



## DRILL STEM TEST REPORT

Prepared For: **Sam Gary Jr. & Associates**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202

ATTN: Tom Fertal

**Nilhas Trust**

**30-11s-21w-Trego**

Start Date: 2012.04.17 @ 15:09:26

End Date: 2012.04.17 @ 22:32:11

Job Ticket #: 47322                      DST #: 2

Trilobite Testing, Inc  
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Printed: 2012.04.18 @ 11:15:44



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

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**DST#: 2**

Test Start: 2012.04.17 @ 15:09:26

## GENERAL INFORMATION:

Formation: **Penn Sand**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 16:47:56

Time Test Ended: 22:32:11

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

**Interval: 3878.00 ft (KB) To 3903.00 ft (KB) (TVD)**

Total Depth: 3903.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2282.00 ft (KB)

2274.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8366 Inside**

Press @ Run Depth: 15.95 psig @ 3880.00 ft (KB)

Start Date: 2012.04.17

End Date: 2012.04.17

Start Time: 15:09:28

End Time: 22:32:11

Capacity: 8000.00 psig

Last Calib.: 2012.04.17

Time On Btm: 2012.04.17 @ 16:47:26

Time Off Btm: 2012.04.17 @ 20:22:56

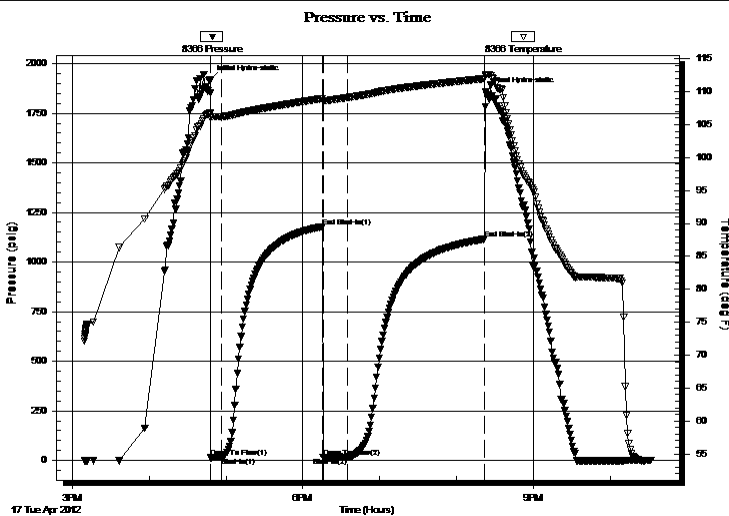
TEST COMMENT: 10-IFP-Weak Blow , Built to 1/4"

75-ISI-Dead

10-FFP-Dead

100-FSI-Dead

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1917.38	106.75	Initial Hydro-static
1	14.01	106.07	Open To Flow (1)
9	15.77	106.21	Shut-In(1)
88	1178.22	108.97	End Shut-In(1)
89	16.62	108.51	Open To Flow (2)
108	15.95	109.10	Shut-In(2)
215	1116.29	111.97	End Shut-In(2)
216	1857.89	112.60	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
4.00	OCM-15%O-85%M	0.02

## Gas Rates

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

\* Recovery from multiple tests







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**TOOL DIAGRAM**

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Test Start: 2012.04.17 @ 15:09:26

## Tool Information

Drill Pipe:	Length: 3823.00 ft	Diameter: 3.80 inches	Volume: 53.63 bbl	Tool Weight: 2000.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 53.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3878.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3843.00	
Change Over Sub	1.00			3844.00	
Recorder	0.00	8289	Fluid	3844.00	
Change Over Sub	5.00			3849.00	
Shut In Tool	5.00			3854.00	
Sampler	2.00			3856.00	
Hydraulic tool	5.00			3861.00	
Jars	5.00			3866.00	
Safety Joint	2.00			3868.00	
Packer	5.00			3873.00	36.00 Bottom Of Top Packer
Packer	5.00			3878.00	
Stubb	1.00			3879.00	
Perforations	1.00			3880.00	
Recorder	0.00	8366	Inside	3880.00	
Recorder	0.00	8789	Outside	3880.00	
Perforations	20.00			3900.00	
Bullnose	3.00			3903.00	25.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>61.00</b>				



