



DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

2020 N Tyler Ste 106
Wichita, KS 67212

ATTN: Kent Roberts

Robert G Larson 1-27

27-31S-13W Barber,KS

Start Date: 2014.06.15 @ 01:58:25

End Date: 2014.06.15 @ 08:22:55

Job Ticket #: 58996 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.24 @ 13:15:55



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

ATTN: Kent Roberts

Job Ticket: 58996

DST#: 1

Test Start: 2014.06.15 @ 01:58:25

GENERAL INFORMATION:

Formation: **Indian Cave**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:24:55

Time Test Ended: 08:22:55

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 74

Interval: 2574.00 ft (KB) To 2610.00 ft (KB) (TVD)

Reference Elevations: 1549.00 ft (KB)

Total Depth: 2610.00 ft (KB) (TVD)

1541.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6798

Inside

Press@RunDepth: 523.93 psig @ 2575.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.15

End Date:

2014.06.15

Last Calib.:

2014.06.15

Start Time: 01:58:26

End Time:

08:22:55

Time On Btm:

2014.06.15 @ 04:24:40

Time Off Btm:

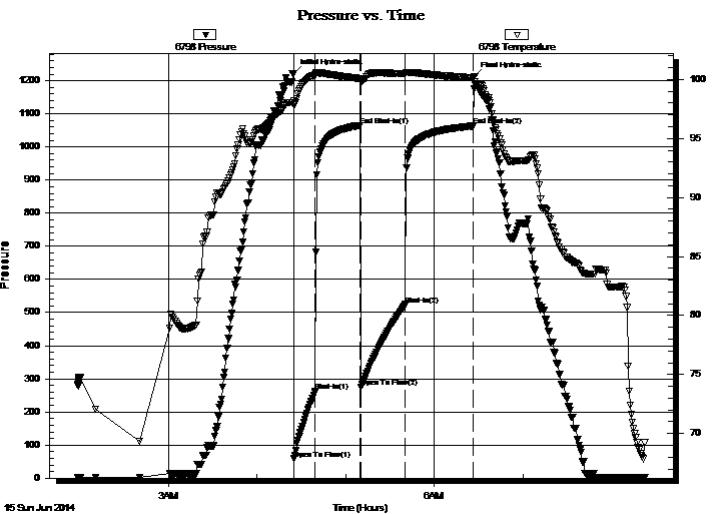
2014.06.15 @ 06:27:10

TEST COMMENT: IF: Strong Blow , BOB in 90 seconds

IS: No Blow Back

FF: Strong Blow , BOB in 2 minutes

FS: No Blow Back



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1222.33 | 98.19 | Initial Hydro-static |
| 1 | 58.10 | 97.82 | Open To Flow (1) |
| 15 | 263.04 | 100.36 | Shut-In(1) |
| 46 | 1065.24 | 100.08 | End Shut-In(1) |
| 46 | 273.76 | 99.80 | Open To Flow (2) |
| 76 | 523.93 | 100.48 | Shut-In(2) |
| 122 | 1063.13 | 100.14 | End Shut-In(2) |
| 123 | 1212.89 | 99.84 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------|--------------|
| 868.00 | Water | 8.11 |
| 102.00 | MCW 40%M 60%W | 1.05 |
| | | |
| | | |
| | | |

Gas Rates

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



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DRILL STEM TEST REPORT

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

ATTN: Kent Roberts

Job Ticket: 58996

DST#: 1

Test Start: 2014.06.15 @ 01:58:25

GENERAL INFORMATION:

Formation: **Indian Cave**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:24:55

Time Test Ended: 08:22:55

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 74

Interval: 2574.00 ft (KB) To 2610.00 ft (KB) (TVD)

Reference Elevations: 1549.00 ft (KB)

Total Depth: 2610.00 ft (KB) (TVD)

1541.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8367

Outside

Press@RunDepth: psig @ 2575.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.15

End Date:

2014.06.15

Last Calib.:

2014.06.15

Start Time: 01:58:26

End Time:

08:22:40

Time On Btm:

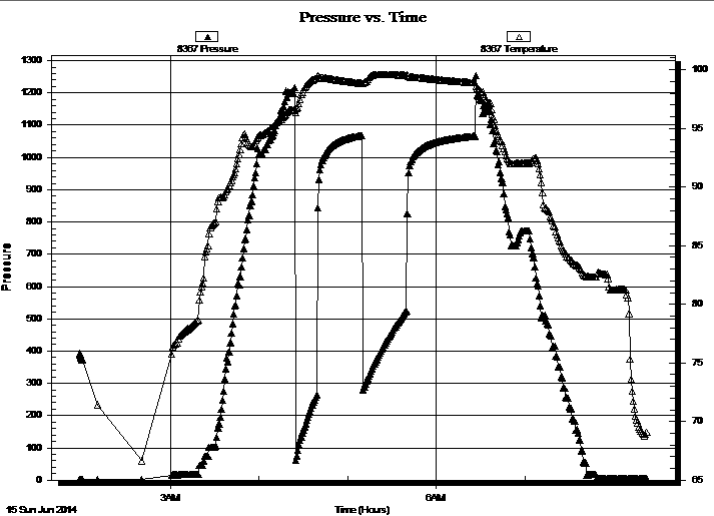
Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 90 seconds

IS: No Blow Back

FF: Strong Blow , BOB in 2 minutes

FS: No Blow Back



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------|--------------|
| 868.00 | Water | 8.11 |
| 102.00 | MCW 40%M 60%W | 1.05 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

Job Ticket: 58996

DST#: 1

ATTN: Kent Roberts

Test Start: 2014.06.15 @ 01:58:25

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 2416.00 ft | Diameter: 3.25 inches | Volume: 24.79 bbl | Tool Weight: 2100.00 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: 149.00 ft | Diameter: 2.25 inches | Volume: 0.73 bbl | Weight to Pull Loose: 36000.00 lb |
| | | | <u>Total Volume: 25.52 bbl</u> | Tool Chased ft |
| Drill Pipe Above KB: | 17.00 ft | | | String Weight: Initial 32000.00 lb |
| Depth to Top Packer: | 2574.00 ft | | | Final 34000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 36.00 ft | | | |
| Tool Length: | 62.00 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 | | | 2553.00 | |
| Hydraulic tool | 5.00 | | | 2558.00 | |
| Jars | 5.00 | | | 2563.00 | |
| Safety Joint | 2.00 | | | 2565.00 | |
| Packer | 5.00 | | | 2570.00 | 26.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 2574.00 | |
| Stubb | 1.00 | | | 2575.00 | |
| Recorder | 0.00 | 6798 | Inside | 2575.00 | |
| Recorder | 0.00 | 8367 | Outside | 2575.00 | |
| Perforations | 32.00 | | | 2607.00 | |
| Bullnose | 3.00 | | | 2610.00 | 36.00 Bottom Packers & Anchor |

Total Tool Length: 62.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

Job Ticket: 58996

DST#: 1

ATTN: Kent Roberts

Test Start: 2014.06.15 @ 01:58:25

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

98000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 75000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------|---------------|
| 868.00 | Water | 8.110 |
| 102.00 | MCW 40%M 60%W | 1.047 |

