

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Double D
133 E. 12th
Hays, Ks 67601

24-13-20 Ellis, Ks

Johnston #1

Job Ticket: 49276

DST#: 2

ATTN: Al Downing

Test Start: 2012.07.24 @ 13:15:57

GENERAL INFORMATION:

Formation: **LKC "E-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:45:27

Time Test Ended: 18:39:27

Test Type: Conventional Bottom Hole (Reset)

Tester: Brian Fairbank

Unit No: 41

Interval: **3506.00 ft (KB) To 3534.00 ft (KB) (TVD)**

Total Depth: 3534.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2118.00 ft (KB)

2113.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **6752** Inside

Press @ RunDepth: 544.62 psig @ 3511.00 ft (KB)

Start Date: 2012.07.24

End Date: 2012.07.24

Capacity: 8000.00 psig

Last Calib.: 2012.07.24

Start Time: 13:15:58

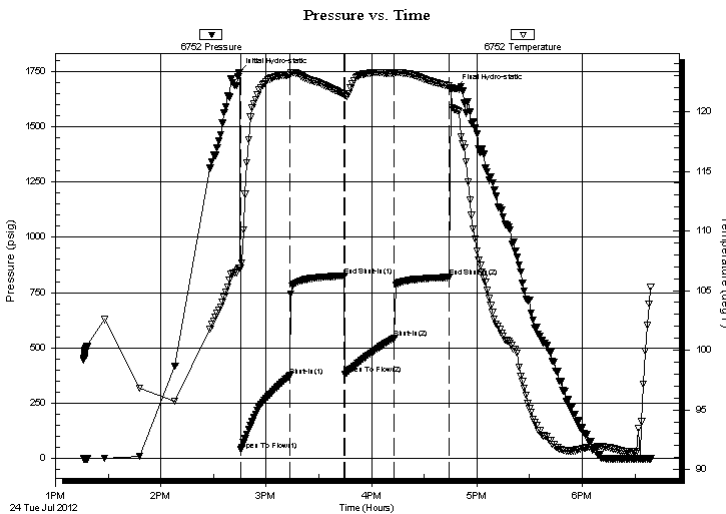
End Time: 18:39:27

Time On Btm: 2012.07.24 @ 14:44:27

Time Off Btm: 2012.07.24 @ 16:47:27

TEST COMMENT: IFP - BOB 3 min
ISI - weak sur blow back - died 5 min
FFP - BOB 5 min
FSI - no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1745.51	106.88	Initial Hydro-static
1	38.81	106.89	Open To Flow (1)
29	373.91	123.10	Shut-In(1)
60	825.42	121.48	End Shut-In(1)
61	381.37	121.31	Open To Flow (2)
89	544.62	123.21	Shut-In(2)
120	818.49	122.15	End Shut-In(2)
123	1672.61	120.17	Final Hydro-static

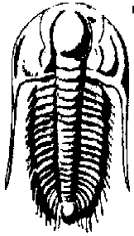
Recovery

Length (ft)	Description	Volume (bbl)
965.00	MW 95%W, 5%M	9.28
130.00	MW 60%W, 40%M	1.82
5.00	SOCMW 5%O, 65%W, 30%M	0.07
0.00	45' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



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Tester: Brian Fairbank

Unit No: 41

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Reference Elevations: 2118.00 ft (KB)

Total Depth: 3534.00 ft (KB) (TVD)

2113.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6741 Outside

Press @ Run Depth: psig @ 3511.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.24 End Date: 2012.07.24

Last Calib.: 2012.07.24

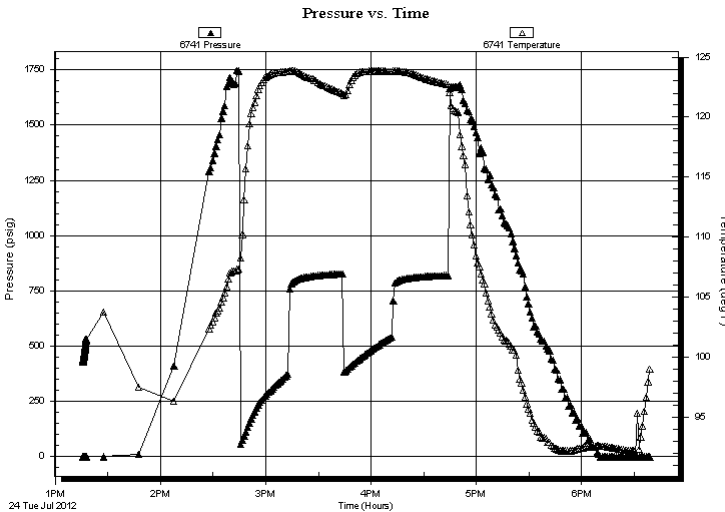
Start Time: 13:15:41 End Time: 18:39:10

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP - BOB 3 min
ISI - weak sur blow back - died 5 min
FFP - BOB 5 min
FSI - no blow back

