



DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Assoc Inc**

1515 Wynkoop STE 700
Denver CO 80202

ATTN: Chris Mitchell

Parks #1-32

32-10s-21w Graham,KS

Start Date: 2014.02.28 @ 12:30:24

End Date: 2014.02.28 @ 18:08:48

Job Ticket #: 56249 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

32-10s-21w Graham,KS

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Test Start: 2014.02.28 @ 12:30:24

GENERAL INFORMATION:

Formation: **LKC I-K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:16:34

Time Test Ended: 18:08:48

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3660.00 ft (KB) To 3735.00 ft (KB) (TVD)

Reference Elevations: 2214.00 ft (KB)

Total Depth: 3735.00 ft (KB) (TVD)

2206.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8369 Inside

Press@RunDepth: 26.70 psig @ 3668.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.28

End Date:

2014.02.28

Last Calib.:

2014.02.28

Start Time: 12:30:24

End Time:

18:08:48

Time On Btm:

2014.02.28 @ 14:14:49

Time Off Btm:

2014.02.28 @ 16:36:34

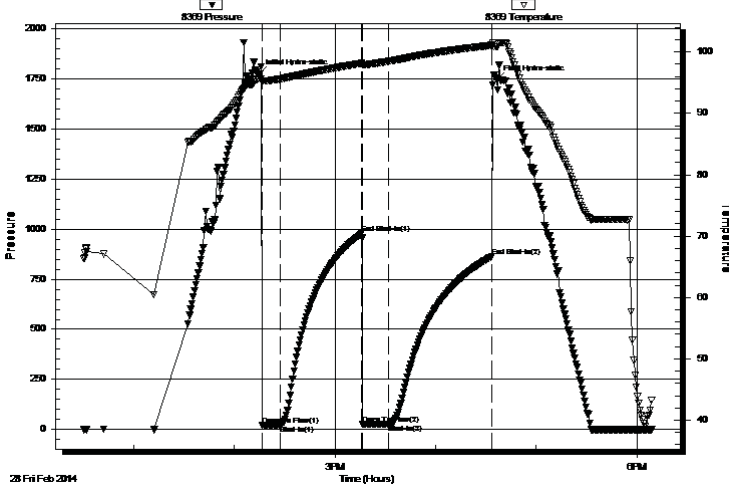
TEST COMMENT: 10-IFP-w k bl thru-out 1/4" to 1/2" bl

60-ISIP-no bl

15-FFP-no bl

60-FSIP-no bl

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1774.11	95.60	Initial Hydro-static
2	22.03	95.21	Open To Flow (1)
13	24.24	95.62	Shut-In(1)
61	976.60	98.16	End Shut-In(1)
62	26.06	97.88	Open To Flow (2)
78	26.70	98.49	Shut-In(2)
139	862.64	101.09	End Shut-In(2)
142	1741.86	100.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud w/show of oil	0.14

* Recovery from multiple tests

Gas Rates

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



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TOOL DIAGRAM

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Tool Information

Drill Pipe:	Length: 3657.00 ft	Diameter: 3.80 inches	Volume: 51.30 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 51.30 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3660.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	109.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Recorder	0.00	8374	Fluid	3626.00	
Blank Spacing	4.00			3630.00	
Shut In Tool	5.00			3635.00	
Sampler	2.00			3637.00	
Hydraulic tool	5.00			3642.00	
Jars	5.00			3647.00	
Safety Joint	3.00			3650.00	
Packer	5.00			3655.00	34.00 Bottom Of Top Packer
Packer	5.00			3660.00	
Stubb	1.00			3661.00	
Perforations	7.00			3668.00	
Recorder	0.00	8369	Inside	3668.00	
Recorder	0.00	8700	Outside	3668.00	
Blank Spacing	64.00			3732.00	
Bullnose	3.00			3735.00	75.00 Bottom Packers & Anchor

Total Tool Length: 109.00



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FLUID SUMMARY

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DST#: 2

ATTN: Chris Mitchell

Test Start: 2014.02.28 @ 12:30:24

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.15 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud w/show of oil	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

