



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: 2014.03.01 @ 06:15:51

End Date: 2014.03.01 @ 13:17:30

Job Ticket #: 56250 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

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TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

32-10s-21w Graham,KS

1515 Wynkoop STE 700
Denver CO 80202

Parks #1-32

Job Ticket: 56250

DST#: 3

ATTN: Chris Mitchell

Test Start: 2014.03.01 @ 06:15:51

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:50:01

Time Test Ended: 13:17:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3820.00 ft (KB) To 3838.00 ft (KB) (TVD)

Reference Elevations: 2214.00 ft (KB)

Total Depth: 3838.00 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: 16.06 psig @ 3821.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.01

End Date:

2014.03.01

Last Calib.: 2014.03.01

Start Time: 06:15:51

End Time:

13:17:30

Time On Btm: 2014.03.01 @ 08:48:01

Time Off Btm: 2014.03.01 @ 11:21:15

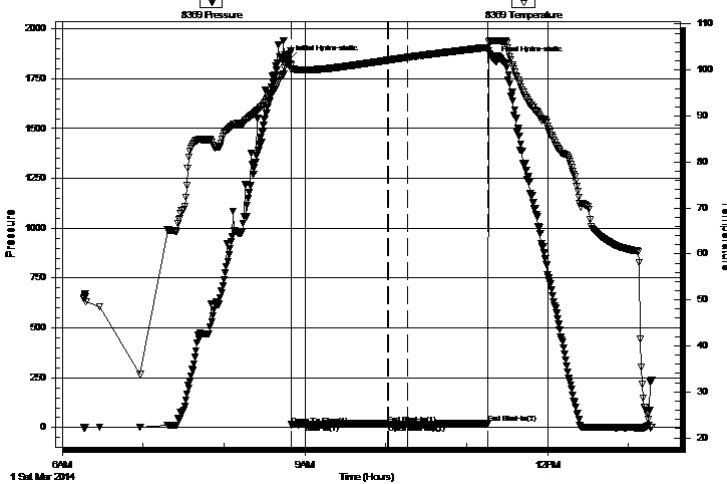
TEST COMMENT: 10-IFP-w k bl thru-out surface to 1/4"bl

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	1846.31	101.44	Initial Hydro-static
2	14.43	99.97	Open To Flow (1)
13	15.64	100.04	Shut-In(1)
74	16.10	102.14	End Shut-In(1)
74	16.11	102.15	Open To Flow (2)
89	16.06	102.76	Shut-In(2)
148	23.15	104.94	End Shut-In(2)
154	1838.76	106.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud	0.03

Gas Rates

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

* Recovery from multiple tests



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Parks #1-32

Job Ticket: 56250

DST#: 3

ATTN: Chris Mitchell

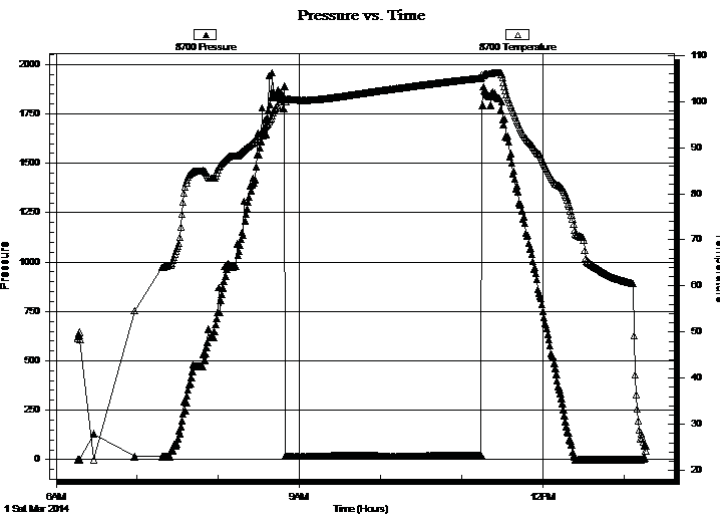
Test Start: 2014.03.01 @ 06:15:51

GENERAL INFORMATION:

Formation: **Marmaton**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:50:01
 Time Test Ended: 13:17:30
 Interval: **3820.00 ft (KB) To 3838.00 ft (KB) (TVD)**
 Total Depth: 3838.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 70
 Reference Elevations: 2214.00 ft (KB)
 2206.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8700 Outside
 Press@RunDepth: psig @ 3821.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.01 End Date: 2014.03.01 Last Calib.: 2014.03.01
 Start Time: 06:16:02 End Time: 13:16:11 Time On Btm:
 Time Off Btm:

TEST COMMENT: 10-IFP-w k bl thru-out surface to 1/4"bl
 60-ISIP-no bl
 15-FFP-no bl
 60-FSIP-no bl



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud	0.03

* Recovery from multiple tests

Gas Rates

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



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32-10s-21w Graham,KS

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Denver CO 80202

Parks #1-32

Job Ticket: 56250

DST#: 3

ATTN: Chris Mitchell

Test Start: 2014.03.01 @ 06:15:51

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:50:01

Time Test Ended: 13:17:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3820.00 ft (KB) To 3838.00 ft (KB) (TVD)

Reference Elevations: 2214.00 ft (KB)

Total Depth: 3838.00 ft (KB) (TVD)

2206.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8374 Fluid

Press@RunDepth: psig @ 3786.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.01

End Date:

2014.03.01

Last Calib.:

2014.03.01

Start Time: 06:15:50

End Time:

13:17:14

Time On Btm:

Time Off Btm:

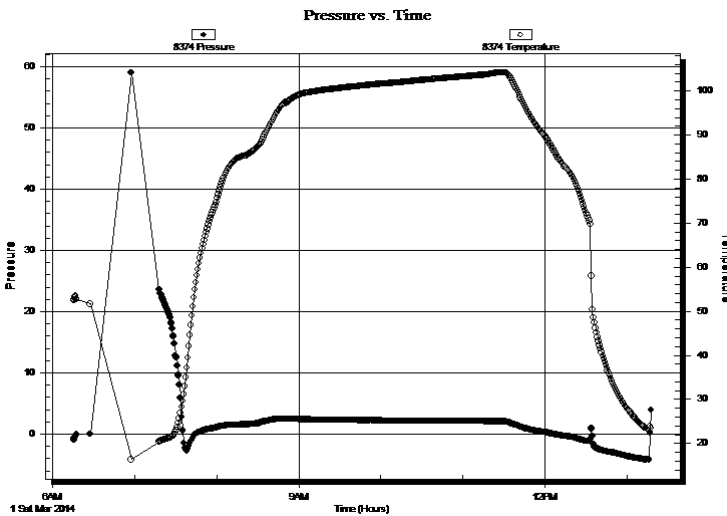
TEST COMMENT: 10-IFP-w k bl thru-out surface to 1/4"bl

60-ISIP-no bl

15-FFP-no bl

60-FSIP-no bl

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud	0.03

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Assoc Inc

32-10s-21w Graham,KS

1515 Wynkoop STE 700
Denver CO 80202

Parks #1-32

Job Ticket: 56250

DST#: 3

ATTN: Chris Mitchell

Test Start: 2014.03.01 @ 06:15:51

Tool Information

Drill Pipe:	Length: 3817.00 ft	Diameter: 3.80 inches	Volume: 53.54 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: 53.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3820.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	52.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Recorder	0.00	8374	Fluid	3786.00	
Blank Spacing	4.00			3790.00	
Shut In Tool	5.00			3795.00	
Sampler	2.00			3797.00	
Hydraulic tool	5.00			3802.00	
Jars	5.00			3807.00	
Safety Joint	3.00			3810.00	
Packer	5.00			3815.00	34.00 Bottom Of Top Packer
Packer	5.00			3820.00	
Stubb	1.00			3821.00	
Recorder	0.00	8369	Inside	3821.00	
Recorder	0.00	8700	Outside	3821.00	
Perforations	14.00			3835.00	
Bullnose	3.00			3838.00	18.00 Bottom Packers & Anchor

Total Tool Length: 52.00



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FLUID SUMMARY

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1515 Wynkoop STE 700
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Parks #1-32