Total Length: 970.00 ft Total Volume: 4.771 bbl

Num Fluid Samples: 0

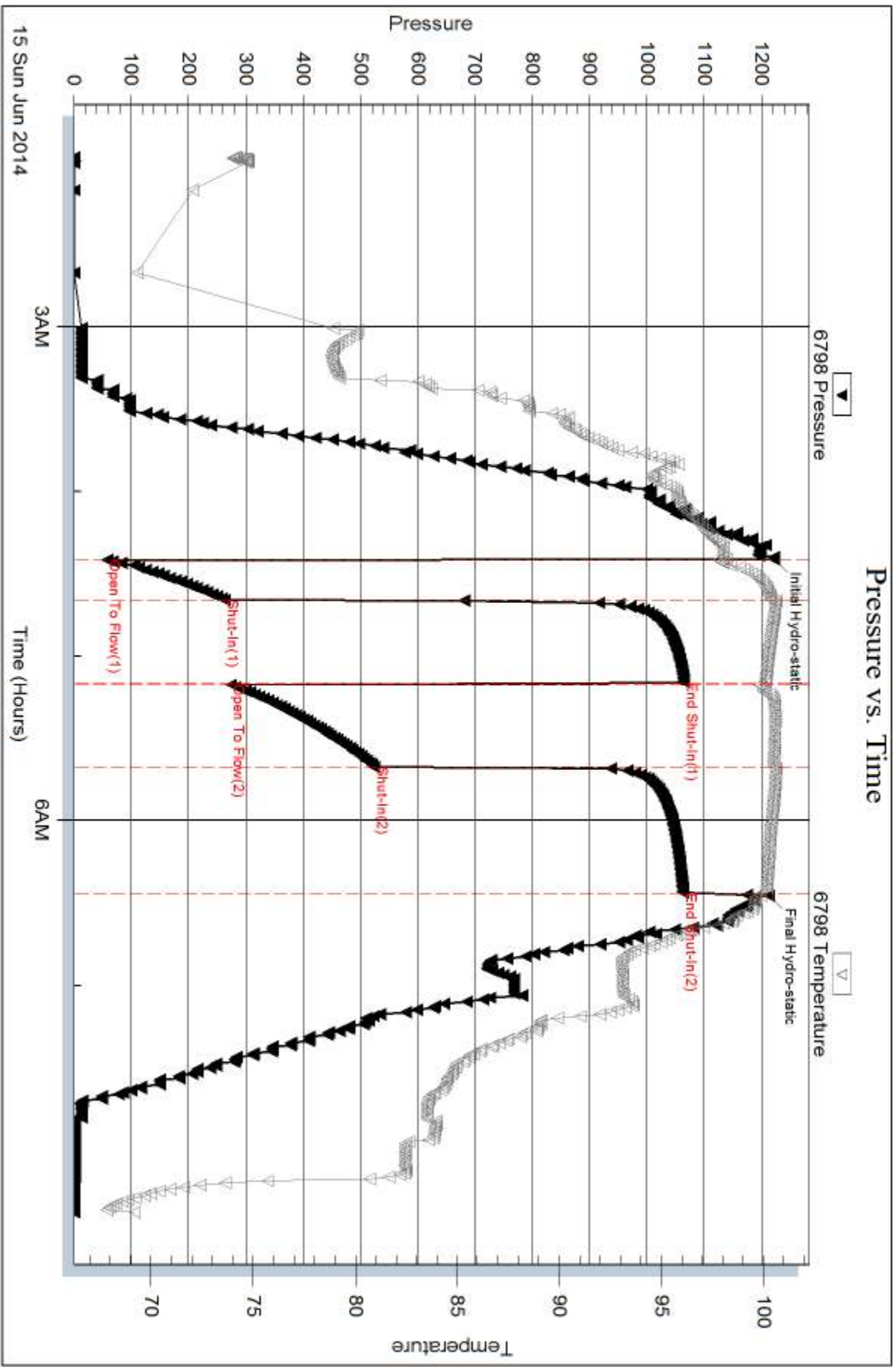
Num Gas Bombs: 0

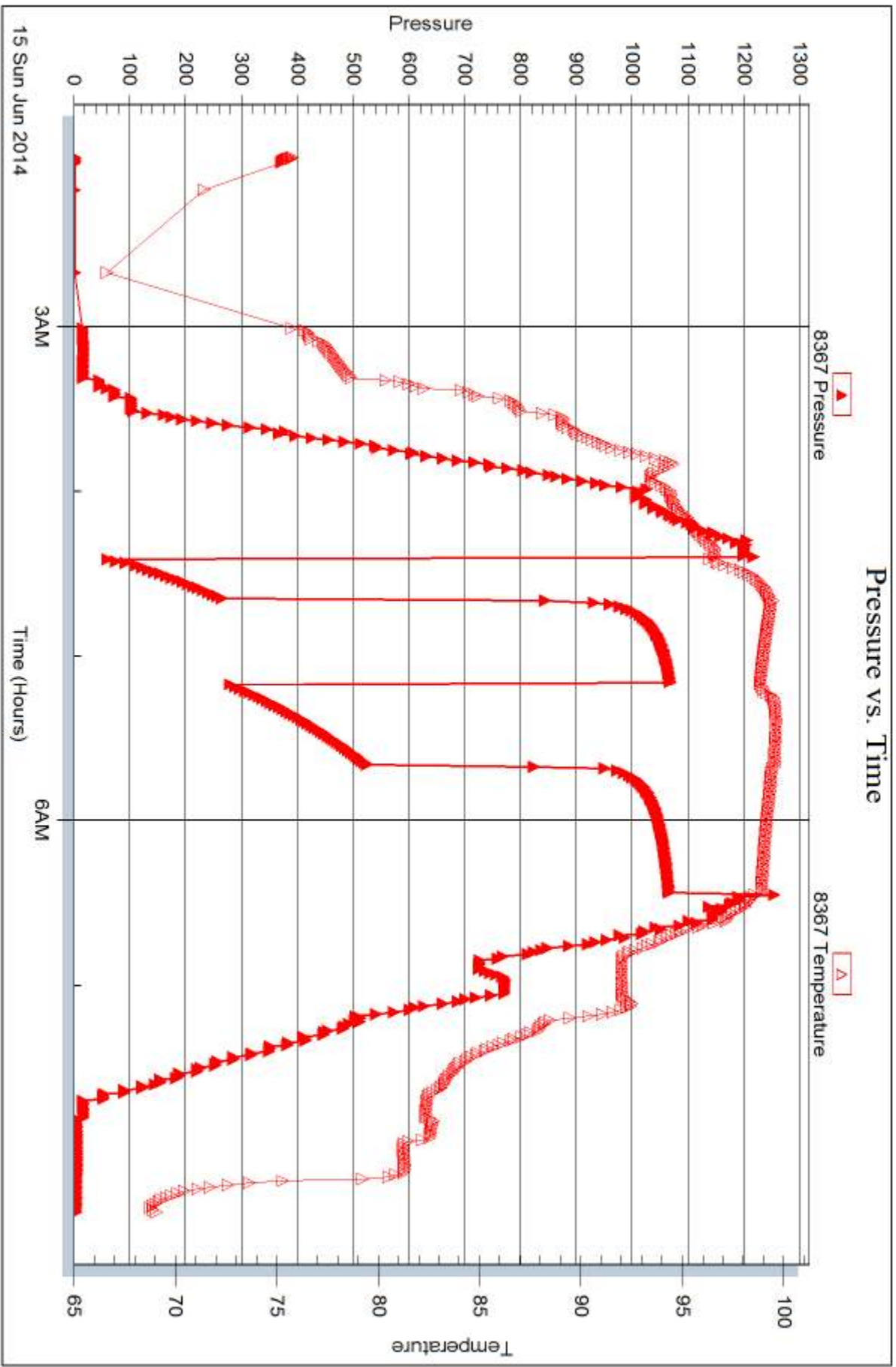
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .02 @ 61 degrees







DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

2020 N Tyler Ste 106
Wichita, KS 67212

ATTN: Kent Roberts

Robert G Larson 1-27

27-31S-13W Barber,KS

Start Date: 2014.06.17 @ 01:30:50

End Date: 2014.06.17 @ 09:26:05

Job Ticket #: 58997 DST #: 2

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

Printed: 2014.06.24 @ 11:34:32



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

ATTN: Kent Roberts

Job Ticket: 58997

DST#: 2

Test Start: 2014.06.17 @ 01:30:50

GENERAL INFORMATION:

Formation: **Deer Crrek**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:42:35

Time Test Ended: 09:26:05

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 3323.00 ft (KB) To 3349.00 ft (KB) (TVD)

Reference Elevations: 1549.00 ft (KB)

Total Depth: 3349.00 ft (KB) (TVD)

1541.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6798

Inside

Press@RunDepth: 523.77 psig @ 3324.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.17

End Date:

2014.06.17

Last Calib.:

2014.06.19

Start Time: 01:30:51

End Time:

09:26:05

Time On Btm:

2014.06.17 @ 03:41:05

Time Off Btm:

2014.06.17 @ 07:12:50

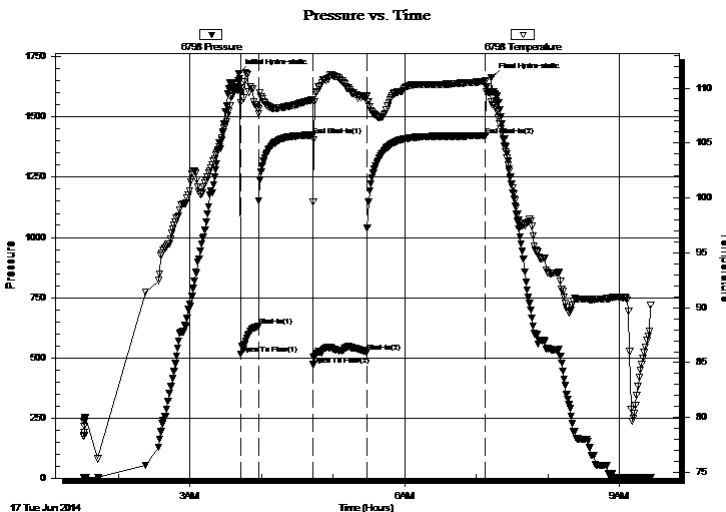
TEST COMMENT: IF: Strong Blow , BOB in 10 seconds, GTS in 4 minutes, Caught Sample & Gauged Gas

