



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates
 1515 Wynkoop St. STE 700
 Denver, CO 80202
 ATTN: Clayton Camozzi

26/5n/37w Cheyenne KS

A. B. Fisher #1-26

Job Ticket: 60849

DST#: 1

Test Start: 2015.01.26 @ 17:05:00

GENERAL INFORMATION:

Formation: **Upper Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:19:30
 Time Test Ended: 01:41:15
 Interval: **4503.00 ft (KB) To 4544.00 ft (KB) (TVD)**
 Total Depth: 4544.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3259.00 ft (KB)
 3254.00 ft (CF)
 KB to GR/CF: 5.00 ft

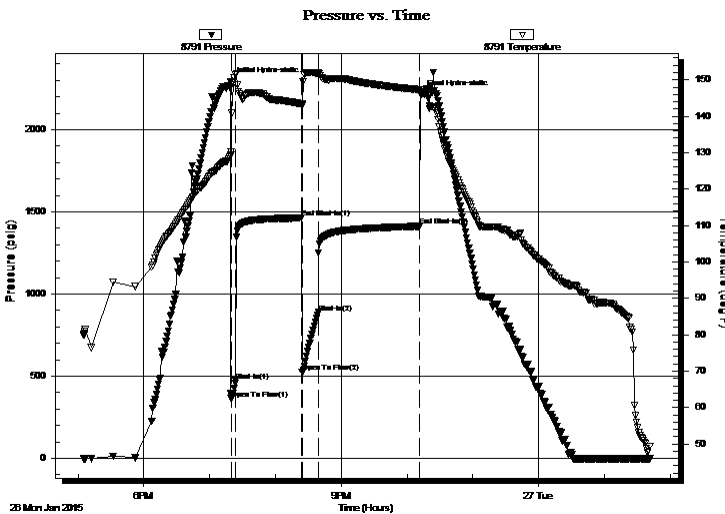
Serial #: 8791

Inside

Press @ Run Depth: 887.13 psig @ 4504.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.01.26 End Date: 2015.01.27 Last Calib.: 2015.01.27
 Start Time: 17:05:05 End Time: 01:41:15 Time On Btm: 2015.01.26 @ 19:18:45
 Time Off Btm: 2015.01.26 @ 22:12:15

TEST COMMENT: 5 - IF: BOB (11") Blow in under 1 min.
 60 - IS: No blow back
 15 - FF: Blow built to BOB at 1 min.
 90 - FS: Blow back built to BOB at 35 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2290.25	128.98	Initial Hydro-static
1	363.28	130.31	Open To Flow (1)
5	472.33	151.45	Shut-In(1)
65	1462.67	143.45	End Shut-In(1)
66	522.87	143.49	Open To Flow (2)
81	887.13	151.80	Shut-In(2)
173	1412.62	147.21	End Shut-In(2)
174	2215.48	147.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1130.00	SMCW w/trace oil 96%w, 4%m	14.75
310.00	OCGMW 35%w, 30%g, 22%m, 13%o mix	4.35
185.00	OCGMW 29%w, 29%g, 28%m, 7%fo, 7%ix	2.60
125.00	GWMCO 37%g, 36%fo, 11%m, 10%w, 6%ix	1.75
155.00	GOWCM 31%m, 29%g, 20%o mix, 14%w	2.17
0.00	GIP = 650'	0.00

Gas Rates

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



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GENERAL INFORMATION:

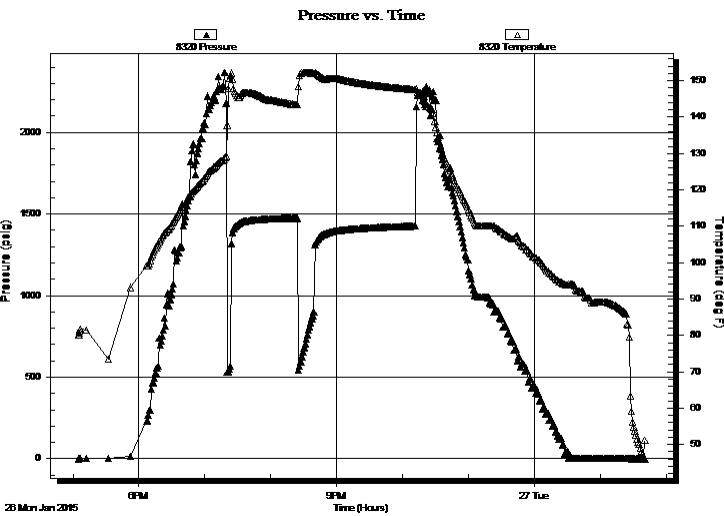
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 Tester: James Winder
 Unit No: 83
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 3254.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8320

