



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sam Gary Jr. Associates

3-4S-36W Rawlins KS

1515 Wynkoop
STE 700
Denver Co 80202
ATTN: Chris Mitchel

Fisher Cattle #1-3

Job Ticket: 60019 **DST#: 4**
Test Start: 2014.09.23 @ 21:22:00

GENERAL INFORMATION:

Formation: **Upper Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:22:15
 Time Test Ended: 06:19:45
 Interval: **4562.00 ft (KB) To 4592.00 ft (KB) (TVD)**
 Total Depth: 4951.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Straddle (Reset)
 Tester: Ryan Nichols
 Unit No: 78
 Reference Elevations: 3308.00 ft (KB)
 3303.00 ft (CF)
 KB to GR/CF: 5.00 ft

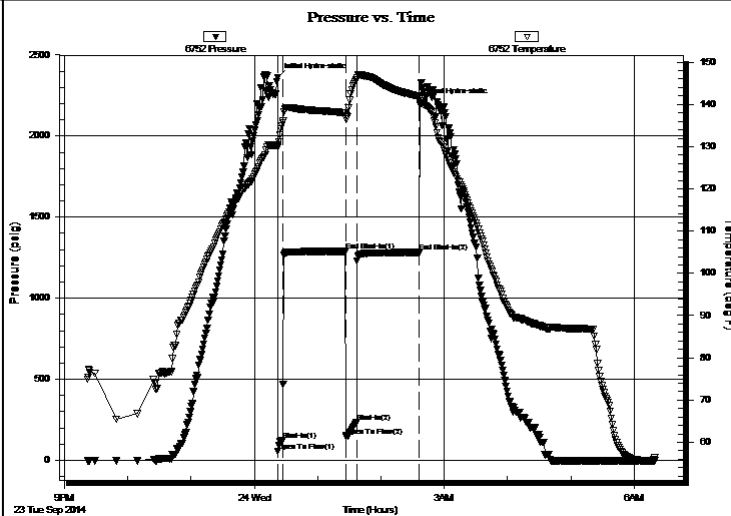
Serial #: 6752

Inside

Press@RunDepth: 236.92 psig @ 4563.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.23 End Date: 2014.09.24 Last Calib.: 2014.09.24
 Start Time: 21:22:05 End Time: 06:19:45 Time On Btm: 2014.09.24 @ 00:22:00
 Time Off Btm: 2014.09.24 @ 02:37:00

TEST COMMENT: 5 IF - 1" blow built to BoB @ 2 1/2 mins
 60 ISI - Surface blow built to BoB @ 13 mins
 10 FF - 1" blow built to BoB @ 2 1/2 mins
 60 FSI - Surface blow built to BoB @ 11 mins

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2359.22	130.30	Initial Hydro-static
1	55.30	129.84	Open To Flow (1)
5	125.21	135.63	Shut-In(1)
65	1289.82	137.98	End Shut-In(1)
65	147.89	137.20	Open To Flow (2)
75	236.92	145.92	Shut-In(2)
135	1283.09	141.90	End Shut-In(2)
135	2205.87	141.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	GOCM - 20%G - 35%M - 45%o	0.91
625.00	GO - 35%G - 65%o	8.77
0.00	372' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



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Fisher Cattle #1-3

Job Ticket: 60019

DST#: 4

Test Start: 2014.09.23 @ 21:22:00

GENERAL INFORMATION:

Formation: **Upper Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:22:15

Time Test Ended: 06:19:45

Test Type: Conventional Straddle (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 4562.00 ft (KB) To 4592.00 ft (KB) (TVD)

Reference Elevations: 3308.00 ft (KB)

Total Depth: 4951.00 ft (KB) (TVD)

3303.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8734 Fluid

Press@RunDepth: psig @ 4535.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.23

End Date:

2014.09.24

Last Calib.:

2014.09.24

Start Time: 21:22:01

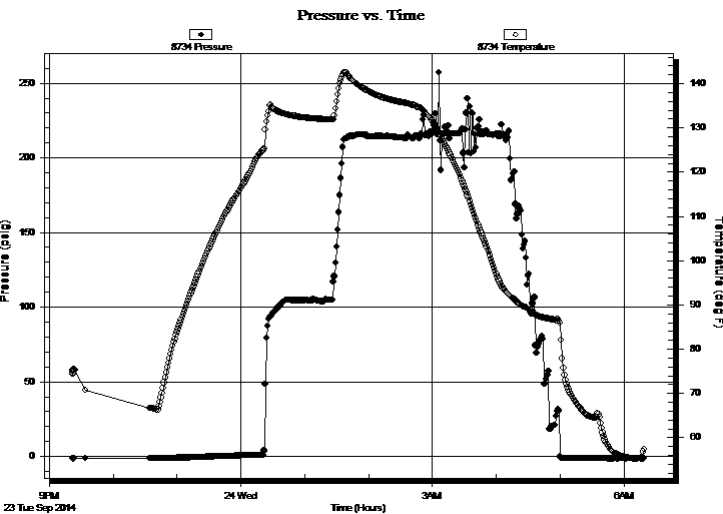
End Time:

06:19:40

Time On Btm:

Time Off Btm:

TEST COMMENT: 5 IF - 1" blow built to BoB @ 2 1/2 mins
60 ISI - Surface blow built to BoB @ 13 mins
10 FF - 1" blow built to BoB @ 2 1/2 mins
60 FSI - Surface blow built to BoB @ 11 mins



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
186.00	GOCM - 20%G - 35%M - 45%o	0.91
625.00	GO - 35%G - 65%o	8.77
0.00	372' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

Sam Gary Jr. Associates

1515 Wynkoop
STE 700
Denver Co 80202
ATTN: Chris Mitchel

3-4S-36W Rawlins KS

Fisher Cattle #1-3

Job Ticket: 60019 **DST#: 4**
Test Start: 2014.09.23 @ 21:22:00

GENERAL INFORMATION:

Formation: **Upper Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:22:15

Time Test Ended: 06:19:45

Test Type: Conventional Straddle (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: **4562.00 ft (KB) To 4592.00 ft (KB) (TVD)**

Total Depth: 4951.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3308.00 ft (KB)

3303.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8960 Below (Straddle)

Press@RunDepth: psig @ 4952.00 ft (KB)

Start Date: 2014.09.23

End Date:

2014.09.24

Start Time: 21:23:00

End Time:

06:19:30

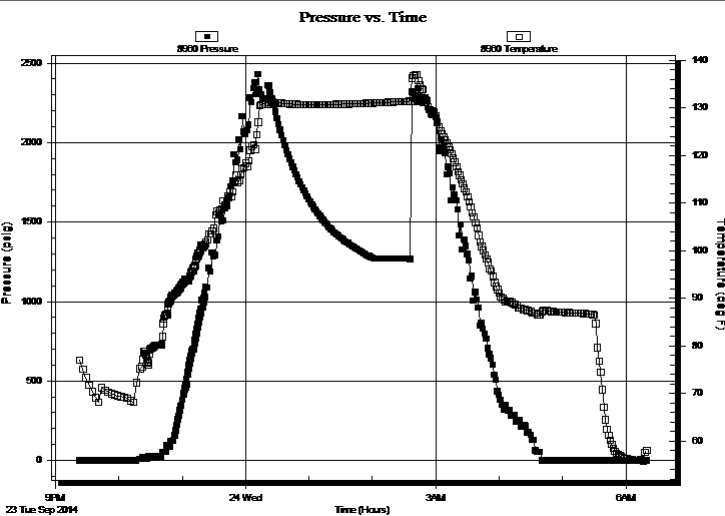
Capacity: 8000.00 psig

Last Calib.: 2014.09.24

Time On Btm:

Time Off Btm:

TEST COMMENT: 5 IF - 1" blow built to BoB @ 2 1/2 mins
60 ISI - Surface blow built to BoB @ 13 mins
10 FF - 1" blow built to BoB @ 2 1/2 mins
60 FSI - Surface blow built to BoB @ 11 mins



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
186.00	GOCM - 20%G - 35%M - 45%o	0.91
625.00	GO - 35%G - 65%o	8.77
0.00	372' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

FLUID SUMMARY

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3-4S-36W Rawlins KS

1515 Wynkoop
STE 700
Denver Co 80202
ATTN: Chris Mitchel

Fisher Cattle #1-3

Job Ticket: 60019

DST#: 4

Test Start: 2014.09.23 @ 21:22:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 64.00 sec/qt
Water Loss: 8.79 in³
Resistivity: ohm.m
Salinity: 500.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 36 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

