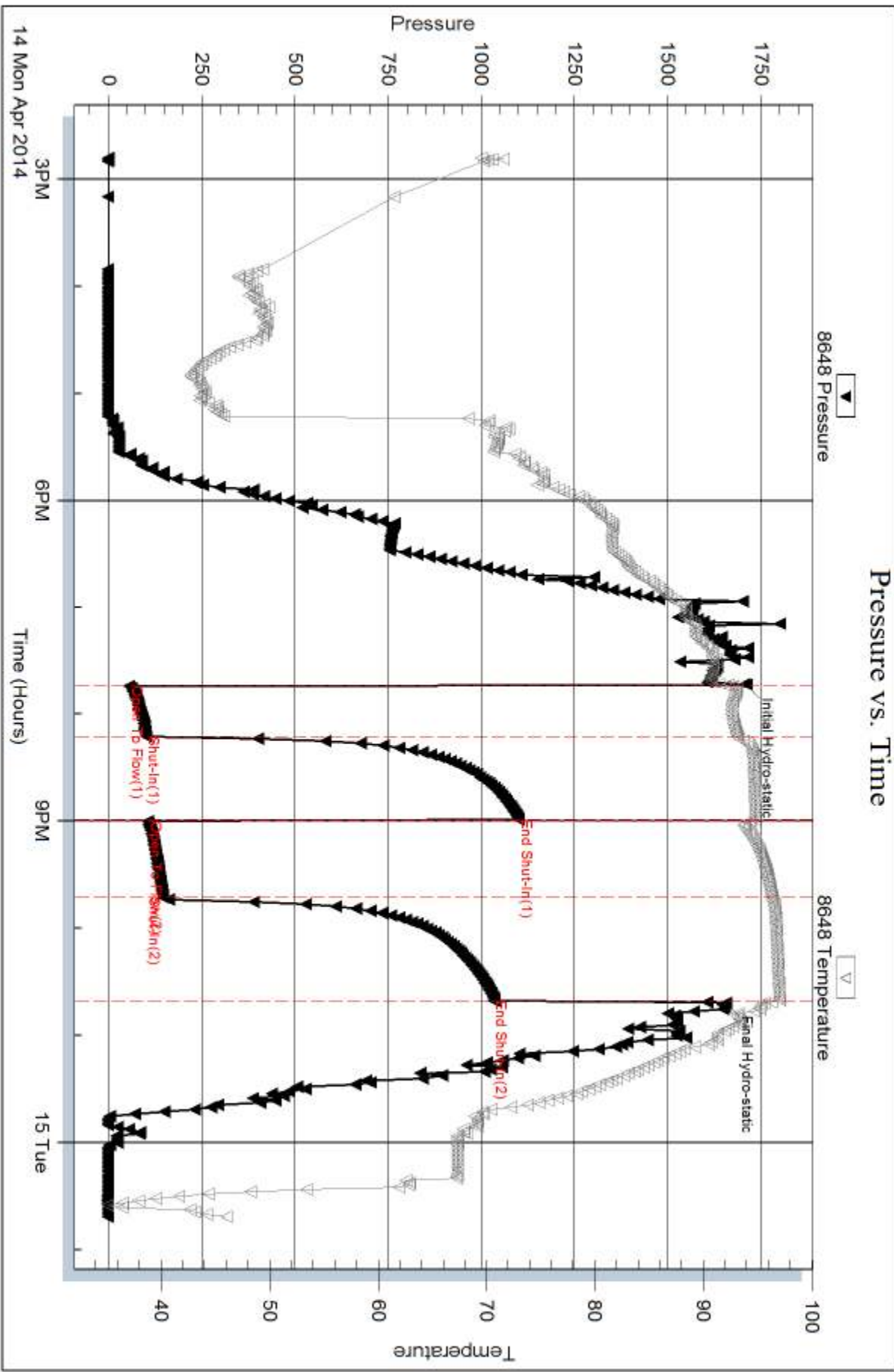
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

