



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

ESP Development Inc  
 1749 250TH AVE  
 Hays KS, 67601  
 ATTN: Steve Reed

**28-11s-15w Russell KS**

**Hagaman #5**

Job Ticket: 54059

**DST#: 1**

Test Start: 2014.06.18 @ 11:26:00

## GENERAL INFORMATION:

Formation: **LKC "J,K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:30:30

Time Test Ended: 16:11:15

Test Type: Conventional Straddle (Initial)

Tester: Cody Bloedorn

Unit No: 73

**Interval: 3150.00 ft (KB) To 3204.00 ft (KB) (TVD)**

Reference Elevations: 1840.00 ft (KB)

Total Depth: 3399.00 ft (KB) (TVD)

1833.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8648**

**Inside**

Press @ Run Depth: 35.01 psig @ 3186.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.18 End Date: 2014.06.18

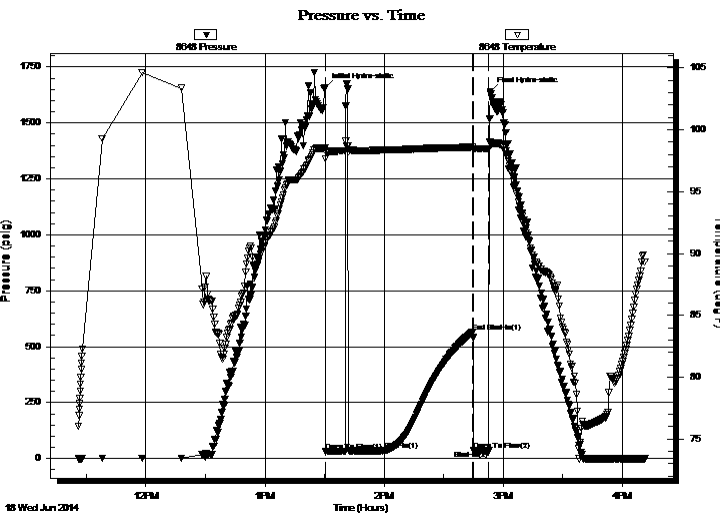
Last Calib.: 2014.06.18

Start Time: 11:26:05 End Time: 16:11:14

Time On Btm: 2014.06.18 @ 13:30:15

Time Off Btm: 2014.06.18 @ 14:53:30

**TEST COMMENT:** 30 - IF- NO blow for 10 minutes, flushed tool, surged and died  
 45 - IS- No return  
 10 - FF- No blow - Pulled Tool



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1657.24	98.54	Initial Hydro-static
1	31.57	97.68	Open To Flow (1)
30	35.01	98.36	Shut-In(1)
75	564.27	98.59	End Shut-In(1)
75	35.07	98.38	Open To Flow (2)
83	35.24	98.48	Shut-In(2)
84	1639.23	98.92	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud, 100%M	0.14

## Gas Rates

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



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 Job Ticket: 54059 **DST#: 1**  
 Test Start: 2014.06.18 @ 11:26:00

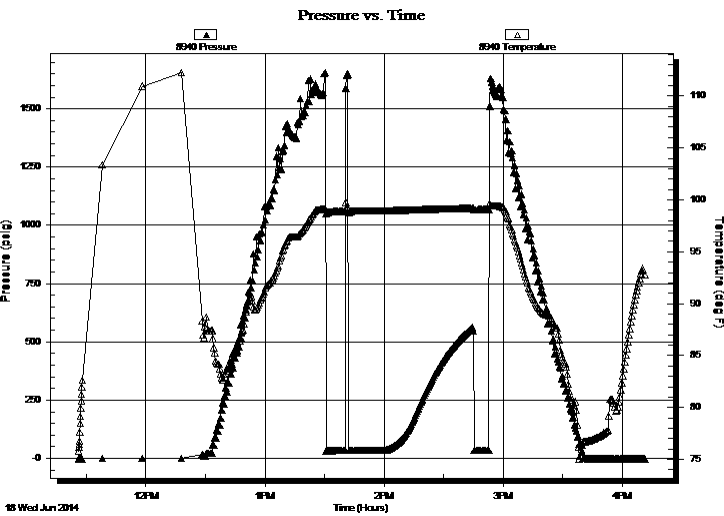
## GENERAL INFORMATION:

Formation: **LKC "J,K"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:30:30  
 Time Test Ended: 16:11:15  
**Interval: 3150.00 ft (KB) To 3204.00 ft (KB) (TVD)**  
 Total Depth: 3399.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Initial)  
 Tester: Cody Bloedorn  
 Unit No: 73  
 Reference Elevations: 1840.00 ft (KB)  
 1833.00 ft (CF)  
 KB to GR/CF: 7.00 ft

