

DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr. & Associates, Inc.**

1515 Wynkoop Ste. #700
Denver, CO 80202

ATTN: Tom Fertal

Koirth #1-35

35-14s-18w Ellis,KS

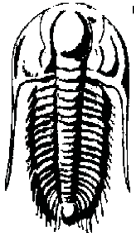
Start Date: 2012.09.17 @ 14:30:15

End Date: 2012.09.17 @ 21:48:45

Job Ticket #: 4703- DST #: 2

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. & Associates, Inc.

35-14s-18w Ellis,KS

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Test Start: 2012.09.17 @ 14:30:15

GENERAL INFORMATION:

Formation: **LKC "J&K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:58:25

Time Test Ended: 21:48:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3470.00 ft (KB) To 3518.00 ft (KB) (TVD)

Reference Elevations: 2030.00 ft (KB)

Total Depth: 3518.00 ft (KB) (TVD)

2022.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8354

Inside

Press@RunDepth: 47.45 psig @ 3474.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.17

End Date:

2012.09.17

Last Calib.:

2012.09.17

Start Time: 14:40:15

End Time:

21:48:45

Time On Btm:

2012.09.17 @ 15:58:15

Time Off Btm:

2012.09.17 @ 20:05:15

TEST COMMENT: IF-Weak building blow . Built to 1&1/2 inches.

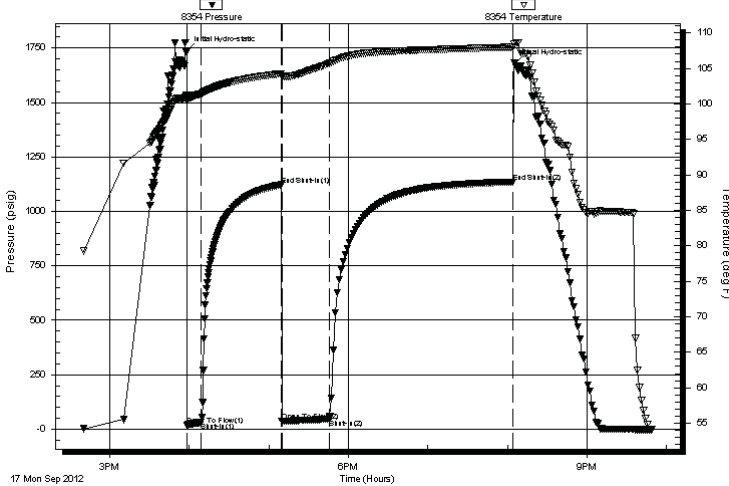
ISI-No Return.

FF-Weak building blow . Built to 2&1/4 inches.

FSI-No Return.

Flow Times-10-60-35-135

Pressure vs. Time



PRESSURE SUMMARY

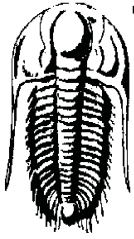
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1736.24	101.23	Initial Hydro-static
1	19.54	100.51	Open To Flow (1)
11	31.56	101.44	Shut-In(1)
71	1122.01	104.24	End Shut-In(1)
72	36.14	103.88	Open To Flow (2)
107	47.45	105.67	Shut-In(2)
246	1135.23	108.01	End Shut-In(2)
247	1679.35	108.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	50%Water/50%Mud	0.10
35.00	90%Water/10%Mud	0.39

Gas Rates

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



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TOOL DIAGRAM

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ATTN: Tom Fertal

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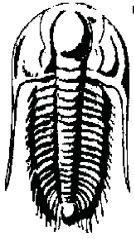
Tool Information

Drill Pipe:	Length: 3416.00 ft	Diameter: 3.80 inches	Volume: 47.92 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 5000.00 lb
			Total Volume: 48.07 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3470.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	78.00 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	8653	Fluid	3440.00	
Change Over Sub	1.00			3441.00	
Shut In Tool	5.00			3446.00	
Sampler	2.00			3448.00	
Hydraulic tool	5.00			3453.00	
Jars	5.00			3458.00	
Safety Joint	3.00			3461.00	
Packer	5.00			3466.00	30.00 Bottom Of Top Packer
Packer	4.00			3470.00	
Stubb	1.00			3471.00	
Perforations	3.00			3474.00	
Recorder	0.00	8354	Inside	3474.00	
Recorder	0.00	8520	Outside	3474.00	
Change Over Sub	1.00			3475.00	
Drill Pipe	31.00			3506.00	
Change Over Sub	1.00			3507.00	
Perforations	8.00			3515.00	
Bullnose	3.00			3518.00	48.00 Bottom Packers & Anchor

