TRILOBITE TESTING, INC.

# DRILL STEM TEST REPORT

Prepared For: **Coral Production Corporation**

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**Spangenberg #35-3**

**35-21S-14W Stafford,KS**

Start Date: 2014.09.19 @ 04:02:20
End Date: 2014.09.19 @ 10:01:05
Job Ticket #: 57762 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.09.24 @ 14:43:08

# DRILL STEM TEST REPORT

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57762 **DST#: 1**

Test Start: 2014.09.19 @ 04:02:20

## GENERAL INFORMATION:

Formation: **LKC "I"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:49:35
Time Test Ended: 10:01:05

Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 74

**Interval: 3568.00 ft (KB) To 3580.00 ft (KB) (TVD)**
Total Depth: 3580.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

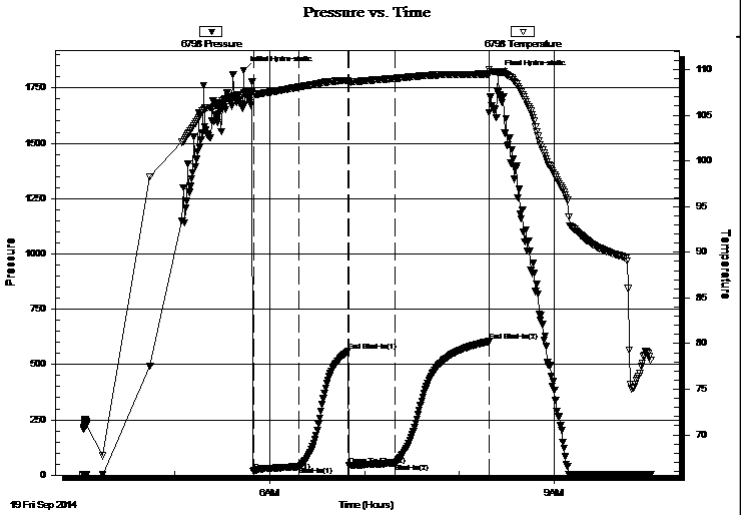
Reference Elevations: 1946.00 ft (KB)
1935.00 ft (CF)
KB to GR/CF: 11.00 ft

**Serial #: 6798** **Inside**

Press@RunDepth: 54.19 psig @ 3569.00 ft (KB)
Start Date: 2014.09.19 End Date: 2014.09.19
Start Time: 04:02:21 End Time: 10:01:05

Capacity: 8000.00 psig
Last Calib.: 2014.09.19
Time On Btm: 2014.09.19 @ 05:43:35
Time Off Btm: 2014.09.19 @ 08:24:20

TEST COMMENT: IF: Weak Blow , Built to 1 inch
ISI: No Blow Back
FF: Weak Blow , Built to 1 inch
FSI: No Blow Back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1829.96 | 107.42 | Initial Hydro-static |
| 6 | 17.36 | 107.28 | Open To Flow (1) |
| 35 | 39.05 | 108.08 | Shut-In(1) |
| 66 | 560.83 | 108.83 | End Shut-In(1) |
| 67 | 43.68 | 108.64 | Open To Flow (2) |
| 96 | 54.19 | 109.03 | Shut-In(2) |
| 155 | 603.99 | 109.52 | End Shut-In(2) |
| 161 | 1812.68 | 109.78 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 65.00 | OWCM 10%O 44%W 46%M | 0.32 |
| | | |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57762 **DST#: 1**

Test Start: 2014.09.19 @ 04:02:20

## GENERAL INFORMATION:

Formation: **LKC "I"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:49:35
Time Test Ended: 10:01:05

Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 74

**Interval: 3568.00 ft (KB) To 3580.00 ft (KB) (TVD)**
Total Depth: 3580.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

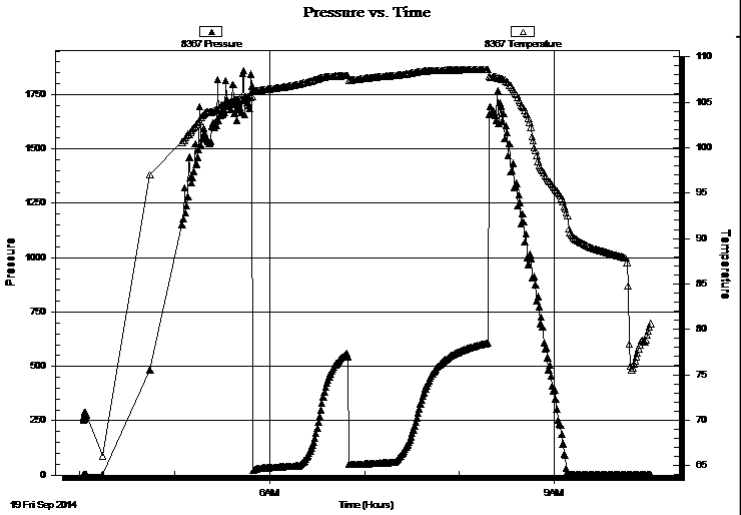
Reference Elevations: 1946.00 ft (KB)
1935.00 ft (CF)
KB to GR/CF: 11.00 ft

**Serial #: 8367** **Outside**

Press@RunDepth: psig @ 3569.00 ft (KB)
Start Date: 2014.09.19 End Date: 2014.09.19
Start Time: 04:02:21 End Time: 10:00:50

Capacity: 8000.00 psig
Last Calib.: 2014.09.19
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak Blow , Built to 1 inch
ISI: No Blow Back
FF: Weak Blow , Built to 1 inch
FSI: No Blow Back




## PRESSURE SUMMARY

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

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 65.00 | OWCM 10%O 44%W 46%M | 0.32 |
| | | |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57762 **DST#: 1**

Test Start: 2014.09.19 @ 04:02:20

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 3297.00 ft | Diameter: | 3.80 inches | Volume: | 46.25 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: | 276.00 ft | Diameter: | 2.25 inches | Volume: | 1.36 bbl | Weight to Pull Loose: | | 70000.00 lb |
| | | | | | Total Volume: | 47.61 bbl | Tool Chased | | ft |
| Drill Pipe Above KB: | | 24.00 ft | | | | | String Weight: | Initial | 64000.00 lb |
| Depth to Top Packer: | | 3568.00 ft | | | | | | Final | 64000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | |
| Interval betw een Packers: | | 12.00 ft | | | | | | | |
| Tool Length: | | 31.00 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 | | | 3554.00 | | |
| Hydraulic tool | 5.00 | | | 3559.00 | | |
| Packer | 5.00 | | | 3564.00 | 19.00 | Bottom Of Top Packer |
| Packer | 4.00 | | | 3568.00 | | |
| Stubb | 1.00 | | | 3569.00 | | |
| Recorder | 0.00 | 6798 | Inside | 3569.00 | | |
| Recorder | 0.00 | 8367 | Outside | 3569.00 | | |
| Perforations | 8.00 | | | 3577.00 | | |
| Bullnose | 3.00 | | | 3580.00 | 12.00 | Bottom Packers & Anchor |
| **Total Tool Length:** | **31.00** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57762 **DST#: 1**

