



DRILL STEM TEST REPORT

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

1515 Wynkoop Ste.#700
Denver, CO 80202

ATTN: Neil Sharp

1-16S.-17W.-Rush

Dale Stramel #1-1

Start Date: 2011.08.05 @ 10:47:30

End Date: 2011.08.05 @ 15:16:00

Job Ticket #: 45227 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2011.11.23 @ 11:18:11

Samuel Gary Jr. & Assoc., Inc.
Dale Stramel #1-1
1-16S.-17W.-Rush
DST # 2
LKC "A-C"
2011.08.05



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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Dale Stramel #1-1

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Denver, CO 80202

1-16S.-17W.-Rush

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Job Ticket: 45227

DST#: 2

Test Start: 2011.08.05 @ 10:47:30

GENERAL INFORMATION:

Formation: **LKC "A-C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:36:30

Time Test Ended: 15:16:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3184.00 ft (KB) To 3239.00 ft (KB) (TVD)

Reference Elevations: 1901.00 ft (KB)

Total Depth: 3239.00 ft (KB) (TVD)

1891.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8354 Inside

Press @ Run Depth: 49.60 psig @ 3191.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.08.05

End Date:

2011.08.05

Last Calib.:

2011.08.05

Start Time: 10:57:30

End Time:

15:16:00

Time On Btm:

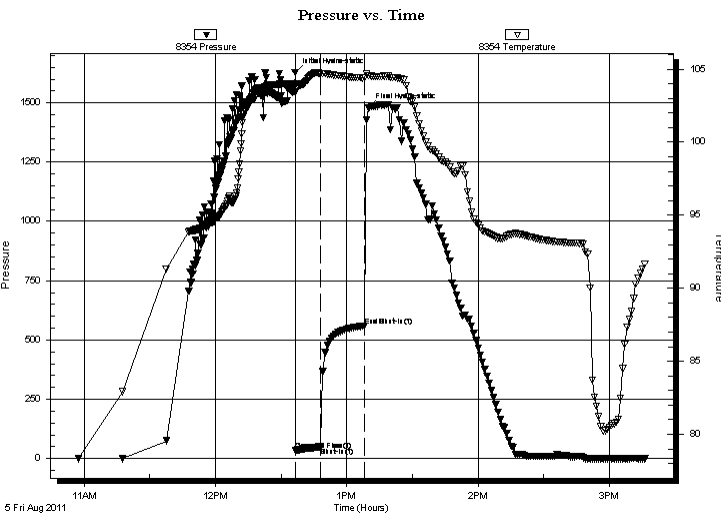
2011.08.05 @ 12:36:20

Time Off Btm:

2011.08.05 @ 13:10:00

TEST COMMENT: IF-Fair building blow . Built to 5 inches.
ISI-No Return. Times 10-15- Pulled

Tagged 30' high. Slid 8-10' w hen tool opened. Was still 12-14' high after opening. Didn't reach bottom.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1628.14	104.03	Initial Hydro-static
1	36.19	103.41	Open To Flow (1)
12	49.60	104.68	Shut-In(1)
32	559.39	104.39	End Shut-In(1)
34	1477.95	104.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	100%Mud	0.70

Gas Rates

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



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1891.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8520 Outside

Press @ Run Depth: psig @ 3191.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.08.05 End Date: 2011.08.05