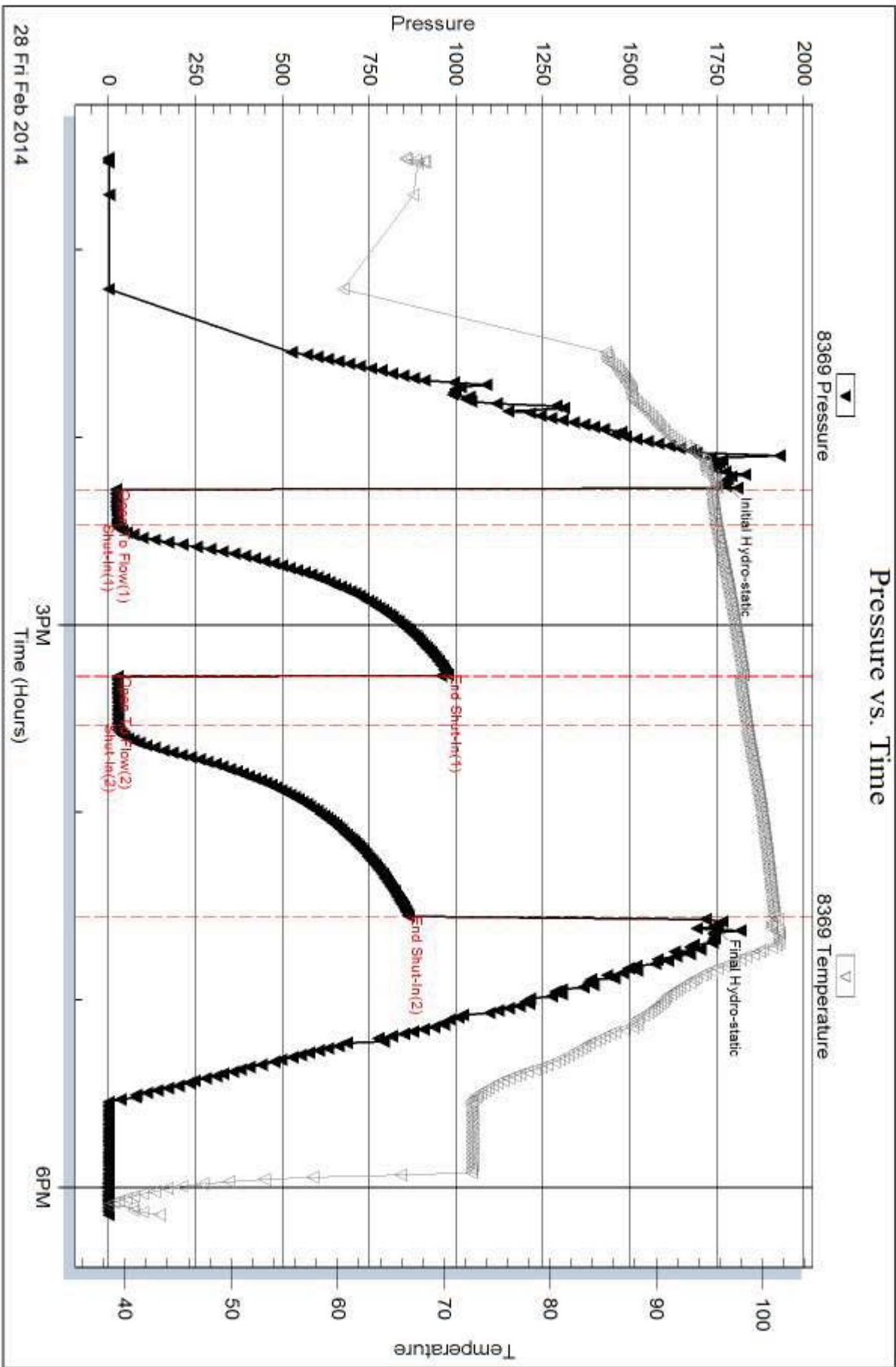
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data : PSI 75# 1000ML mud