Total Tool Length: 78.00



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FLUID SUMMARY

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DST#: 2

ATTN: Tom Fertal

Test Start: 2012.09.17 @ 14:30:15

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:

20500 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: 0.45 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	50%Water/50%Mud	0.098
35.00	90%Water/10%Mud	0.391

Total Length: 55.00 ft Total Volume: 0.489 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

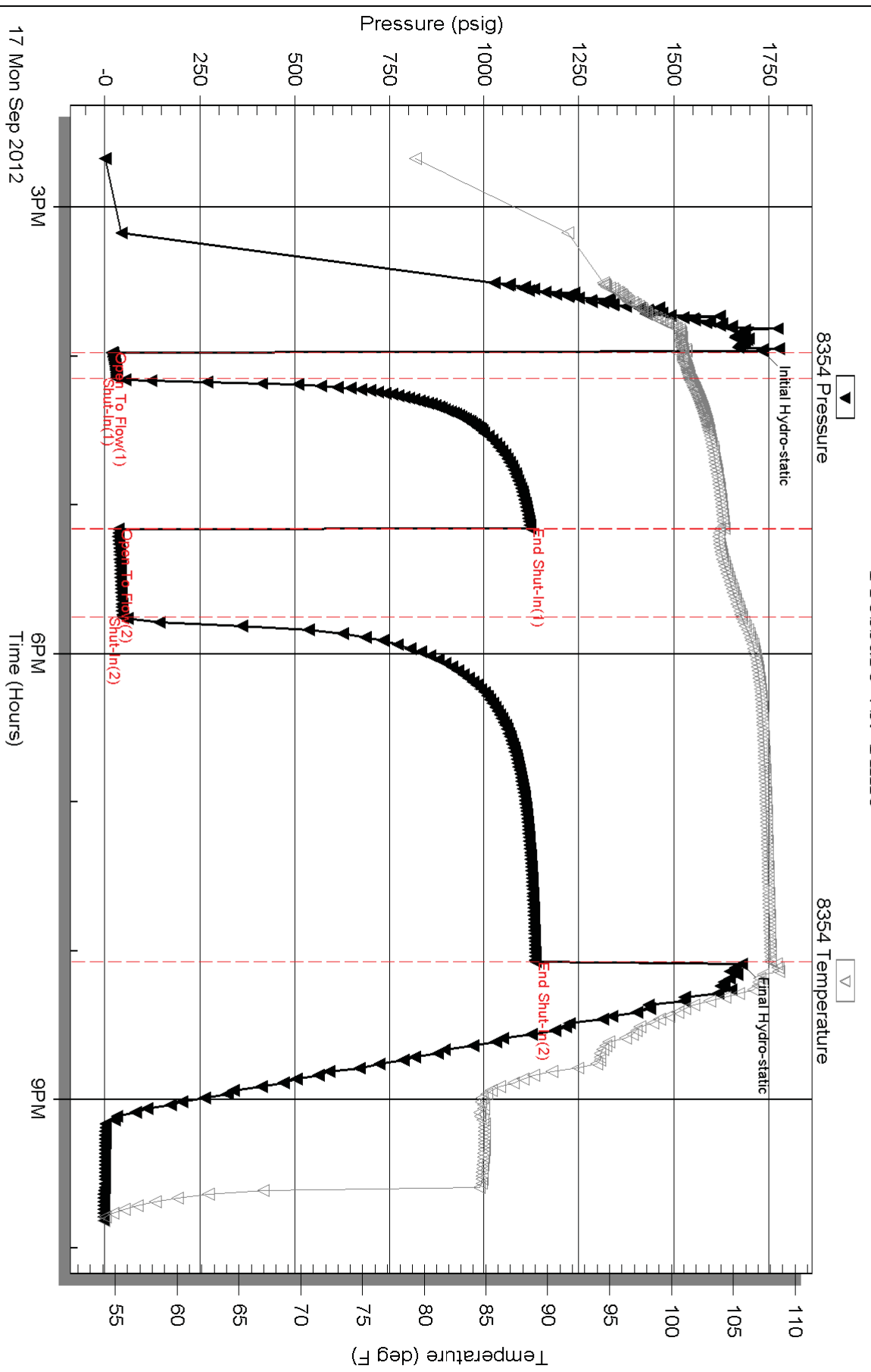
Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler-2000ML total. 1600 ML Water. 400ML Mud.