Last Calib.: 2011.08.05

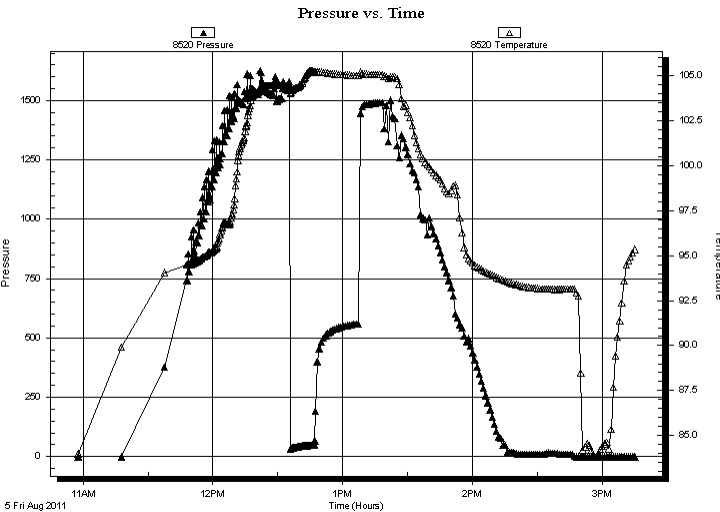
Start Time: 10:57:40 End Time: 15:15:10

Time On Btm:

Time Off Btm:

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PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
50.00	100%Mud	0.70

Gas Rates

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



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Tester: Dustin Rash

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Reference Elevations: 1901.00 ft (KB)

Total Depth: 3239.00 ft (KB) (TVD)

1891.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8653 Fluid

Press @ Run Depth: psig @ 3154.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.08.05

End Date: 2011.08.05

Last Calib.: 2011.08.05

Start Time: 10:57:50

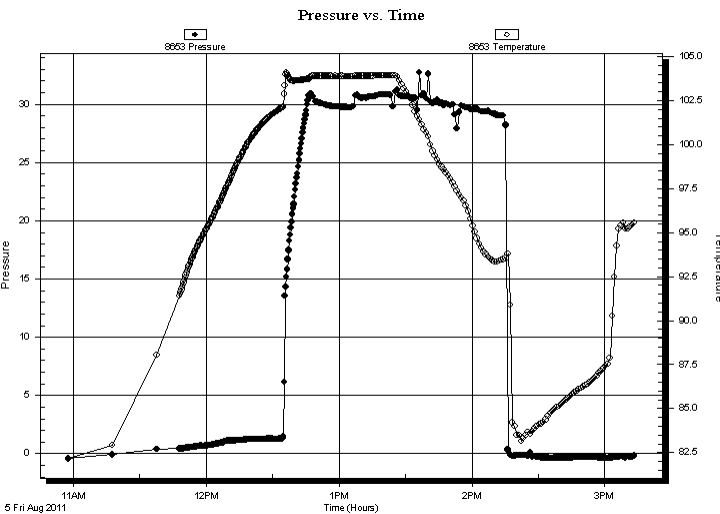
End Time: 15:13:50

Time On Btm:

Time Off Btm:

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PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
50.00	100%Mud	0.70

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr. & Assoc., Inc.

Dale Stramel #1-1

1515 Wynkoop Ste.#700
Denver, CO 80202

1-16S.-17W.-Rush

Job Ticket: 45227

DST#: 2

ATTN: Neil Sharp

Test Start: 2011.08.05 @ 10:47:30

Tool Information

Drill Pipe:	Length: 3161.00 ft	Diameter: 3.80 inches	Volume: 44.34 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:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	15000.00 lb
			<u>Total Volume: 44.34 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3184.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	55.00 ft				
Tool Length:	85.00 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	3154.00	
Change Over Sub	1.00			3155.00	
Shut In Tool	5.00			3160.00	
Sampler	2.00			3162.00	
Hydraulic tool	5.00			3167.00	
Jars	5.00			3172.00	
Safety Joint	3.00			3175.00	
Packer	5.00			3180.00	30.00 Bottom Of Top Packer
Packer	4.00			3184.00	
Stubb	1.00			3185.00	
Perforations	5.00			3190.00	
Change Over Sub	1.00			3191.00	
Recorder	0.00	8354	Inside	3191.00	
Recorder	0.00	8520	Outside	3191.00	
Drill Pipe	31.00			3222.00	
Change Over Sub	1.00			3223.00	
Perforations	13.00			3236.00	
Bullnose	3.00			3239.00	55.00 Bottom Packers & Anchor

Total Tool Length: 85.00



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FLUID SUMMARY

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DST#: 2

ATTN: Neil Sharp

Test Start: 2011.08.05 @ 10:47:30

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:

28000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 cm³

Gas Cushion Type:

Resistivity: 0.20 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
50.00	100%Mud	0.701

