



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. & Ass., Inc

Sec. 18-5s-35w Rawlins, KS

1515 Wynkoop Ste 700
Denver, CO 80202

Lewis 1-18

Job Ticket: 62475

DST#: 2

ATTN: Chris Mitchell

Test Start: 2015.06.30 @ 15:00:00

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:26:00

Time Test Ended: 00:51:49

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 77

Interval: 4672.00 ft (KB) To 4710.00 ft (KB) (TVD)

Reference Elevations: 3333.00 ft (KB)

Total Depth: 4710.00 ft (KB) (TVD)

3328.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8898 Outside

Press@RunDepth: 665.80 psig @ 4673.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.30

End Date:

2015.07.01

Last Calib.:

2015.07.01

Start Time: 15:00:01

End Time:

00:51:49

Time On Btm:

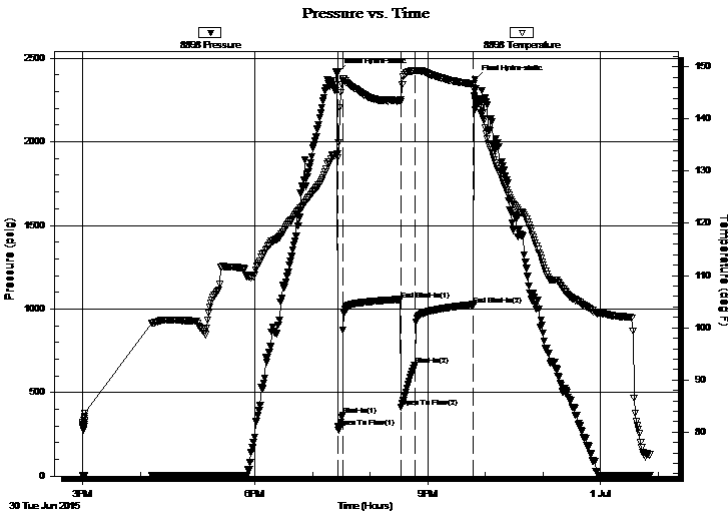
2015.06.30 @ 19:25:39

Time Off Btm:

2015.06.30 @ 21:49:20

TEST COMMENT: 5-IF-BOB in 2 mins.
60-ISI-1/4" Return, died in 24 mins.
15-FF-BOB in 1 min.
60-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2413.97	133.27	Initial Hydro-static
1	294.98	132.57	Open To Flow (1)
6	362.83	147.31	Shut-In(1)
66	1056.55	143.57	End Shut-In(1)
67	411.36	143.36	Open To Flow (2)
81	665.80	149.24	Shut-In(2)
142	1022.77	146.66	End Shut-In(2)
144	2372.88	143.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
630.00	VSMCW, 5%g, 95%w	7.75
315.00	VSGMCW, 5%g, 30%g, 65%w	4.42
252.00	VSGWCM, 5%g, 35%w, 60%g	3.53
219.00	VSGWCM, 5%g, 5%w, 90%g	3.07

Gas Rates

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

* Recovery from multiple tests



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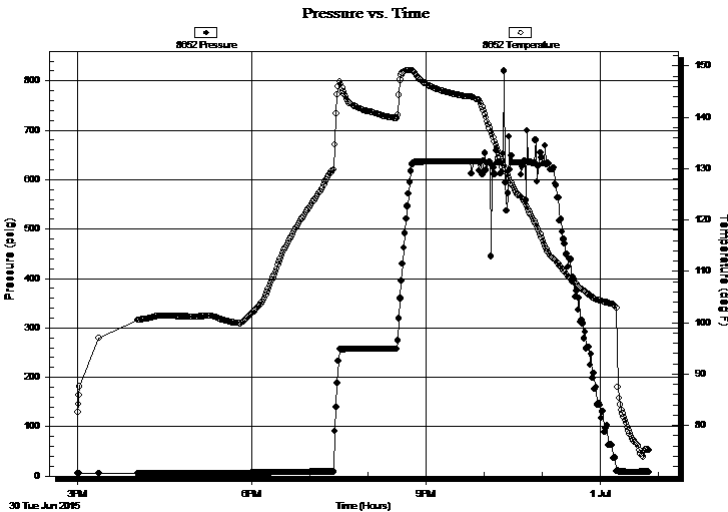
Sec. 18-5s-35w Rawlins, KS
Lewis 1-18
Job Ticket: 62475 DST#: 2
Test Start: 2015.06.30 @ 15:00:00

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Formation: **Cherokee**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 19:26:00 Tester: Phillip Gage
Time Test Ended: 00:51:49 Unit No: 77
Interval: **4672.00 ft (KB) To 4710.00 ft (KB) (TVD)** Reference Elevations: 3333.00 ft (KB)
Total Depth: 4710.00 ft (KB) (TVD) 3328.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8652 Fluid Capacity: 8000.00 psig
Press@RunDepth: psig @ 4640.00 ft (KB) Last Calib.: 2015.07.01
Start Date: 2015.06.30 End Date: 2015.07.01
Start Time: 15:00:05 End Time: 00:51:15 Time On Btm:
Time Off Btm:

TEST COMMENT: 5-IF-BOB in 2 mins.
60-ISI-1/4" Return, died in 24 mins.
15-FF-BOB in 1 min.
60-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
630.00	VSMCW, 5%g, 95%w	7.75
315.00	VSGMCW, 5%g, 30%m, 65%w	4.42
252.00	VSGWCM, 5%g, 35%w, 60%m	3.53
219.00	VSGWCM, 5%g, 5%w, 90%m	3.07

Gas Rates

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

* Recovery from multiple tests



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FLUID SUMMARY

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Sec. 18-5s-35w Rawlins, KS

1515 Wynkoop Ste 700
Denver, CO 80202

Lewis 1-18

Job Ticket: 62475

DST#: 2

ATTN: Chris Mitchell

Test Start: 2015.06.30 @ 15:00:00

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:

55000 ppm

Viscosity: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 5.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
630.00	VSMCW, 5%m, 95%w	7.753
315.00	VSGMCW, 5%g, 30%m, 65%w	4.419
252.00	VSGWCM, 5%g, 35%w, 60%m	3.535
219.00	VSGWCM, 5%g, 5%w, 90%m	3.072

Total Length: 1416.00 ft Total Volume: 18.779 bbl

Num Fluid Samples: 0

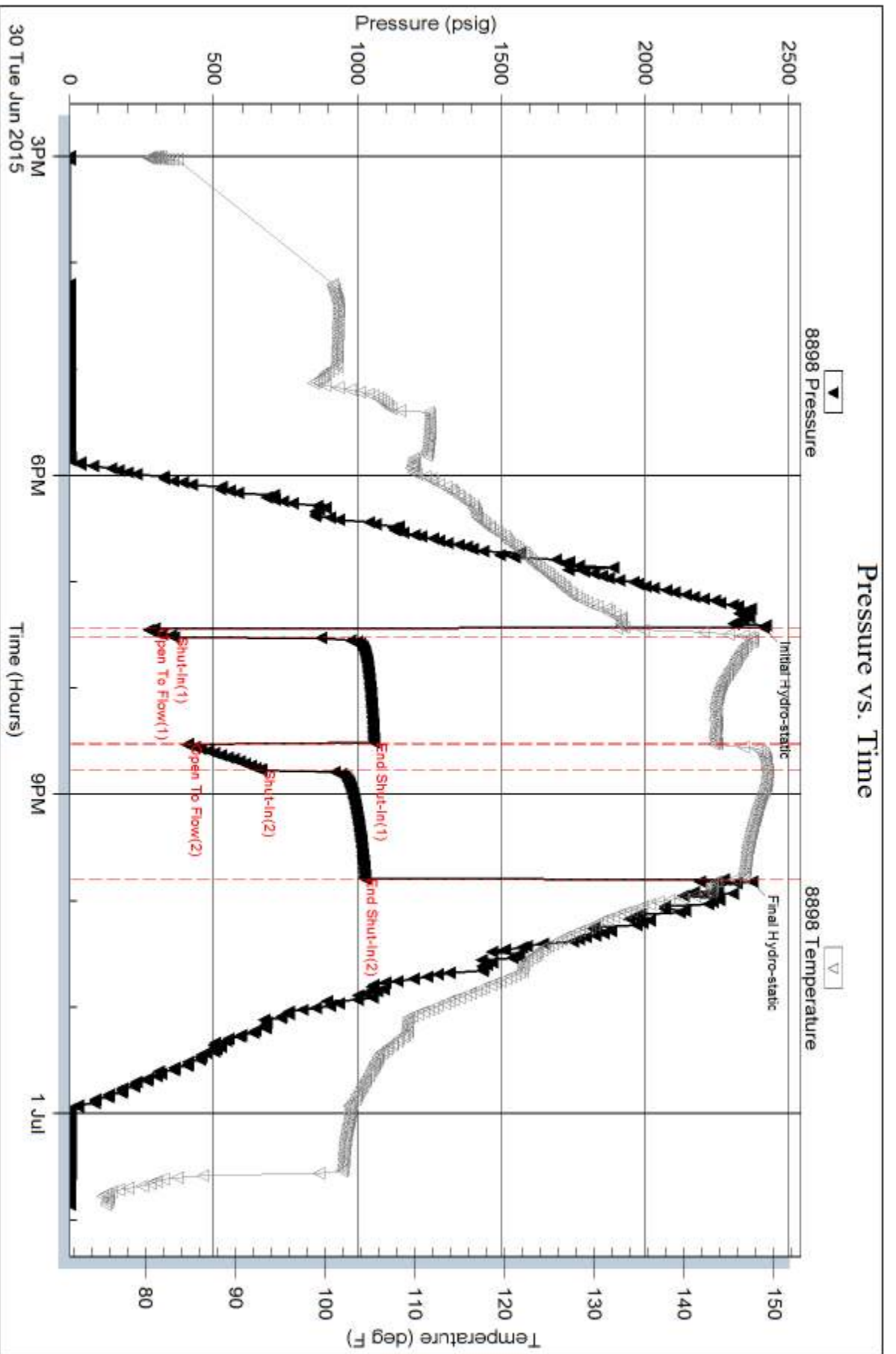
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .162 @ 67 degrees = 55,000 Salinity



Serial #: 8652

Fluid

Samuel Gary Jr. & Ass., Inc

Lewis 1-18

DST Test Number: 2

