



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Culbreath Oil & Gas Company Inc.

5-15S-34W Logan, KS

3501 S. Yale Ave.
Tulsa, OK 74135

Sowers #1-5

Job Ticket: 65618

DST#: 4

ATTN: Richard Bell

Test Start: 2016.10.10 @ 02:59:15

GENERAL INFORMATION:

Formation: **Cherokee-Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:02:00

Time Test Ended: 09:51:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: **4354.00 ft (KB) To 4420.00 ft (KB) (TVD)**

Reference Elevations: 2922.00 ft (KB)

Total Depth: 4420.00 ft (KB) (TVD)

2912.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 6751 Outside

Press@RunDepth: 52.56 psig @ 4357.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.10

End Date:

2016.10.10

Last Calib.: 2016.10.10

Start Time: 02:59:15

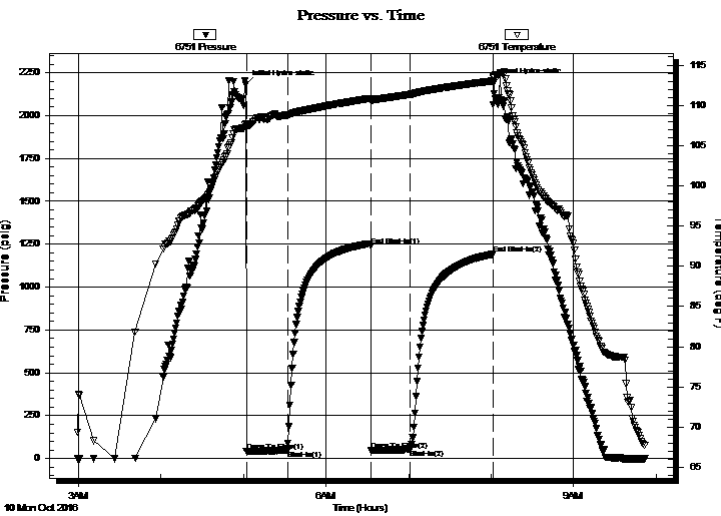
End Time:

09:51:45

Time On Btm: 2016.10.10 @ 05:01:30

Time Off Btm: 2016.10.10 @ 08:02:00

TEST COMMENT: IF: Built to 1" blow
IS: No return blow
FF: No blow
FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2181.66	107.69	Initial Hydro-static
1	40.63	107.28	Open To Flow (1)
31	47.26	108.75	Shut-In(1)
91	1241.63	110.86	End Shut-In(1)
91	48.99	110.50	Open To Flow (2)
120	52.56	111.34	Shut-In(2)
180	1192.18	113.03	End Shut-In(2)
181	2191.14	113.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	mud with oil spots in the tool 100% m	0.88

* Recovery from multiple tests

Gas Rates

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



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Total Depth: 4420.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2922.00 ft (KB)

2912.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8672 Inside

Press@RunDepth: psig @ 4357.00 ft (KB)

Start Date: 2016.10.10

End Date: 2016.10.10

Capacity: 8000.00 psig

Last Calib.: 2016.10.10

Start Time: 02:59:15

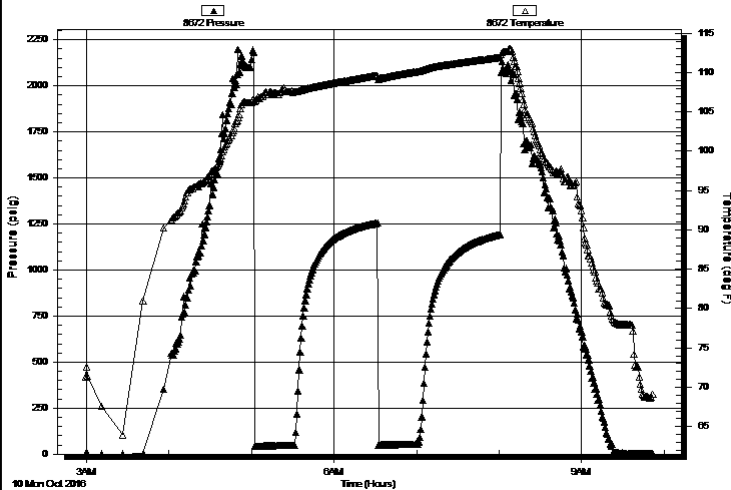
End Time: 09:51:45

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Built to 1" blow
IS: No return blow
FF: No blow
FS: No return blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	mud w ith oil spots in the tool 100% m	0.88

Gas Rates

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

* Recovery from multiple tests



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FLUID SUMMARY

Culbreath Oil & Gas Company Inc.

