



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Coachman Energy Operating Co., LLC

**23-15S-20W Ellis, KS**

1125 17th St.  
Suite 410  
Denver, CO 80202  
ATTN: Charlie Sturdavant

**Wasinger #1-23-15-20**

Job Ticket: 63198 **DST#: 2**

Test Start: 2017.06.24 @ 14:59:51

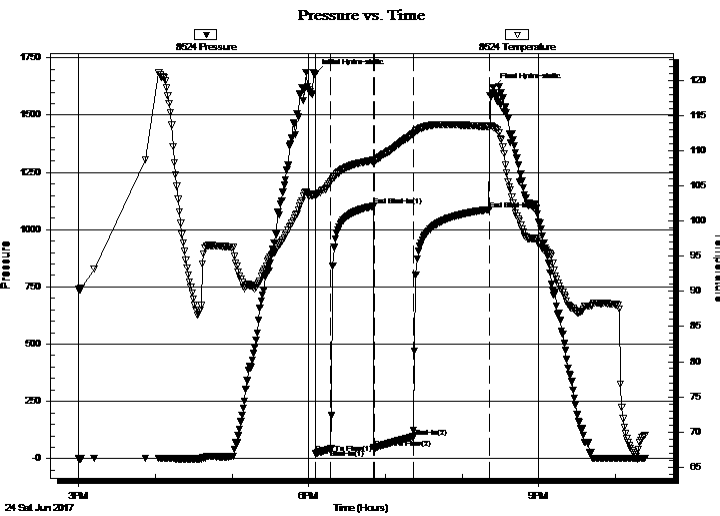
## GENERAL INFORMATION:

Formation: **LKC "E&F"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:05:12  
 Time Test Ended: 22:22:57  
 Interval: **3425.00 ft (KB) To 3450.00 ft (KB) (TVD)**  
 Total Depth: 3450.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brannan Lonsdale  
 Unit No: 73  
 Reference Elevations: 2074.00 ft (KB)  
 2066.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8524 Outside

Press@RunDepth: 95.01 psig @ 3447.00 ft (KB)  
 Start Date: 2017.06.24 End Date: 2017.06.24  
 Start Time: 14:59:52 End Time: 22:22:57  
 Capacity: 8000.00 psig  
 Last Calib.: 2017.06.24  
 Time On Btm: 2017.06.24 @ 18:04:57  
 Time Off Btm: 2017.06.24 @ 20:23:57

TEST COMMENT: 15- IF- Slow ly built to 5.5"  
 30- IS- No blow  
 30- FF- Slow ly built to 8.5"  
 60- FSI- No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1681.94	103.87	Initial Hydro-static
1	21.87	103.58	Open To Flow (1)
13	42.88	105.60	Shut-In(1)
46	1102.16	108.62	End Shut-In(1)
47	46.48	108.48	Open To Flow (2)
77	95.01	112.38	Shut-In(2)
136	1087.96	113.45	End Shut-In(2)
139	1620.50	113.40	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
155.00	MW, 30%M 70%W	2.20

\* Recovery from multiple tests

## Gas Rates

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





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**FLUID SUMMARY**

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Suite 410  
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**Wasinger #1-23-15-20**

Job Ticket: 63198

**DST#: 2**

Test Start: 2017.06.24 @ 14:59:51

## 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:

72000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7100.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
155.00	MW, 30%M 70%W	2.197

Total Length: 155.00 ft      Total Volume: 2.197 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: 300mL M & 1700mL W @ 95 PSI

