



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Sam Gary  
 1515 Wynkoop St. 700 Denver Co. 80202  
 ATTN:

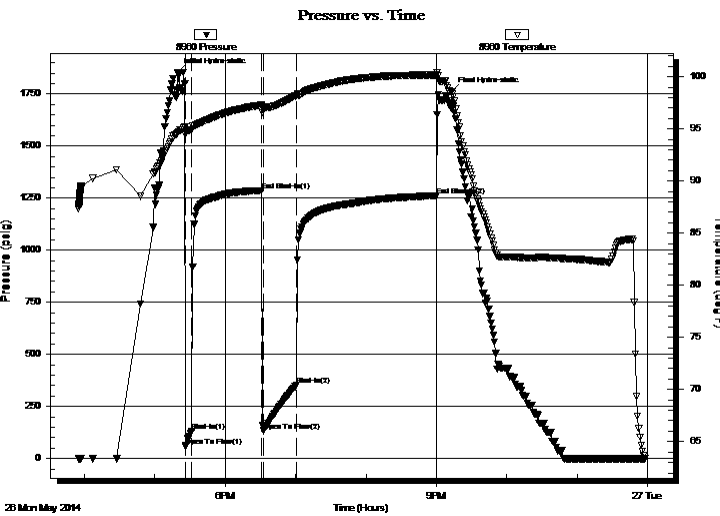
**26 4s 24w Norton Ks**  
**Hazlett 1-26**  
 Job Ticket: 58186      **DST#: 4**  
 Test Start: 2014.05.26 @ 15:55:00

## GENERAL INFORMATION:

Formation: **LKC-G,F**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 17:26:00  
 Time Test Ended: 23:58:00  
 Interval: **3670.00 ft (KB) To 3743.00 ft (KB) (TVD)**  
 Total Depth: 3743.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Chuck Kreuzer Jr.  
 Unit No: 61  
 Reference Elevations: 2483.00 ft (KB)  
 2475.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8960      Inside**  
 Press @ Run Depth: 352.07 psig @ 3675.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.05.26      End Date: 2014.05.26      Last Calib.: 2014.05.27  
 Start Time: 15:55:01      End Time: 23:58:00      Time On Btm: 2014.05.26 @ 17:19:00  
 Time Off Btm: 2014.05.26 @ 21:13:00

**TEST COMMENT:** IF: Strong blow , Built to B.O.B in 1 1/2 min.  
 IS: No blow back  
 FF: Strong blow , Built to B.O.B in 2 mins.  
 FS: Blow back After 1 min. Built to B.O.B in 35 mins.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1851.79	94.60	Initial Hydro-static
7	57.01	94.45	Open To Flow (1)
13	130.22	94.95	Shut-In(1)
72	1286.82	97.28	End Shut-In(1)
74	133.06	97.07	Open To Flow (2)
102	352.07	98.21	Shut-In(2)
221	1262.34	100.17	End Shut-In(2)
234	1763.28	98.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	Sampler-100psi 2000ml go-40%g60%o	0.00
189.00	gw cmo-20%g10%w 20%m50%o	2.37
441.00	go-35%g65%o	6.19
441.00	go-20%g80%o	6.19
0.00	504 Ft of gas in pipe	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Sam Gary  
1515 Wynkoop St. 700 Denver Co. 80202  
ATTN:

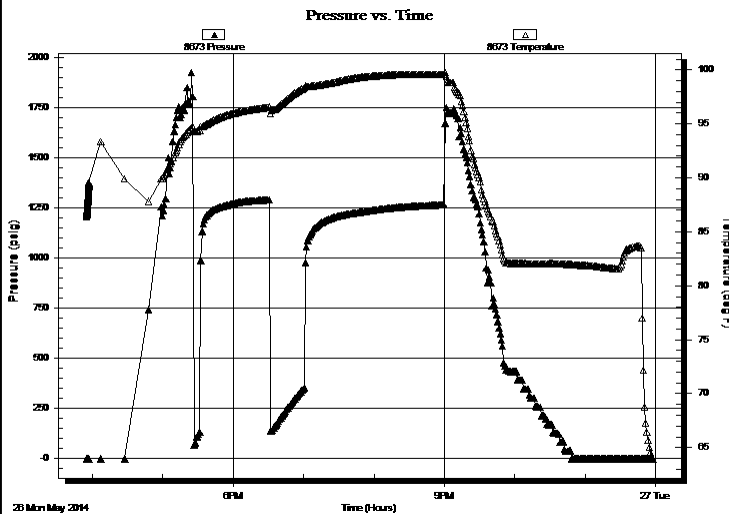
**26 4s 24w Norton Ks**  
**Hazlett 1-26**  
Job Ticket: 58186      **DST#: 4**  
Test Start: 2014.05.26 @ 15:55:00