5-15S-34W Logan, KS

3501 S. Yale Ave.
Tulsa, OK 74135

Sowers #1-5

Job Ticket: 65618

DST#: 4

ATTN: Richard Bell

Test Start: 2016.10.10 @ 02:59:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 58000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
62.00	mud w ith oil spots in the tool 100%m	0.879

Total Length: 62.00 ft Total Volume: 0.879 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

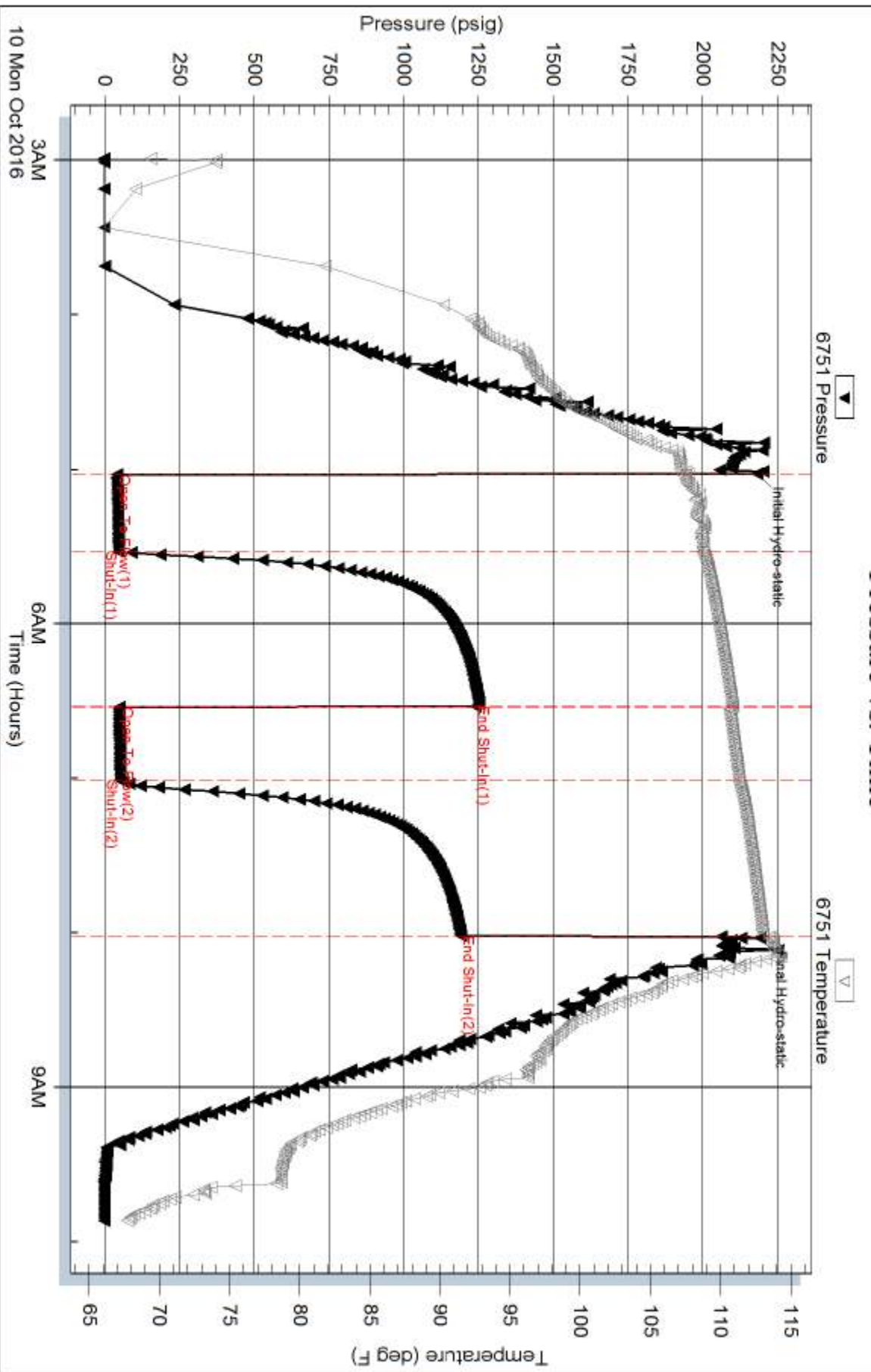
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