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

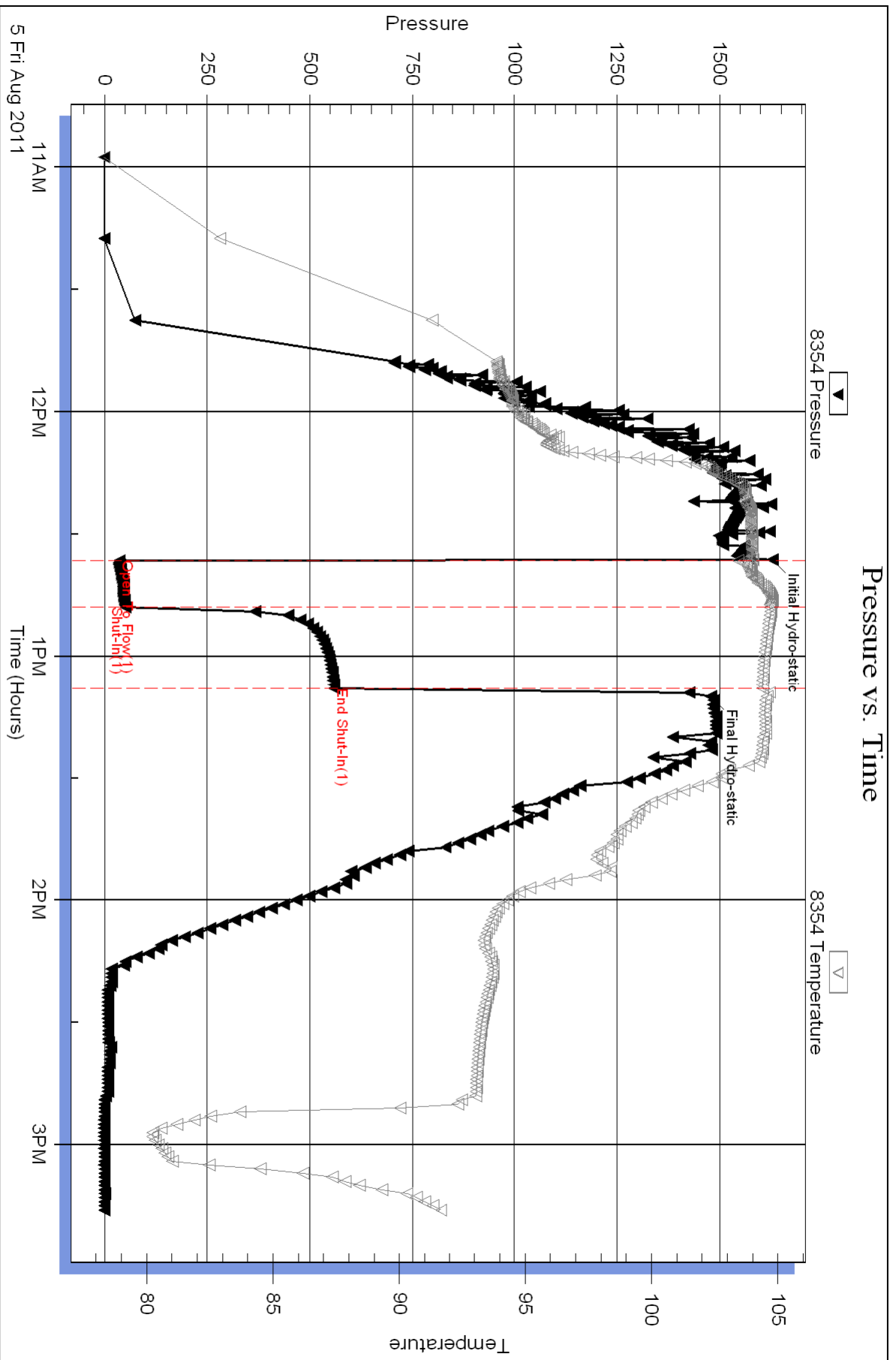
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler- 2000 ML total fluid. 225# of pressure. 800ML Mud. 1200 ML Water
.197 resistivity. 28000 Chlorides ppm.