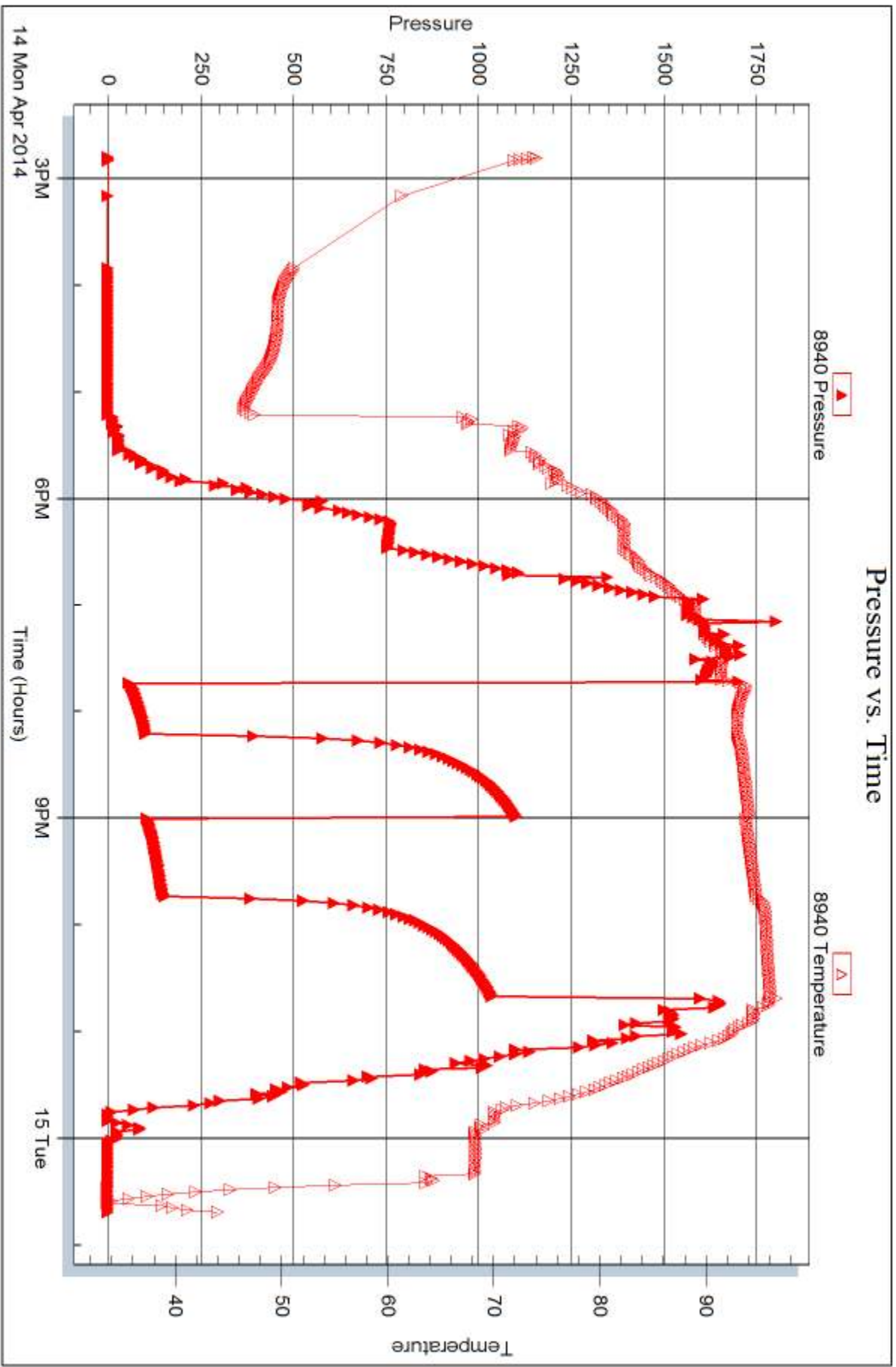


Serial #: 8940

Outside Hartman Oil, Inc.

Sprout #29-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54027

Printed: 2014.04.19 @ 12:40:41



DRILL STEM TEST REPORT

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

10500 E Berkeley SQ Pkwy STE 100
Wichita KS, 67206

ATTN: Kitt Noah

Sproul #29-1

29-4s-22w Norton KS

Start Date: 2014.04.16 @ 03:00:00

End Date: 2014.04.16 @ 10:37:30

Job Ticket #: 54028 DST #: 2

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

Printed: 2014.04.19 @ 12:40:11

Hartman Oil, Inc. 29-4s-22w Norton KS Sproul #29-1 DST # 2 Gorham Sand 2014.04.16



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hartman Oil, Inc.
 10500 E Berkeley SQ Pkwy STE 100
 Wichita KS, 67206
 ATTN: Kitt Noah

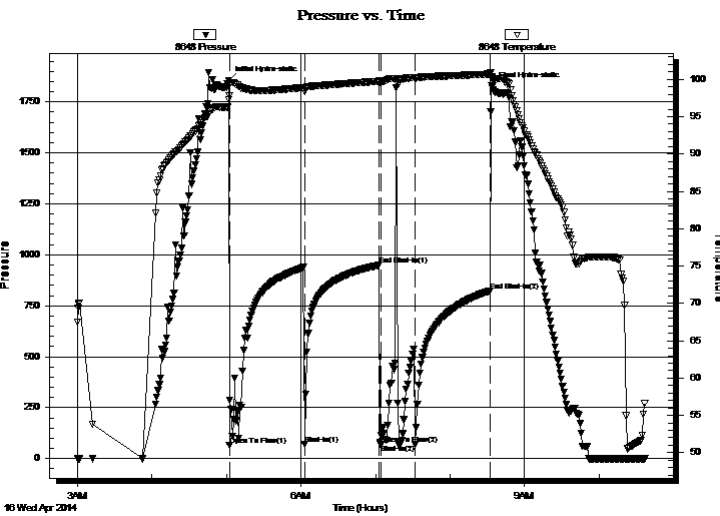
29-4s-22w Norton KS
Sproul #29-1
 Job Ticket: 54028 **DST#: 2**
 Test Start: 2014.04.16 @ 03:00:00

GENERAL INFORMATION:

Formation: **Gorham Sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:02:15
 Time Test Ended: 10:37:30
 Interval: **3711.00 ft (KB) To 3723.00 ft (KB) (TVD)**
 Total Depth: 3723.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Cody Bloedorn
 Unit No: 73
 Reference Elevations: 2274.00 ft (KB)
 2264.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8648 Inside
 Press@RunDepth: 67.65 psig @ 3712.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.16 End Date: 2014.04.16 Last Calib.: 2014.04.16
 Start Time: 03:00:05 End Time: 10:37:29 Time On Btm: 2014.04.16 @ 05:01:45
 Time Off Btm: 2014.04.16 @ 08:33:30

TEST COMMENT: 60 - IF- 3 1/2" in 20 minutes, died back to a 2 1/2" blow , surged 1st 20 Minutes
 60 - IS- No return
 30 - FF- No blow for 10 minutes, flushed tool. Surged and died
 60 - FS- No return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1855.65 | 97.25 | Initial Hydro-static |
| 1 | 64.47 | 97.87 | Open To Flow (1) |
| 61 | 70.77 | 98.39 | Shut-In(1) |
| 121 | 948.83 | 99.76 | End Shut-In(1) |
| 123 | 67.95 | 99.59 | Open To Flow (2) |
| 150 | 67.65 | 100.03 | Shut-In(2) |
| 211 | 823.61 | 100.71 | End Shut-In(2) |
| 212 | 1827.22 | 100.32 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 70.00 | Mud, 100%M | 0.34 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil, Inc.