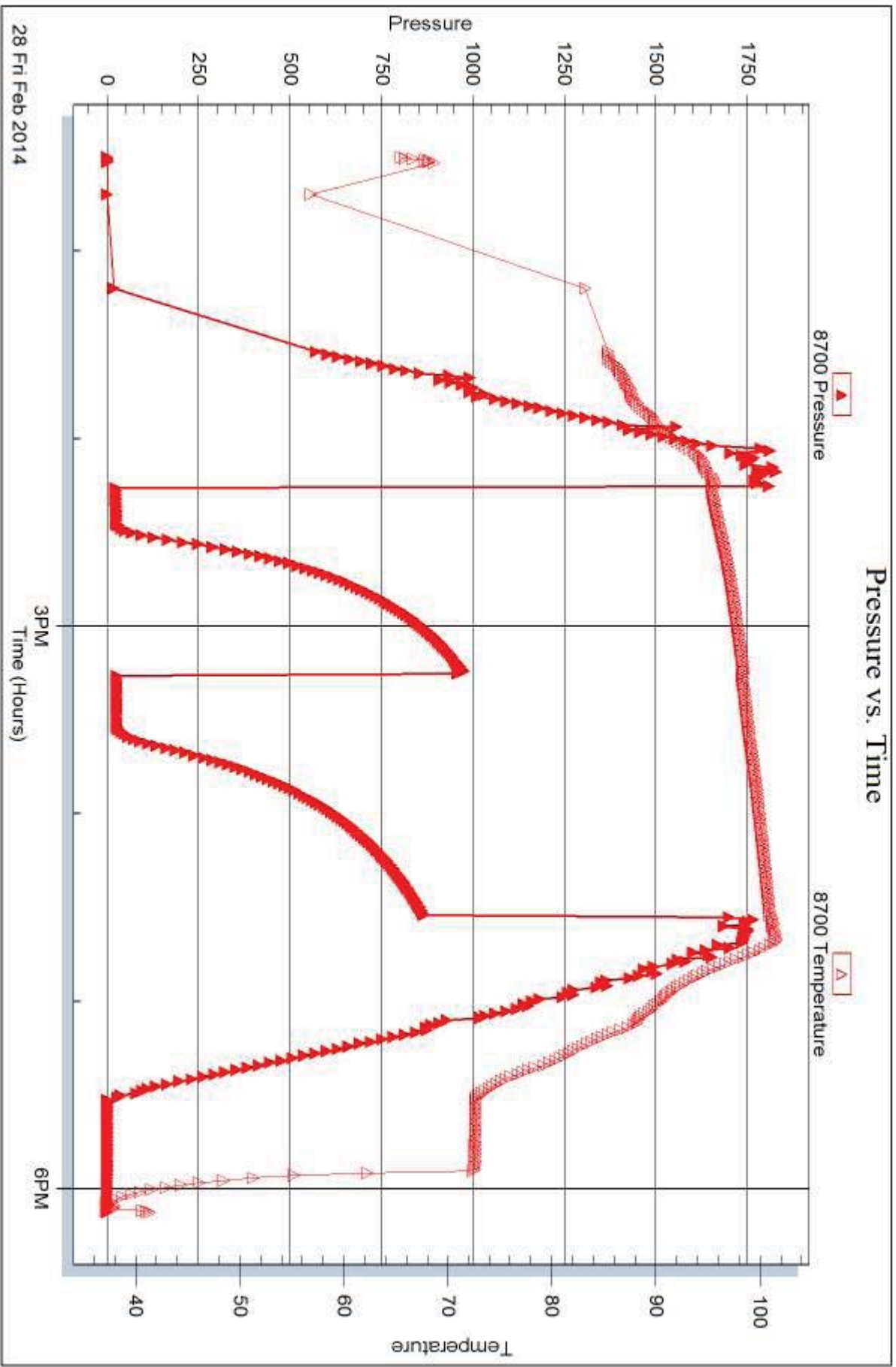


Serial #: 8700

Outside Samuel Gary Jr & Assoc Inc

Parks #1-32

DST Test Number: 2



28 Fri Feb 2014

Triobite Testing, Inc

Ref. No: 56249

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