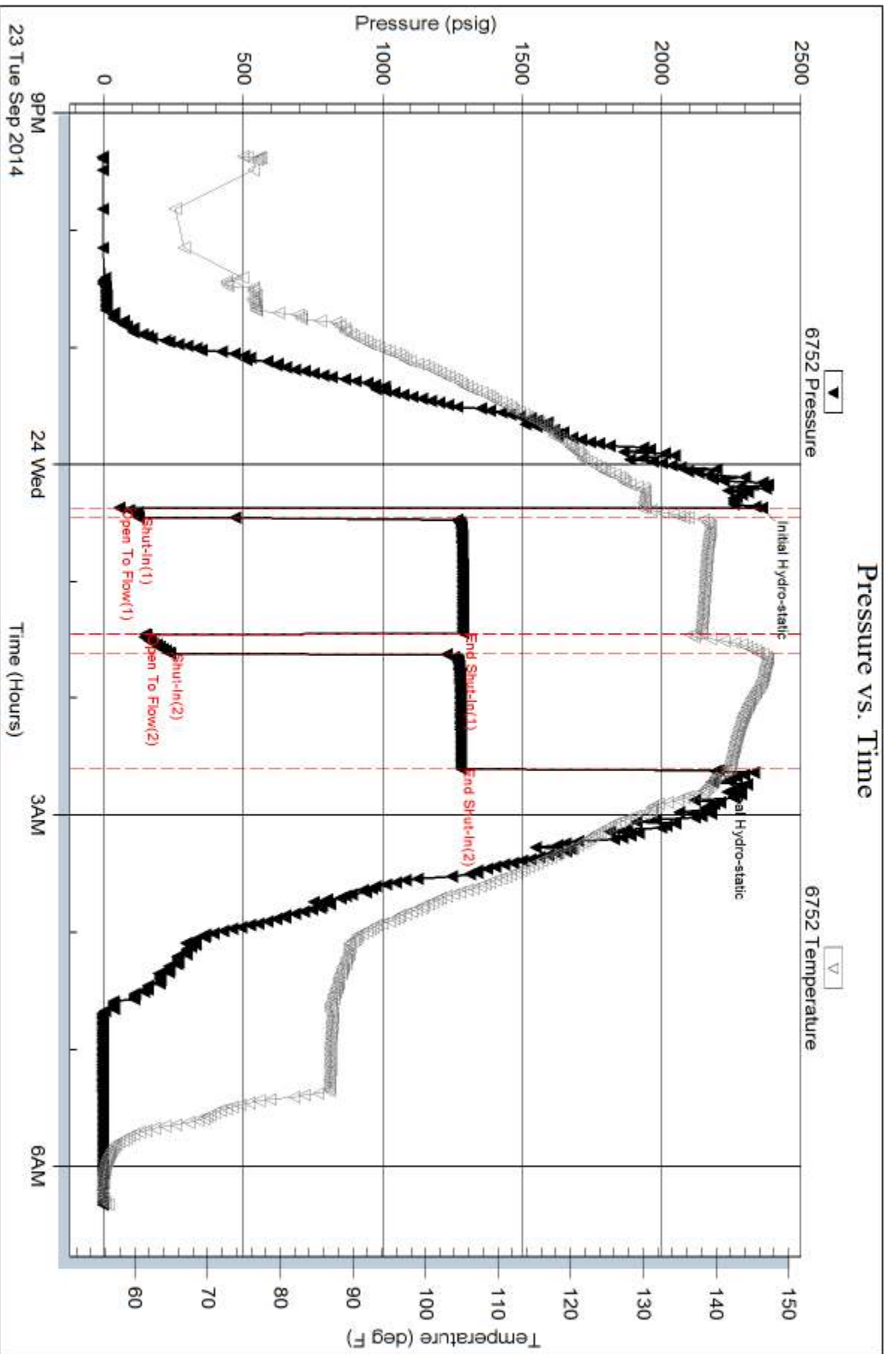
Length ft	Description	Volume bbl
186.00	GOCM - 20%G - 35%M - 45%o	0.915
625.00	GO - 35%G - 65%o	8.767
0.00	372' GIP	0.000