29-4s-22w Norton KS

10500 E Berkeley SQ Pkwy STE 100
Wichita KS, 67206

Sproul #29-1

Job Ticket: 54028

DST#: 2

ATTN: Kitt Noah

Test Start: 2014.04.16 @ 03:00:00

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 3455.00 ft | Diameter: 3.80 inches | Volume: 48.46 bbl | Tool Weight: | 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: | 30000.00 lb |
| Drill Collar: | Length: 240.00 ft | Diameter: 2.25 inches | Volume: 1.18 bbl | Weight to Pull Loose: | 70000.00 lb |
| | | | <u>Total Volume: 49.64 bbl</u> | Tool Chased | 8.00 ft |
| Drill Pipe Above KB: | 5.00 ft | | | String Weight: Initial | 60000.00 lb |
| Depth to Top Packer: | 3711.00 ft | | | Final | 60000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 12.00 ft | | | | |
| Tool Length: | 33.00 ft | | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | | |

Tool Comments: slid 8' to bottom, on first open, started out surging for first 20 minutes

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|---------------------------|--------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3691.00 | |
| Shut In Tool | 5.00 | | | 3696.00 | |
| Hydraulic tool | 5.00 | | | 3701.00 | |
| Packer | 5.00 | | | 3706.00 | 21.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3711.00 | |
| Stubb | 1.00 | | | 3712.00 | |
| Recorder | 0.00 | 8648 | Inside | 3712.00 | |
| Recorder | 0.00 | 8940 | Outside | 3712.00 | |
| Perforations | 8.00 | | | 3720.00 | |
| Bullnose | 3.00 | | | 3723.00 | 12.00 Bottom Packers & Anchor |
| Total Tool Length: | 33.00 | | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil, Inc.

29-4s-22w Norton KS

10500 E Berkeley SQ Pkw y STE 100
Wichita KS, 67206

Sproul #29-1

Job Ticket: 54028

DST#: 2

ATTN: Kitt Noah

Test Start: 2014.04.16 @ 03:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 70.00 | Mud, 100%M | 0.344 |

Total Length: 70.00 ft Total Volume: 0.344 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

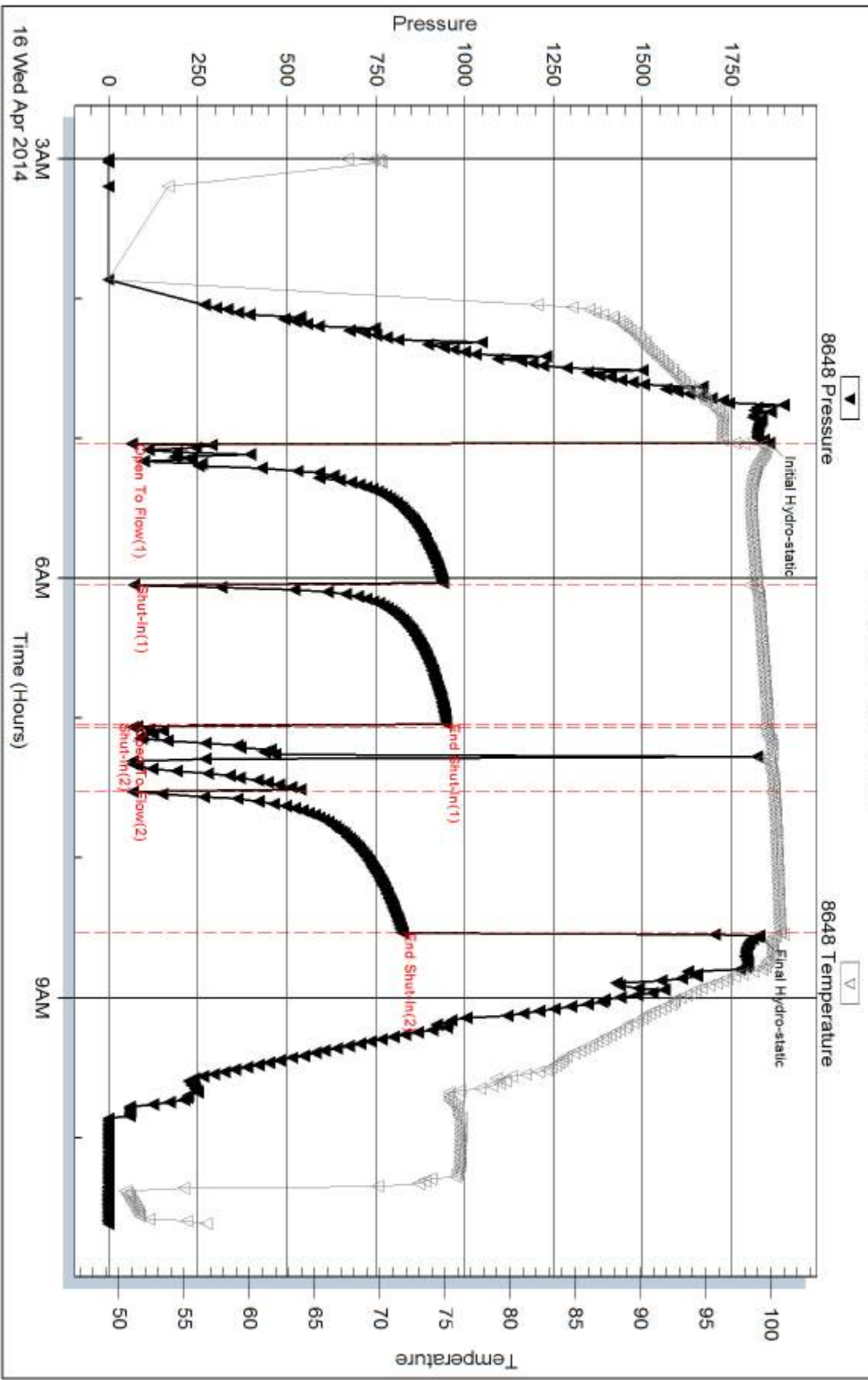
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