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**FLUID SUMMARY**

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Job Ticket: 47322

**DST#: 2**

Test Start: 2012.04.17 @ 15:09:26

## 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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 cm <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

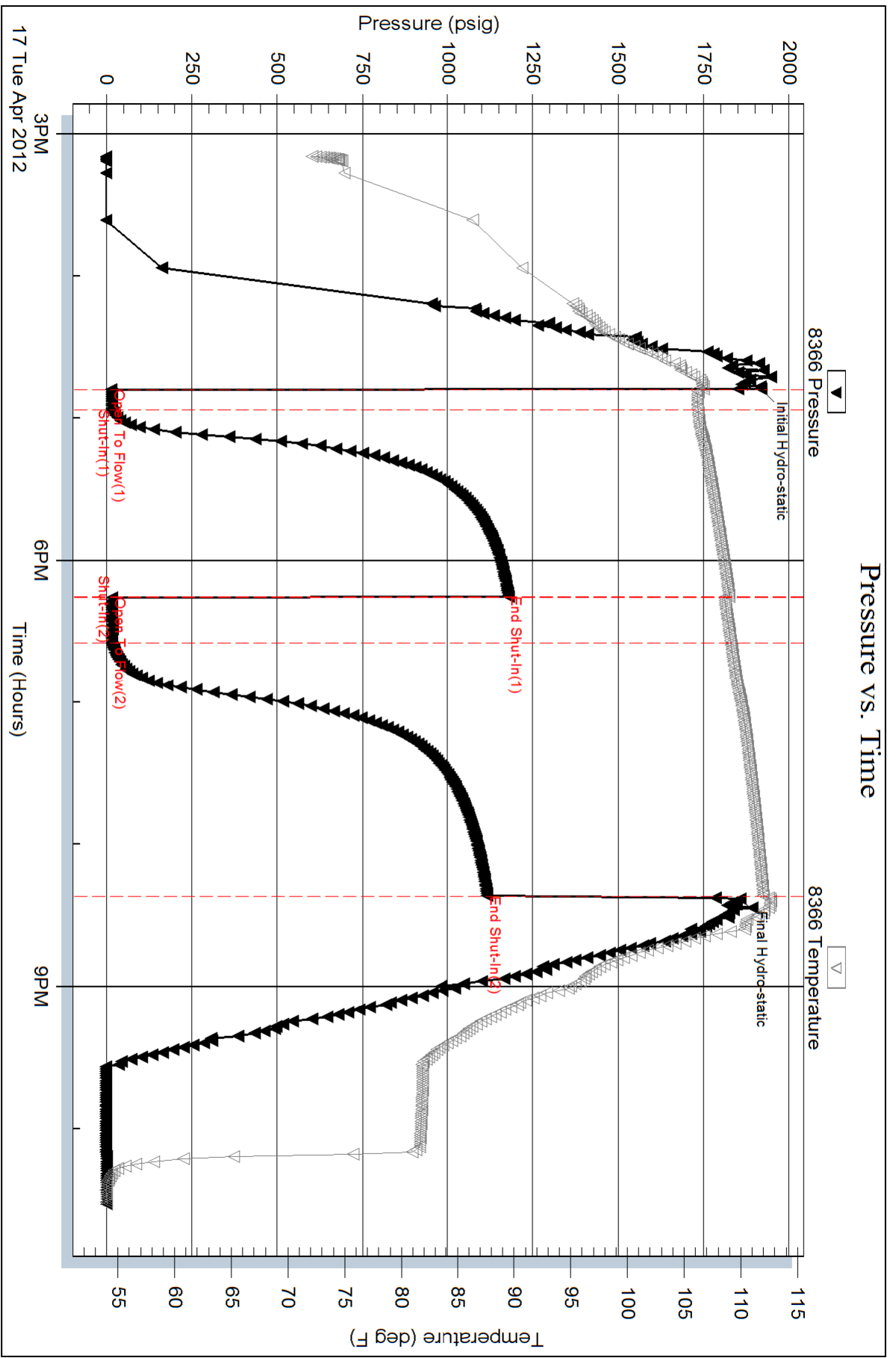
Length ft	Description	Volume bbl
4.00	OCM-15%O-85%M	0.020

