



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates, Inc.

26-4S-23W Norton, Ks

1515 Wynkoop
Ste. 700
Denver, CO 80202
ATTN: Clayton Camozzi

Bales #1-26

Job Ticket: 58757

DST#: 3

Test Start: 2014.04.14 @ 05:55:33

GENERAL INFORMATION:

Formation: **Gorham Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:55:03

Time Test Ended: 15:43:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan L

Unit No: 48

Interval: 3736.00 ft (KB) To 3788.00 ft (KB) (TVD)

Reference Elevations: 2416.00 ft (KB)

Total Depth: 3788.00 ft (KB) (TVD)

2408.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8372

Inside

Press@RunDepth: 335.71 psig @ 3737.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.14

End Date:

2014.04.14

Last Calib.:

2014.04.14

Start Time: 05:55:34

End Time:

15:43:33

Time On Btm:

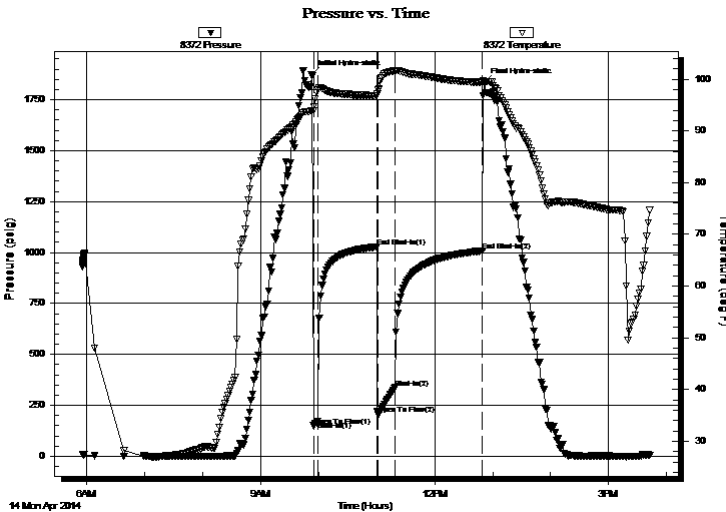
2014.04.14 @ 09:52:33

Time Off Btm:

2014.04.14 @ 12:51:33

TEST COMMENT: 05- IF- BOB 2mins
60- IS- No blow
20- FF- BOB 2mins
90- FS- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1873.37	93.92	Initial Hydro-static
3	148.26	94.72	Open To Flow (1)
7	171.93	97.95	Shut-In(1)
68	1026.74	96.85	End Shut-In(1)
69	204.06	97.97	Open To Flow (2)
87	335.71	101.59	Shut-In(2)
177	1008.46	99.33	End Shut-In(2)
179	1835.23	99.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
800.00	MW, 40%M 60%W	9.87

Gas Rates

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

* Recovery from multiple tests



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Time Test Ended: 15:43:33 Unit No: 48
Interval: 3736.00 ft (KB) To 3788.00 ft (KB) (TVD) Reference Elevations: 2416.00 ft (KB)
Total Depth: 3788.00 ft (KB) (TVD) 2408.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

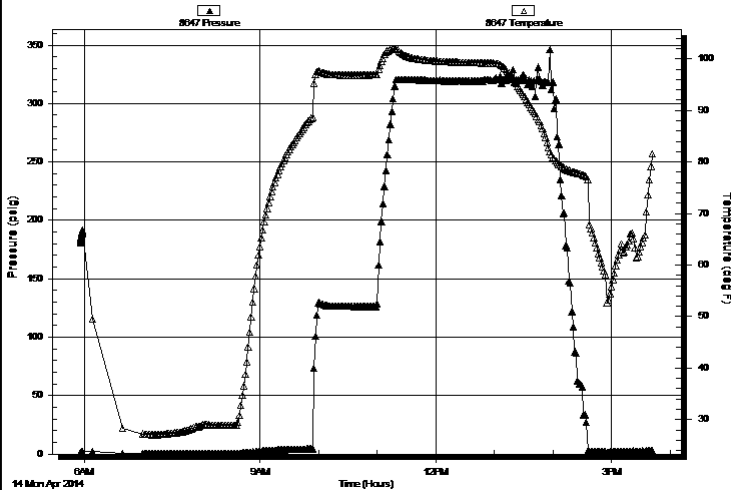
Serial #: 8647

Fluid

Press@RunDepth: psig @ 3708.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.04.14 End Date: 2014.04.14 Last Calib.: 2014.04.14
Start Time: 05:56:07 End Time: 15:42:06 Time On Btm:
Time Off Btm:

TEST COMMENT: 05- IF- BOB 2mins
60- IS- No blow
20- FF- BOB 2mins
90- FS- No blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
800.00	MW, 40%M 60%W	9.87

Gas Rates

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

* Recovery from multiple tests



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TESTING, INC**

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FLUID SUMMARY

Samuel Gary Jr. & Associates, Inc.