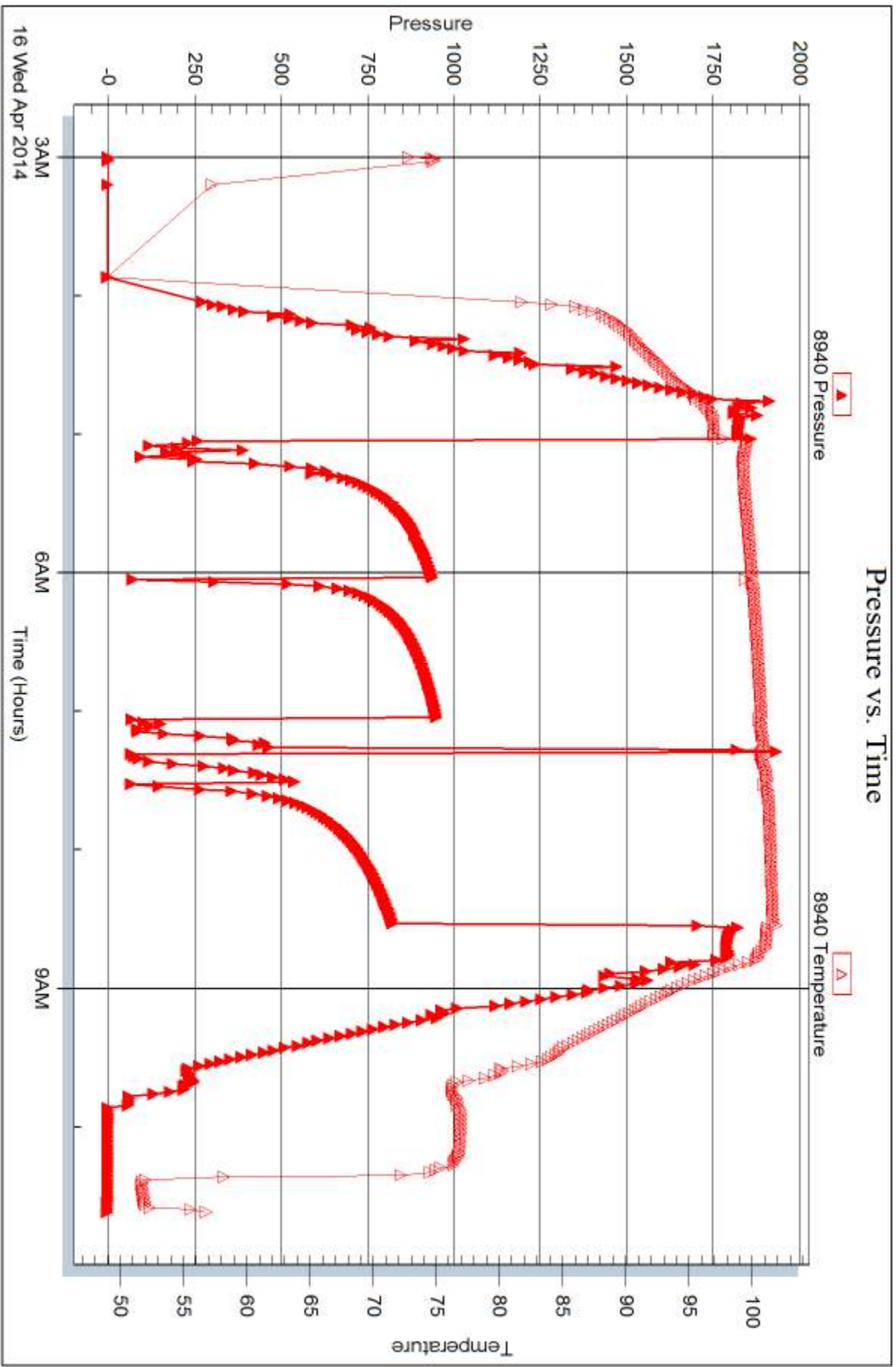


Serial #: 8940

Outside Hartman Oil, Inc.