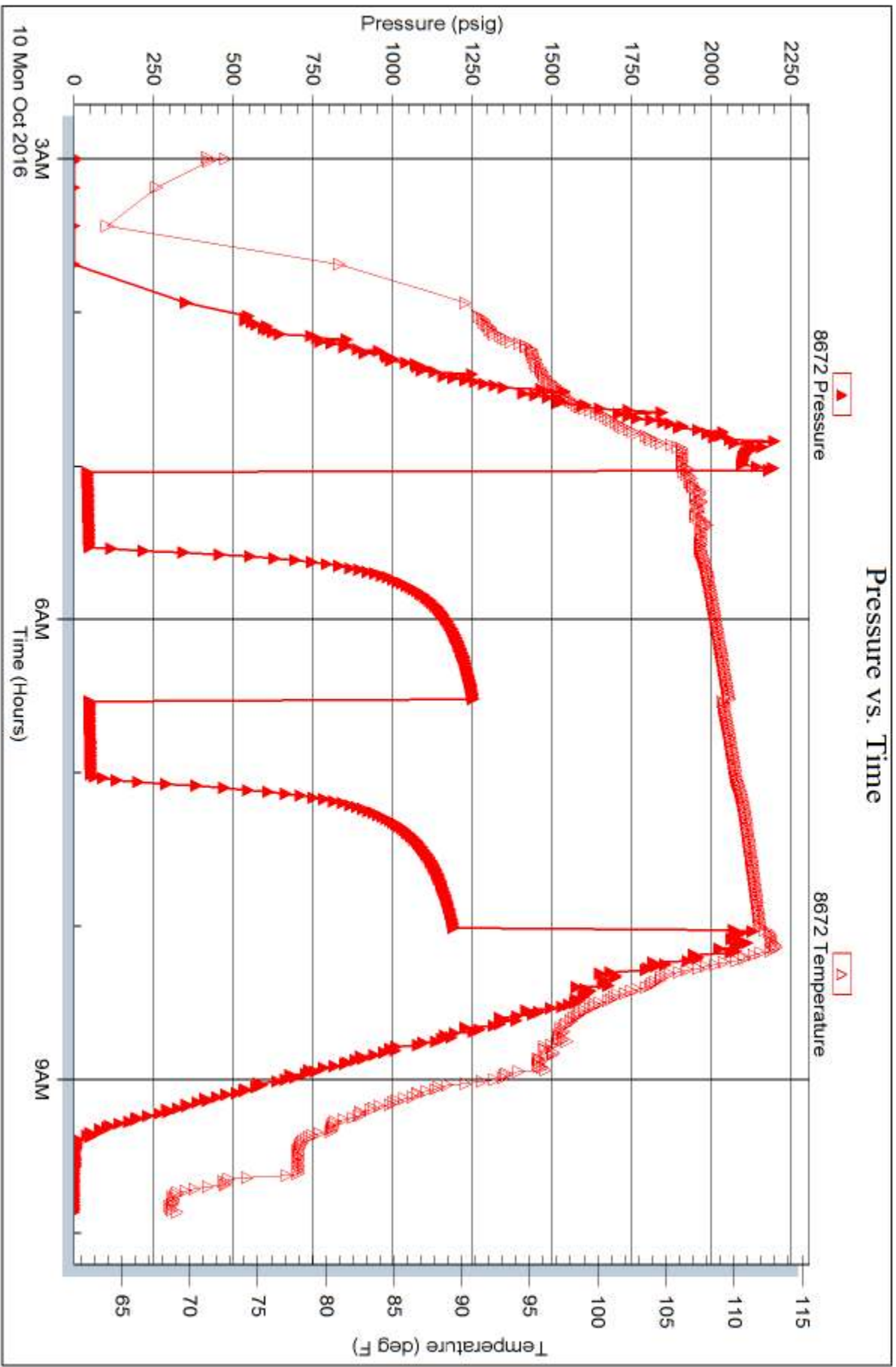
Serial #: 8672

Inside

Culbreath Oil & Gas Company Inc.

Sowers #1-5

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 65618

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