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1515 Wynkoop
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Denver, CO 80202
ATTN: Clayton Camozzi

Bales #1-26

Job Ticket: 58757

DST#: 3

Test Start: 2014.04.14 @ 05:55:33

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 70.00 sec/qt

Water Loss: 7.98 in³

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: 60000 ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
800.00	MW, 40%M 60%W	9.871

Total Length: 800.00 ft Total Volume: 9.871 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

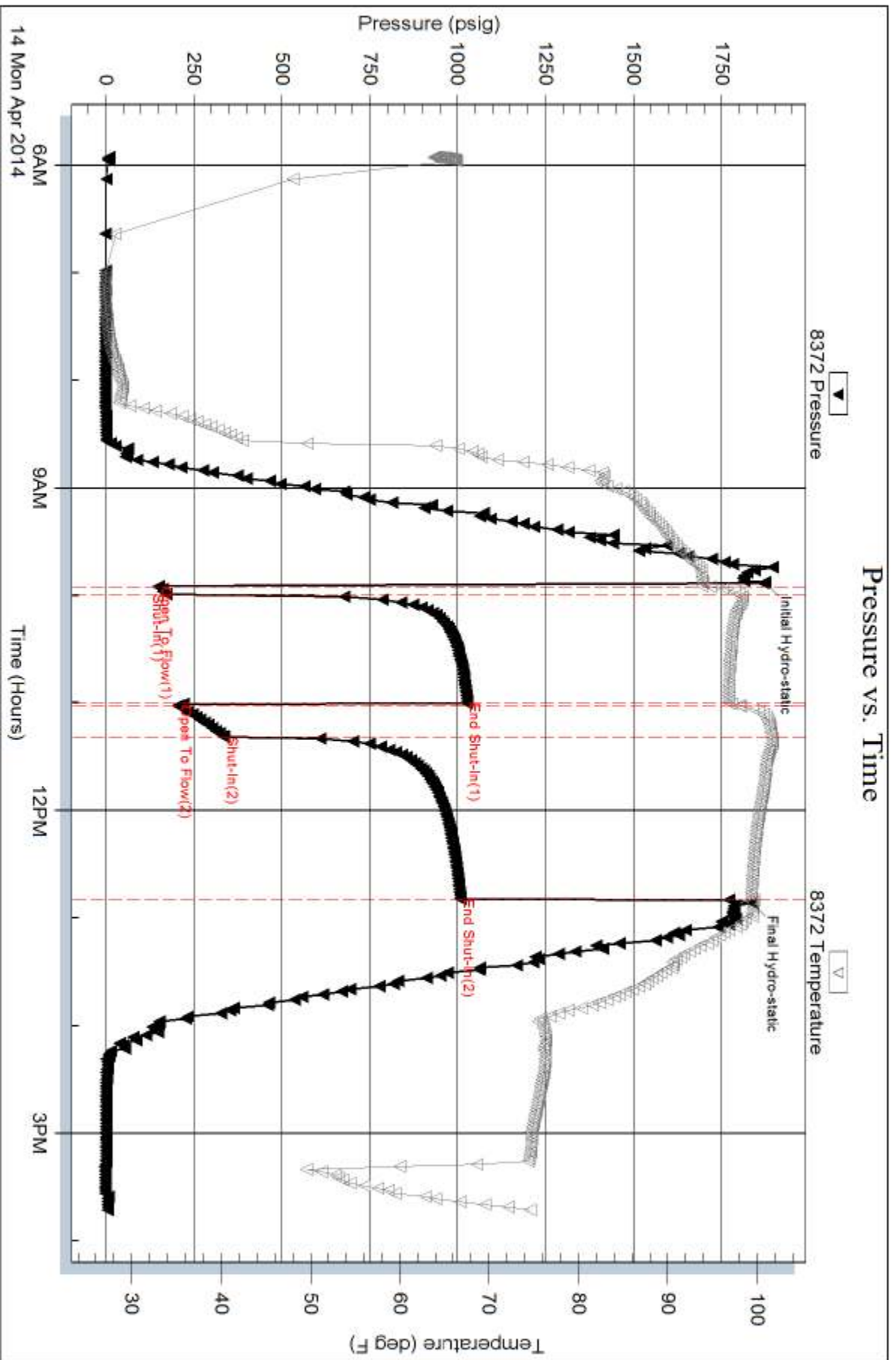
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: 2000mL W@160PSI

Pressure vs. Time



Serial #: 8647

Fluid

Samuel Gary Jr. & Associates, Inc.

Bales #1-26

DST Test Number: 3