Pressure-125# Chlorides- .456 @ 52 = 20000

Pressure vs. Time

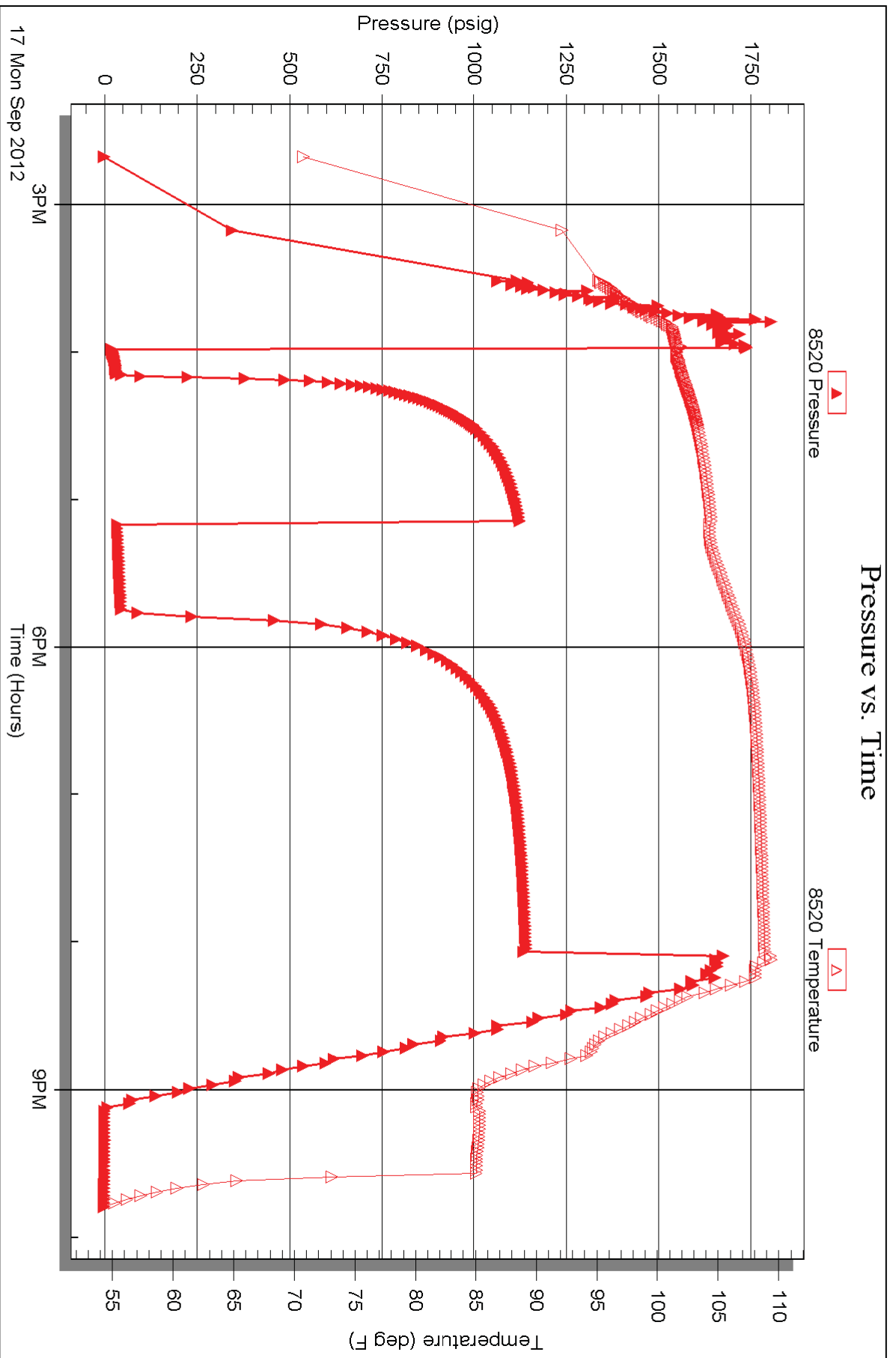


Serial #: 8520

Outside Samuel Gary Jr. & Associates, Inc.