## Serial #: 8940 Outside

Press @ Run Depth: psig @ 3186.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.06.18 End Date: 2014.06.18 Last Calib.: 2014.06.18  
 Start Time: 11:26:05 End Time: 16:11:14 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30 - IF- NO blow for 10 minutes, flushed tool, surged and died  
 45 - IS- No return  
 10 - FF- No blow - Pulled Tool



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud, 100%M	0.14

## Gas Rates

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





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TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

ESP Development Inc  
1749 250TH AVE  
Hays KS, 67601  
ATTN: Steve Reed

**28-11s-15w Russell KS**  
**Hagaman #5**  
Job Ticket: 54059      **DST#: 1**  
Test Start: 2014.06.18 @ 11:26:00

## 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: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: 1.50 inches			

## Recovery Information

Recovery Table

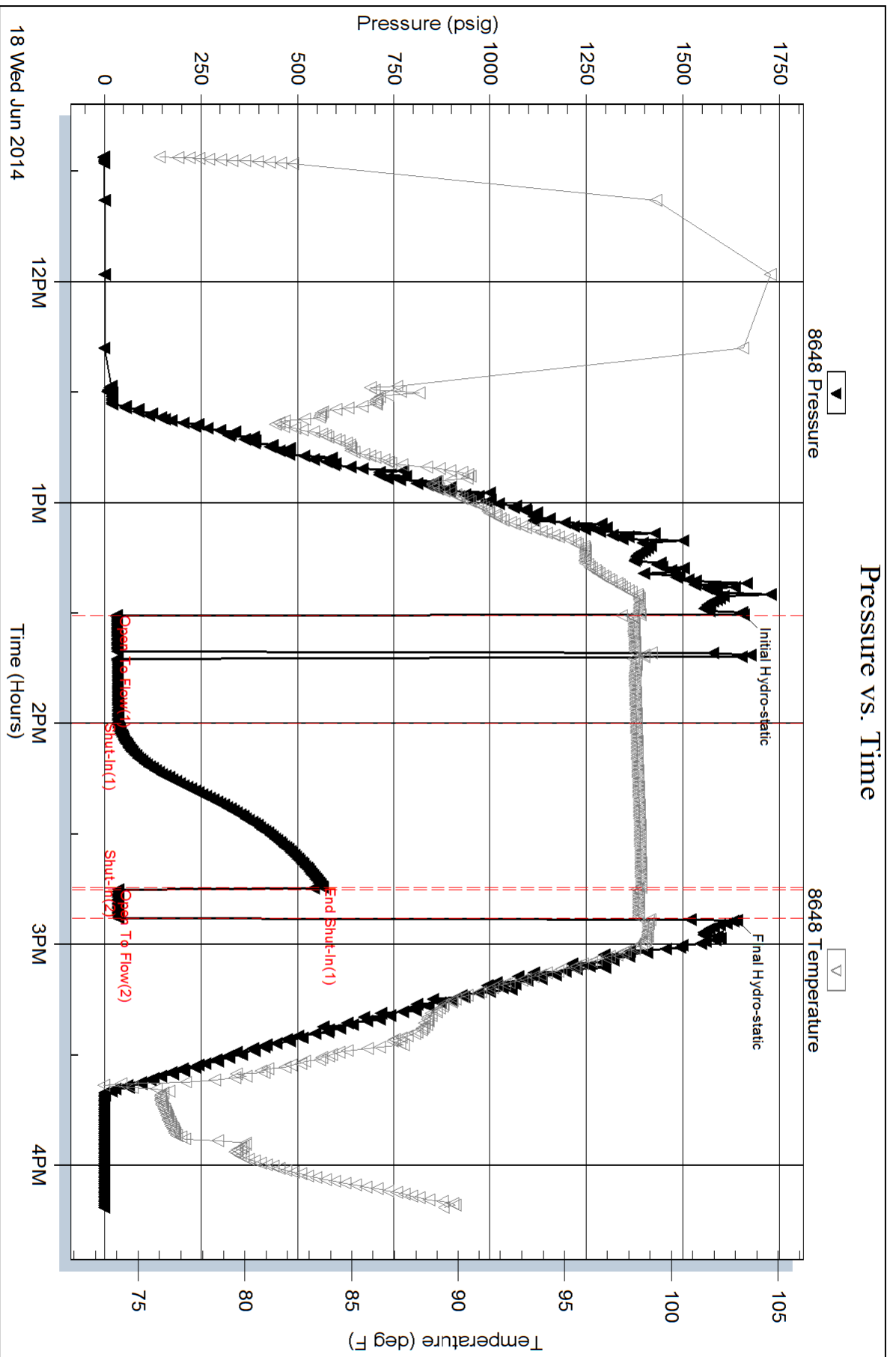
Length ft	Description	Volume bbl
10.00	Mud, 100%M	0.140