Total Length: 4.00 ft      Total Volume: 0.020 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: Sampler-55#, 600ml Oil, 1400ml Mud

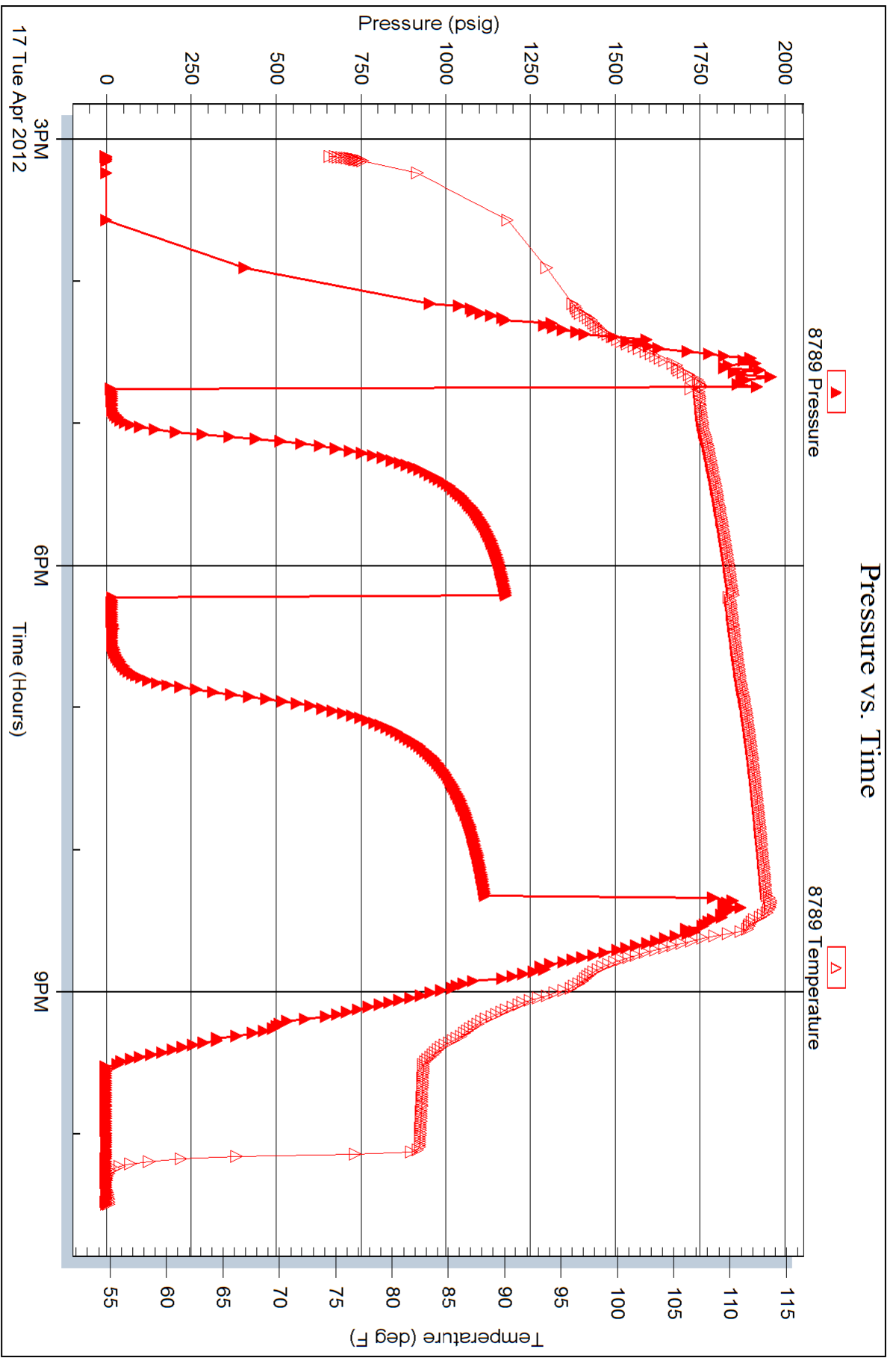


Serial #: 8789