IS: 1" Blow Back

FF: Strong Blow , BOB & GTS Immediate, Gauged Gas

FS: 3" Blow Back

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1681.77 | 109.90 | Initial Hydro-static |
| 2 | 514.67 | 108.66 | Open To Flow (1) |
| 17 | 632.33 | 108.09 | Shut-In(1) |
| 62 | 1424.69 | 108.94 | End Shut-In(1) |
| 63 | 471.29 | 99.64 | Open To Flow (2) |
| 108 | 523.77 | 109.27 | Shut-In(2) |
| 207 | 1421.73 | 110.63 | End Shut-In(2) |
| 212 | 1663.36 | 108.80 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------------------|--------------|
| 0.00 | 2958 GIP | 0.00 |
| 122.00 | Water | 0.60 |
| 62.00 | MOCW 5%M 10%O 85%W | 0.49 |
| 176.00 | GMOCW 10%G 5%M 30%O 55%W | 1.81 |
| | | |
| | | |

Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|----------------|-----------------|------------------|
| First Gas Rate | 0.50 | 350.00 | - |
| Last Gas Rate | 0.75 | 82.00 | 1505.75 |
| Max. Gas Rate | 0.50 | 350.00 | - |

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

Job Ticket: 58997

DST#: 2

ATTN: Kent Roberts

Test Start: 2014.06.17 @ 01:30:50

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3169.00 ft | Diameter: 3.25 inches | Volume: 32.52 bbl | Tool Weight: 2100.00 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: 149.00 ft | Diameter: 2.25 inches | Volume: 0.73 bbl | Weight to Pull Loose: 40000.00 lb |
| | | | <u>Total Volume: 33.25 bbl</u> | Tool Chased ft |
| Drill Pipe Above KB: | 21.00 ft | | | String Weight: Initial 38000.00 lb |
| Depth to Top Packer: | 3323.00 ft | | | Final 39000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 26.00 ft | | | |
| Tool Length: | 52.00 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 | | | 3302.00 | |
| Hydraulic tool | 5.00 | | | 3307.00 | |
| Jars | 5.00 | | | 3312.00 | |
| Safety Joint | 2.00 | | | 3314.00 | |
| Packer | 5.00 | | | 3319.00 | 26.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3323.00 | |
| Stubb | 1.00 | | | 3324.00 | |
| Recorder | 0.00 | 6798 | Inside | 3324.00 | |
| Recorder | 0.00 | 8367 | Outside | 3324.00 | |
| Perforations | 22.00 | | | 3346.00 | |
| Bullnose | 3.00 | | | 3349.00 | 26.00 Bottom Packers & Anchor |

Total Tool Length: 52.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

Job Ticket: 58997

DST#: 2

ATTN: Kent Roberts

Test Start: 2014.06.17 @ 01:30:50

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

170000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 75000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|--------------------------|----------------|
| 0.00 | 2958 GIP | 0.000 |
| 122.00 | Water | 0.600 |
| 62.00 | MOCW 5%M 10%O 85%W | 0.492 |
| 176.00 | GMOCW 10%G 5%M 30%O 55%W | 1.806 |

Total Length: 360.00 ft

Total Volume: 1.771 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .05 @ 76.5 degrees



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

Job Ticket: 58997

DST#: 2

ATTN: Kent Roberts

Test Start: 2014.06.17 @ 01:30:50

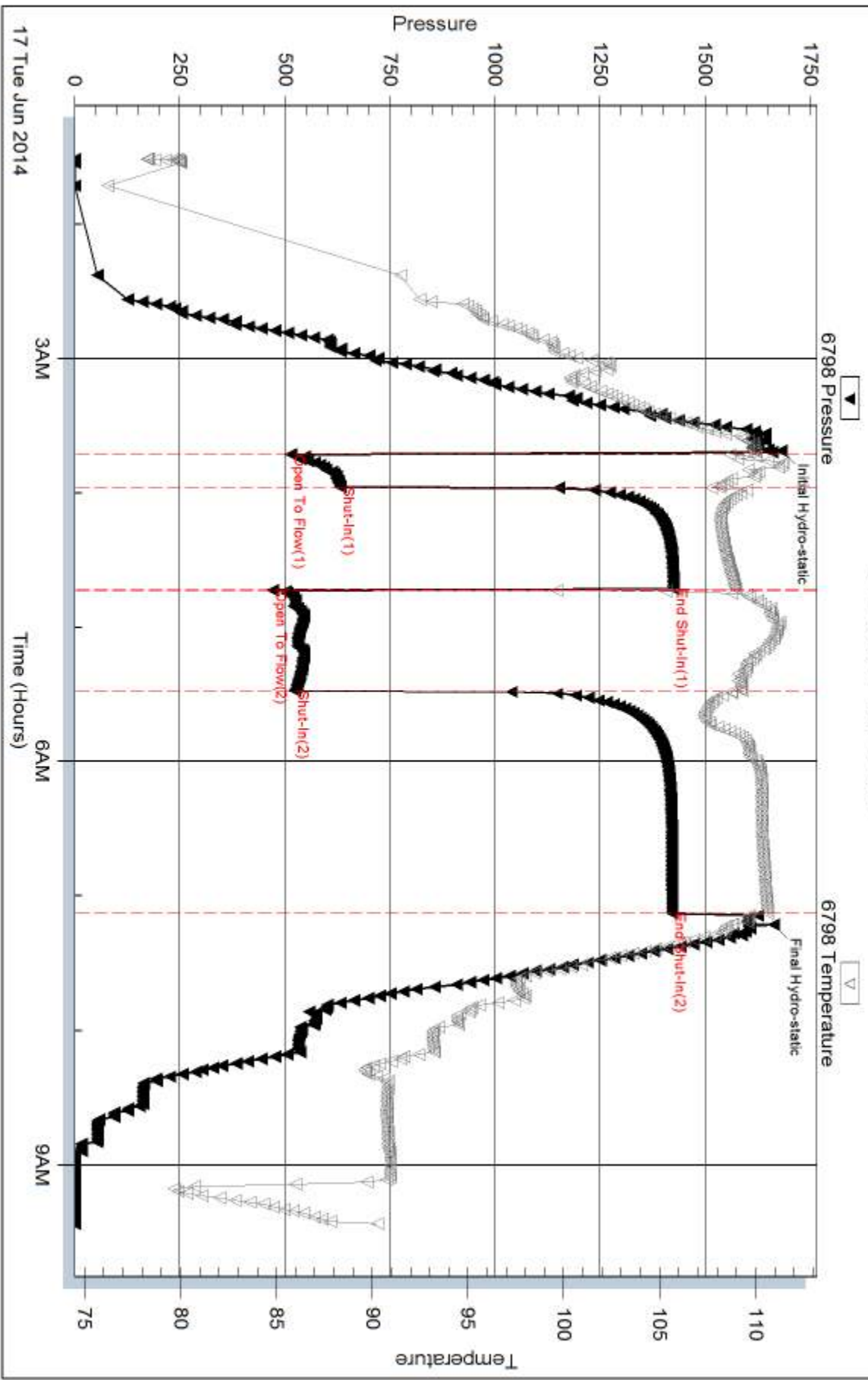
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

| Flow Period | Elapsed Time | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|-------------|--------------|----------------|-----------------|------------------|
| 1 | 10 | 0.50 | 350.00 | -6743323.02 |
| 2 | 5 | 0.75 | 82.00 | 1505.75 |
| 2 | 10 | 0.75 | 88.00 | 1599.47 |
| 2 | 20 | 0.75 | 82.00 | 1505.75 |
| 2 | 30 | 0.75 | 82.00 | 1505.75 |
| 2 | 40 | 0.75 | 82.00 | 1505.75 |
| 2 | 45 | 0.75 | 82.00 | 1505.75 |

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

2020 N Tyler Ste 106
Wichita, KS 67212

ATTN: Kent Roberts

Robert G Larson 1-27

27-31S-13W Barber,KS

Start Date: 2014.06.19 @ 10:45:21

End Date: 2014.06.19 @ 19:22:36

Job Ticket #: 58998 DST #: 3

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

Printed: 2014.06.24 @ 13:10:19

Roberts Resources

27-31S-13W Barber,KS

Robert G Larson 1-27

DST # 3

Mississippi

2014.06.19



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

ATTN: Kent Roberts

Job Ticket: 58998

DST#: 3

Test Start: 2014.06.19 @ 10:45:21

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:55:06

Time Test Ended: 19:22:36

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 4184.00 ft (KB) To 4218.00 ft (KB) (TVD)

Reference Elevations: 1549.00 ft (KB)

Total Depth: 4218.00 ft (KB) (TVD)

1541.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6798

Inside

Press@RunDepth: 338.75 psig @ 4195.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.19

End Date:

2014.06.19

Last Calib.:

2014.06.19

Start Time: 10:45:22

End Time:

19:22:36

Time On Btm:

2014.06.19 @ 13:49:06

Time Off Btm:

2014.06.19 @ 17:09:06

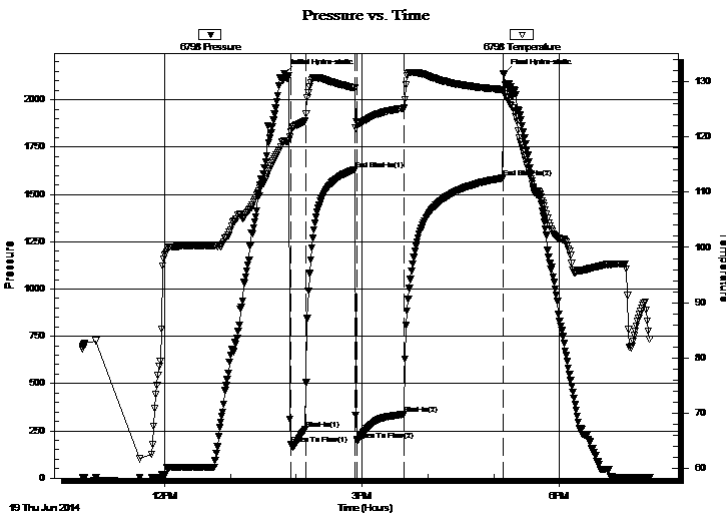
TEST COMMENT: IF: Strong Blow , BOB in 10 seconds, GTS in 8 minutes, Gauged Gas

IS: 1/2 inch Blow Back

FF: Strong Blow , BOB & GTS immediate, Gauged Gas

FS: 1 inch Blow Back

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2139.80 | 119.25 | Initial Hydro-static |
| 6 | 178.48 | 120.91 | Open To Flow (1) |
| 20 | 257.68 | 122.87 | Shut-In(1) |
| 65 | 1630.87 | 128.86 | End Shut-In(1) |
| 67 | 200.36 | 122.61 | Open To Flow (2) |
| 110 | 338.75 | 125.22 | Shut-In(2) |
| 200 | 1586.61 | 128.57 | End Shut-In(2) |
| 200 | 2138.79 | 131.24 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------|--------------|
| 0.00 | GTS | 0.00 |
| 186.00 | Water | 1.11 |
| 248.00 | GMCW 10%G 30%M 60%W | 2.54 |
| 62.00 | GCM 20%G 80%M | 0.64 |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|----------------|-----------------|------------------|
| First Gas Rate | 0.25 | 100.00 | 181.49 |
| Last Gas Rate | 0.25 | 125.00 | 221.15 |
| Max. Gas Rate | 0.25 | 125.00 | 221.15 |



DRILL STEM TEST REPORT

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

ATTN: Kent Roberts

Job Ticket: 58998

DST#: 3

Test Start: 2014.06.19 @ 10:45:21

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:55:06

Time Test Ended: 19:22:36

Interval: 4184.00 ft (KB) To 4218.00 ft (KB) (TVD)

Total Depth: 4218.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Reference Elevations: 1549.00 ft (KB)

1541.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8367 Outside

Press@RunDepth: psig @ 4195.00 ft (KB)

Start Date: 2014.06.19 End Date: 2014.06.19

Start Time: 10:45:22 End Time: 19:22:21

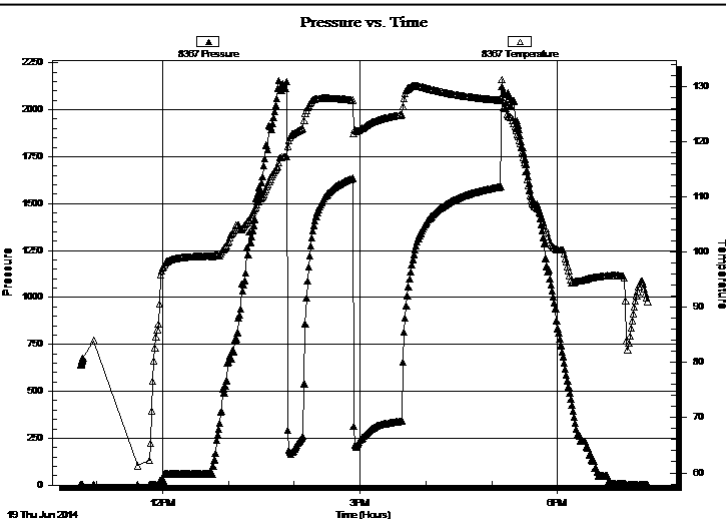
Capacity: 8000.00 psig

Last Calib.: 2014.06.19

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Strong Blow, BOB in 10 seconds, GTS in 8 minutes, Gauged Gas
IS: 1/2 inch Blow Back
FF: Strong Blow, BOB & GTS immediate, Gauged Gas
FS: 1 inch Blow Back



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------|--------------|
| 0.00 | GTS | 0.00 |
| 186.00 | Water | 1.11 |
| 248.00 | GMCW 10%G 30%M 60%W | 2.54 |
| 62.00 | GCM 20%G 80%M | 0.64 |
| | | |
| | | |

Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|----------------|-----------------|------------------|
| First Gas Rate | 0.25 | 100.00 | 181.49 |
| Last Gas Rate | 0.25 | 125.00 | 221.15 |
| Max. Gas Rate | 0.25 | 125.00 | 221.15 |

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

Job Ticket: 58998

DST#: 3

ATTN: Kent Roberts

Test Start: 2014.06.19 @ 10:45:21

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 4048.00 ft | Diameter: 3.25 inches | Volume: 41.54 bbl | Tool Weight: | 2100.00 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: 149.00 ft | Diameter: 2.25 inches | Volume: 0.73 bbl | Weight to Pull Loose: | 50000.00 lb |
| | | | <u>Total Volume: 42.27 bbl</u> | Tool Chased | ft |
| Drill Pipe Above KB: | 29.00 ft | | | String Weight: Initial | 45000.00 lb |
| Depth to Top Packer: | 4194.00 ft | | | Final | 49000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 24.00 ft | | | | |
| Tool Length: | 50.00 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 | | | 4173.00 | |
| Hydraulic tool | 5.00 | | | 4178.00 | |
| Jars | 5.00 | | | 4183.00 | |
| Safety Joint | 2.00 | | | 4185.00 | |
| Packer | 5.00 | | | 4190.00 | 26.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4194.00 | |
| Stubb | 1.00 | | | 4195.00 | |
| Recorder | 0.00 | 6798 | Inside | 4195.00 | |
| Recorder | 0.00 | 8367 | Outside | 4195.00 | |
| Perforations | 20.00 | | | 4215.00 | |
| Bullnose | 3.00 | | | 4218.00 | 24.00 Bottom Packers & Anchor |

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

Job Ticket: 58998

DST#: 3

ATTN: Kent Roberts

Test Start: 2014.06.19 @ 10:45:21

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

85000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbf

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 75000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbf |
|--------------|---------------------|---------------|
| 0.00 | GTS | 0.000 |
| 186.00 | Water | 1.112 |
| 248.00 | GMCW 10%G 30%M 60%W | 2.545 |
| 62.00 | GCM 20%G 80%M | 0.636 |

Total Length: 496.00 ft Total Volume: 2.440 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw was .07 @ 90 degrees