Total Length: 811.00 ft Total Volume: 9.682 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: OIL API = 37 @ 70 DEG F = 36 COR 60 DEG F
OS= 1100ml G - 1900ml o - 3000ml total 152 PSI



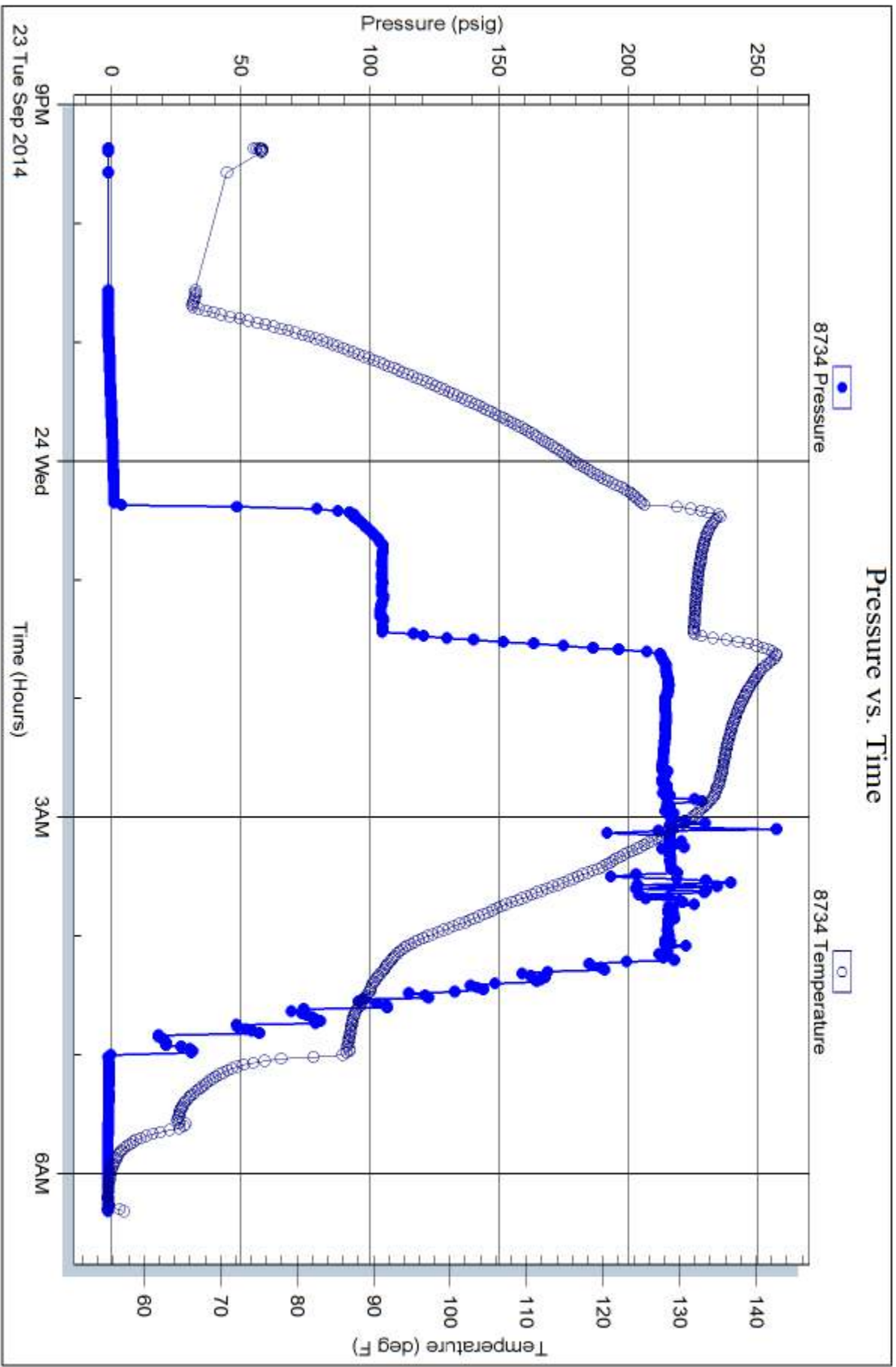
Serial #: 8734

Fluid

Sam Gary Jr. Associates

Fisher Cattle #1-3