Test Start: 2014.09.19 @ 04:02:20

## Mud and Cushion Information

| | | | | | |
|---|---|---|---|---|---|
| Mud Type: | Gel Chem | Cushion Type: | | Oil API: | deg API |
| Mud Weight: | 9.00 lb/gal | Cushion Length: | ft | Water Salinity: | 68000 ppm |
| Viscosity: | 51.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 7.19 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 4000.00 ppm | | | | |
| Filter Cake: | 0.02 inches | | | | |

## Recovery Information

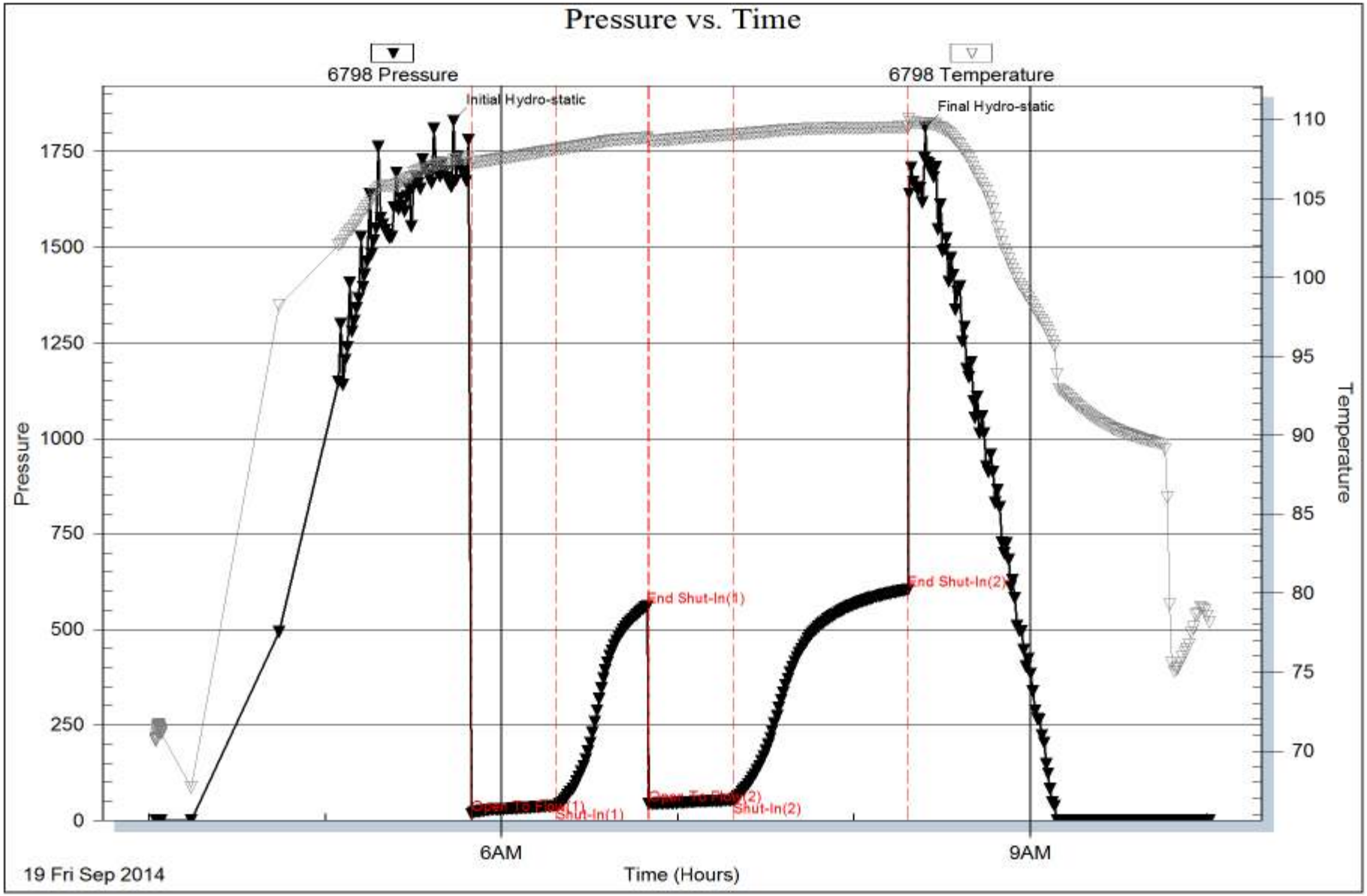
Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 65.00 | OWCM 10%O 44%W 46%M | 0.320 |

Total Length: 65.00 ft Total Volume: 0.320 bbl

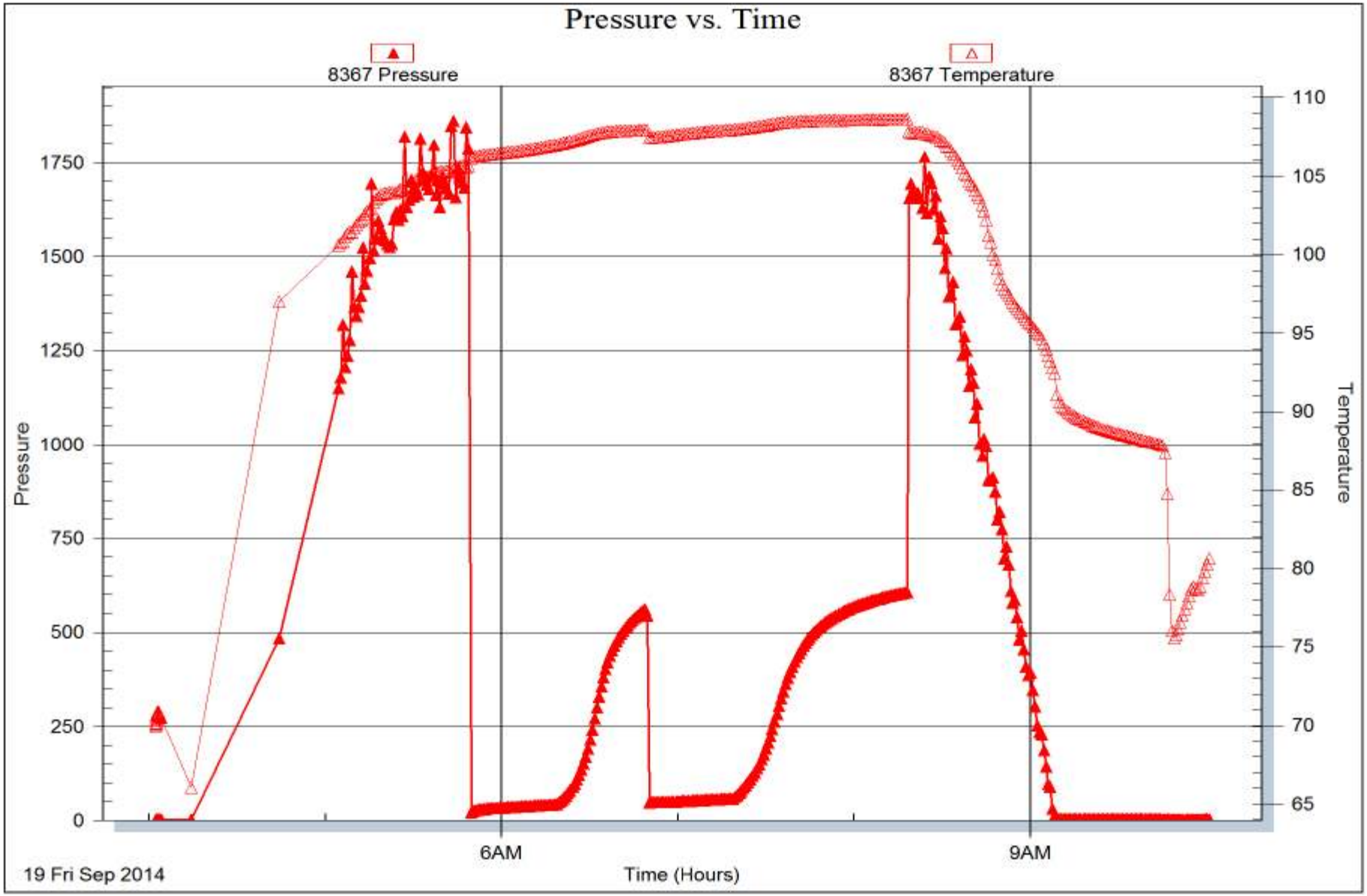
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: RW w as .05 @ 70 degrees