Outside

Press @ Run Depth: psig @ 4504.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.01.26 End Date: 2015.01.27 Last Calib.: 2015.01.27
 Start Time: 17:05:05 End Time: 01:40:15 Time On Btm:
 Time Off Btm:

TEST COMMENT: 5 - IF: BOB (11") Blow in under 1 min.
 60 - IS: No blow back
 15 - FF: Blow built to BOB at 1 min.
 90 - FS: Blow back built to BOB at 35 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1130.00	SMCW w/trace oil 96%w , 4%m	14.75
310.00	OCGMW 35%w , 30%g, 22%m, 13%o mix	4.35
185.00	OCGMW 29%w , 29%g, 28%m, 7% fo,	7.60ix
125.00	GWMCO 37%g, 36%fo, 11%m, 10%w,	6.175ix
155.00	GOWCM 31%m, 29%g, 20%o mix, 14%w	2.17 fo
0.00	GIP = 650'	0.00

Gas Rates

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



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Job Ticket: 60849

DST#: 1

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Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:19:30

Time Test Ended: 01:41:15

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: 4503.00 ft (KB) To 4544.00 ft (KB) (TVD)

Reference Elevations: 3259.00 ft (KB)

Total Depth: 4544.00 ft (KB) (TVD)

3254.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8366 Fluid

Press @ Run Depth: psig @ 4470.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.26

End Date:

2015.01.27

Last Calib.:

2015.01.27

Start Time:

17:05:05

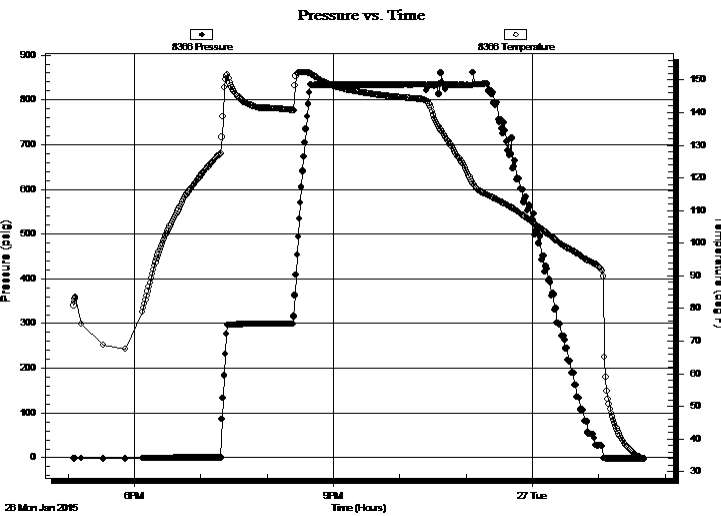
End Time:

01:41:45

Time On Btm:

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PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1130.00	SMCW w/trace oil 96%w, 4%m	14.75
310.00	OCGMW 35%w, 30%g, 22%m, 13%o mix	4.35
185.00	OCGMW 29%w, 29%g, 28%m, 7%fo, 7%ix	2.60
125.00	GWMCO 37%g, 36%fo, 11%m, 10%w, 6%ix	1.75
155.00	GOWCM 31%m, 29%g, 20%o mix, 14%w	2.17
0.00	GIP = 650'	0.00

Gas Rates

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



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TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

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26/5n/37w Cheyenne KS

1515 Wynkoop St. STE 700
Denver, CO 80202

A. B. Fisher #1-26

Job Ticket: 60849

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2015.01.26 @ 17:05:00

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:

17500 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1130.00	SMCW w/trace oil 96%w , 4%m	14.749
310.00	OCGMW 35%w , 30%g, 22%m, 13%o mix	4.348
185.00	OCGMW 29%w , 29%g, 28%m, 7% fo, 7%o n	2.595
125.00	GWMCO 37%g, 36%fo, 11%m, 10%w , 6%o r	1.753
155.00	GOWCM 31%m, 29%g, 20%o mix, 14%w , 6%	2.174
0.00	GIP = 650'	0.000