Sprout #29-1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 54028

Printed: 2014.04.19 @ 12:40:14



DRILL STEM TEST REPORT

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

10500 E Berkeley SQ Pkwy STE 100
Wichita KS, 67206

ATTN: Kitt Noah

Sproul #29-1

29-4s-22w Norton KS

Start Date: 2014.04.16 @ 19:30:00

End Date: 2014.04.17 @ 02:46:45

Job Ticket #: 54029 DST #: 3

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

Printed: 2014.04.19 @ 12:39:21



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hartman Oil, Inc.
 10500 E Berkeley SQ Pkw y STE 100
 Wichita KS, 67206
 ATTN: Kitt Noah

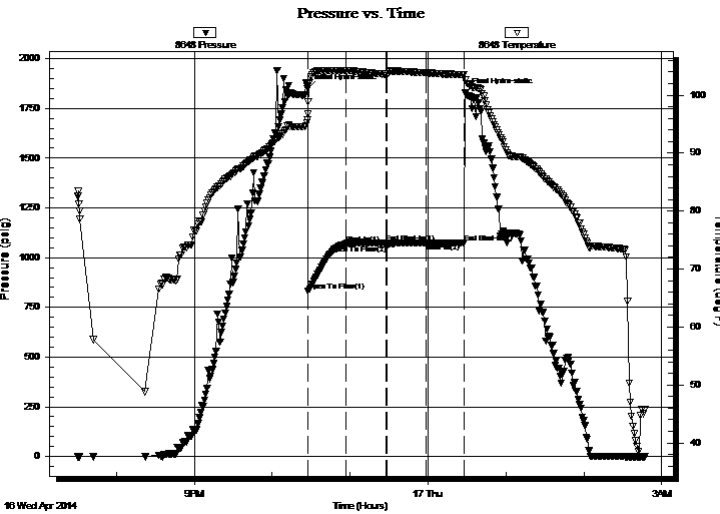
29-4s-22w Norton KS
Sproul #29-1
 Job Ticket: 54029 **DST#: 3**
 Test Start: 2014.04.16 @ 19:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:27:30
 Time Test Ended: 02:46:45
 Interval: **3725.00 ft (KB) To 3741.00 ft (KB) (TVD)**
 Total Depth: 3741.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Cody Bloedorn
 Unit No: 73
 Reference Elevations: 2274.00 ft (KB)
 2264.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8648 Inside
 Press@RunDepth: 1074.02 psig @ 3726.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.16 End Date: 2014.04.17 Last Calib.: 2014.04.17
 Start Time: 19:30:05 End Time: 02:46:44 Time On Btm: 2014.04.16 @ 22:27:00
 Time Off Btm: 2014.04.17 @ 00:28:45

TEST COMMENT: 30 - IF- B.O.B. instantly
 30 - IS- No return
 30 - FF- 6" blow
 30 - FS- No return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1849.12 | 95.74 | Initial Hydro-static |
| 1 | 831.29 | 96.73 | Open To Flow (1) |
| 30 | 1067.47 | 104.23 | Shut-In(1) |
| 61 | 1073.58 | 103.63 | End Shut-In(1) |
| 61 | 1064.77 | 103.62 | Open To Flow (2) |
| 92 | 1074.02 | 103.83 | Shut-In(2) |
| 121 | 1074.17 | 103.52 | End Shut-In(2) |
| 122 | 1829.96 | 102.61 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------|--------------|
| 124.00 | MW, 30%M, 70%W | 0.61 |
| 1426.00 | MW, 5%M, 95%W | 18.95 |
| 310.00 | WM, 10%W, 90%M | 4.35 |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Hartman Oil, Inc.
 10500 E Berkeley SQ Pkw y STE 100
 Wichita KS, 67206
 ATTN: Kitt Noah

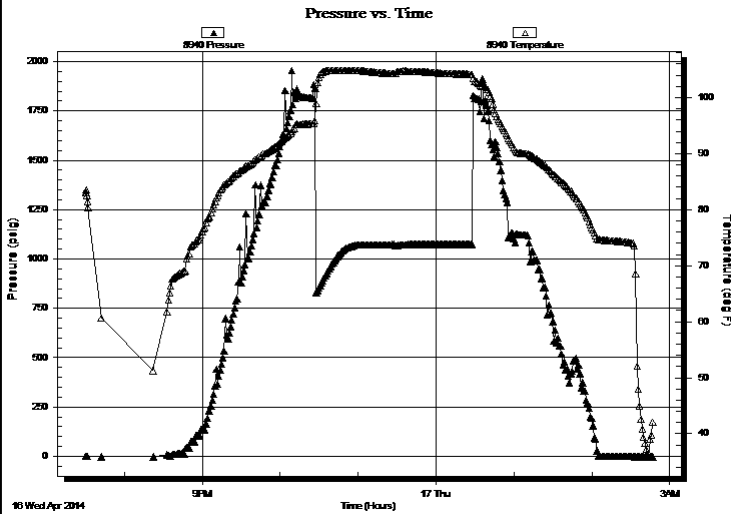
29-4s-22w Norton KS
Sproul #29-1
 Job Ticket: 54029 **DST#: 3**
 Test Start: 2014.04.16 @ 19:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:27:30
 Time Test Ended: 02:46:45
 Interval: **3725.00 ft (KB) To 3741.00 ft (KB) (TVD)**
 Total Depth: 3741.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Cody Bloedorn
 Unit No: 73
 Reference Elevations: 2274.00 ft (KB)
 2264.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8940 Outside
 Press@RunDepth: psig @ 3726.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.16 End Date: 2014.04.17 Last Calib.: 2014.04.17
 Start Time: 19:30:05 End Time: 02:46:44 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 - IF- B.O.B. instantly
 30 - ISI- No return
 30 - FF- 6" blow
 30 - FSI- No return



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------|--------------|
| 124.00 | MW, 30%M, 70%W | 0.61 |
| 1426.00 | MW, 5%M, 95%W | 18.95 |
| 310.00 | WM, 10%W, 90%M | 4.35 |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil, Inc.