Pressure vs. Time

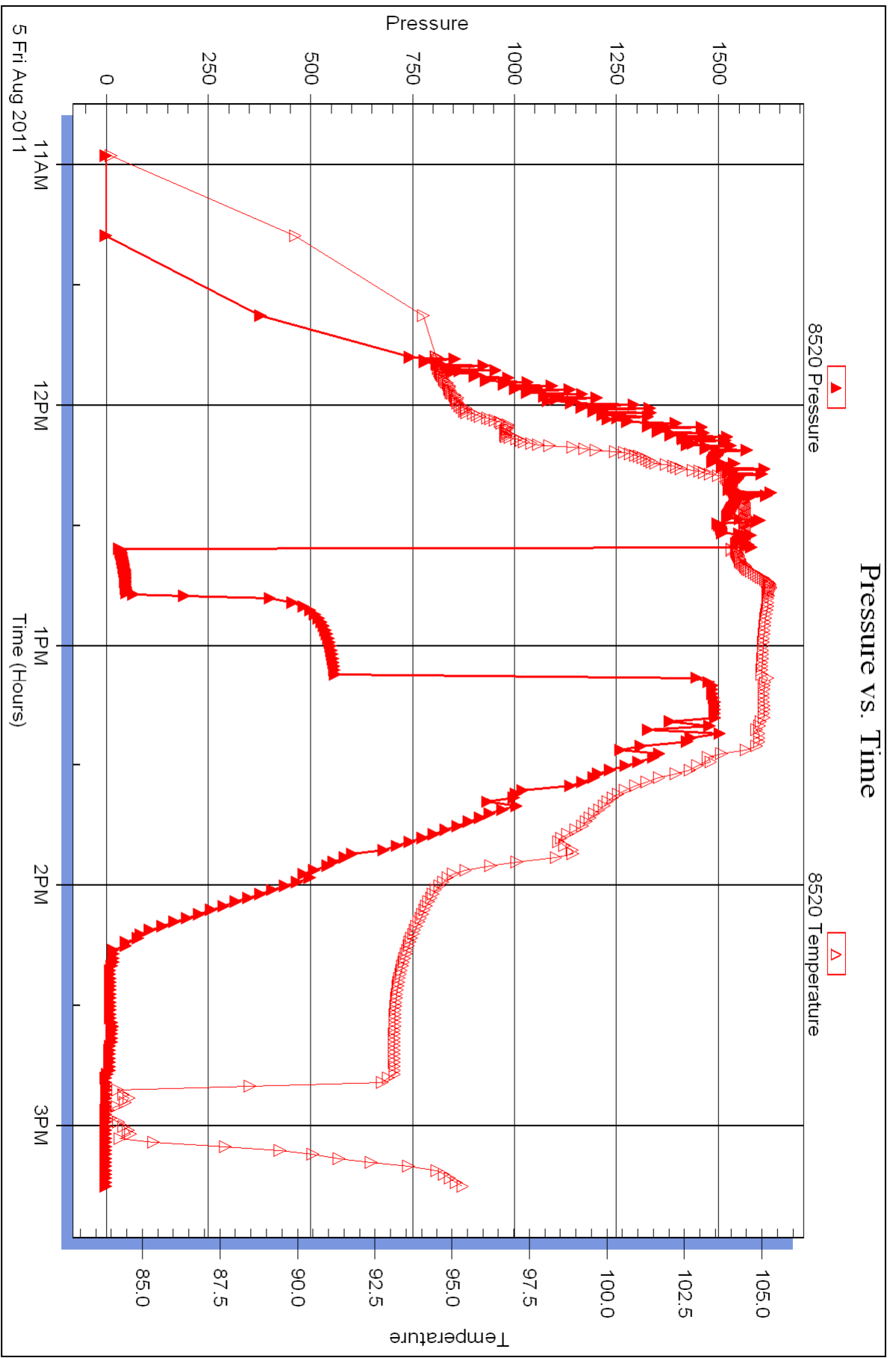


Serial #: 8520

Outside Samuel Gary Jr. & Assoc., Inc.