Serial #: 6798 **Inside** Coral Production Corporation Spangenberg #35-3 DST Test Number: 1




Trilobite Testing, Inc Ref. No: 57762 Printed: 2014.09.24 @ 14:43:09

Serial #: 8367 **Outside** Coral Production Corporation Spangenberg #35-3 DST Test Number: 1




Trilobite Testing, Inc Ref. No: 57762 Printed: 2014.09.24 @ 14:43:10

TRILOBITE TESTING, INC.

# DRILL STEM TEST REPORT

Prepared For: **Coral Production Corporation**

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**Spangenberg #35-3**

**35-21S-14W Stafford,KS**

Start Date: 2014.09.19 @ 15:34:26
End Date: 2014.09.19 @ 22:20:11
Job Ticket #: 57763 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.09.24 @ 14:42:52

# DRILL STEM TEST REPORT

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57763 **DST#: 2**

Test Start: 2014.09.19 @ 15:34:26

## GENERAL INFORMATION:

Formation: **LKC "J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:27:26
Time Test Ended: 22:20:11

Test Type: Conventional Bottom Hole (Reset)
Tester: Leal Cason
Unit No: 74

**Interval: 3588.00 ft (KB) To 3612.00 ft (KB) (TVD)**
Total Depth: 3612.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

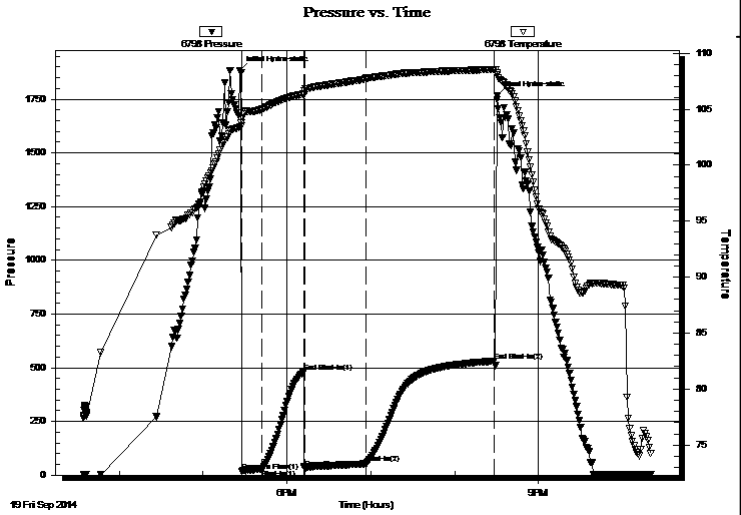
Reference Elevations: 1946.00 ft (KB)
1935.00 ft (CF)
KB to GR/CF: 11.00 ft

**Serial #: 6798** **Inside**

Press@RunDepth: 53.41 psig @ 3589.00 ft (KB)
Start Date: 2014.09.19 End Date: 2014.09.19
Start Time: 15:34:27 End Time: 22:20:11

Capacity: 8000.00 psig
Last Calib.: 2014.09.19
Time On Btm: 2014.09.19 @ 17:26:11
Time Off Btm: 2014.09.19 @ 20:30:26

TEST COMMENT: IF: Fair Blow , Built to 4 inches
ISI: No Blow Back
FF: Fair Blow , BOB in 35 minutes
FSI: No Blow Back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1882.06 | 103.47 | Initial Hydro-static |
| 2 | 17.11 | 103.52 | Open To Flow (1) |
| 16 | 28.77 | 105.00 | Shut-In(1) |
| 46 | 480.44 | 106.36 | End Shut-In(1) |
| 47 | 33.00 | 106.69 | Open To Flow (2) |
| 91 | 53.41 | 107.77 | Shut-In(2) |
| 183 | 530.88 | 108.56 | End Shut-In(2) |
| 185 | 1764.75 | 108.06 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 0.00 | 600 GIP | 0.00 |
| 70.00 | OMCW 24%O 36%M 40%W | 0.34 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

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

# DRILL STEM TEST REPORT

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57763 **DST#: 2**

Test Start: 2014.09.19 @ 15:34:26

## GENERAL INFORMATION:

Formation: **LKC "J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:27:26
Time Test Ended: 22:20:11

Test Type: Conventional Bottom Hole (Reset)
Tester: Leal Cason
Unit No: 74

**Interval: 3588.00 ft (KB) To 3612.00 ft (KB) (TVD)**
Total Depth: 3612.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

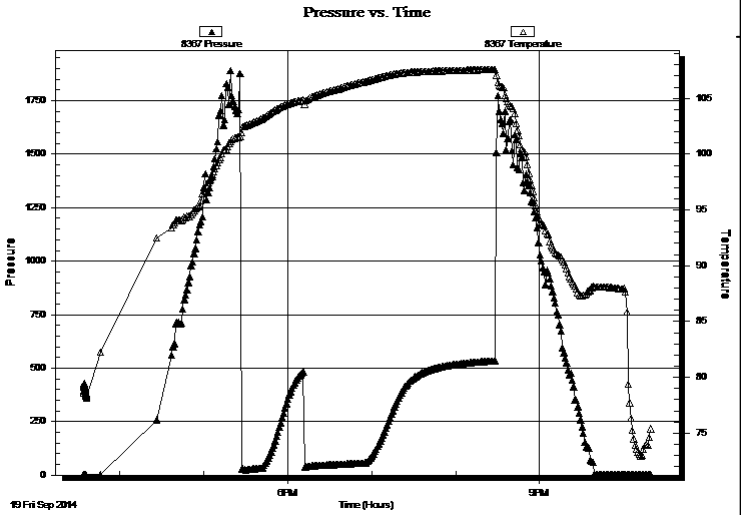
Reference Elevations: 1946.00 ft (KB)
1935.00 ft (CF)
KB to GR/CF: 11.00 ft