29-4s-22w Norton KS

10500 E Berkeley SQ Pkwy STE 100
Wichita KS, 67206

Sproul #29-1

Job Ticket: 54029

DST#: 3

ATTN: Kitt Noah

Test Start: 2014.04.16 @ 19:30:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3486.00 ft | Diameter: 3.80 inches | Volume: 48.90 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: 30000.00 lb |
| Drill Collar: | Length: 240.00 ft | Diameter: 2.25 inches | Volume: 1.18 bbl | Weight to Pull Loose: 75000.00 lb |
| | | | <u>Total Volume: 50.08 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 30.00 ft | | | String Weight: Initial 59000.00 lb |
| Depth to Top Packer: | 3725.00 ft | | | Final 70000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 16.00 ft | | | |
| Tool Length: | 45.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments: went straight to bottom.

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

| | | | | | |
|-----------------|-------|------|---------|---------|-------------------------------|
| Change Over Sub | 1.00 | | | 3697.00 | |
| Shut In Tool | 5.00 | | | 3702.00 | |
| Hydraulic tool | 5.00 | | | 3707.00 | |
| Jars | 5.00 | | | 3712.00 | |
| Safety Joint | 3.00 | | | 3715.00 | |
| Packer | 5.00 | | | 3720.00 | 29.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3725.00 | |
| Stubb | 1.00 | | | 3726.00 | |
| Recorder | 0.00 | 8648 | Inside | 3726.00 | |
| Recorder | 0.00 | 8940 | Outside | 3726.00 | |
| Perforations | 12.00 | | | 3738.00 | |
| Bullnose | 3.00 | | | 3741.00 | 16.00 Bottom Packers & Anchor |

Total Tool Length: 45.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil, Inc.

29-4s-22w Norton KS

10500 E Berkeley SQ Pkw y STE 100
Wichita KS, 67206

Sproul #29-1

Job Ticket: 54029

DST#: 3

ATTN: Kitt Noah

Test Start: 2014.04.16 @ 19:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

56000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|----------------|----------------|
| 124.00 | MW, 30%M, 70%W | 0.610 |
| 1426.00 | MW, 5%M, 95%W | 18.946 |
| 310.00 | WM, 10%W, 90%M | 4.348 |