1-16S-17W-Rush

DST Test Number: 2



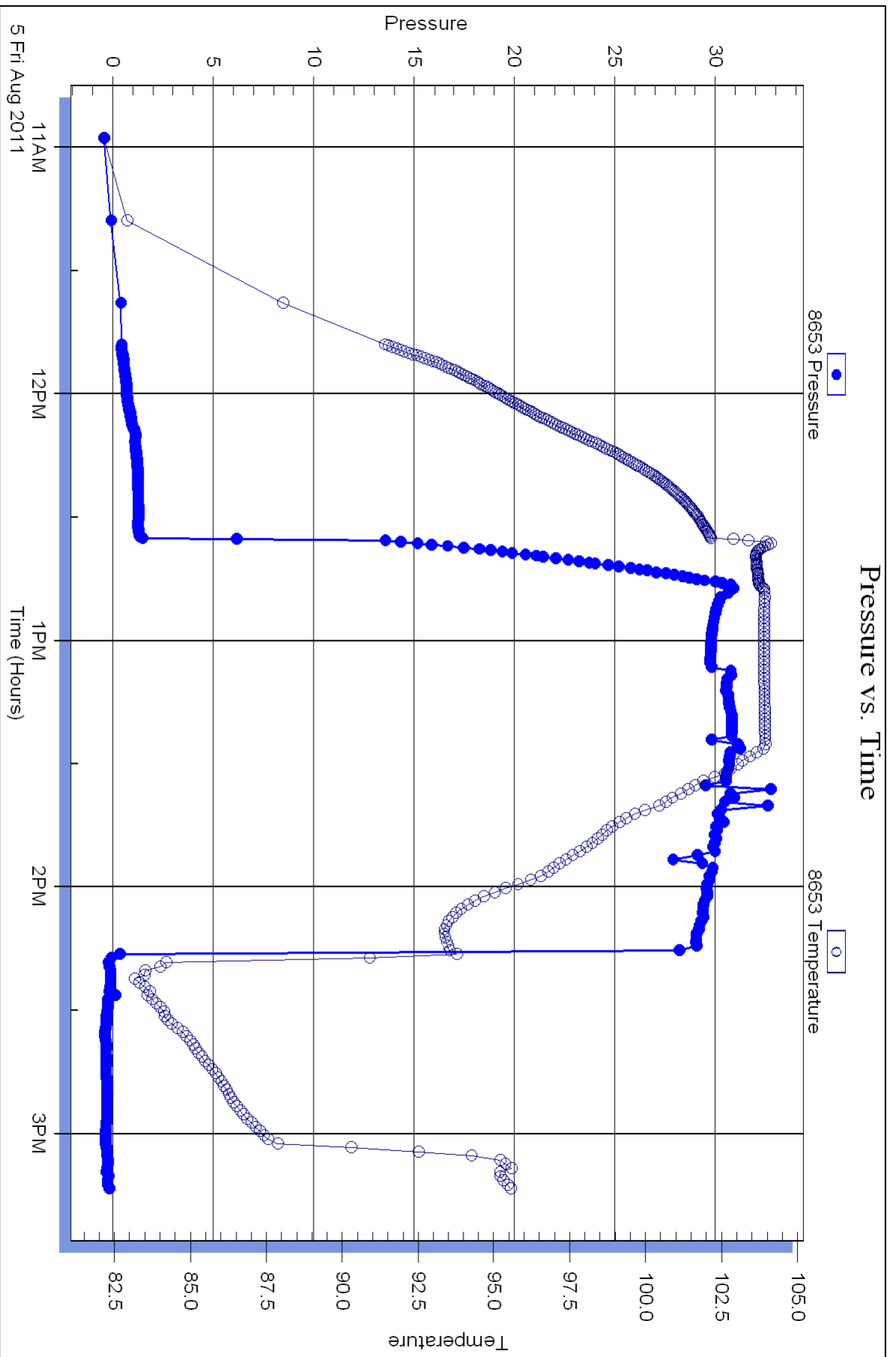
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Fluid