### GENERAL INFORMATION:

Formation: **LKC-G,F**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 17:26:00  
Time Test Ended: 23:58:00  
Interval: **3670.00 ft (KB) To 3743.00 ft (KB) (TVD)**  
Total Depth: 3743.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Chuck Kreutzer Jr.  
Unit No: 61  
Reference Elevations: 2483.00 ft (KB)  
2475.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8673 Outside**  
Press @ Run Depth: psig @ 3675.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.05.26 End Date: 2014.05.26 Last Calib.: 2014.05.27  
Start Time: 15:55:01 End Time: 23:58:00 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF: Strong blow , Built to B.O.B in 1 1/2 min.  
IS: No blow back  
FF: Strong blow , Built to B.O.B in 2 mins.  
FSI: Blow back After 1 min. Built to B.O.B in 35 mins.



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
0.00	Sampler-100psi 2000ml go-40%g60%o	0.00
189.00	gw cmo-20%g10%w 20%m50%o	2.37
441.00	go-35%g65%o	6.19
441.00	go-20%g80%o	6.19
0.00	504 Ft of gas in pipe	0.00

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Sam Gary  
1515 Wynkoop St. 700 Denver Co. 80202  
ATTN:

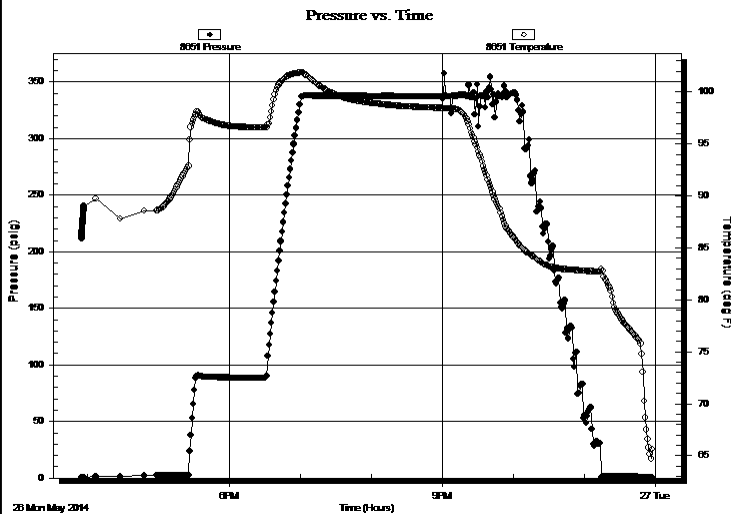
**26 4s 24w Norton Ks**  
**Hazlett 1-26**  
Job Ticket: 58186      **DST#: 4**  
Test Start: 2014.05.26 @ 15:55:00

## GENERAL INFORMATION:

Formation: **LKC-G,F**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 17:26:00  
Time Test Ended: 23:58:00  
Interval: **3670.00 ft (KB) To 3743.00 ft (KB) (TVD)**  
Total Depth: 3743.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Chuck Kreutzer Jr.  
Unit No: 61  
Reference Elevations: 2483.00 ft (KB)  
2475.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8651      Fluid**  
Press @ Run Depth: psig @ 3635.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.05.26      End Date: 2014.05.26      Last Calib.: 2014.05.27  
Start Time: 15:55:01      End Time: 23:58:00      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF: Strong blow , Built to B.O.B in 1 1/2 min.  
IS: No blow back  
FF: Strong blow , Built to B.O.B in 2 mins.  
FS: Blow back After 1 min. Built to B.O.B in 35 mins.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	Sampler-100psi 2000ml go-40%g60%o	0.00
189.00	gw cmo-20%g10%w 20%m50%o	2.37
441.00	go-35%g65%o	6.19
441.00	go-20%g80%o	6.19
0.00	504 Ft of gas in pipe	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Sam Gary  
1515 Wynkoop St. 700 Denver Co. 80202  
ATTN:

**26 4s 24w Norton Ks**  
**Hazlett 1-26**  
Job Ticket: 58186      **DST#: 4**  
Test Start: 2014.05.26 @ 15:55:00

## Mud and Cushion Information

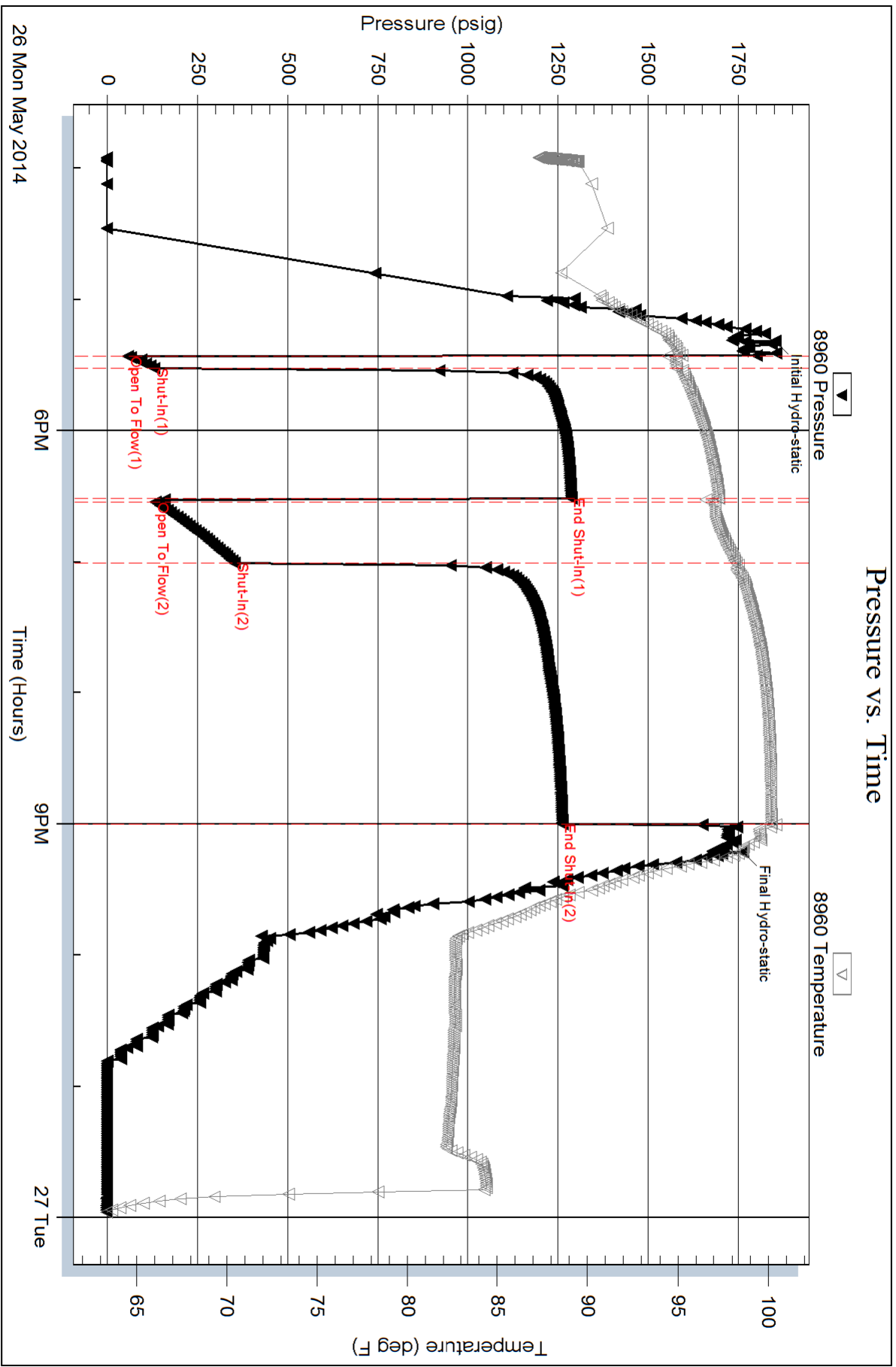
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 43.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.39 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 2.00 inches			