**Serial #: 8367** **Outside**

Press@RunDepth: psig @ 3589.00 ft (KB)
Start Date: 2014.09.19 End Date: 2014.09.19
Start Time: 15:34:27 End Time: 22:19:56

Capacity: 8000.00 psig
Last Calib.: 2014.09.19
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Fair Blow , Built to 4 inches
ISI: No Blow Back
FF: Fair Blow , BOB in 35 minutes
FSI: No Blow Back




## PRESSURE SUMMARY

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

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 0.00 | 600 GIP | 0.00 |
| 70.00 | OMCW 24%O 36%M 40%W | 0.34 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

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

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57763 **DST#: 2**

Test Start: 2014.09.19 @ 15:34:26

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 3296.00 ft | Diameter: | 3.80 inches | Volume: | 46.23 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: | 276.00 ft | Diameter: | 2.25 inches | Volume: | 1.36 bbl | Weight to Pull Loose: | | 80000.00 lb |
| | | | | | Total Volume: | 47.59 bbl | Tool Chased | | ft |
| Drill Pipe Above KB: | | 3.00 ft | | | | | String Weight: | Initial | 64000.00 lb |
| Depth to Top Packer: | | 3588.00 ft | | | | | | Final | 66000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | |
| Interval betw een Packers: | | 24.00 ft | | | | | | | |
| Tool Length: | | 43.00 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 | | | 3574.00 | | |
| Hydraulic tool | 5.00 | | | 3579.00 | | |
| Packer | 5.00 | | | 3584.00 | 19.00 | Bottom Of Top Packer |
| Packer | 4.00 | | | 3588.00 | | |
| Stubb | 1.00 | | | 3589.00 | | |
| Recorder | 0.00 | 6798 | Inside | 3589.00 | | |
| Recorder | 0.00 | 8367 | Outside | 3589.00 | | |
| Perforations | 20.00 | | | 3609.00 | | |
| Bullnose | 3.00 | | | 3612.00 | 24.00 | Bottom Packers & Anchor |
| **Total Tool Length:** | **43.00** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57763 **DST#: 2**

Test Start: 2014.09.19 @ 15:34:26

## 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: | 60000 ppm |
| Viscosity: | 55.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 6.79 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 3000.00 ppm | | | | |
| Filter Cake: | 0.02 inches | | | | |

## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 0.00 | 600 GIP | 0.000 |
| 70.00 | OMCW 24%O 36%M 40%W | 0.344 |

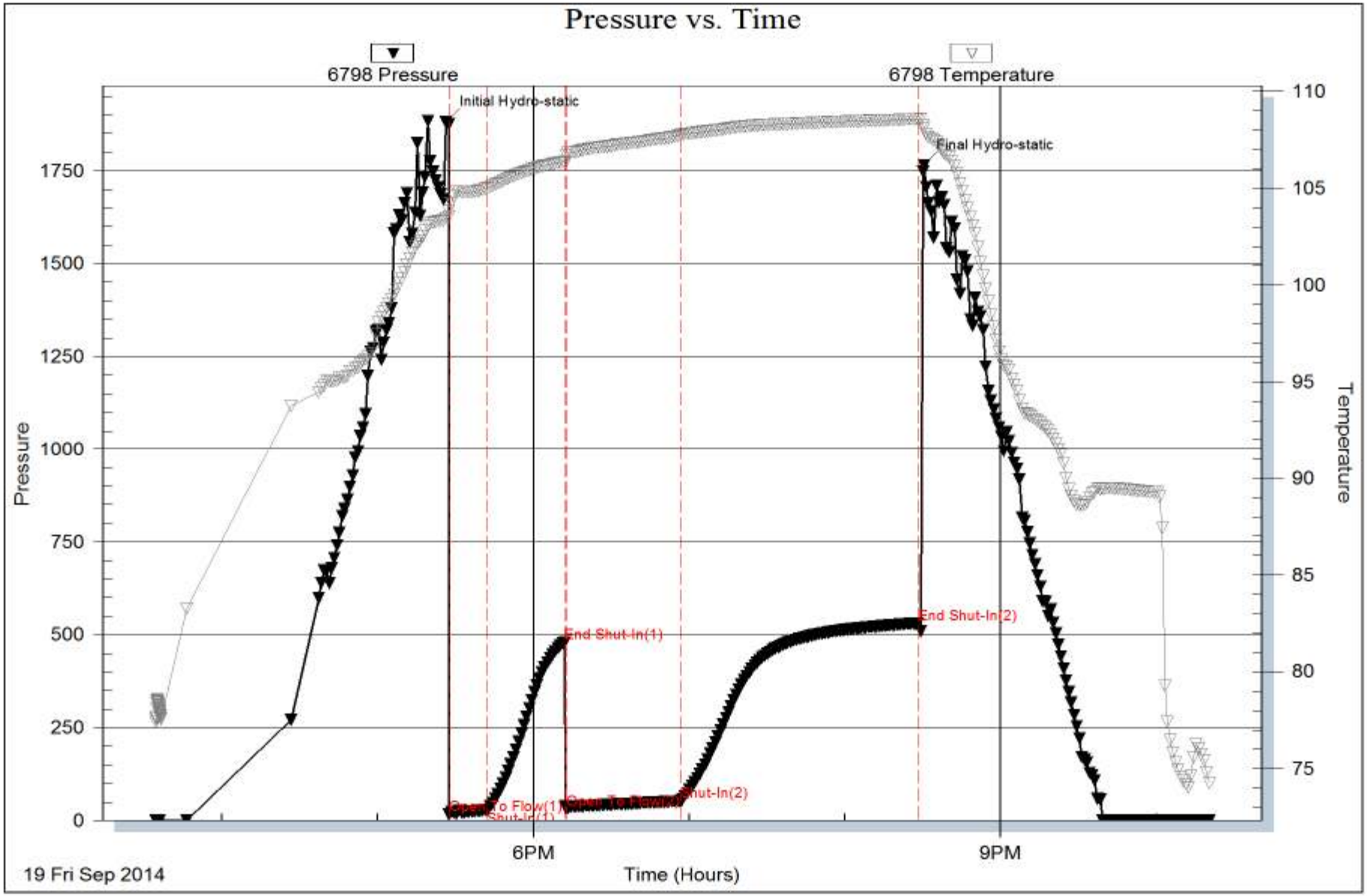
Total Length: 70.00 ft Total Volume: 0.344 bbl

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

Laboratory Name: Laboratory Location:

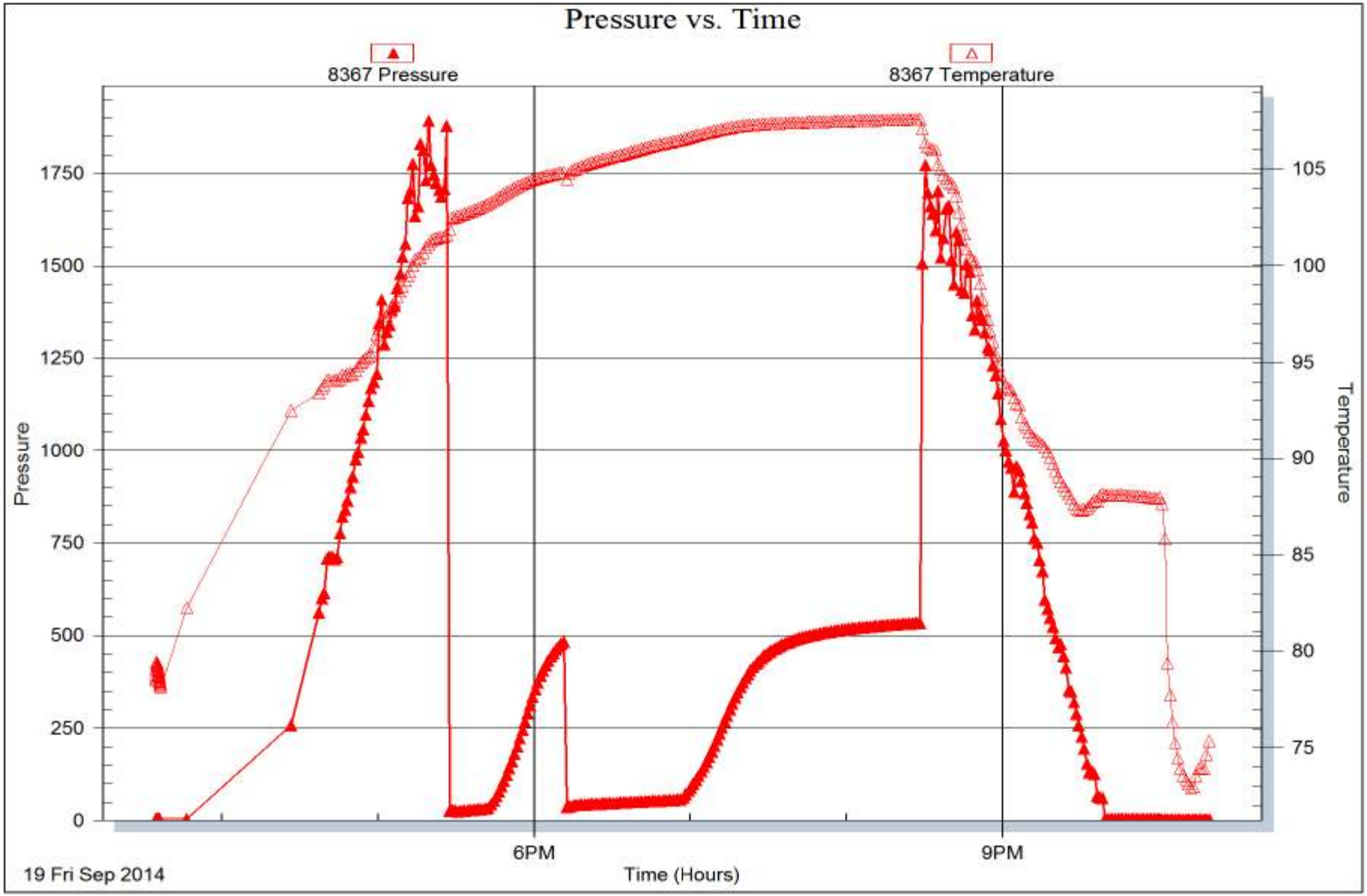
Recovery Comments: RW was .11 @ 81 degrees

Serial #: 6798 **Inside** Coral Production Corporation Spangenberg #35-3 DST Test Number: 2




Trilobite Testing, Inc Ref. No: 57763 Printed: 2014.09.24 @ 14:42:54

Serial #: 8367 **Outside** Coral Production Corporation Spangenberg #35-3 DST Test Number: 2




Trilobite Testing, Inc Ref. No: 57763 Printed: 2014.09.24 @ 14:42:54

TRILOBITE TESTING, INC.

# DRILL STEM TEST REPORT

Prepared For: **Coral Production Corporation**

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**Spangenberg #35-3**

**35-21S-14W Stafford,KS**

Start Date: 2014.09.20 @ 05:38:06
End Date: 2014.09.20 @ 12:46:13
Job Ticket #: 57764 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.09.24 @ 14:42:35

# DRILL STEM TEST REPORT

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57764 **DST#: 3**

Test Start: 2014.09.20 @ 05:38:06

## GENERAL INFORMATION:

Formation: **LKC "K-L"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:16:51
Time Test Ended: 12:46:13

Test Type: Conventional Bottom Hole (Reset)
Tester: Leal Cason
Unit No: 74

**Interval: 3610.00 ft (KB) To 3655.00 ft (KB) (TVD)**
Total Depth: 3665.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

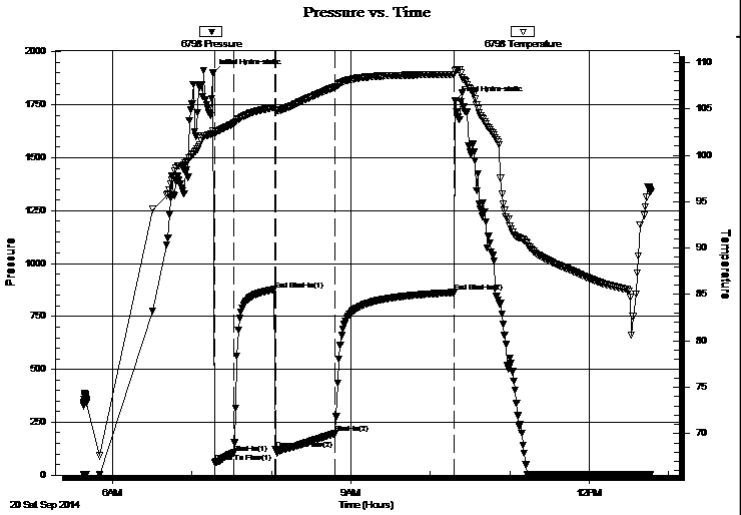
Reference Elevations: 1946.00 ft (KB)
1935.00 ft (CF)
KB to GR/CF: 11.00 ft

**Serial #: 6798** **Inside**

Press@RunDepth: 196.25 psig @ 3611.00 ft (KB)
Start Date: 2014.09.20 End Date: 2014.09.20
Start Time: 05:38:07 End Time: 12:46:13

Capacity: 8000.00 psig
Last Calib.: 2014.09.20
Time On Btm: 2014.09.20 @ 07:15:51
Time Off Btm: 2014.09.20 @ 10:18:51

TEST COMMENT: IF: Strong Blow , BOB in 3 minutes
ISI: Weak Surface Blow Back
FF: Strong Blow , BOB in 2 minutes
FSI: 4 inch Blow Back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1899.67 | 102.59 | Initial Hydro-static |
| 1 | 62.27 | 102.27 | Open To Flow (1) |
| 16 | 105.14 | 103.43 | Shut-In(1) |
| 47 | 877.05 | 105.15 | End Shut-In(1) |
| 47 | 120.79 | 104.88 | Open To Flow (2) |
| 93 | 196.25 | 107.35 | Shut-In(2) |
| 182 | 863.19 | 108.73 | End Shut-In(2) |
| 183 | 1771.29 | 109.10 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 0.00 | 882 GIP | 0.00 |
| 945.00 | Gassy Oil 30%G 70%O | 10.74 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