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 60019

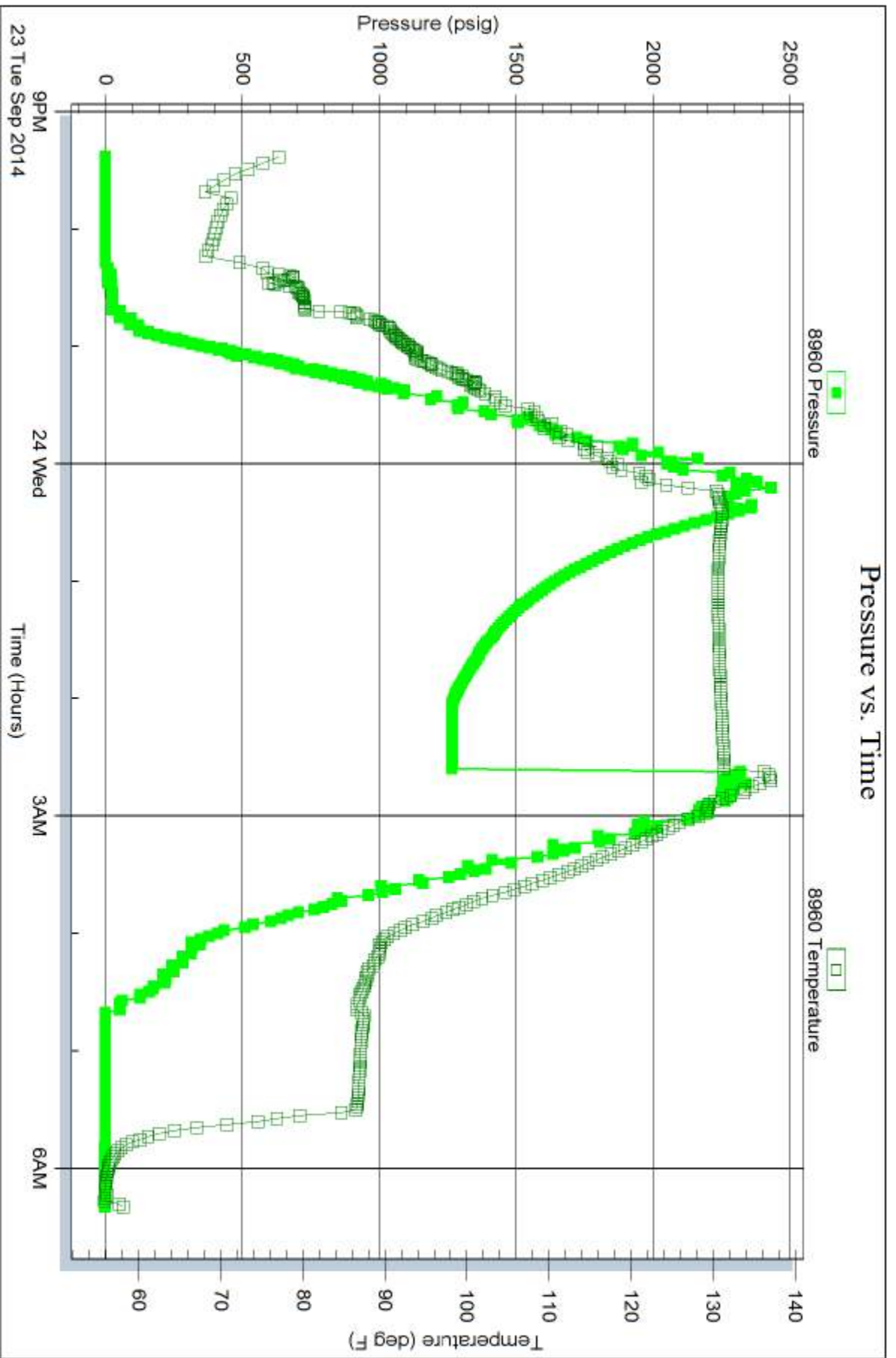
Printed: 2014.09.24 @ 08:45:30

Serial #: 8960

Below (Stratton) Jr. Associates

Fisher Cattle #1-3

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 60019

Printed: 2014.09.24 @ 08:45:31