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

Job Ticket: 58998

DST#: 3

ATTN: Kent Roberts

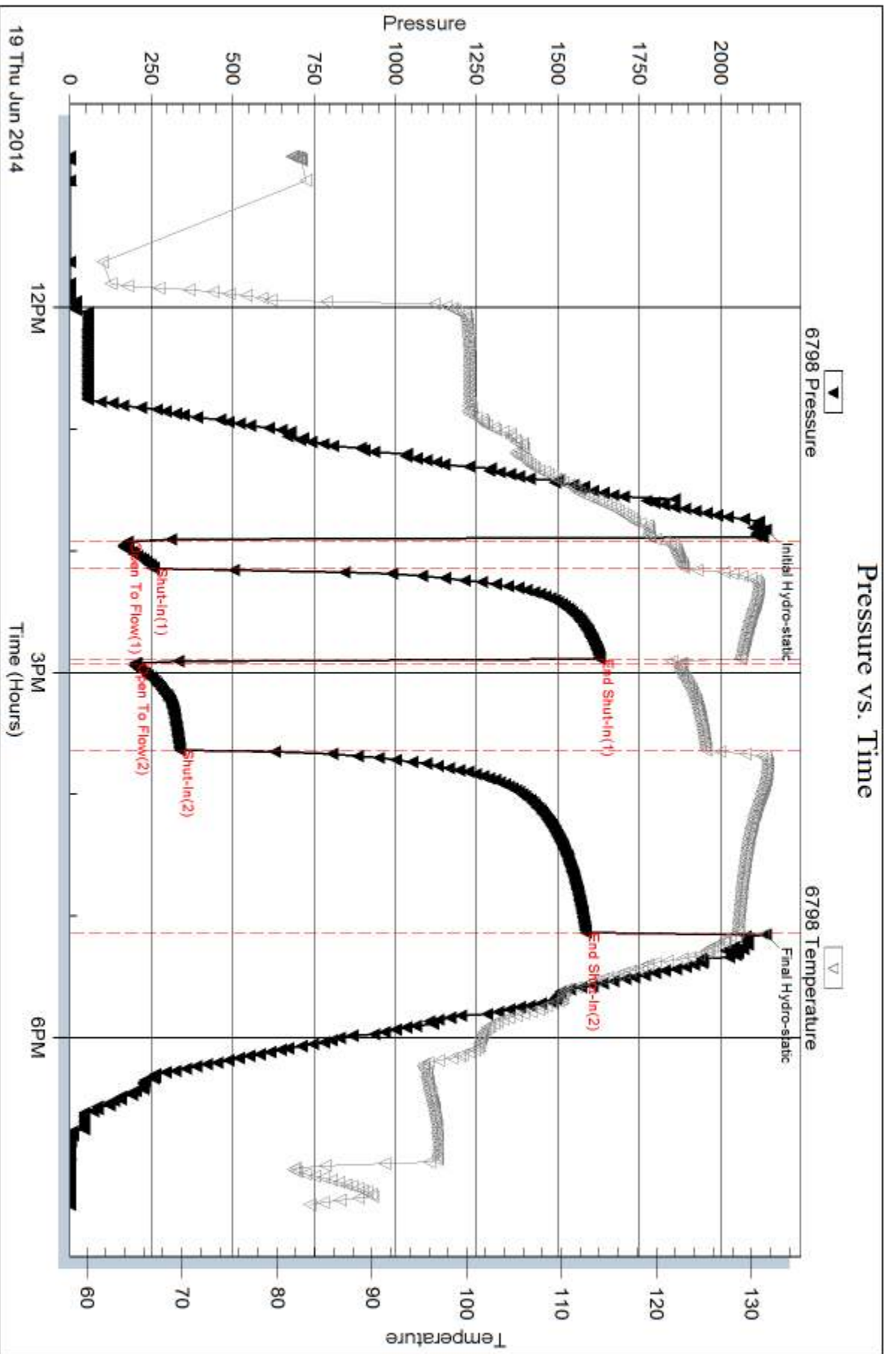
Test Start: 2014.06.19 @ 10:45:21

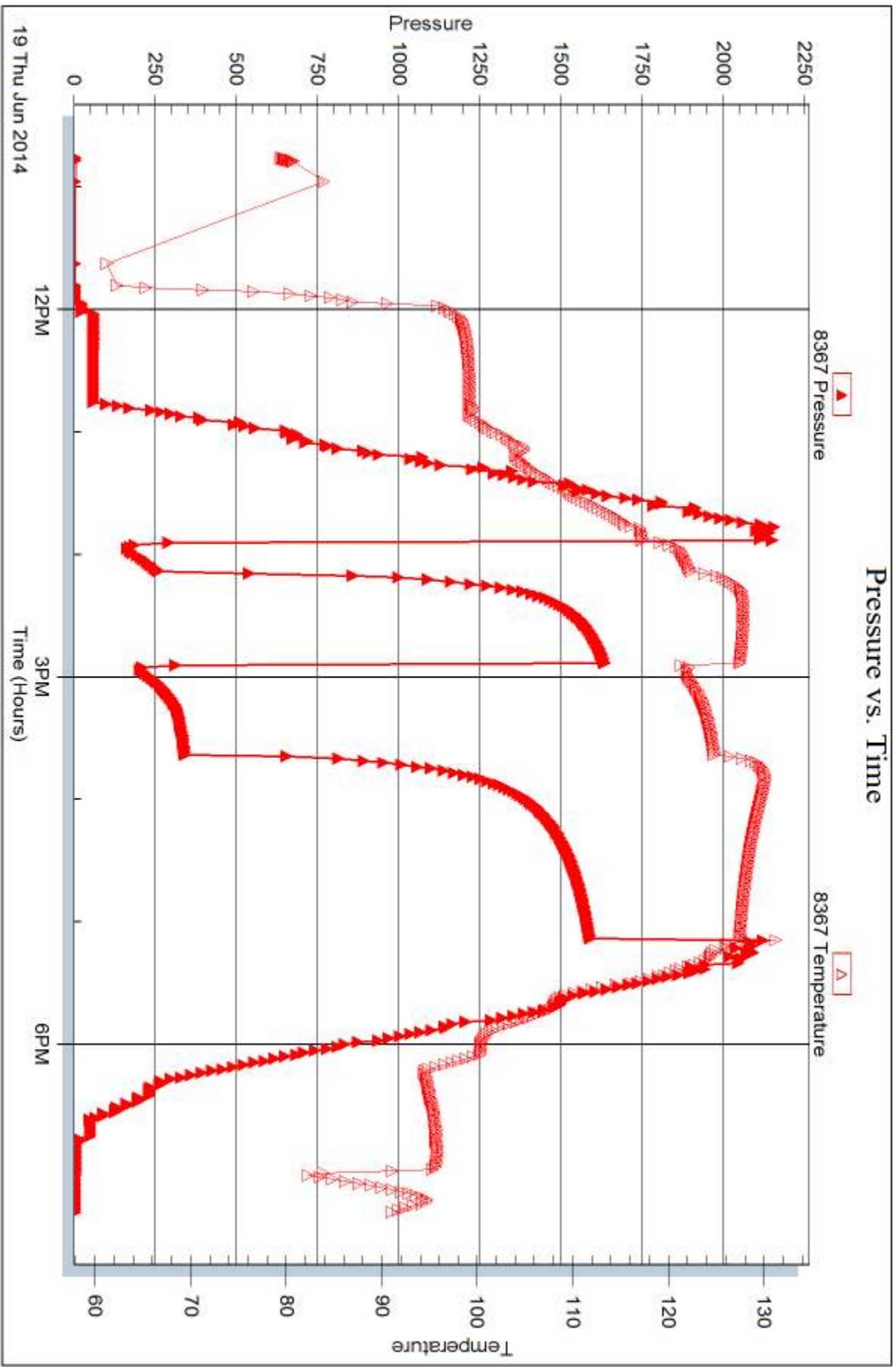
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

| Flow Period | Elapsed Time | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|-------------|--------------|----------------|-----------------|------------------|
| 1 | 10 | 0.25 | 100.00 | 181.49 |
| 1 | 15 | 0.25 | 125.00 | 221.15 |
| 2 | 5 | 0.25 | 80.00 | 149.76 |
| 2 | 10 | 0.25 | 110.00 | 197.35 |
| 2 | 20 | 0.25 | 125.00 | 221.15 |
| 2 | 30 | 0.25 | 125.00 | 221.15 |
| 2 | 40 | 0.25 | 125.00 | 221.15 |
| 2 | 45 | 0.25 | 125.00 | 221.15 |







DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

2020 N Tyler Ste 106
Wichita, KS 67212

ATTN: Kent Roberts

Robert G Larson 1-27

27-31S-13W Barber,KS

Start Date: 2014.06.20 @ 15:43:56

End Date: 2014.06.20 @ 23:07:26

Job Ticket #: 58999 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.24 @ 13:13:06

Roberts Resources

27-31S-13W Barber,KS

Robert G Larson 1-27

DST # 4

Viola

2014.06.20



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

ATTN: Kent Roberts

Job Ticket: 58999

DST#: 4

Test Start: 2014.06.20 @ 15:43:56

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:41:11

Time Test Ended: 23:07:26

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 4370.00 ft (KB) To 4476.00 ft (KB) (TVD)

Reference Elevations: 1549.00 ft (KB)

Total Depth: 4476.00 ft (KB) (TVD)

1541.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6798

Inside

Press@RunDepth: 103.88 psig @ 4371.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.20

End Date:

2014.06.20

Last Calib.:

2014.06.20

Start Time: 15:43:57

End Time:

23:07:26

Time On Btm:

2014.06.20 @ 17:40:41

Time Off Btm:

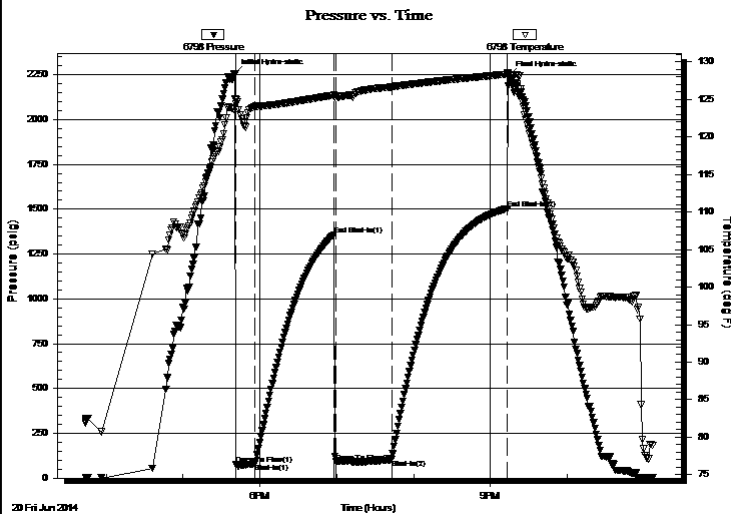
2014.06.20 @ 21:14:41

TEST COMMENT: IF: Fair Blow , BOB in 8 minutes

IS: No Blow Back

FF: Strong Blow , BOB in 10 seconds, GTS in 18 minutes, TSTM, Caught Sample

FS: No Blow Back



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2257.89 | 125.12 | Initial Hydro-static |
| 1 | 76.55 | 124.42 | Open To Flow (1) |
| 16 | 80.45 | 124.01 | Shut-In(1) |
| 78 | 1359.49 | 125.57 | End Shut-In(1) |
| 79 | 90.16 | 125.47 | Open To Flow (2) |
| 123 | 103.88 | 126.65 | Shut-In(2) |
| 213 | 1504.05 | 128.36 | End Shut-In(2) |
| 214 | 2244.15 | 128.27 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 0.00 | GTS | 0.00 |
| 65.00 | GCM 5%G 95%M | 0.32 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Roberts Resources
2020 N Tyler Ste 106
Wichita, KS 67212
ATTN: Kent Roberts

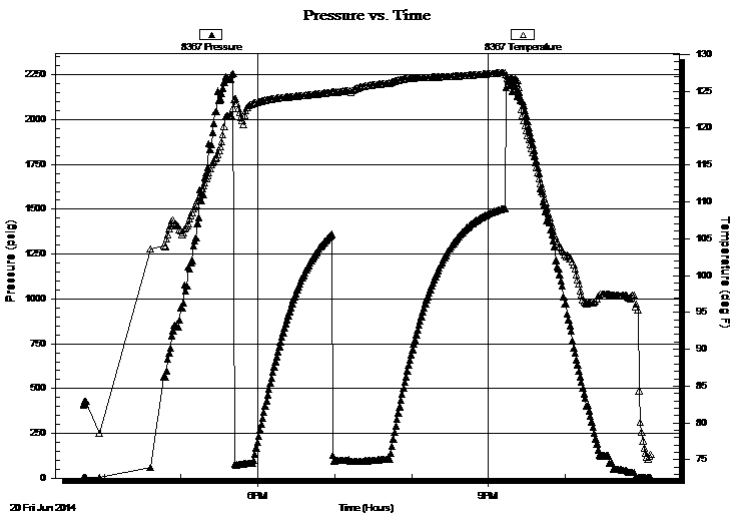
27-31S-13W Barber,KS
Robert G Larson 1-27
Job Ticket: 58999 **DST#: 4**
Test Start: 2014.06.20 @ 15:43:56

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 17:41:11 Tester: Leal Cason
Time Test Ended: 23:07:26 Unit No: 74
Interval: **4370.00 ft (KB) To 4476.00 ft (KB) (TVD)** Reference Elevations: 1549.00 ft (KB)
Total Depth: 4476.00 ft (KB) (TVD) 1541.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 8.00 ft

Serial #: 8367 Outside
Press@RunDepth: psig @ 4371.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.06.20 End Date: 2014.06.20 Last Calib.: 2014.06.20
Start Time: 15:43:57 End Time: 23:07:26 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Fair Blow , BOB in 8 minutes
IS: No Blow Back
FF: Strong Blow , BOB in 10 seconds, GTS in 18 minutes, TSTM, Caught Sample
FS: No Blow Back



PRESSURE SUMMARY

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

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 0.00 | GTS | 0.00 |
| 65.00 | GCM 5%G 95%M | 0.32 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

ATTN: Kent Roberts

Job Ticket: 58999

DST#: 4

Test Start: 2014.06.20 @ 15:43:56

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4205.00 ft | Diameter: 3.25 inches | Volume: 43.15 bbl | Tool Weight: 2100.00 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: 149.00 ft | Diameter: 2.25 inches | Volume: 0.73 bbl | Weight to Pull Loose: 55000.00 lb |
| | | | <u>Total Volume: 43.88 bbl</u> | Tool Chased ft |
| Drill Pipe Above KB: | 10.00 ft | | | String Weight: Initial 48000.00 lb |
| Depth to Top Packer: | 4370.00 ft | | | Final 49000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 106.00 ft | | | |
| Tool Length: | 132.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|--------------------------------|
| Shut In Tool | 5.00 | | | 4349.00 | |
| Hydraulic tool | 5.00 | | | 4354.00 | |
| Jars | 5.00 | | | 4359.00 | |
| Safety Joint | 2.00 | | | 4361.00 | |
| Packer | 5.00 | | | 4366.00 | 26.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4370.00 | |
| Stubb | 1.00 | | | 4371.00 | |
| Recorder | 0.00 | 6798 | Inside | 4371.00 | |
| Recorder | 0.00 | 8367 | Outside | 4371.00 | |
| Perforations | 2.00 | | | 4373.00 | |
| Change Over Sub | 0.50 | | | 4373.50 | |
| Drill Pipe | 94.00 | | | 4467.50 | |
| Change Over Sub | 0.50 | | | 4468.00 | |
| Perforations | 5.00 | | | 4473.00 | |
| Bullnose | 3.00 | | | 4476.00 | 106.00 Bottom Packers & Anchor |

Total Tool Length: 132.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

27-31S-13W Barber,KS

2020 N Tyler Ste 106
Wichita, KS 67212

Robert G Larson 1-27

Job Ticket: 58999

DST#: 4

ATTN: Kent Roberts

Test Start: 2014.06.20 @ 15:43:56

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 75000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--------------|---------------|
| 0.00 | GTS | 0.000 |
| 65.00 | GCM 5%G 95%M | 0.320 |

