



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary & Assoc., Inc.

13/5s/32w

1515 Wynkoop, STE 700
Denver, Co. 80202

Ryan Trust #1-13

Job Ticket: 61060

DST#: 2

ATTN: Clayton Cammozzi

Test Start: 2015.01.16 @ 18:08:00

GENERAL INFORMATION:

Formation: **L. Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:04:00

Time Test Ended: 04:11:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Quintana

Unit No: 57

Interval: 4332.00 ft (KB) To 4368.00 ft (KB) (TVD)

Reference Elevations: 2984.00 ft (KB)

Total Depth: 4368.00 ft (KB) (TVD)

2979.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press @ Run Depth: 165.66 psig @ 4333.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.16

End Date:

2015.01.17

Last Calib.:

2015.01.17

Start Time: 18:08:01

End Time:

04:11:30

Time On Btm:

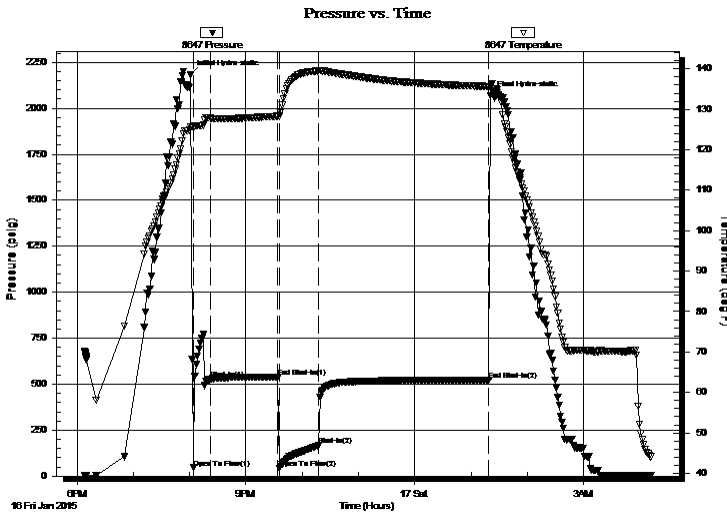
2015.01.16 @ 20:01:00

Time Off Btm:

2015.01.17 @ 01:20:30

TEST COMMENT: 20 - IF - Opened w/ surface blow , built to 1/2"
75 - ISI - No Return
45 - FF - Blow built to B.o.B in 35 min.
180 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2180.65	125.58	Initial Hydro-static
3	45.30	125.31	Open To Flow (1)
21	526.25	127.81	Shut-In(1)
93	538.51	128.31	End Shut-In(1)
95	44.22	128.28	Open To Flow (2)
137	165.66	139.51	Shut-In(2)
318	523.03	135.65	End Shut-In(2)
320	2070.78	135.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
285.00	MW 80%w ,20%m	2.31
42.00	100%oil	0.59

Gas Rates

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

* Recovery from multiple tests



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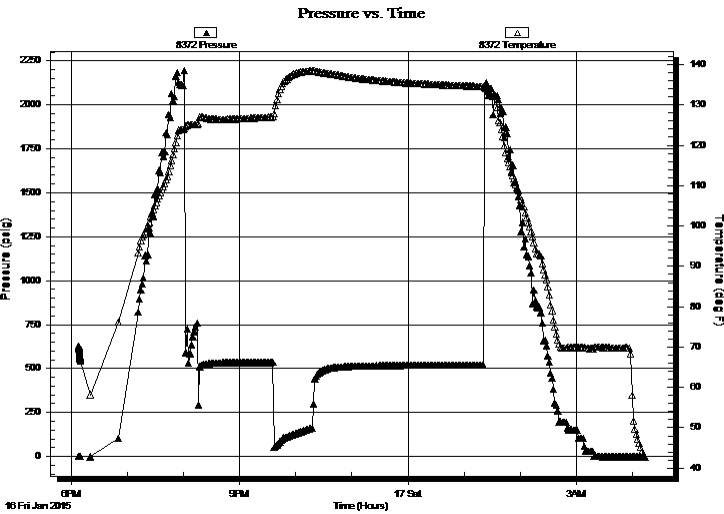
13/5s/32w
Ryan Trust #1-13
 Job Ticket: 61060 **DST#: 2**
 Test Start: 2015.01.16 @ 18:08:00