RW: .09 @ 71deg

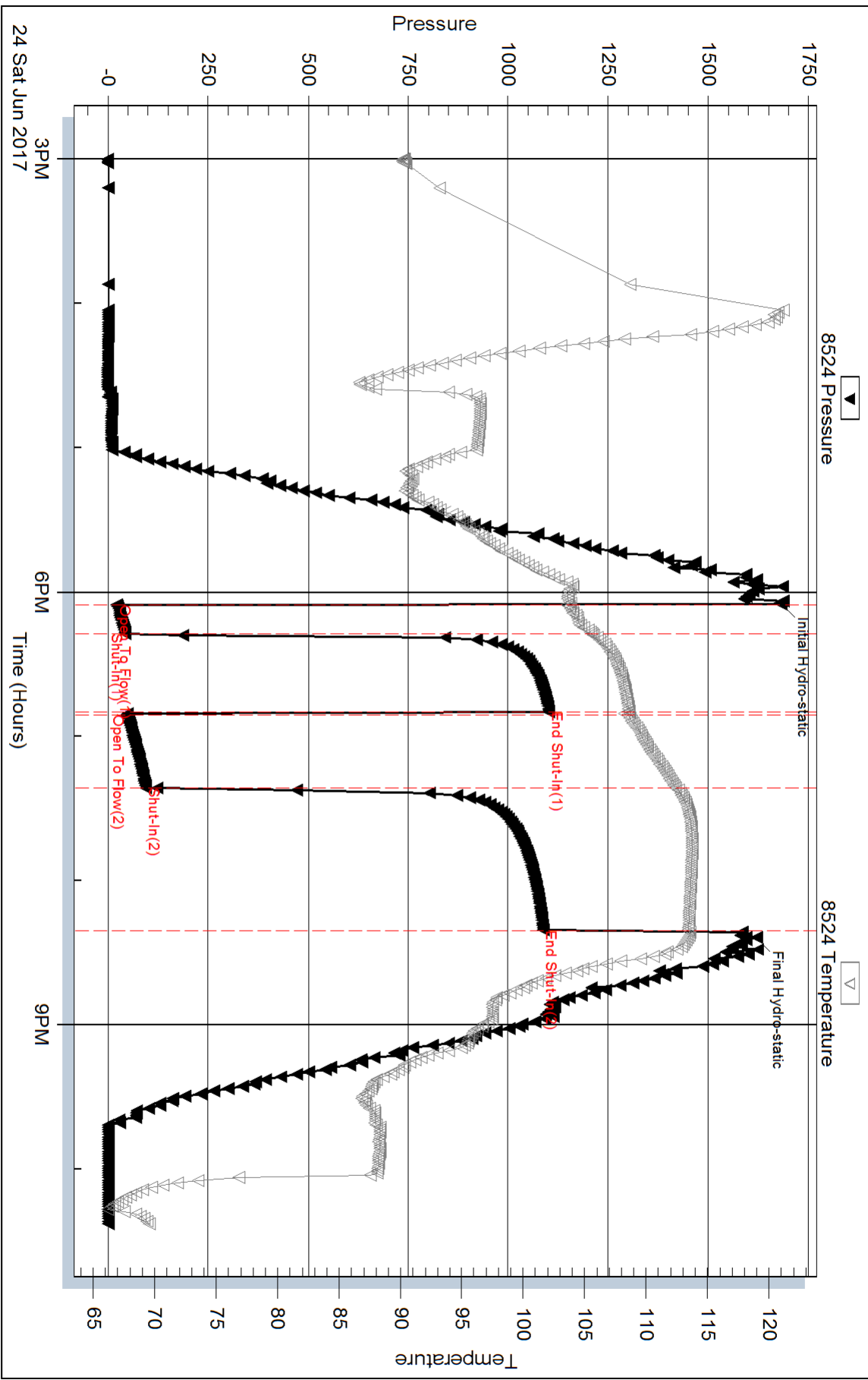
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Outside Coachman Energy Operating Co., LLC