Total Length: 65.00 ft Total Volume: 0.320 bbl

Num Fluid Samples: 0

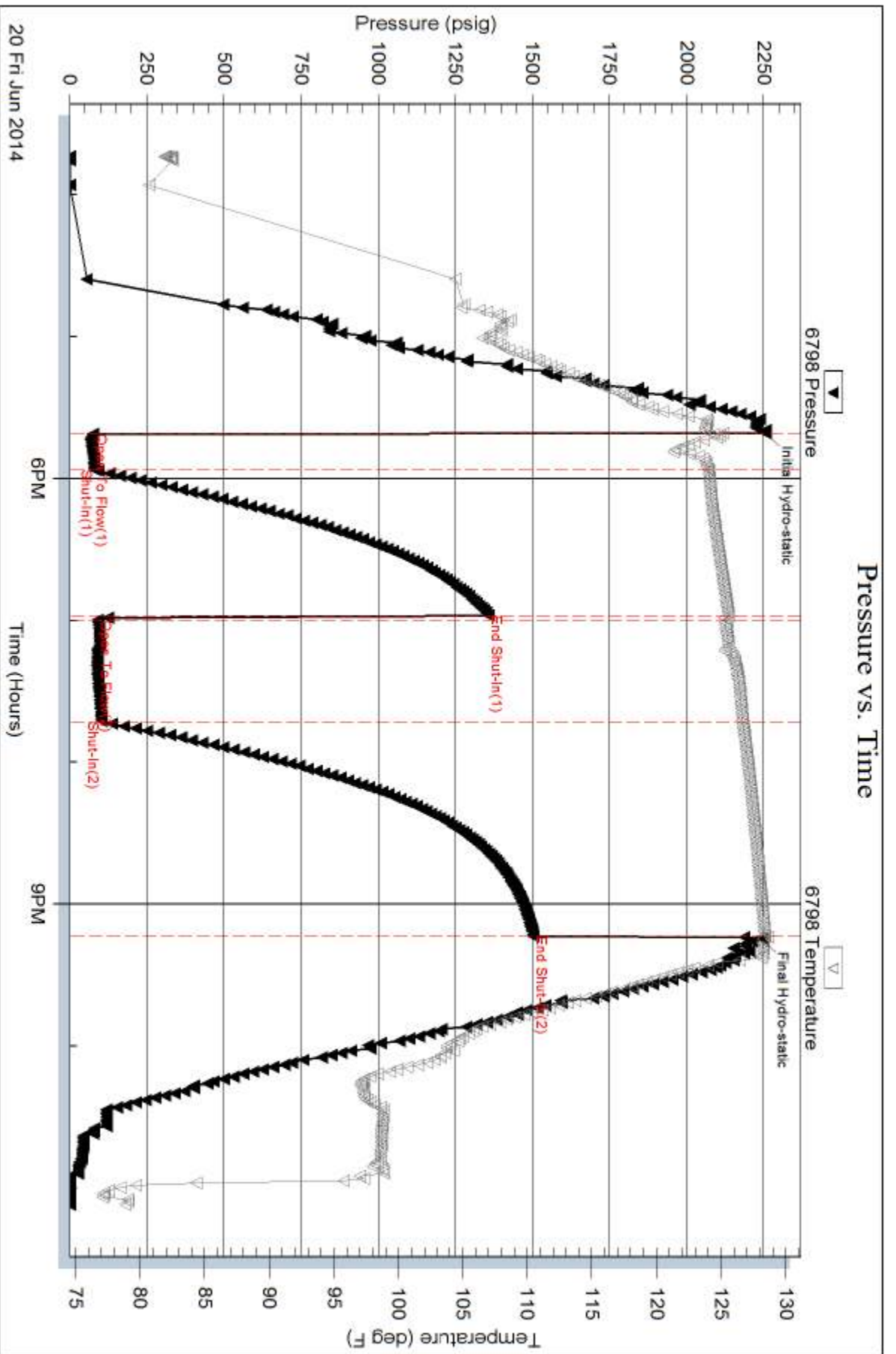
Num Gas Bombs: 0

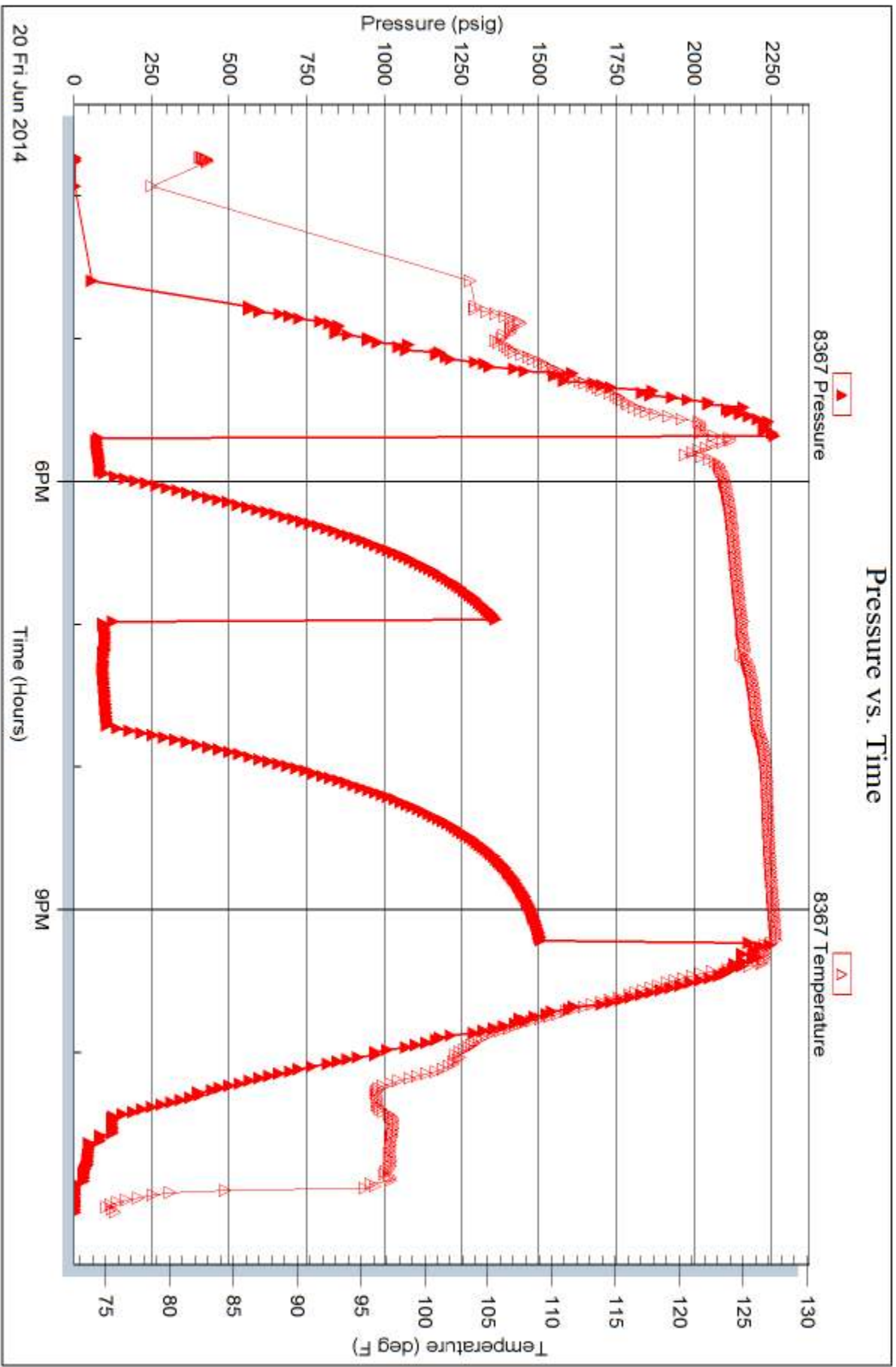
Serial #:

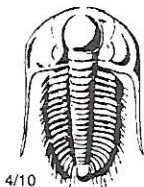
Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58996

Well Name & No. 1-27 Robert G Larson Test No. 1 Date 06/15/14
 Company Roberts Resources Elevation 1549 KB 1541 GL
 Address 2020 N. Tyler Stc 106 Wichita, KS 67212
 Co. Rep / Geo. Kent Roberts Rig Fossil 2
 Location: Sec. 27 Twp. 31S Rge. 13W Co. Barber State KS

Interval Tested 2574 - 2610 Zone Tested Indian Cave
 Anchor Length 36 Drill Pipe Run ~~2024~~ 2416 Mud Wt. 8.5
 Top Packer Depth 2569 Drill Collars Run 149 Vis 45
 Bottom Packer Depth 2574 Wt. Pipe Run 0 WL NIC
 Total Depth 2610 Chlorides 75000 ppm System LCM

Blow Description IF: strong Blow, BOB in 90 seconds
ISI: NO Blow Back
FF: strong Blow, BOB in 2 minutes
FSI: NO Blow Back

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|--------------|------|------|-----------|-----------|
| <u>102</u> | <u>WCM</u> | | | <u>60</u> | <u>40</u> |
| <u>868</u> | <u>Water</u> | | | | |
| | | | | | |
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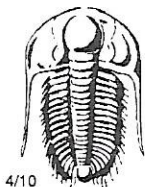
Rec Total 970 BHT 100° Gravity NIC API RW .02 @ 61 °F Chlorides 48000 ppm

(A) Initial Hydrostatic 1222 Test 1150 T-On Location 00:30
 (B) First Initial Flow 58 Jars 250 T-Started 01:58
 (C) First Final Flow 263 Safety Joint 75 T-Open 04:24
 (D) Initial Shut-In 1065 Circ Sub _____ T-Pulled 06:26
 (E) Second Initial Flow 274 Hourly Standby _____ T-Out 08:22
 (F) Second Final Flow 524 Mileage (90) 139.50 Comments _____
 (G) Final Shut-In 1063 Sampler _____
 (H) Final Hydrostatic 1213 Straddle _____

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 15
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 45
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1614.50
 Sub Total 1614.50
 Total 1614.50
 MP/DST Disc't _____

Approved By Kent Roberts Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58997

Well Name & No. 1-27 Robert G Larson Test No. 2 Date 06/17/14
 Company Roberts Resources Elevation 1549 KB 1541 GL
 Address 2020 N. Tyler Ste 106 Wichita, KS 67212
 Co. Rep / Geo. Kent Roberts Rig Fossil 2
 Location: Sec. 27 Twp. 31S Rge. ~~S31~~ 13W Co. Barber State Ks

Interval Tested 3323 - 3349 Zone Tested Deer creek
 Anchor Length 26 Drill Pipe Run 3169 Mud Wt. 9.1
 Top Packer Depth 3318 Drill Collars Run 149 Vis 41
 Bottom Packer Depth 3323 Wt. Pipe Run 0 WL 9.6
 Total Depth 3349 Chlorides 6000 ppm System LCM

Blow Description IF: Strong Blow, BOB in 10 seconds, GTS in 4 minutes, Gauged + caught sample
1st: Linch Blow Back
FF: Strong Blow BOB + GTS immediate, Gauged Gas
FSI: 3 inch Blow Back

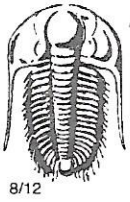
| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|--------------|------------|-----------|-----------|----------|
| <u>2958</u> | <u>GIP</u> | | | | |
| <u>176</u> | <u>GMOCW</u> | <u>10%</u> | <u>30</u> | <u>55</u> | <u>5</u> |
| <u>62</u> | <u>MOCW</u> | <u>10</u> | <u>10</u> | <u>85</u> | <u>5</u> |
| <u>122</u> | <u>water</u> | | | | |
| | | | | | |

Rec Total 366 BHT 110 Gravity NIC API RW .05 @ 76.5° F Chlorides 170,000 ppm

| | | |
|-------------------------------------|---|--|
| (A) Initial Hydrostatic <u>1692</u> | <input checked="" type="checkbox"/> Test <u>1150</u> | T-On Location <u>00:00</u> |
| (B) First Initial Flow <u>515</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>01:28</u> |
| (C) First Final Flow <u>632</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>04:04</u> |
| (D) Initial Shut-In <u>1425</u> | <input type="checkbox"/> Circ Sub | T-Pulled <u>07:29</u> |
| (E) Second Initial Flow <u>471</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>09:48</u> |
| (F) Second Final Flow <u>524</u> | <input checked="" type="checkbox"/> Mileage <u>90</u> <u>139.50</u> | Comments |
| (G) Final Shut-In <u>1422</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>1636</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| Initial Open <u>15</u> | <input type="checkbox"/> Shale Packer | <input type="checkbox"/> Ruined Packer |
| Initial Shut-In <u>45</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Final Flow <u>45</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>516.67</u> |
| Final Shut-In <u>90</u> | <input checked="" type="checkbox"/> Day Standby <u>3/4</u> 1d 15.5h | Total <u>2131.17</u> |
| | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1614.50</u> | |

Approved By Kent Roberts Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Gas Volume Report

Roberts Resources

1-27 Robert Carlson

2

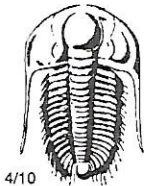
Operator
GTS - 4 minutes

Well Name and No.