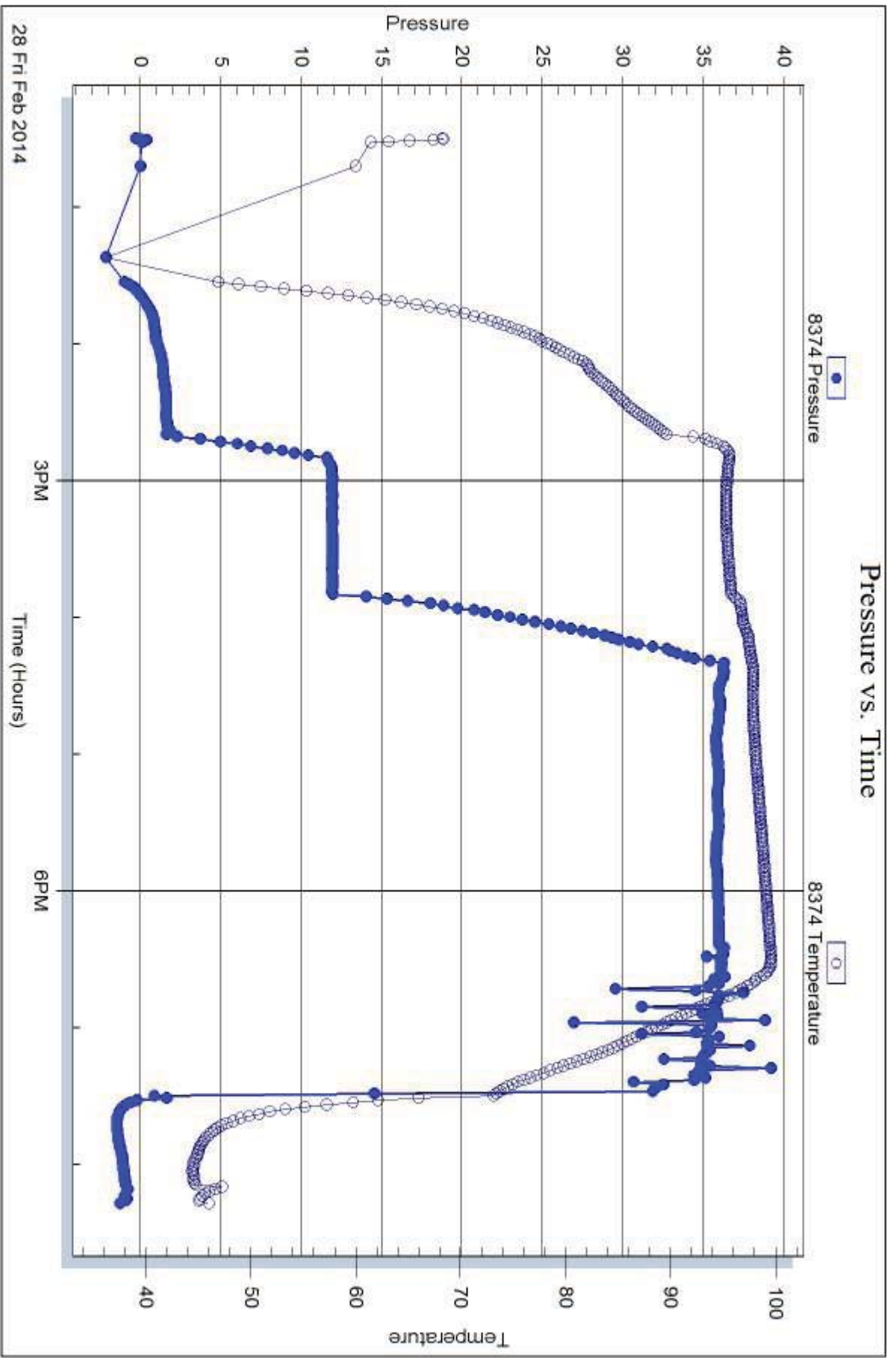
Serial #: 8374

Fluid

Samuel Gary Jr & Assoc Inc

Parks #1-32

DST Test Number: 2



28 Fri Feb 2014

Tribble Testing, Inc

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