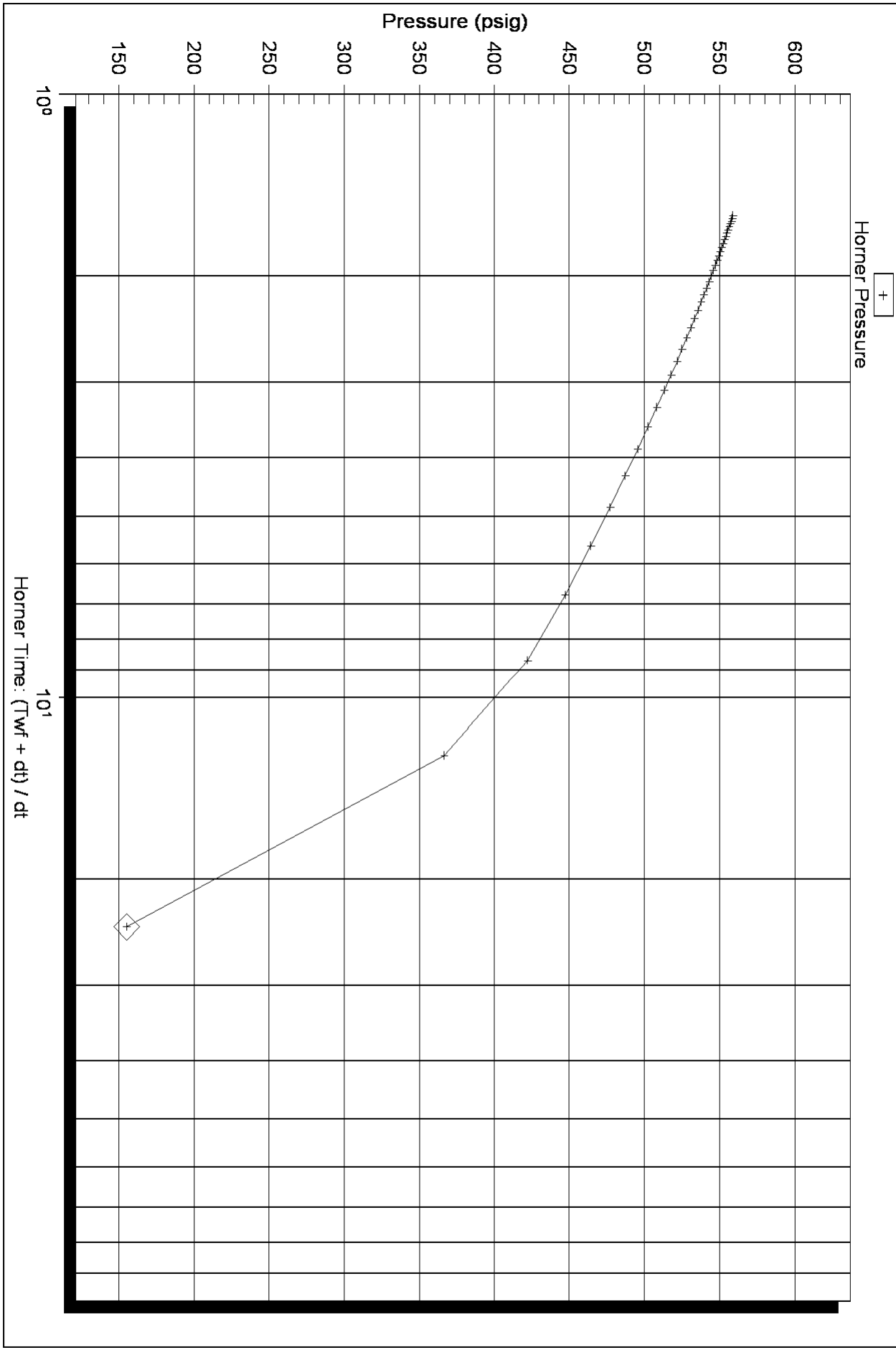
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1-16S-17W-Rush