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

# DRILL STEM TEST REPORT

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57764 **DST#: 3**

Test Start: 2014.09.20 @ 05:38:06

## GENERAL INFORMATION:

Formation: **LKC "K-L"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:16:51
Time Test Ended: 12:46:13

Test Type: Conventional Bottom Hole (Reset)
Tester: Leal Cason
Unit No: 74

**Interval: 3610.00 ft (KB) To 3655.00 ft (KB) (TVD)**
Total Depth: 3665.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

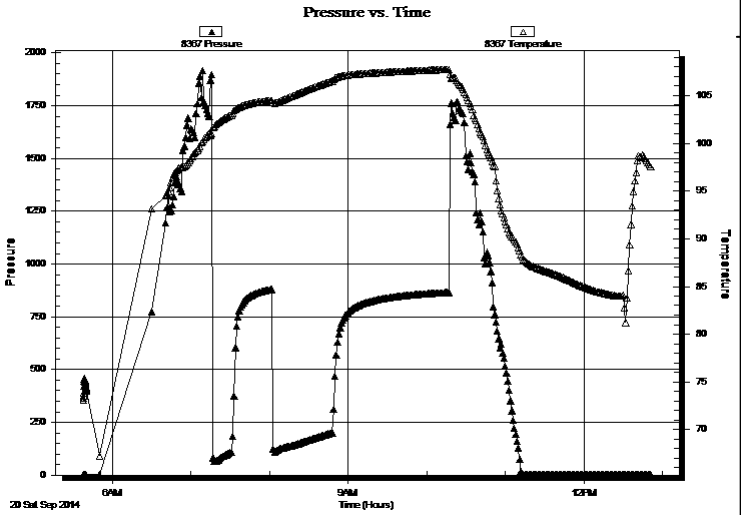
Reference Elevations: 1946.00 ft (KB)
1935.00 ft (CF)
KB to GR/CF: 11.00 ft

**Serial #: 8367** **Outside**

Press@RunDepth: psig @ 3611.00 ft (KB)
Start Date: 2014.09.20 End Date: 2014.09.20
Start Time: 05:38:07 End Time: 12:51:21

Capacity: 8000.00 psig
Last Calib.: 2014.09.20
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 3 minutes
ISI: Weak Surface Blow Back
FF: Strong Blow , BOB in 2 minutes
FSI: 4 inch Blow Back




## PRESSURE SUMMARY

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

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 0.00 | 882 GIP | 0.00 |
| 945.00 | Gassy Oil 30%G 70%O | 10.74 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

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

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57764 **DST#: 3**

Test Start: 2014.09.20 @ 05:38:06

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 3328.00 ft | Diameter: | 3.80 inches | Volume: | 46.68 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: | 276.00 ft | Diameter: | 2.25 inches | Volume: | 1.36 bbl | Weight to Pull Loose: | | 80000.00 lb |
| | | | | | Total Volume: | 48.04 bbl | Tool Chased | | ft |
| Drill Pipe Above KB: | | 13.00 ft | | | | | String Weight: | Initial | 64000.00 lb |
| Depth to Top Packer: | | 3610.00 ft | | | | | | Final | 66000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | |
| Interval betw een Packers: | | 55.00 ft | | | | | | | |
| Tool Length: | | 74.00 ft | | | | | | | |
| Number of Packers: | | 2 | Diameter: | 6.75 inches | | | | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths | |
|---|---|---|---|---|---|---|
| Shut In Tool | 5.00 | | | 3596.00 | | |
| Hydraulic tool | 5.00 | | | 3601.00 | | |
| Packer | 5.00 | | | 3606.00 | 19.00 | Bottom Of Top Packer |
| Packer | 4.00 | | | 3610.00 | | |
| Stubb | 1.00 | | | 3611.00 | | |
| Recorder | 0.00 | 6798 | Inside | 3611.00 | | |
| Recorder | 0.00 | 8367 | Outside | 3611.00 | | |
| Perforations | 3.00 | | | 3614.00 | | |
| Change Over Sub | 1.00 | | | 3615.00 | | |
| Drill Pipe | 31.00 | | | 3646.00 | | |
| Change Over Sub | 1.00 | | | 3647.00 | | |
| Perforations | 15.00 | | | 3662.00 | | |
| Bullnose | 3.00 | | | 3665.00 | 55.00 | Bottom Packers & Anchor |
| **Total Tool Length:** | **74.00** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Coral Production Corporation

1600 Stout St Ste 1500
Denver, CO 80202

ATTN: Tim Lauer

**35-21S-14W Stafford,KS**

**Spangenberg #35-3**

Job Ticket: 57764 **DST#: 3**

Test Start: 2014.09.20 @ 05:38:06

## Mud and Cushion Information

| | | | | | |
|---|---|---|---|---|---|
| Mud Type: | Gel Chem | Cushion Type: | | Oil API: | 26.8 deg API |
| Mud Weight: | 9.00 lb/gal | Cushion Length: | ft | Water Salinity: | ppm |
| Viscosity: | 51.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 7.18 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 4000.00 ppm | | | | |
| Filter Cake: | 0.02 inches | | | | |

## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 0.00 | 882 GIP | 0.000 |
| 945.00 | Gassy Oil 30%G 70%O | 10.742 |