Wasinger #1-23-15-20

DST Test Number: 2

### Pressure vs. Time



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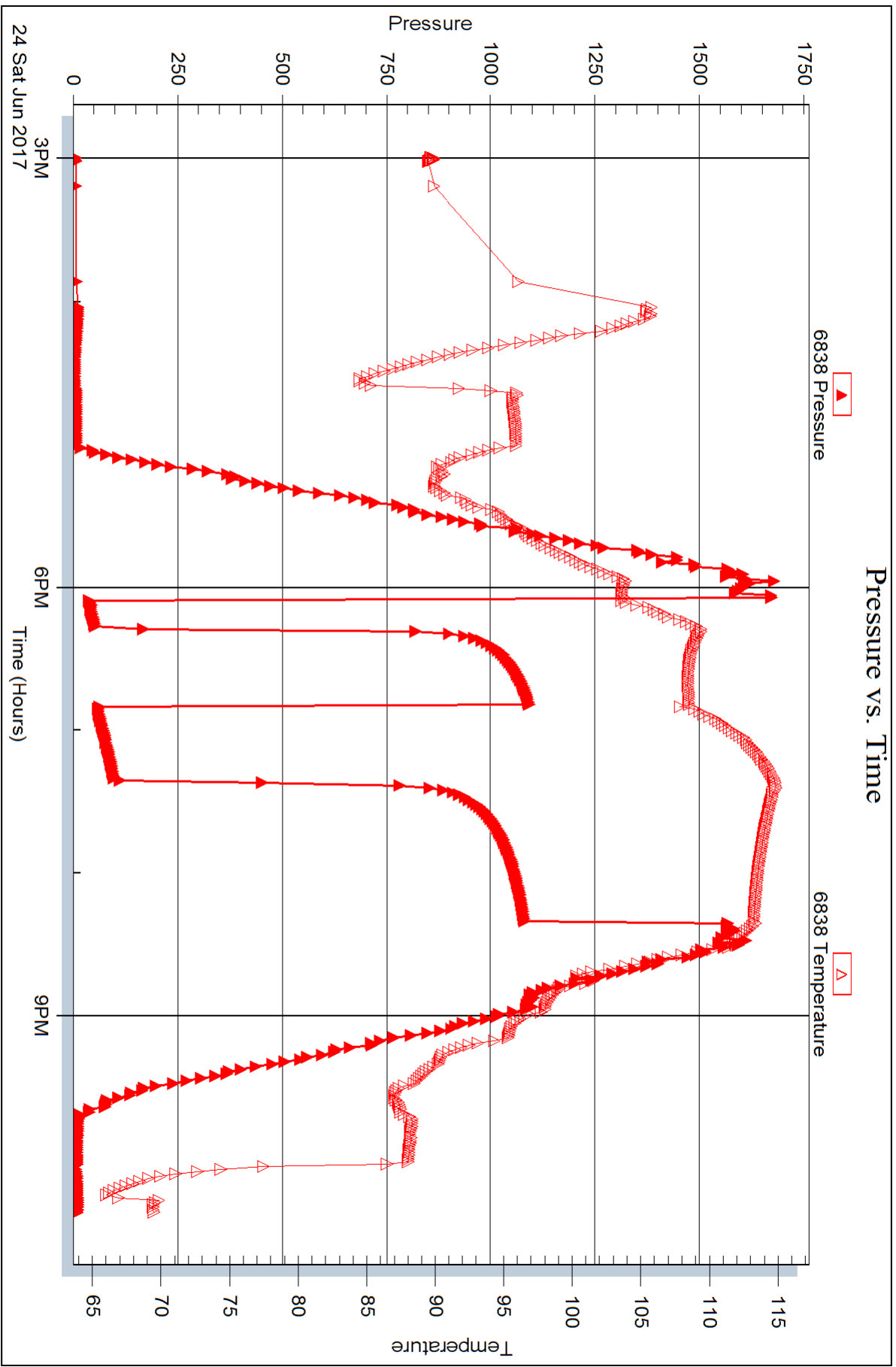
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Inside

Coachman Energy Operating Co., LLC

Wasinger #1-23-15-20

DST Test Number: 2



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