Total Length: 10.00 ft      Total Volume: 0.140 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

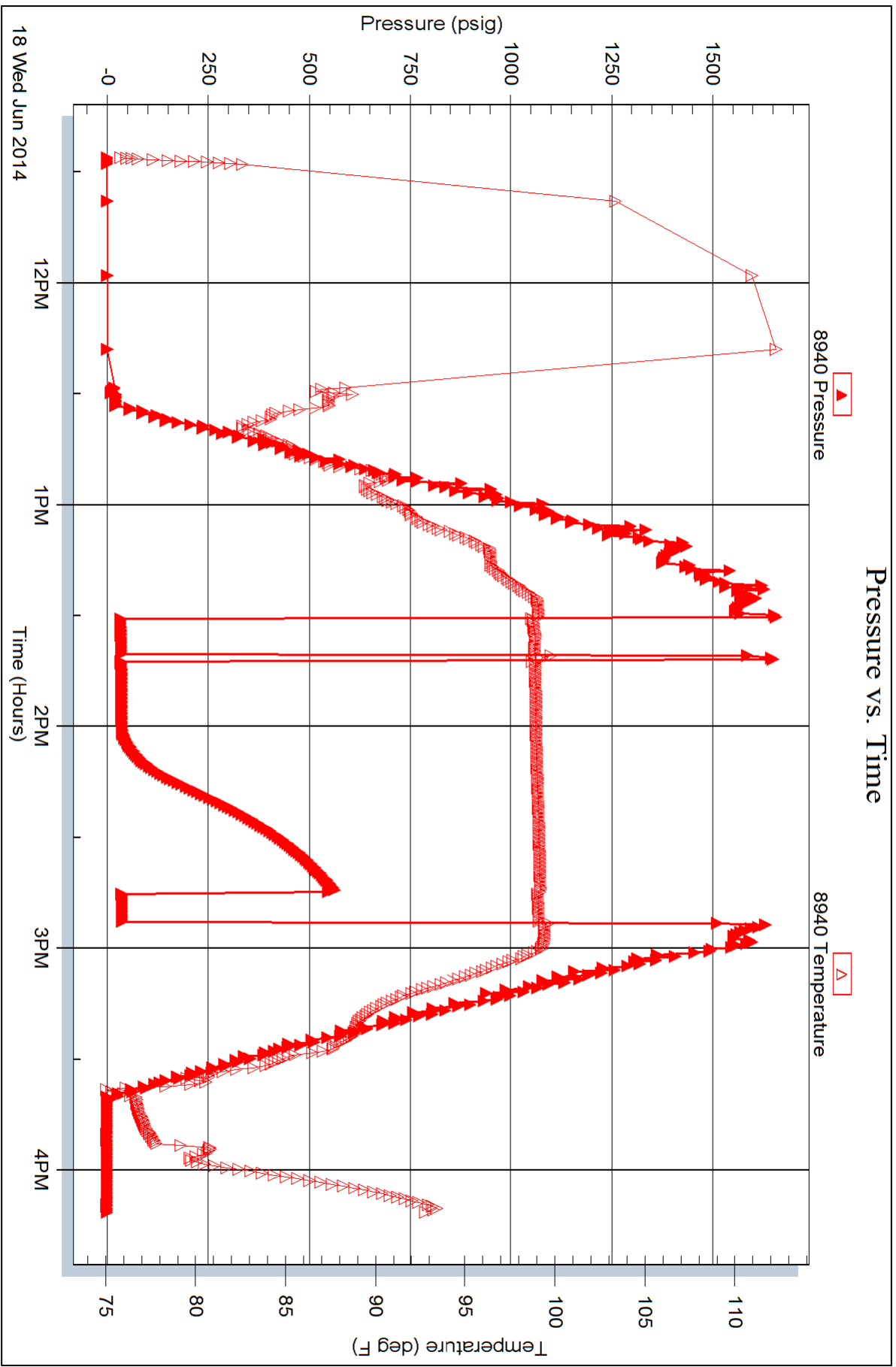


Serial #: 8940

Outside ESP Development Inc

Hagaman #5

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54059

Printed: 2014.06.18 @ 20:57:44