Outside Sam Gary Jr. & Associates

Nilhas Trust

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 47322

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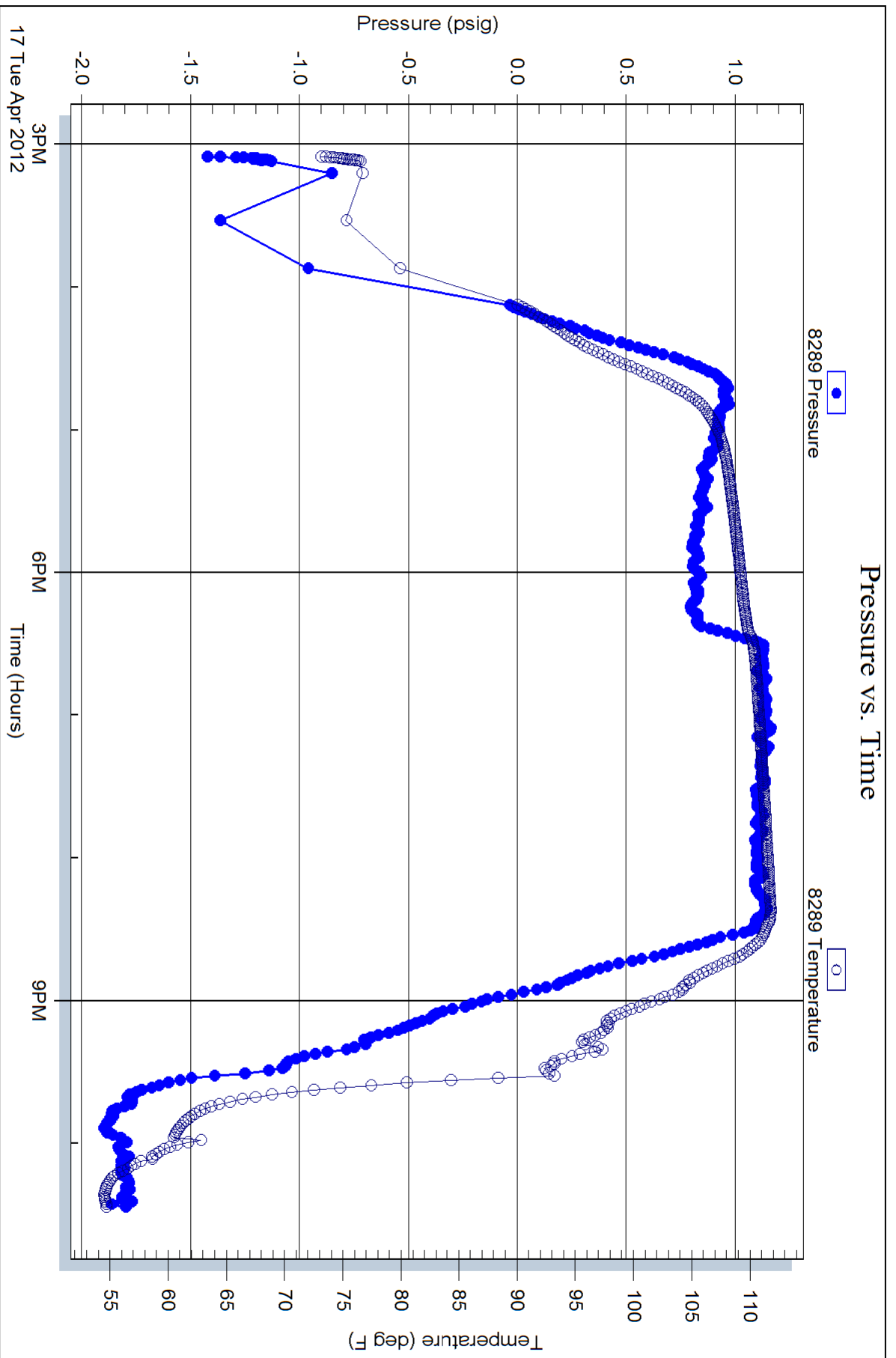
Serial #: 8289