Total Length: 1860.00 ft Total Volume: 23.904 bbl

Num Fluid Samples: 0

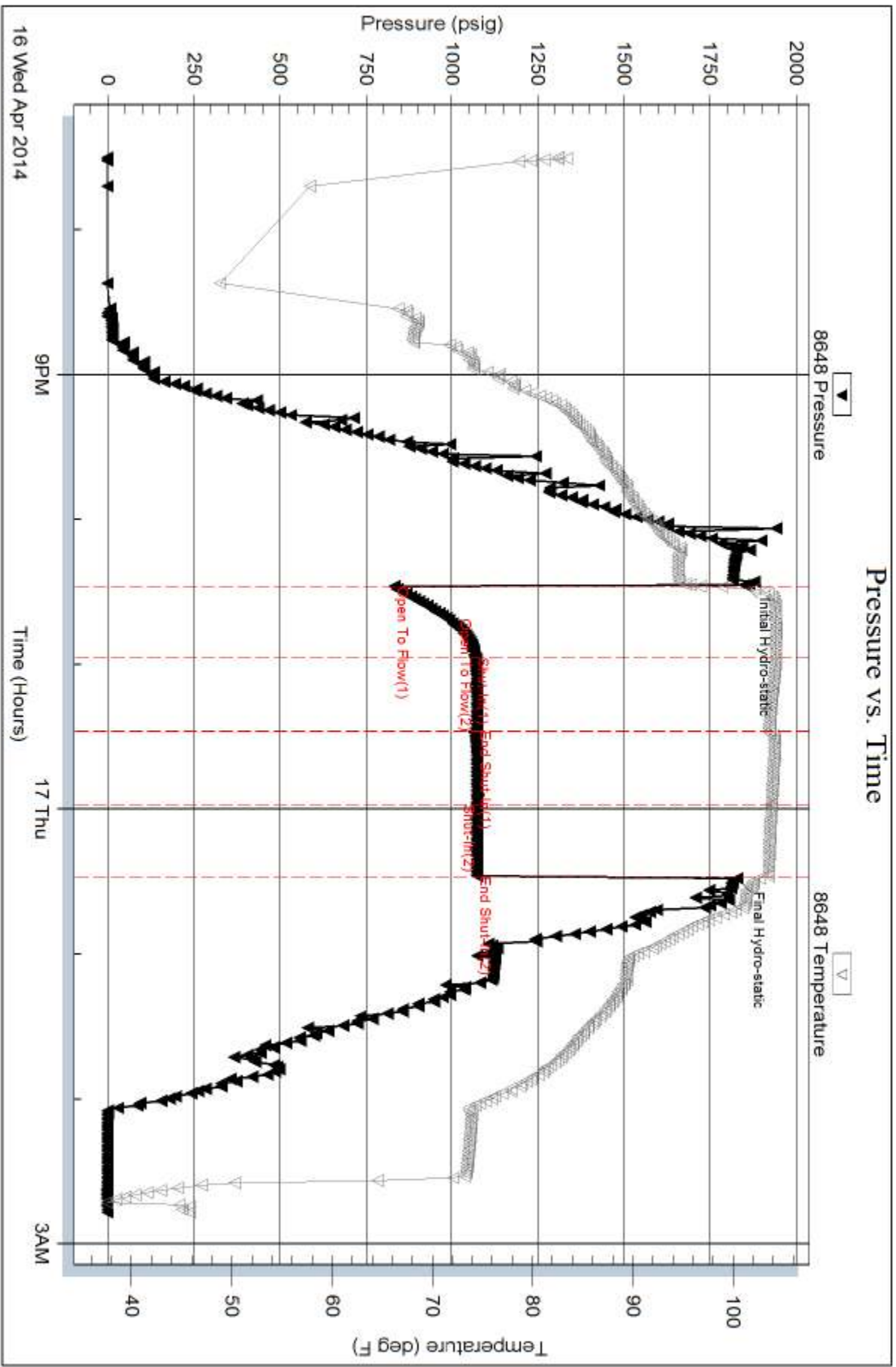
Num Gas Bombs: 0

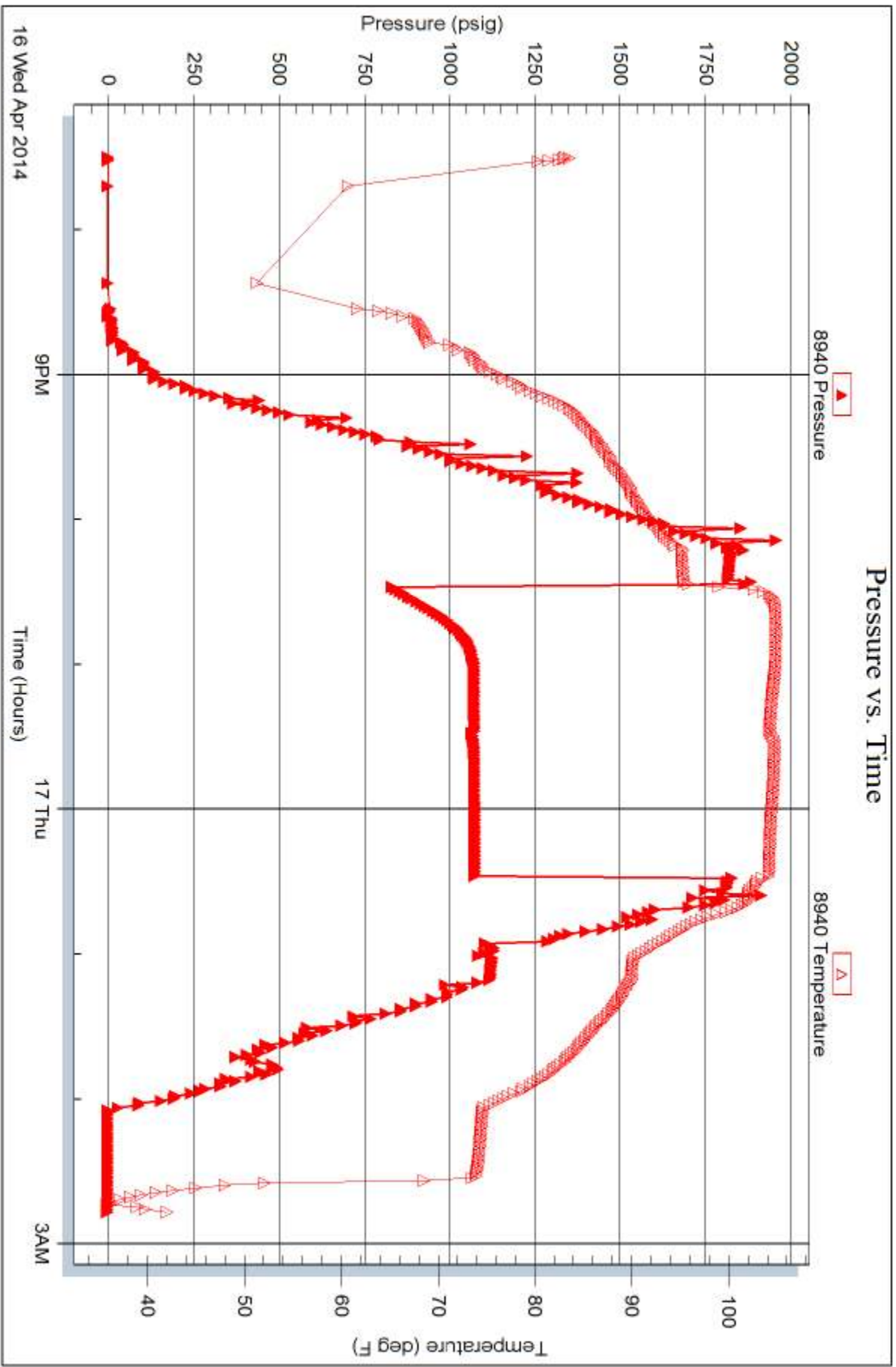
Serial #:

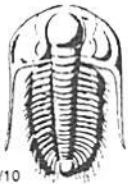
Laboratory Name:

Laboratory Location:

Recovery Comments: Chlorides: .24 @ 41 Degrees = 56,000







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54027

Well Name & No. Sprawl 29-1 Test No. 1 Date 4-14-14
 Company Hartman Oil Co., Inc Elevation 2274 KB 2264 GL
 Address 10500 E Berkeley Sq Pkway Ste 100, Wichita KS, 67206
 Co. Rep / Geo. Chris Peters Rig H2 #2
 Location: Sec. 29 Twp. 4s Rge. 22w Co. Norton State KS

Interval Tested 3415 - 3480 Zone Tested Tor - "A"
 Anchor Length 65' Drill Pipe Run 3174' Mud Wt. 8.9
 Top Packer Depth 3410 Drill Collars Run 240' Vis 51
 Bottom Packer Depth 3415 Wt. Pipe Run — WL 5.4
 Total Depth 3480 Chlorides 500 ppm System LCM —