GENERAL INFORMATION:

Formation: **L. Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:04:00
 Time Test Ended: 04:11:30
 Interval: **4332.00 ft (KB) To 4368.00 ft (KB) (TVD)**
 Total Depth: 4368.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Quintana
 Unit No: 57
 Reference Elevations: 2984.00 ft (KB)
 2979.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8372 Outside
 Press @ Run Depth: psig @ 4333.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.01.16 End Date: 2015.01.17 Last Calib.: 2015.01.17
 Start Time: 18:08:01 End Time: 04:13:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 20 - IF - Opened w/ surface blow , built to 1/2"
 75 - ISI - No Return
 45 - FF - Blow built to B.o.B in 35 min.
 180 - FSI - No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
285.00	MW 80%w ,20%m	2.31
42.00	100%oil	0.59

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

Samuel Gary & Assoc., Inc.
 1515 Wynkoop, STE 700
 Denver, Co. 80202
 ATTN: Clayton Cammozzi

13/5s/32w
Ryan Trust #1-13
 Job Ticket: 61060 **DST#: 2**
 Test Start: 2015.01.16 @ 18:08:00

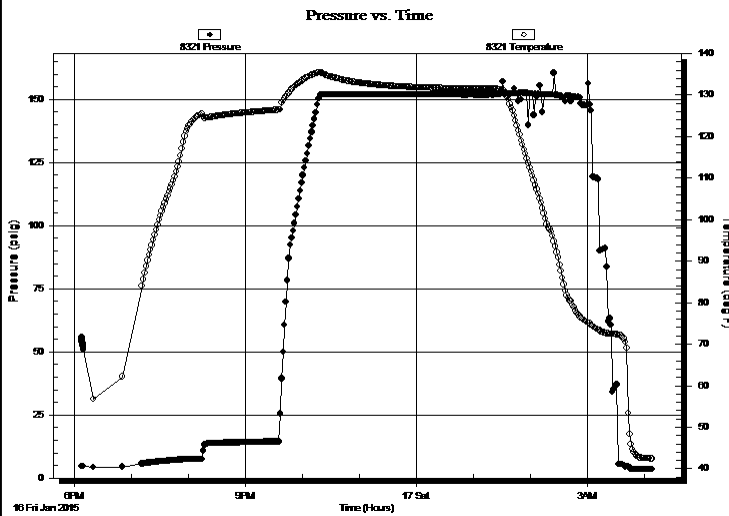
GENERAL INFORMATION:

Formation: **L. Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:04:00
 Time Test Ended: 04:11:30
 Interval: **4332.00 ft (KB) To 4368.00 ft (KB) (TVD)**
 Total Depth: 4368.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Quintana
 Unit No: 57
 Reference Elevations: 2984.00 ft (KB)
 2979.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8321

Press @ Run Depth: psig @ ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.01.16 End Date: 2015.01.17 Last Calib.: 2015.01.17
 Start Time: 18:08:01 End Time: 04:08:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 20 - IF - Opened w/ surface blow , built to 1/2"
 75 - ISI - No Return
 45 - FF - Blow built to B.o.B in 35 min.
 180 - FSI - No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
285.00	MW 80%w ,20%m	2.31
42.00	100%oil	0.59

Gas Rates

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

* Recovery from multiple tests



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TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary & Assoc., Inc.