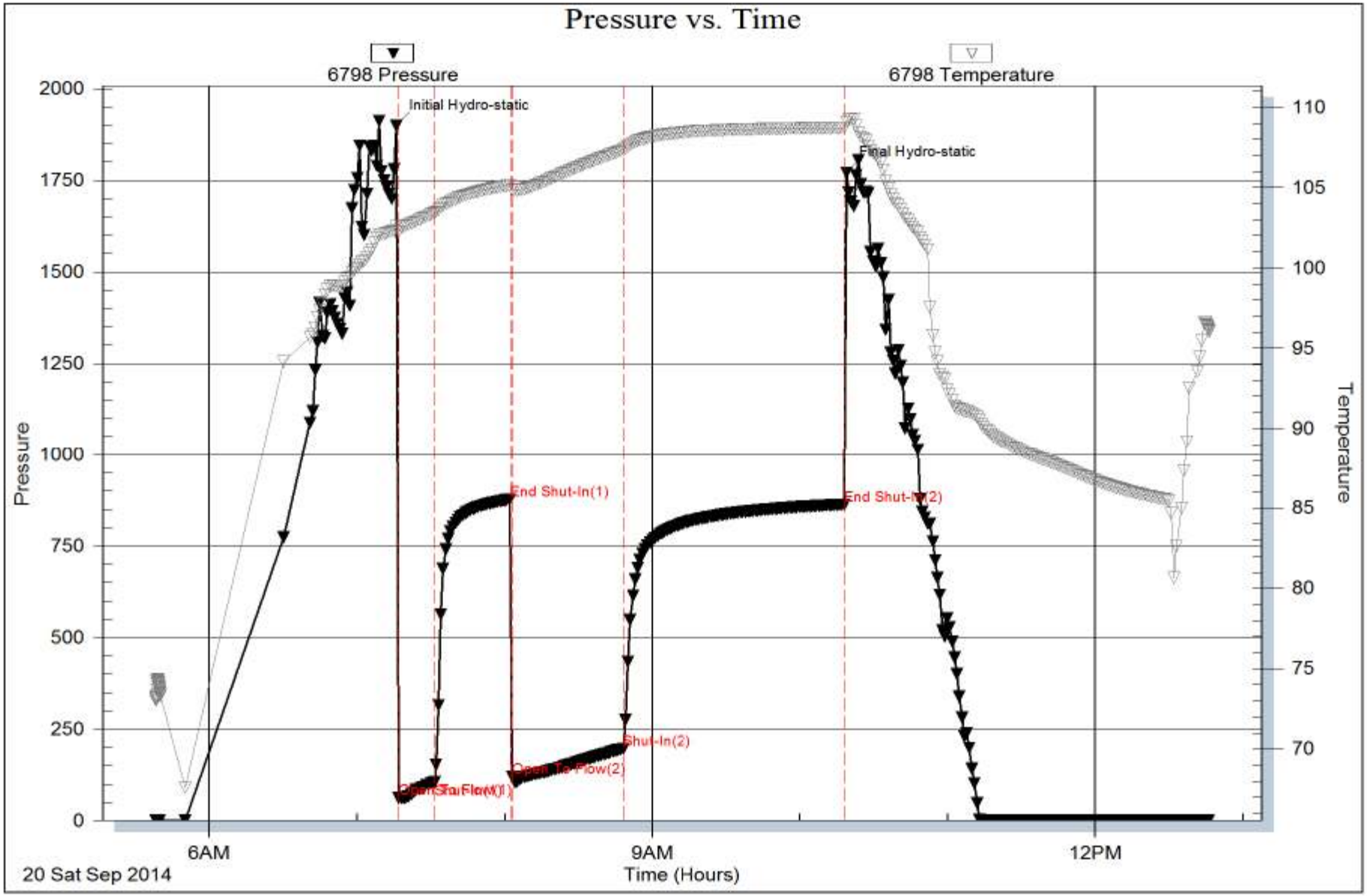
Total Length: 945.00 ft Total Volume: 10.742 bbl

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

Laboratory Name: Laboratory Location:

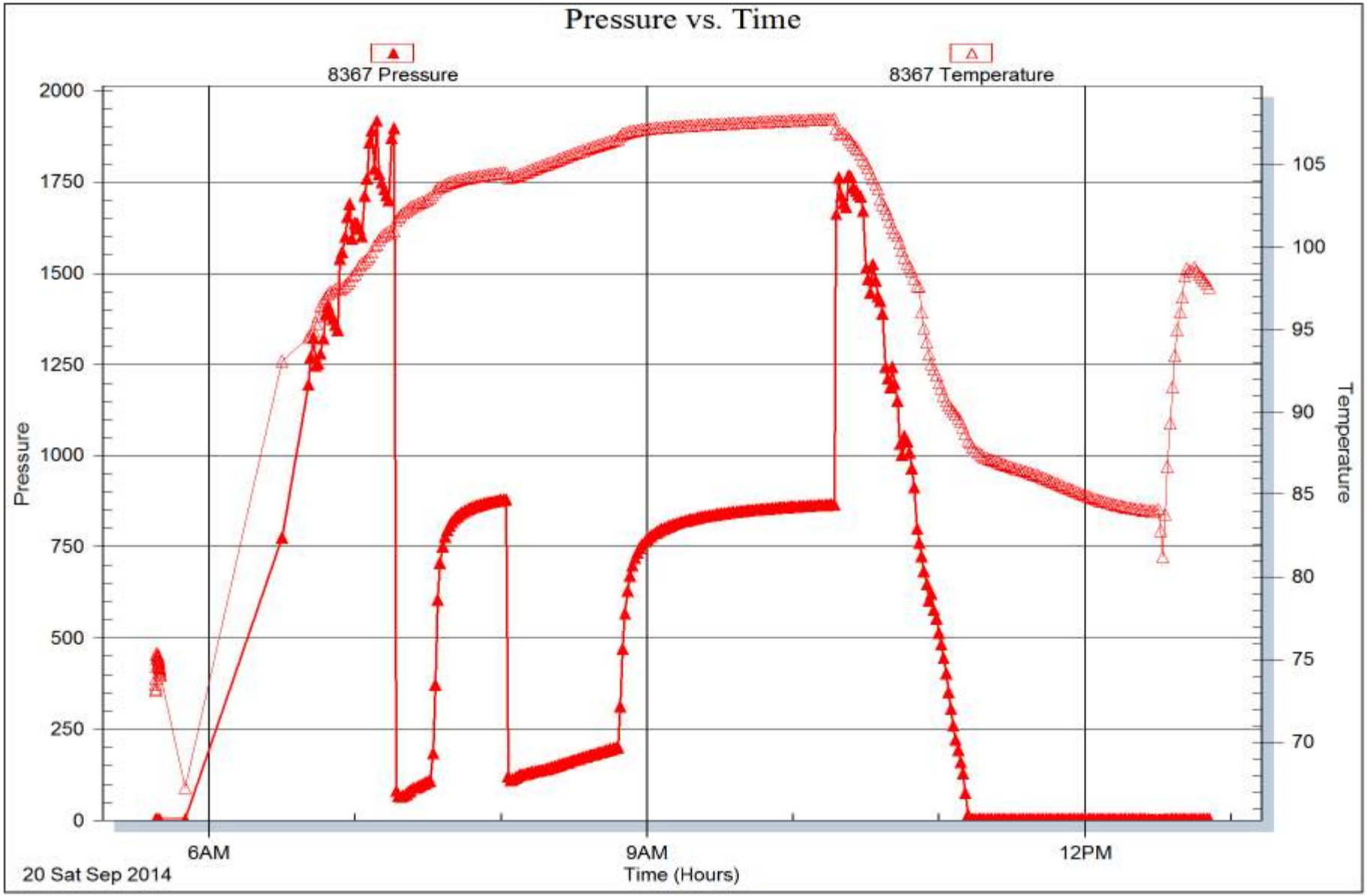
Recovery Comments: Gravity w as 29.8 @ 90 degrees

Serial #: 6798 **Inside** Coral Production Corporation Spangenberg #35-3 DST Test Number: 3




Trilobite Testing, Inc Ref. No: 57764 Printed: 2014.09.24 @ 14:42:37

Serial #: 8367 **Outside** Coral Production Corporation Spangenberg #35-3 DST Test Number: 3




Trilobite Testing, Inc Ref. No: 57764 Printed: 2014.09.24 @ 14:42:37

# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

## Test Ticket

NO. 57762

Well Name & No. Spangenberg 35-3 Test No. 1 Date 09/19/14

Company Coral Production Corporation Elevation 1946 KB 1935 GL

Address 1600 Stout St Ste 1500 Denver, CO 80202

Co. Rep / Geo. Tim Lauer Rig Murfin 21

Location: Sec. 35 Twp. 21S Rge. 14W Co. Stafford State KS

Interval Tested 3568 - 3580 Zone Tested Lansing "I"