DST No.

| Min. | In. Water PSIG | Orifice Size | M CF/D | Min. | In. Water PSIG | Orifice Size | M CF/D |
|---------------|---------------------------|----------------|-------------------|------|---------------------------|--------------|--------|
| 10 | 350 | 1/2 | 2037.7 | 5 | 82 | 3/4 | 1400.7 |
| 10 | 350 | 1/2 | 2459 | 10 | 82 | 3/4 | 1487.7 |
| | | | | 20 | 82 | 3/4 | 1400.7 |
| | | | | 30 | 82 | 3/4 | 1400.7 |
| | | | | 40 | 82 | 3/4 | 1400.7 |
| | | | | 45 | 82 | 3/4 | 1400.7 |
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Remarks:



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58998

Well Name & No. 1-27 Robert G Larson Test No. 3 Date 06/19/14
 Company Roberts Resources Elevation 1549 KB 1541 GL
 Address 2020 N. Tyler Ste 106 Wichita, KS 67212
 Co. Rep / Geo. Kent Roberts Rig Fossil 2
 Location: Sec. 27 Twp. 31S Rge. ~~S30~~ 13W Co. Barber State KS

Interval Tested 4194 - 4218 Zone Tested Mississippi
 Anchor Length 24 Drill Pipe Run 4048 Mud Wt. 9.6
 Top Packer Depth 4189 Drill Collars Run 149 Vis 48
 Bottom Packer Depth 4194 Wt. Pipe Run 0 WL 11.0
 Total Depth 4218 Chlorides 6000 ppm System LCM

Blow Description IF: Strong Blow, BOB in 10 seconds, GTS in 8 minutes, Gauged Gas
ISI: 1/2 inch Blow Back
FF: Strong Blow, BOB & GTS immediate, Gauged Gas
FSI: 1 inch Blow Back

| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|--------------|-----------|------|-----------|-----------|
| <u>3701</u> | <u>GIP</u> | | | | |
| <u>62</u> | <u>GCM</u> | <u>20</u> | | | <u>80</u> |
| <u>248</u> | <u>GMCW</u> | <u>10</u> | | <u>60</u> | <u>30</u> |
| <u>186</u> | <u>water</u> | | | | |
| | | | | | |

Rec Total 496 BHT 131 Gravity NIC API RW .07 @ 90 ° F Chlorides 85000 ppm

| | | | | | |
|-------------------------|-------------|--|------------------|--|--------------|
| (A) Initial Hydrostatic | <u>2140</u> | <input checked="" type="checkbox"/> Test | <u>1250</u> | T-On Location | <u>09:15</u> |
| (B) First Initial Flow | <u>178</u> | <input checked="" type="checkbox"/> Jars | <u>250</u> | T-Started | <u>10:45</u> |
| (C) First Final Flow | <u>258</u> | <input checked="" type="checkbox"/> Safety Joint | <u>75</u> | T-Open | <u>13:55</u> |
| (D) Initial Shut-In | <u>1631</u> | <input type="checkbox"/> Circ Sub | | T-Pulled | <u>17:08</u> |
| (E) Second Initial Flow | <u>200</u> | <input type="checkbox"/> Hourly Standby | | T-Out | <u>19:22</u> |
| (F) Second Final Flow | <u>339</u> | <input checked="" type="checkbox"/> Mileage | <u>90</u> 139.50 | Comments | |
| (G) Final Shut-In | <u>1587</u> | <input type="checkbox"/> Sampler | | | |
| (H) Final Hydrostatic | <u>2139</u> | <input type="checkbox"/> Straddle | | <input type="checkbox"/> Ruined Shale Packer | |

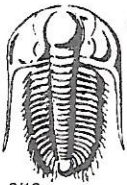
Initial Open 15
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 90

Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby 1 1d 23.5h
 Accessibility
 Sub Total 1714.50

Ruined Packer
 Extra Copies
 Sub Total 783.33
 Total 2497.83
 MP/DST Disc't

Approved By Kent Roberts

Our Representative [Signature]



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Gas Volume Report

8/12

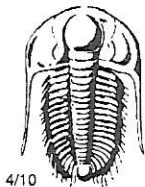
Roberts Resources
Operator

1-27 Robert G Larson
Well Name and No.

3
DST No.

| Min. | Inch. of Water PSIG | Orifice Size | M CF/D | Min. | Inch. of Water PSIG | Orifice Size | M CF/D |
|------|------------------------|--------------|---------|------|------------------------|--------------|---------|
| 10 | 100 | 1/4 | 181.485 | 5 | 80 | 1/4 | 149.756 |
| 15 | 125 | 1/4 | 221.145 | 10 | 110 | 1/4 | 197.349 |
| | | | | 20 | 125 | 1/4 | 221.145 |
| | | | | 30 | 125 | 1/4 | 221.145 |
| | | | | 40 | 125 | 1/4 | 221.145 |
| | | | | 45 | 125 | 1/4 | 221.145 |
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Remarks:



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58999

Well Name & No. 1-27 Robert G Larson Test No. 4 Date 06/20/14
 Company Roberts Resources Elevation 1549 KB 1541 GL
 Address 2020 N. Tyler Ste 106 Wichita, KS 67212
 Co. Rep / Geo. Kent Roberts Rig Fossil 2
 Location: Sec. 27 Twp. 31S Rge. 13W Co. Barber State KS

Interval Tested 4370 - 4476 Zone Tested Viola
 Anchor Length 106 Drill Pipe Run 4205 Mud Wt. 9.4
 Top Packer Depth 4365 Drill Collars Run 149 Vis 48
 Bottom Packer Depth 4370 Wt. Pipe Run 0 WL 10.8
 Total Depth 4476 Chlorides 7006 ppm System LCM

Blow Description IF: Fair Blow, BOB in 8 minutes
ISI: NO Blow Back
FF: Strong Blow, BOB in 10 seconds, GTS in 18 minutes, TSTM, caught sample
FSI: NO Blow Back

| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|------------|----------|------|--------|-----------|
| <u>4289</u> | <u>GIP</u> | | | | |
| <u>65</u> | <u>GCM</u> | <u>5</u> | | | <u>95</u> |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 65 BHT 128 Gravity NIC API RW NIC @ NIC °F Chlorides NIC ppm

| | | |
|-------------------------------------|---|----------------------------|
| (A) Initial Hydrostatic <u>2258</u> | <input checked="" type="checkbox"/> Test <u>1250</u> | T-On Location <u>14:30</u> |
| (B) First Initial Flow <u>77</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>15:43</u> |
| (C) First Final Flow <u>80</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>17:41</u> |
| (D) Initial Shut-In <u>1359</u> | <input type="checkbox"/> Circ Sub | T-Pulled <u>21:13</u> |
| (E) Second Initial Flow <u>90</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>23:07</u> |
| (F) Second Final Flow <u>104</u> | <input checked="" type="checkbox"/> Mileage <u>(90)</u> <u>139.50</u> | Comments |
| (G) Final Shut-In <u>1504</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>2244</u> | <input type="checkbox"/> Straddle | |

| | | |
|---------------------------|---|--|
| Initial Open <u>15</u> | <input type="checkbox"/> Shale Packer | <input type="checkbox"/> Ruined Shale Packer |
| Initial Shut-In <u>60</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Ruined Packer |
| Final Flow <u>45</u> | <input type="checkbox"/> Extra Recorder | <input type="checkbox"/> Extra Copies |
| Final Shut-In <u>90</u> | <input type="checkbox"/> Day Standby | Sub Total <u>0</u> |
| | <input type="checkbox"/> Accessibility | Total <u>1714.50</u> |
| | Sub Total <u>1714.50</u> | MP/DST Disc't |

Approved By Kent Roberts Our Representative [Signature]

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