13/5s/32w

1515 Wynkoop, STE 700
Denver, Co. 80202

Ryan Trust #1-13

Job Ticket: 61060

DST#: 2

ATTN: Clayton Cammozzi

Test Start: 2015.01.16 @ 18:08:00

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
285.00	MW 80%w ,20%m	2.307
42.00	100%oil	0.589

Total Length: 327.00 ft Total Volume: 2.896 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

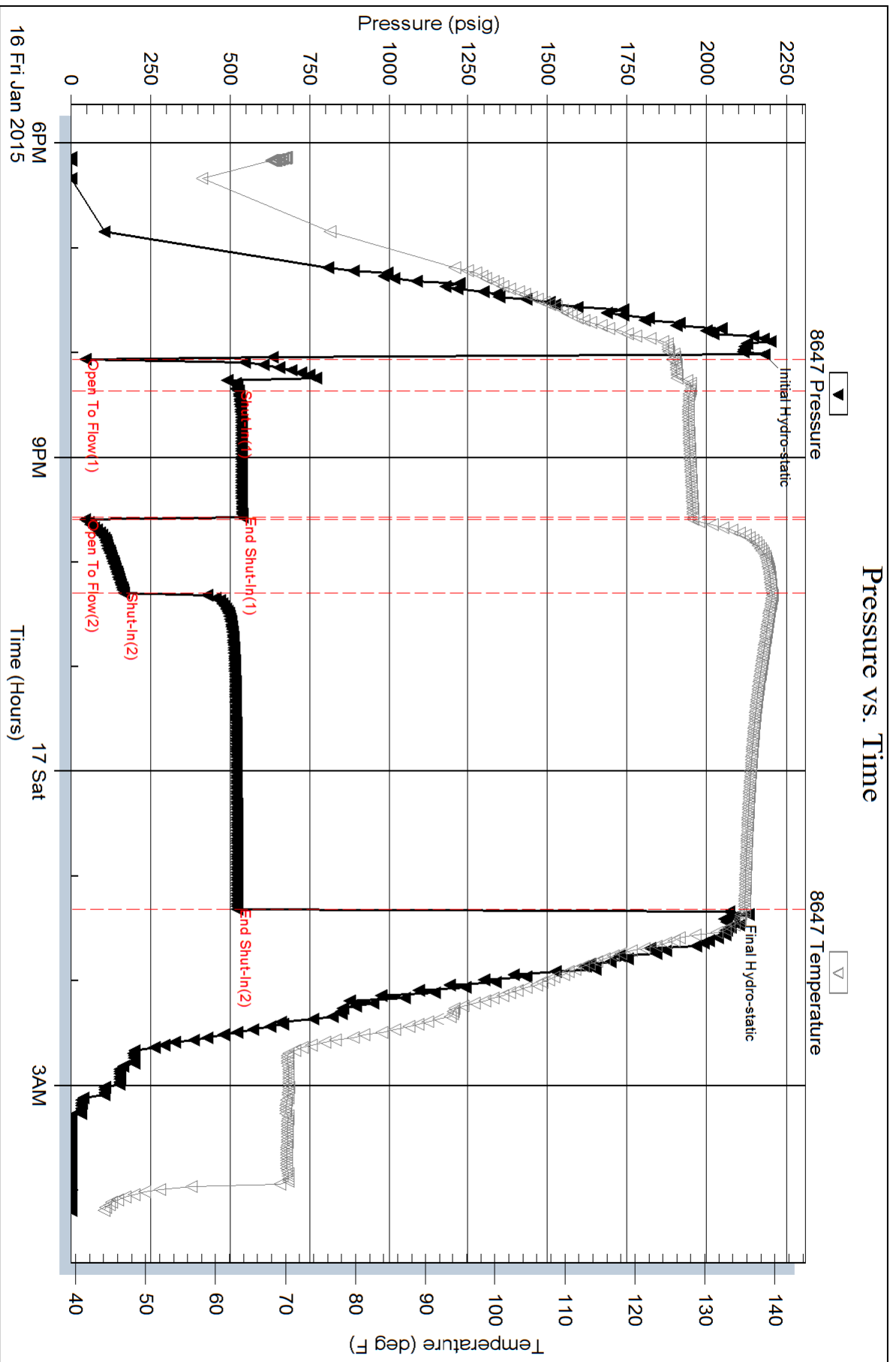
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 28 @ 60

RW .14 @ 36 Chlorides 120,000ppm

Pressure vs. Time



Serial #: 8372

Outside Samuel Gary & Assoc., Inc.

Ryan Trust#1-13

DST Test Number: 2