Fluid

Sam Gary Jr. & Associates

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DST Test Number: 2

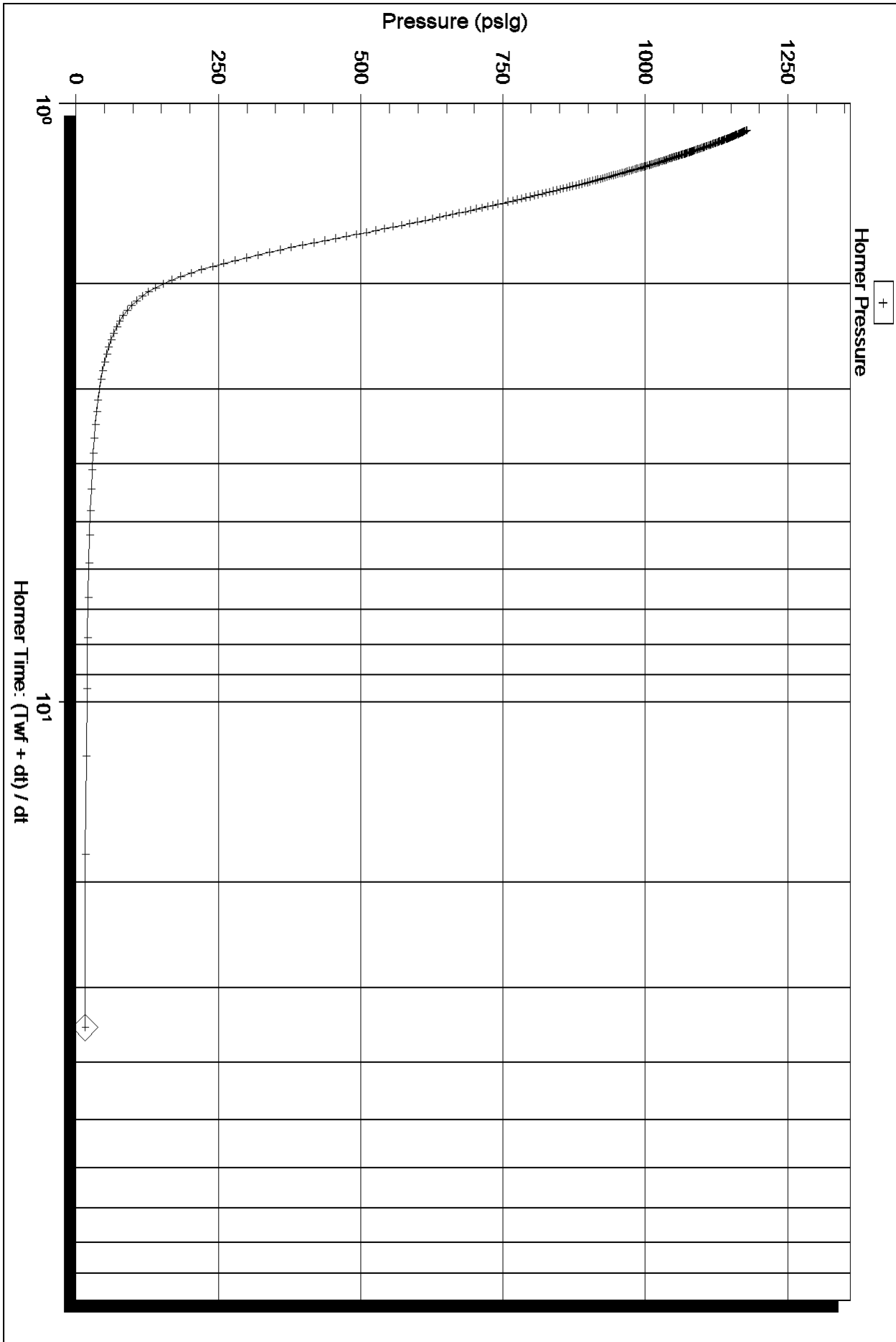


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# Horner Plot



Serial Number: 8366 (Inside)