Job Ticket: 56250

DST#: 3

ATTN: Chris Mitchell

Test Start: 2014.03.01 @ 06:15:51

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: 6.77 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
2.00	Mud	0.028

Total Length: 2.00 ft Total Volume: 0.028 bbl

Num Fluid Samples: 0

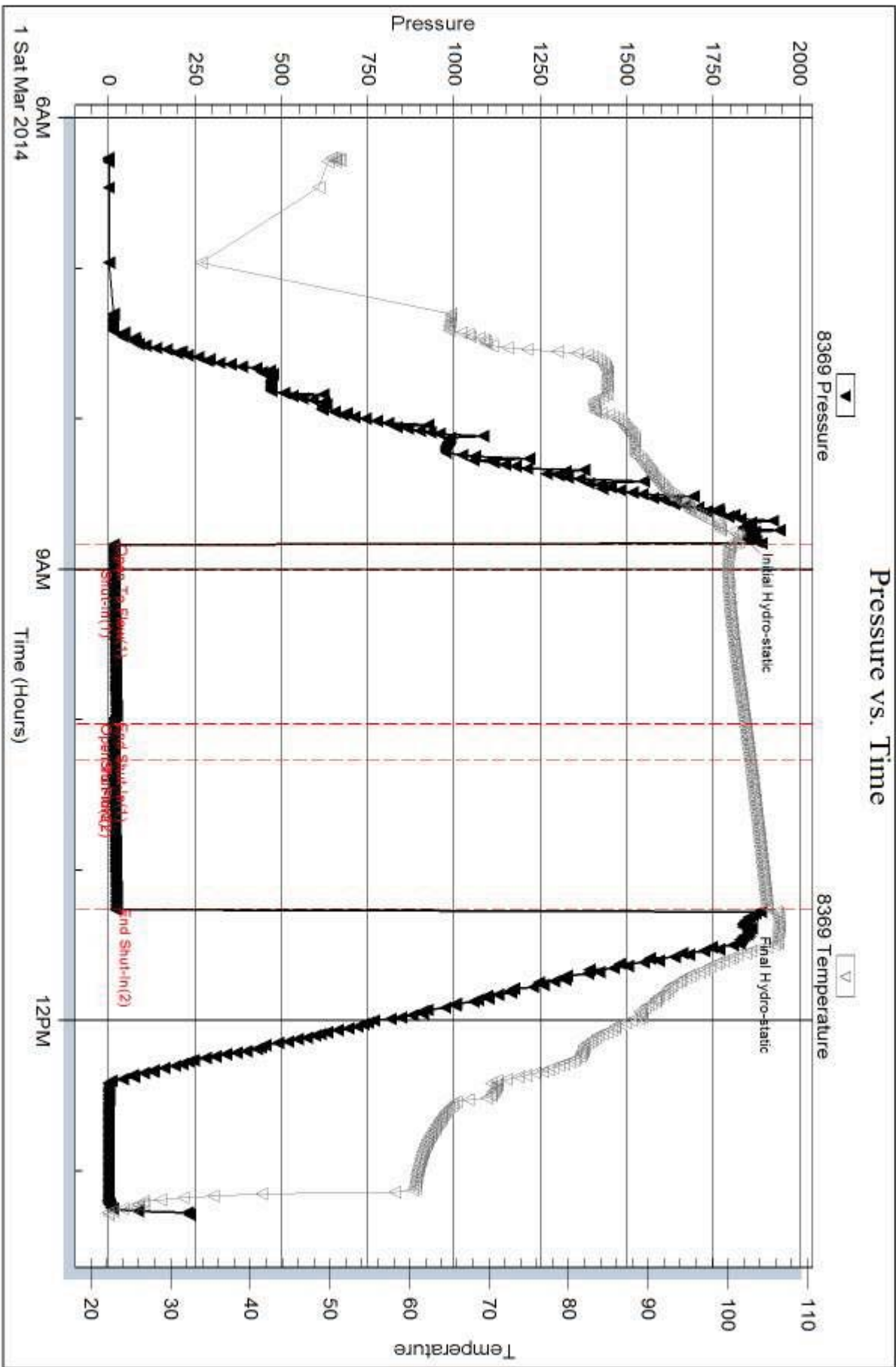
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data: PSI 40# 500ML mud