Anchor Length 12 Drill Pipe Run 3297 ~~3309~~ Mud Wt. 9.1

Top Packer Depth 3563 Drill Collars Run 276 ~~308~~ Vis 51

Bottom Packer Depth 3568 Wt. Pipe Run 0 WL 7.2

Total Depth 3580 Chlorides 4000 ppm System LCM 1/2

Blow Description IF: weak Blow, Built to 1 inch

ISI: No Blow Back

FF: weak Blow, Built to 1 inch

FSI: No Blow Back

| | | | | | |
|---|---|---|---|---|---|
| Rec 65 | Feet of OWCM | %gas | 10 %oil | 44 %water | ~~40~~ 46 %mud |
| 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 65 BHT 110 Gravity N/C API RW .65 @ 70 °F Chlorides 68000 ppm

| | | | |
|---|---|---|---|
| (A) Initial Hydrostatic 1830 | ☑ Test 1150 | T-On Location 01:45 |
| (B) First Initial Flow 17 | ☐ Jars | T-Started 04:02 |
| (C) First Final Flow 39 | ☐ Safety Joint | T-Open 05:49 |
| (D) Initial Shut-In 581 | ☐ Circ Sub | T-Pulled 08:18 |
| (E) Second Initial Flow 44 | ☐ Hourly Standby | T-Out 10:01 |
| (F) Second Final Flow 54 | ☑ Mileage (80) 35rt 54.25 | Comments |
| (G) Final Shut-In 604 | ☐ Sampler | |
| (H) Final Hydrostatic 1813 | ☐ Straddle | ☐ Ruined Shale Packer |
| | ☐ Shale Packer | ☐ Ruined Packer |
| Initial Open 30 | ☐ Extra Packer | ☐ Extra Copies |
| Initial Shut-In 30 | ☐ Extra Recorder | Sub Total 0 |
| Final Flow 30 | ☐ Day Standby | Total 1204.25 |
| Final Shut-In 60 | ☐ Accessibility | MP/DST Disc't |
| | Sub Total 1204.25 | |

Approved By Tim J. Lauer Our Representative

# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

## Test Ticket

NO. 57763

Well Name & No. Spangenberg 35-3 Test No. 2 Date 6/19/14

Company Coral Production Corporation Elevation 1946 KB 1935 GL

Address 1600 Stout St Ste 1500 Denver, CO 80202

Co. Rep / Geo. Tim Lauer Rig Murfin 21

Location: Sec. 35 Twp. 21S Rge. 14W Co. Stafford State KS

Interval Tested 3588 - 3612 Zone Tested Lansing "J"

Anchor Length 24 Drill Pipe Run 3296 Mud Wt. 9.3

Top Packer Depth 3583 Drill Collars Run 276 Vis 55

Bottom Packer Depth 3588 Wt. Pipe Run 0 WL 6.8

Total Depth 3612 Chlorides 3000 ppm System LCM 1

Blow Description IF: Fair Blow, Built to 4 inches

ISI: No Blow Back

FF: Fair Blow, BOB in 35 minutes

FSI: NO Blow Back

| | | | | | |
|---|---|---|---|---|---|
| Rec 600 | Feet of GIP | %gas | %oil | %water | %mud |
| Rec 70 | Feet of OMCW | %gas | 94 %oil | 40 %water | 36 %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 109 Gravity N/C API RW .11 @ 81 °F Chlorides 60,000 ppm

| | | | |
|---|---|---|---|
| (A) Initial Hydrostatic 1882 | ☑ Test 1150 | T-On Location 15:15 | |
| (B) First Initial Flow 17 | ☐ Jars | T-Started 15:34 | |
| (C) First Final Flow 29 | ☐ Safety Joint | T-Open 17:27 | |
| (D) Initial Shut-In 480 | ☐ Circ Sub | T-Pulled 20:28 | |
| (E) Second Initial Flow 33 | ☐ Hourly Standby | T-Out 22:20 | |
| (F) Second Final Flow 53 | ☑ Mileage 80 54.25 | Comments | |
| (G) Final Shut-In 531 | ☐ Sampler | | |
| (H) Final Hydrostatic 1765 | ☐ Straddle | ☐ Ruined Shale Packer | |
| | ☐ Shale Packer | ☐ Ruined Packer | |
| Initial Open 15 | ☐ Extra Packer | ☐ Extra Copies | |
| Initial Shut-In 30 | ☐ Extra Recorder | Sub Total 0 | |
| Final Flow 45 | ☐ Day Standby | Total 1204.25 | |
| Final Shut-In 90 | ☐ Accessibility | MP/DST Disc't | |
| | Sub Total 1204.25 | | |

Approved By Tim Lauer Our Representative

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

4/10

## Test Ticket

NO. 57764

Well Name & No. Spangenberg 35-3 Test No. 3 Date 09/20/14

Company Coral Production Corporation Elevation 1946 KB 1935 GL

Address 1600 Stout St Ste 1500 Denver, CO 80202

Co. Rep / Geo. Tim Lauer Rig Murfin 21

Location: Sec. 35 Twp. 21S Rge. 14W Co. Stafford State KS

Interval Tested 3610 - 3665 Zone Tested Lansing "K+L"

Anchor Length 55 Drill Pipe Run 3328 Mud Wt. 9.3

Top Packer Depth 3605 Drill Collars Run 276 Vis 55

Bottom Packer Depth 3610 Wt. Pipe Run 0 WL 6.8

Total Depth 3665 Chlorides 3000 ppm System LCM 1#

Blow Description IF: Strong Blow, BOB in 3 minutes

ISI: Weak surface Blow Back

FF: strong Blow, BOB in 2 minutes

FSI: 4 inch Blow Back

| | | | | | |
|---|---|---|---|---|---|
| Rec 882 | Feet of GIP | %gas | %oil | %water | %mud |
| Rec 945 | Feet of GSY oil | 30 %gas | 70 %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 945 BHT 109 Gravity 26.8 API RW NIC @ NIC °F Chlorides NIC ppm

| | | | | | |
|---|---|---|---|---|---|
| (A) Initial Hydrostatic | 1899 | ☑ Test | 1150 | T-On Location | 05:15 |
| (B) First Initial Flow | 62 | ☐ Jars | | T-Started | 05:38 |
| (C) First Final Flow | 105 | ☐ Safety Joint | | T-Open | 07:16 |
| (D) Initial Shut-In | 877 | ☐ Circ Sub | | T-Pulled | 10:17 |
| (E) Second Initial Flow | 121 | ☐ Hourly Standby | | T-Out | 12:46 |
| (F) Second Final Flow | 196 | ☑ Mileage | 80 54.25 | Comments | |
| (G) Final Shut-In | 863 | ☐ Sampler | | | |
| (H) Final Hydrostatic | 1771 | ☐ Straddle | | ☐ Ruined Shale Packer | |
| | | ☐ Shale Packer | | ☐ Ruined Packer | |
| Initial Open | 15 | ☐ Extra Packer | | ☐ Extra Copies | |
| Initial Shut-In | 30 | ☐ Extra Recorder | | Sub Total | 0 |
| Final Flow | 45 | ☐ Day Standby | | Total | 1204.25 |
| Final Shut-In | 90 | ☐ Accessibility | | MP/DST Disc't | |
| | | Sub Total | 1204.25 | | |

Approved By Tim J. Lauer Our Representative