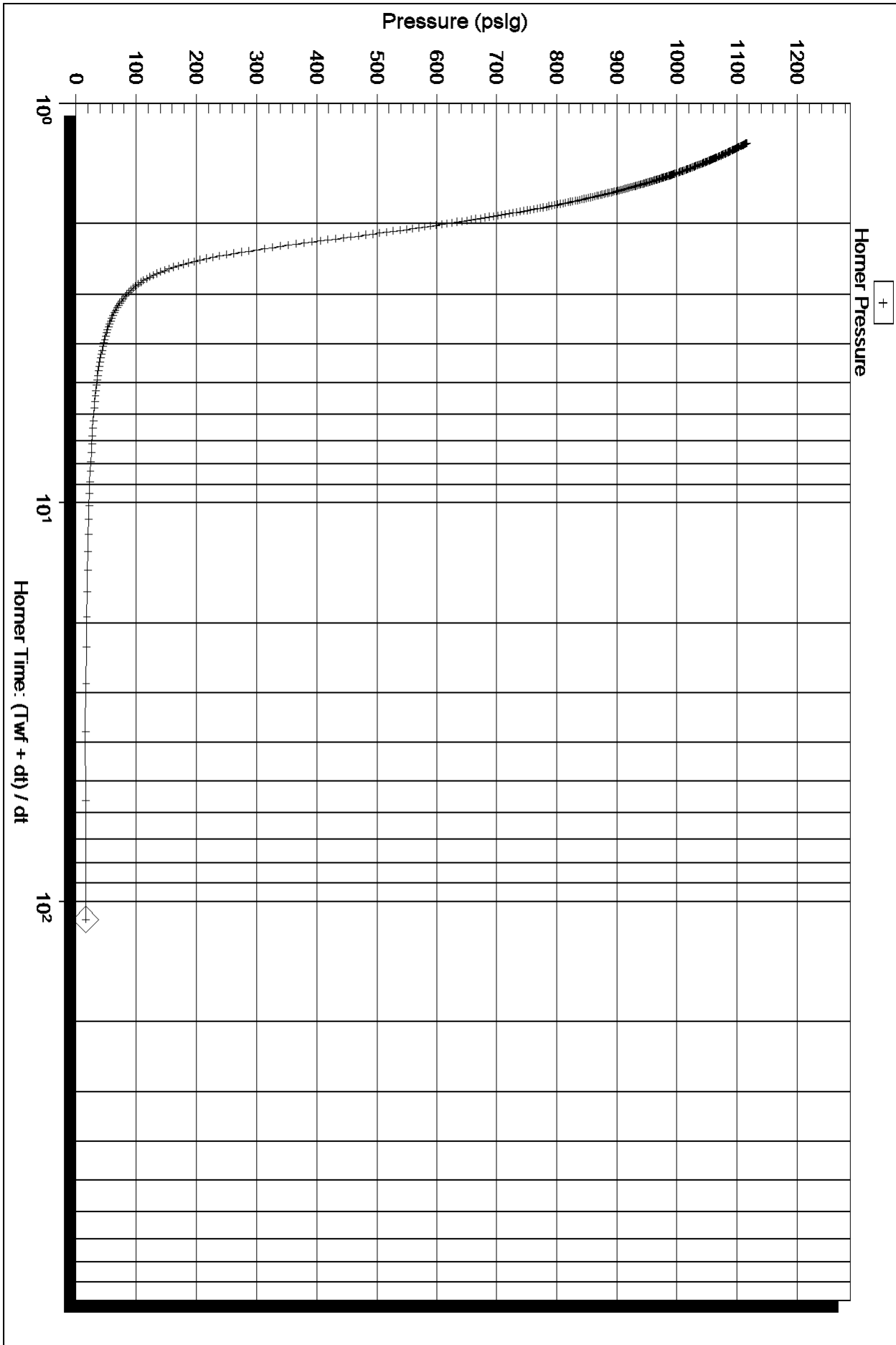
P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 1