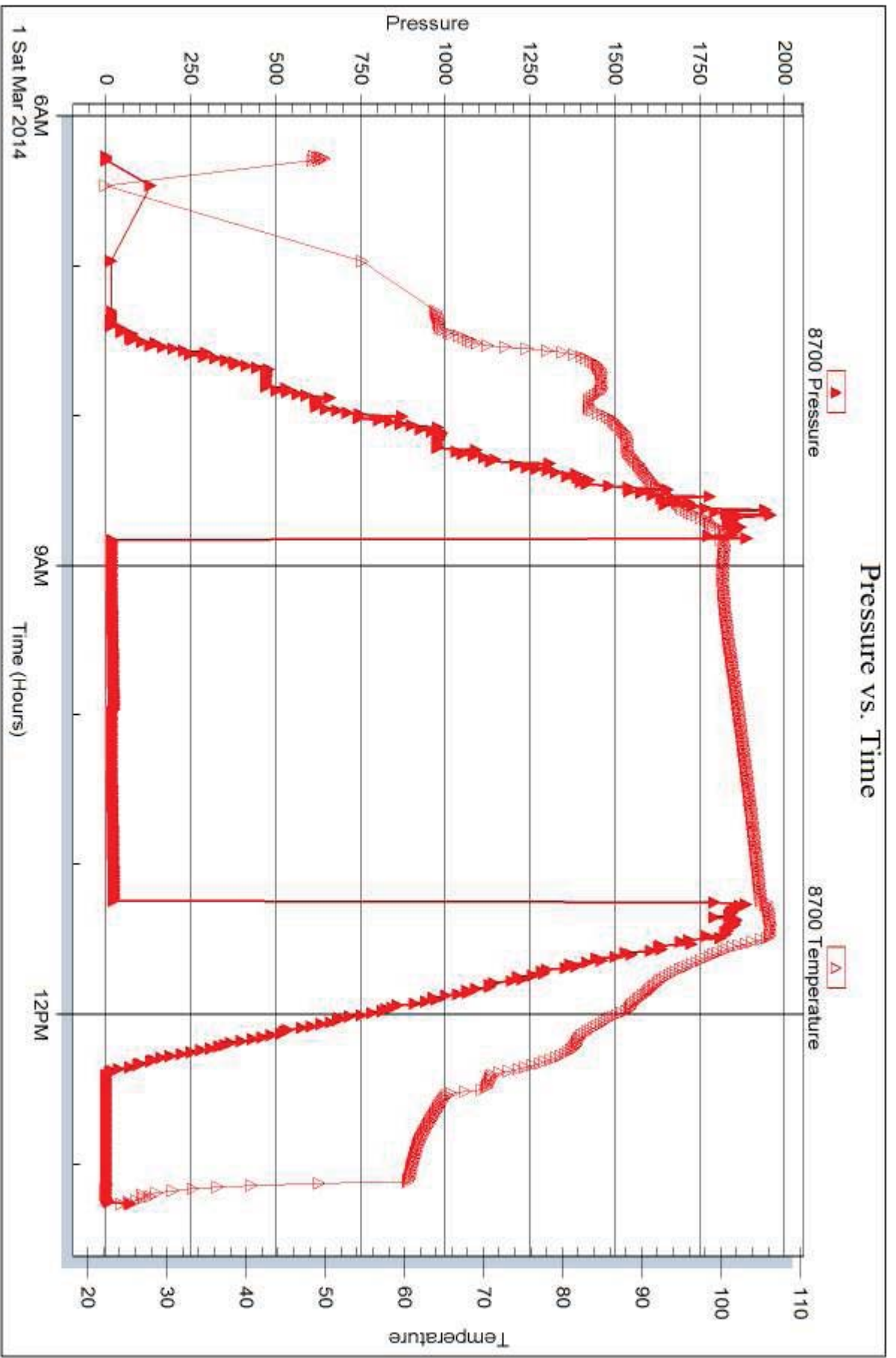


Serial #: 8700

Outside Samuel Gary Jr & Assoc Inc

Parks #1-32

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 56250

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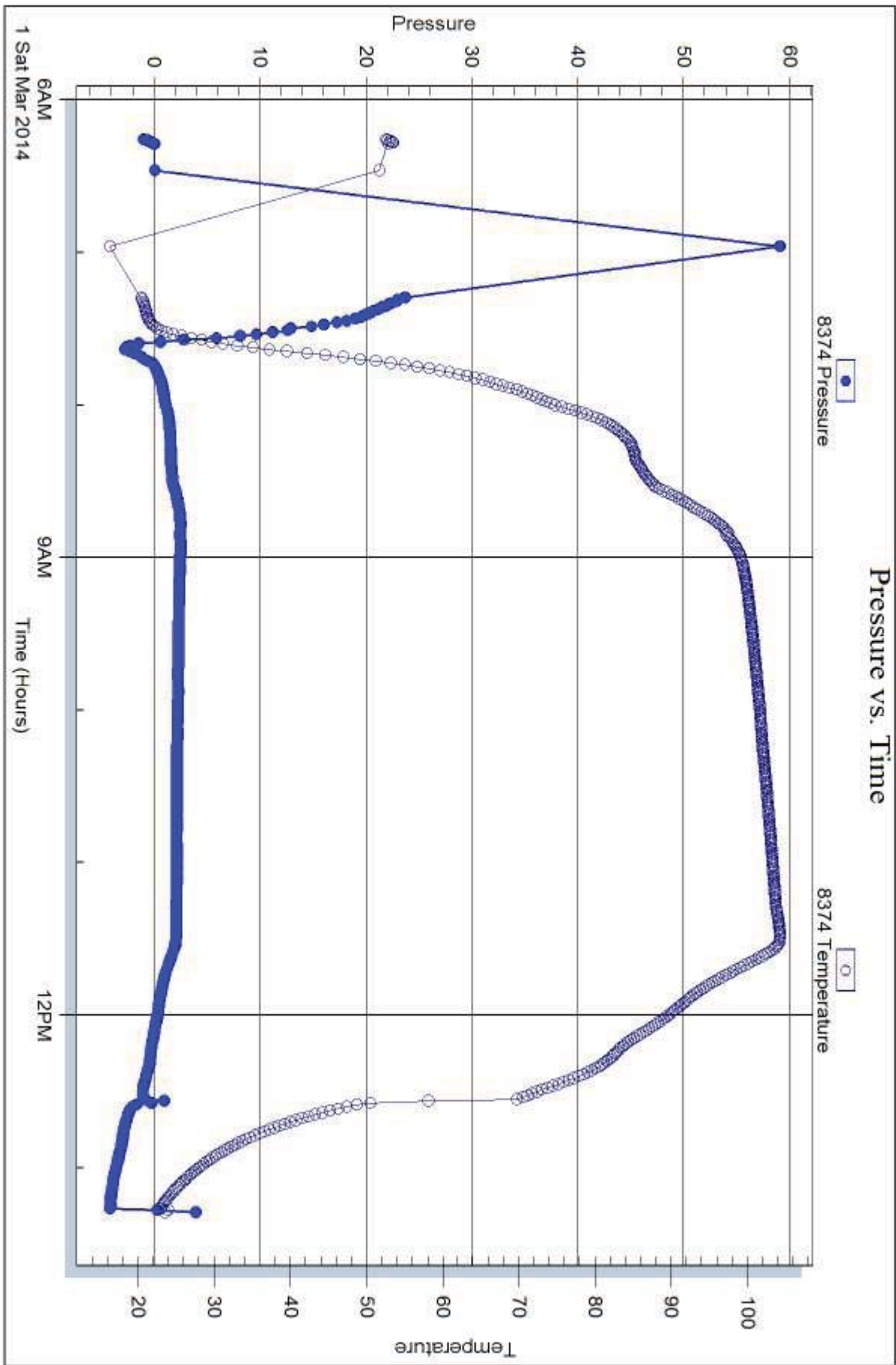
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Fluid

Samuel Gary Jr & Assoc Inc

Parks #1-32

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 56250

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