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Horner Plot



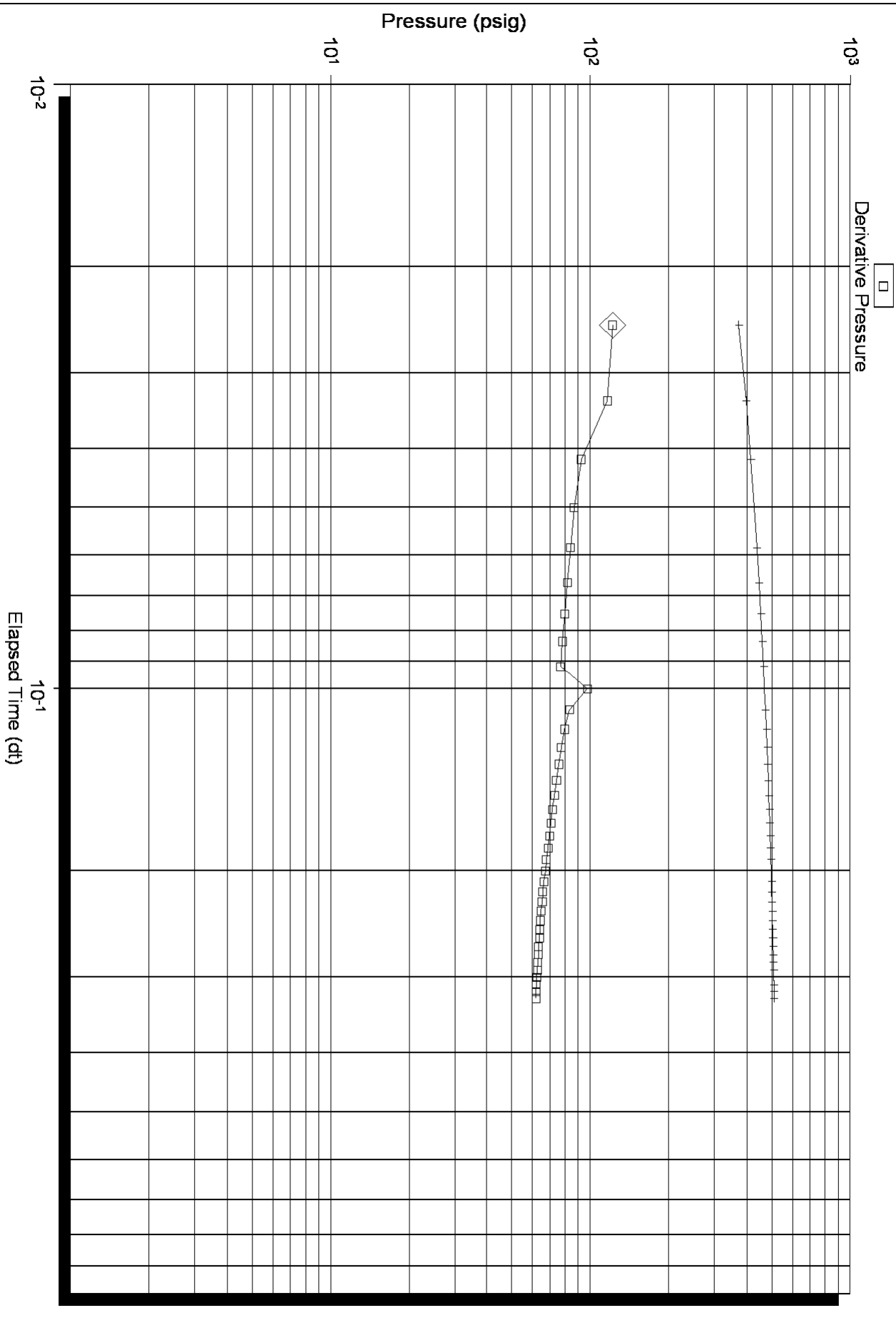
Serial Number: 8354 (Inside)

P* :

Slope (m) : kpa/log cycle

Flow Cycle: 1

Log-Log and Pseudo-Derivative



Serial Number: 8354 (Inside)

Flow Cycle: 1