Horner Time: (Twf + dt) / dt

# Horner Plot



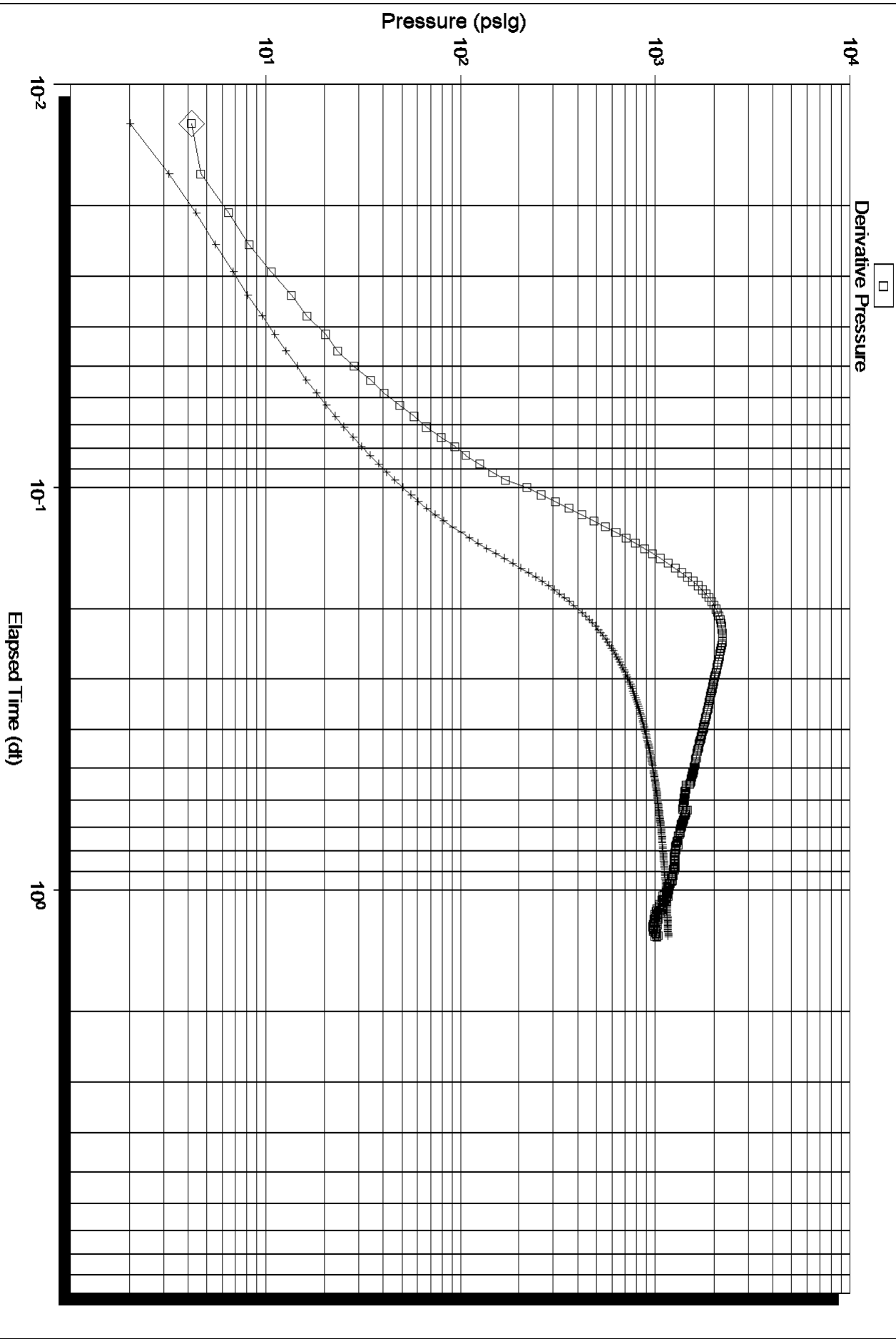
Serial Number: 8366 (Inside)