Total Length: 1905.00 ft Total Volume: 25.619 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

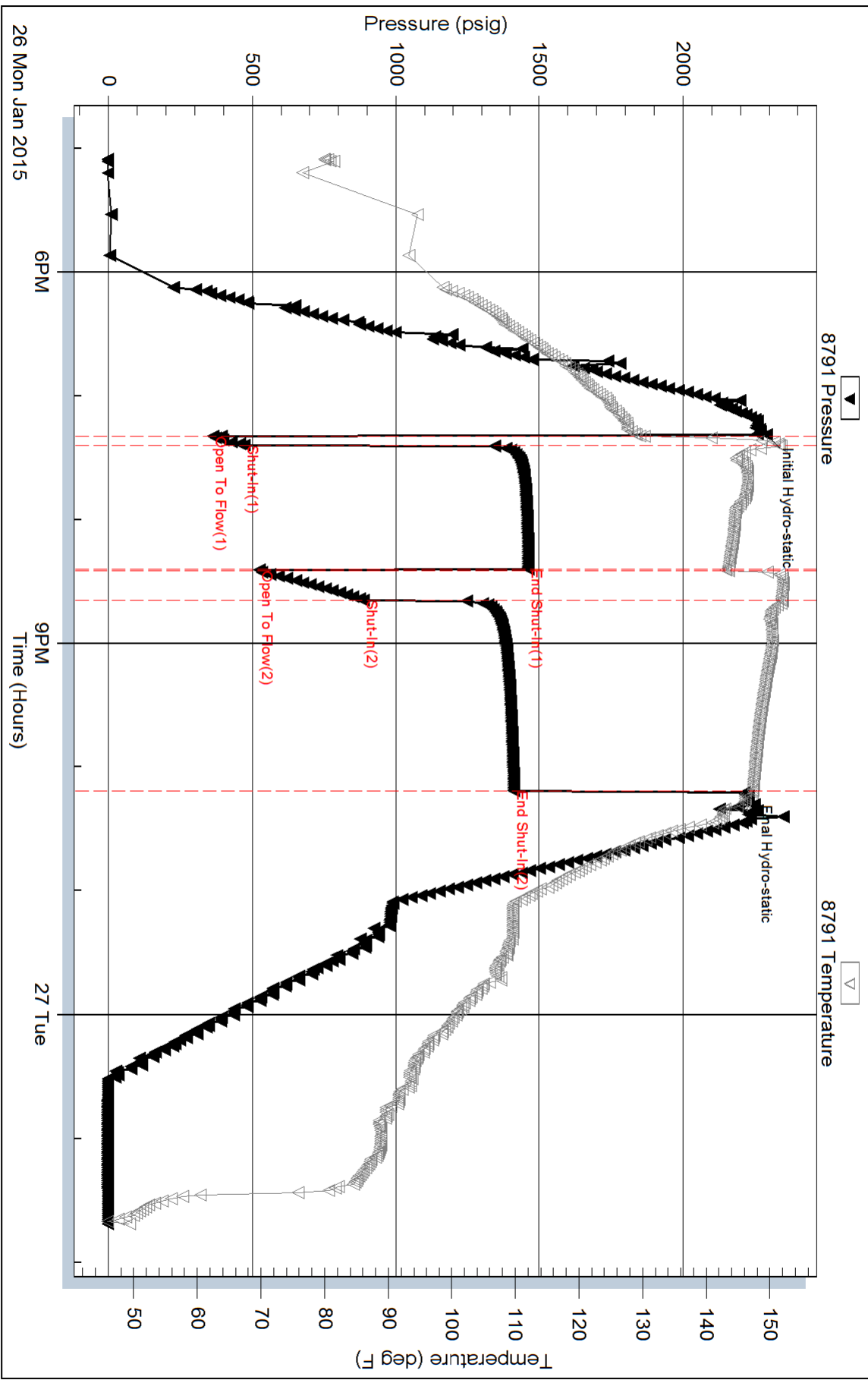
Laboratory Name:

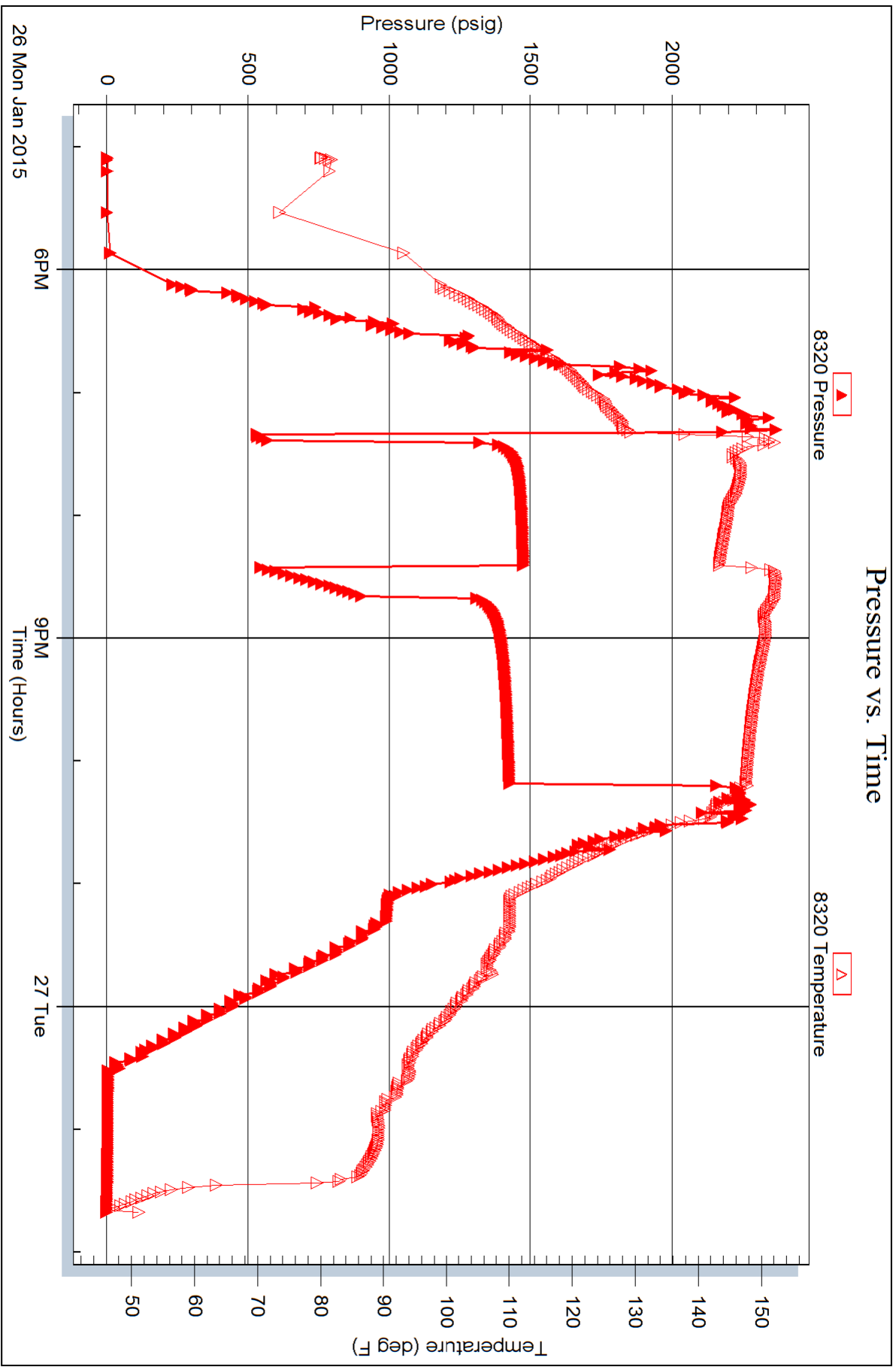
Laboratory Location:

Recovery Comments: RW = .550 ohms @ 49.1 deg F Chlorides = 17,500 ppm

Samples had Free oil and an oil mud salt gas mixture - I tried to separate them in the percentages (the 310' recovery the mixture looked like more mud than oil)

Pressure vs. Time





Serial #: 8366

Fluid

Samuel Gary Jr. & Associates

A. B. Fisher #1-26

DST Test Number: 1