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
965.00	MW 95%W, 5%M	9.28
130.00	MW 60%W, 40%M	1.82
5.00	SOCMW 5%O, 65%W, 30%M	0.07
0.00	45' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Double D
133 E. 12th
Hays, Ks 67601
ATTN: Al Downing

24-13-20 Ellis, Ks
Johnston #1
Job Ticket: 49276 **DST#: 2**
Test Start: 2012.07.24 @ 13:15:57

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:	88000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: inches			

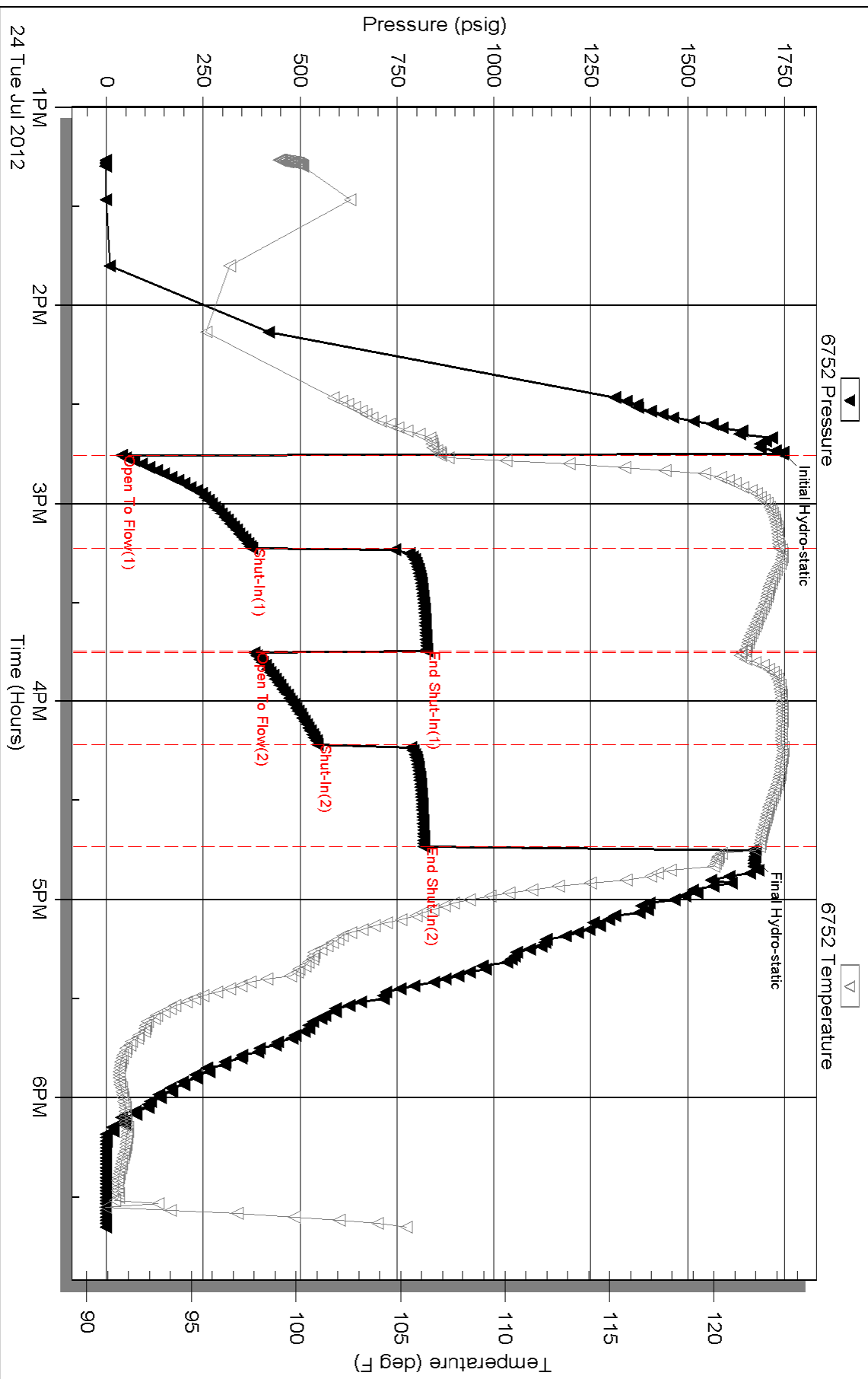
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
965.00	MW 95%W, 5%M	9.282
130.00	MW 60%W, 40%M	1.824
5.00	SOCMW 5%O, 65%W, 30%M	0.070
0.00	45' GIP	0.000

Total Length: 1100.00 ft Total Volume: 11.176 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time



Serial #: 6741

Outside Double D

Johnston #1

DST Test Number: 2