P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 2

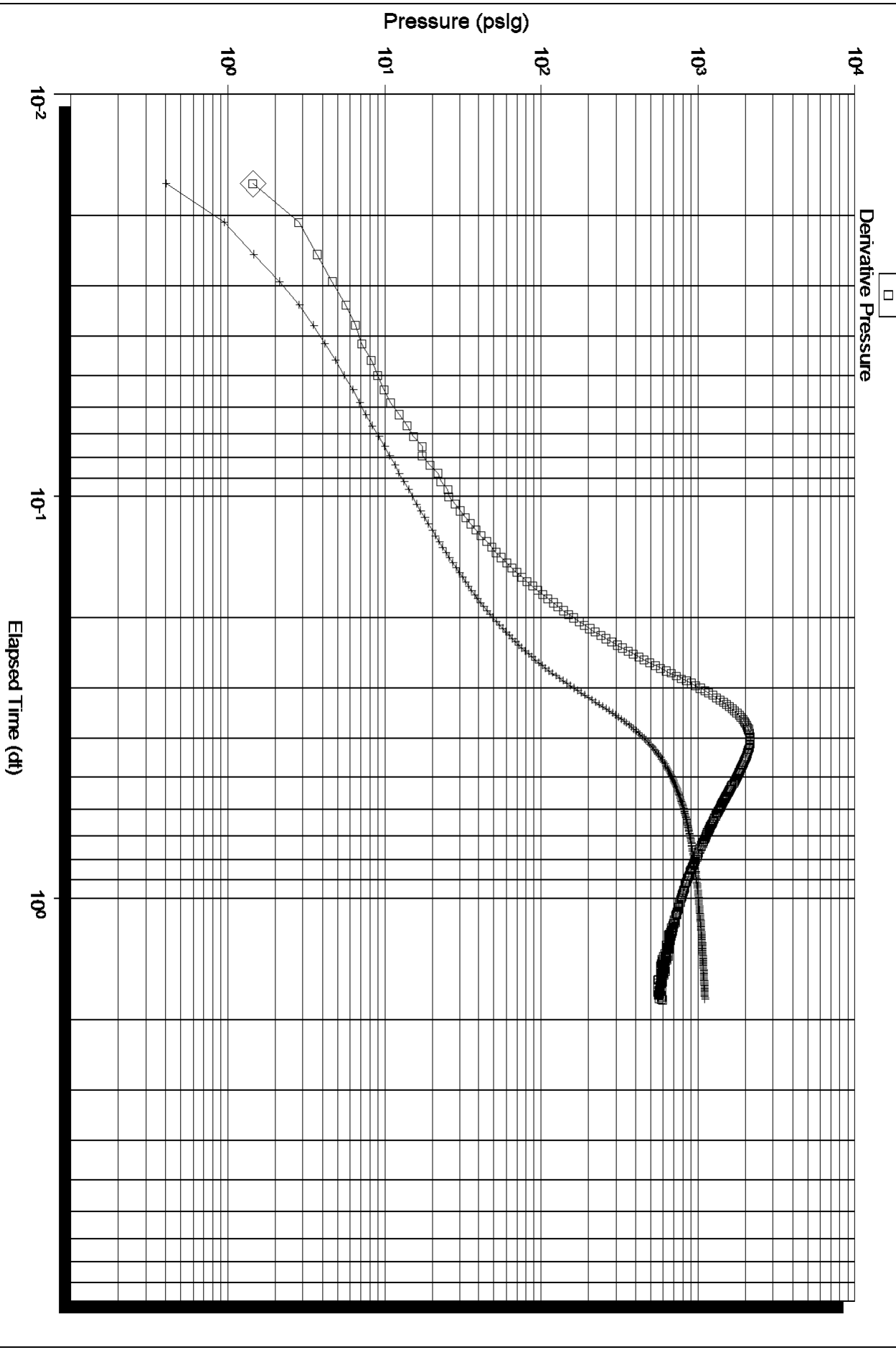
# Log-Log and Pseudo-Derivative



Serial Number: 8366 (Inside)

Flow Cycle: 1

# Log-Log and Pseudo-Derivative



Serial Number: 8366 (Inside)

Flow Cycle: 2