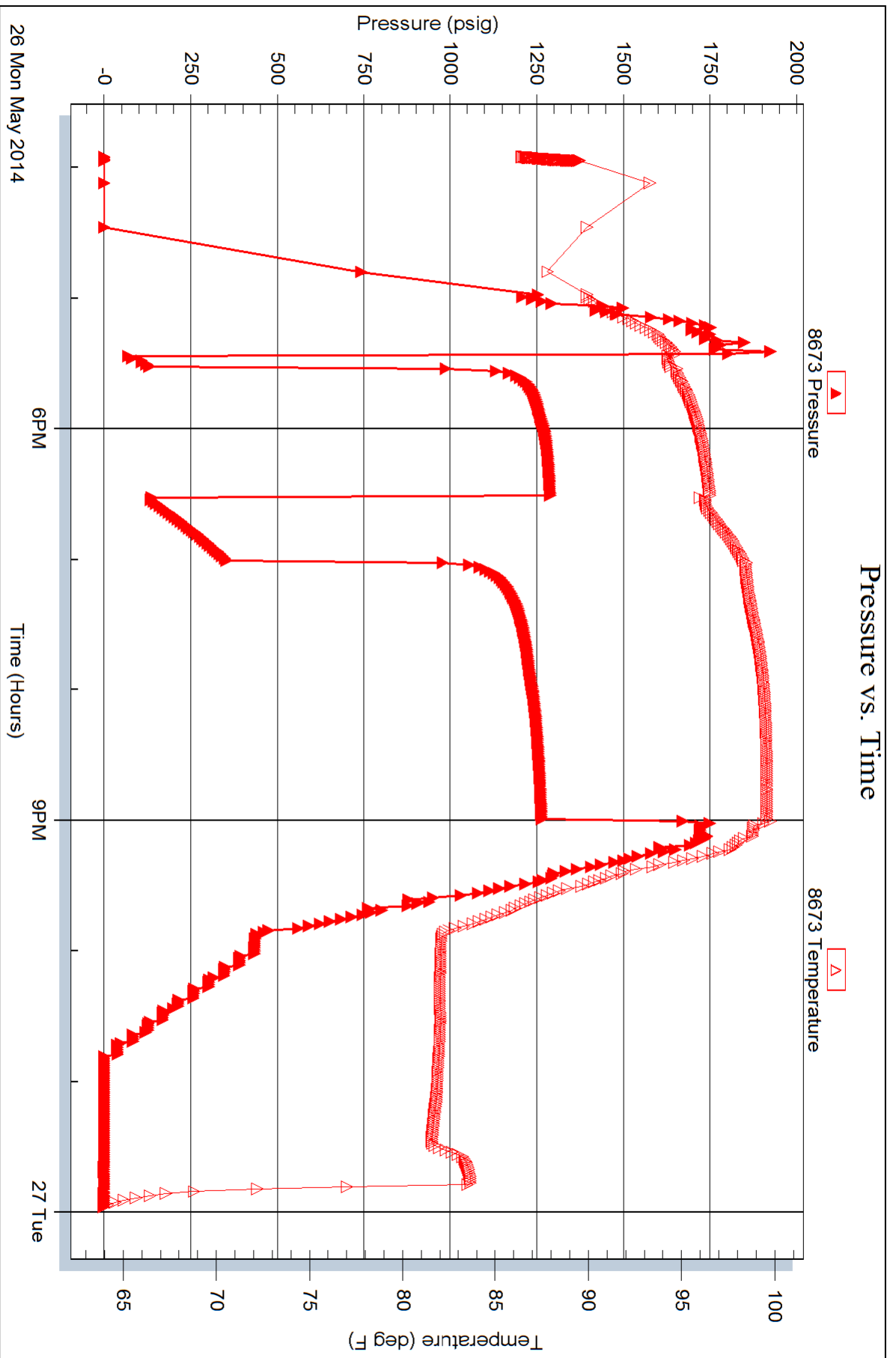
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	Sampler-100psi 2000ml go-40%g60%o	0.000
189.00	gw cmo-20%g10%w 20%m50%o	2.369
441.00	go-35%g65%o	6.186
441.00	go-20%g80%o	6.186
0.00	504 Ft of gas in pipe	0.000

Total Length: 1071.00 ft      Total Volume: 14.741 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:





Serial #: 8651

Fluid

Sam Gary

Hazlett 1-26

DST Test Number: 4