Koirth #1-35

DST Test Number: 2



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Ref. No.: 4703-

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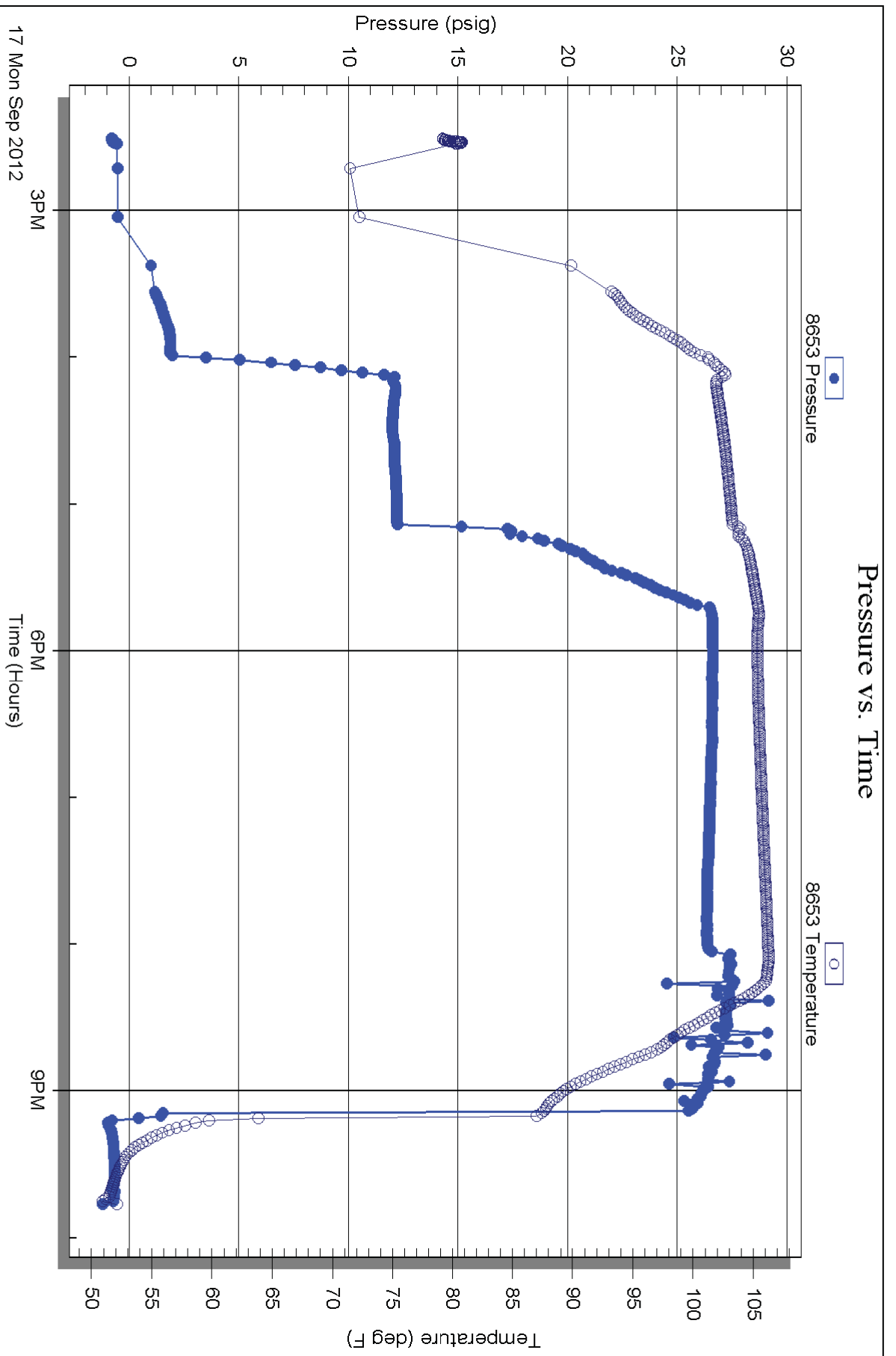
Serial #: 8653

Fluid

Samuel Gary Jr. & Associates, Inc.

Koith #1-35

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