Blow Description IF-6" blow
ISI - No return
FF-1" blow
FSI - No return

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|------------|------|------|------------|------|
| <u>140</u> | <u>Mud</u> | | | <u>100</u> | |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 140' BHT 97° Gravity — API RW — @ — °F Chlorides — ppm

| | | |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>1710</u> | <input checked="" type="checkbox"/> Test <u>1150</u> | T-On Location <u>1425</u> |
| (B) First Initial Flow <u>55</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>1448</u> |
| (C) First Final Flow <u>100</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>1945</u> |
| (D) Initial Shut-In <u>1101</u> | <input type="checkbox"/> Circ Sub | T-Pulled <u>2215</u> |
| (E) Second Initial Flow <u>106</u> | <input checked="" type="checkbox"/> Hourly Standby | T-Out <u>1242</u> |
| (F) Second Final Flow <u>146</u> | <input checked="" type="checkbox"/> Mileage <u>174RT 96rt 148.80</u> | Comments |
| (G) Final Shut-In <u>1032</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>1655</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |

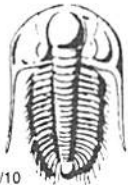
Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60

Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility No stairs 150
 Sub Total 1773.80

Sub Total 0
 Total 1773.80
 MP/DST Disc't

Approved By _____ Our Representative Cody Black

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54028

Well Name & No. Sprawl 29-1 Test No. 2 Date 4-16-14
 Company Hartman Oil Co Inc Elevation 2274 KB 2264 GL
 Address 10500 E. Berkley SQ PKWY Ste 100, Wichita KS, 67601
 Co. Rep / Geo. Kitt Noah Rig H2 #2
 Location: Sec. 29 Twp. 4s Rge. 22w Co. Norton State KS

Interval Tested 3711 - 3723 Zone Tested Gorham Sand
 Anchor Length 12' Drill Pipe Run 3455' Mud Wt. 9.1
 Top Packer Depth 3706 Drill Collars Run 240' Vis 55
 Bottom Packer Depth 3711 Wt. Pipe Run — WL 6.0
 Total Depth 3723 Chlorides 700 ppm System LCM 2#

Blow Description IF - 3 1/2" blow @ 20 minutes, died back to a 2 1/2" blow. Surged 1st 20 min.
ISI - No return
FF - No blow for 10 minutes, flushed tool. Surged & died
FSI - No return

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|------------|------|------|------------|------|
| <u>70</u> | <u>Mud</u> | | | <u>100</u> | |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

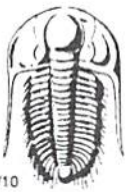
Rec Total 70' BHT 100° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1855 Test 950 T-On Location 0242
 (B) First Initial Flow 64 ~~Start~~ T-Started 3:00
 (C) First Final Flow 70 ~~Start/Noisy~~ T-Open 0504
 (D) Initial Shut-In 948 Circ Sub T-Pulled 0834
 (E) Second Initial Flow 67 Hourly Standby T-Out 1039
 (F) Second Final Flow 67 Mileage 174RT 148.80 Comments Did NOT run -
 (G) Final Shut-In 823 Sampler Jars or Joints?
 (H) Final Hydrostatic 1827 Straddle Ruined Shale Packer

Initial Open 60 Shale Packer Ruined Packer
 Initial Shut-In 60 Extra Packer Extra Copies
 Final Flow 30 Extra Recorder Sub Total 66.67
 Final Shut-In 60 Day Standby 1d 2h Total 1315.47
 Accessibility 150 MP/DST Disc't
 Sub Total 1248.80

Approved By _____ Our Representative Cody Blue

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54029

Well Name & No. Sprawl 29-1 Test No. 3 Date 4-16-14
 Company Hartman oil Co Inc Elevation 2274 KB 2264 GL
 Address 10500 E. Berkeley Sq PKWY ste 100, Wichita KS, 67206
 Co. Rep / Geo. Chris Peters/Kitt Noah Rig H2 #2
 Location: Sec. 29 Twp. 4s Rge. 22W Co. Norton State KS

Interval Tested 3725-3741 Zone Tested Arbuckle
 Anchor Length 16' Drill Pipe Run 3486' Mud Wt. 9.3
 Top Packer Depth 3720 Drill Collars Run 240' Vis 55
 Bottom Packer Depth 3725 Wt. Pipe Run - WL 5.8
 Total Depth 3741 Chlorides 900 ppm System LCM 2H

Blow Description IF- B.O.B. instantly
ISI- No return
FF- 6" blow
FSI- No return

| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|--------------|-----------------|------------------|---------------------------|-----------------------------|
| <u>124</u> | <u>MW</u> | | <u>70</u> | <u>30</u> | |
| <u>1426</u> | <u>MW</u> | | <u>9.5</u> | <u>5</u> | |
| <u>310</u> | <u>WM</u> | | <u>10</u> | <u>90</u> | |
| | | | | | |
| | | | | | |
| Rec Total | <u>1860'</u> | BHT <u>103°</u> | Gravity <u>-</u> | API RW <u>.24 @ 41° F</u> | Chlorides <u>56,000</u> ppm |

(A) Initial Hydrostatic 1849 Test 1150 T-On Location 1904
 (B) First Initial Flow 831 Jars 250 T-Started 1930
 (C) First Final Flow 1067 Safety Joint 75 T-Open 2228
 (D) Initial Shut-In 1673 Circ Sub _____ T-Pulled 1228
 (E) Second Initial Flow 1664 Hourly Standby _____ T-Out 0247
 (F) Second Final Flow 1074 Mileage 174RTx2 297.60 Comments Load tools 4-18-14
 (G) Final Shut-In 1074 Sampler _____ @ 12:35am
 (H) Final Hydrostatic 1829 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1922.60
 Accessibility 150 MP/DST Disc't _____
 Sub Total 1922.60

Approved By _____ Our Representative Gody Blodorn

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.