



## DRILL STEM TEST REPORT

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

1515 Wynkoop, Ste 700  
Denver Co 80202

ATTN: Clayton Camozzi

**23-17s-12w Barton KS**

**Schiller #1-23**

Start Date: 2010.07.30 @ 03:18:48

End Date: 2010.07.30 @ 08:35:12

Job Ticket #: 39529                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



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# DRILL STEM TEST REPORT

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**Schiller #1-23**

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ATTN: Clayton Camozzi

Job Ticket: 39529

**DST#: 3**

Test Start: 2010.07.30 @ 03:18:48

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:49:43

Time Test Ended: 08:35:12

Test Type: Conventional Straddle

Tester: Brian Fairbank

Unit No: 41

**Interval: 3332.00 ft (KB) To 3356.00 ft (KB) (TVD)**

Reference Elevations: 1874.00 ft (KB)

Total Depth: 3470.00 ft (KB) (TVD)

1866.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8647**

**Inside**

Press @ Run Depth: 37.62 psig @ 3341.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.07.30

End Date:

2010.07.30

Last Calib.:

2010.07.30

Start Time:

03:18:48

End Time:

08:35:12

Time On Btm:

2010.07.30 @ 04:48:43

Time Off Btm:

2010.07.30 @ 07:21:13

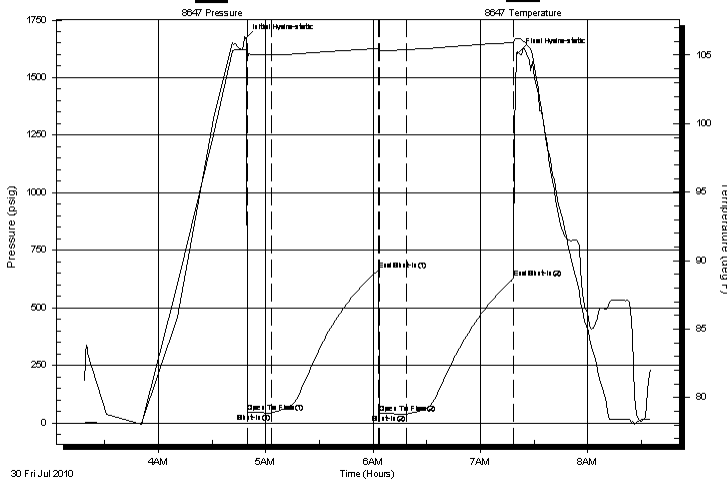
**TEST COMMENT:** IFP - 1/2" blow - died 5 min.

ISI - no blow back

FFP - no blow

FSI - no blow back

Pressure vs. Time



## PRESSURE SUMMARY

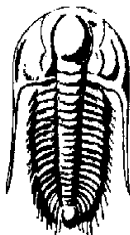
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1670.14	105.43	Initial Hydro-static
1	47.46	104.64	Open To Flow (1)
15	42.53	105.03	Shut-In(1)
75	665.83	105.49	End Shut-In(1)
75	41.46	105.26	Open To Flow (2)
90	37.62	105.40	Shut-In(2)
150	627.75	105.92	End Shut-In(2)
153	1606.48	106.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	free oil tstm	0.01
3.00	vsocm 5%o, 95%m	0.04

## Gas Rates

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



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Job Ticket: 39529

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2010.07.30 @ 03:18:48

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Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:49:43

Time Test Ended: 08:35:12

**Interval: 3332.00 ft (KB) To 3356.00 ft (KB) (TVD)**

Total Depth: 3470.00 ft (KB) (TVD)

Hole Diameter: 7.85 inches Hole Condition: Fair

Test Type: Conventional Straddle

Tester: Brian Fairbank

Unit No: 41

Reference Elevations: 1874.00 ft (KB)

1866.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8371**

**Outside**

Press @ Run Depth: psig @ 3341.00 ft (KB)

Start Date: 2010.07.30 End Date: 2010.07.30

Start Time: 03:18:38 End Time: 08:37:02

Capacity: 8000.00 psig

Last Calib.: 2010.07.30

Time On Btm:

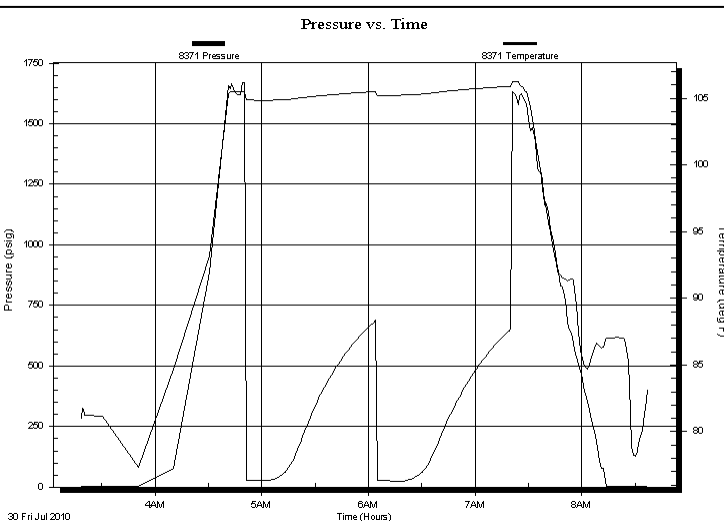
Time Off Btm:

TEST COMMENT: IFP - 1/2" blow - died 5 min.

ISI - no blow back

FFP - no blow

FSI - no blow back



### PRESSURE SUMMARY

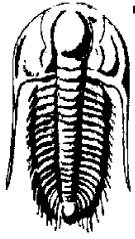
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

### Recovery

Length (ft)	Description	Volume (bbl)
1.00	free oil tstm	0.01
3.00	vsocm 5%O, 95% m	0.04

### Gas Rates

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



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**23-17s-12w Barton KS**

Job Ticket: 39529

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2010.07.30 @ 03:18:48

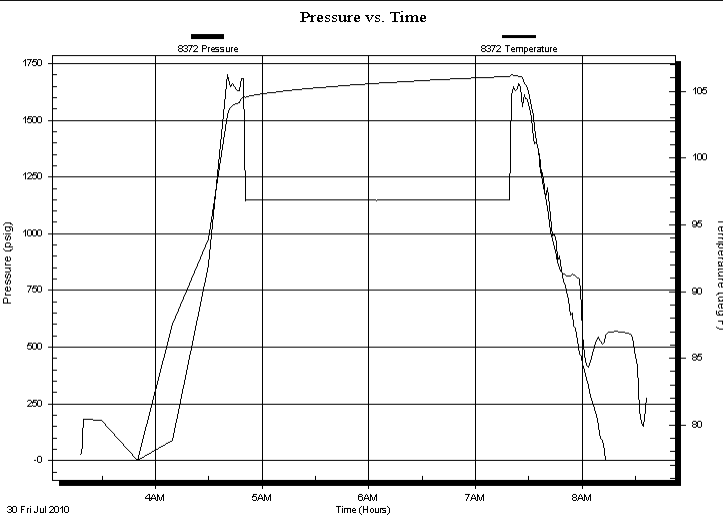
## GENERAL INFORMATION:

Formation: <b>Arbuckle</b>			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Straddle	
Time Tool Opened: 04:49:43		Tester: Brian Fairbank	
Time Test Ended: 08:35:12		Unit No: 41	
<b>Interval: 3332.00 ft (KB) To 3356.00 ft (KB) (TVD)</b>		Reference Elevations: 1874.00 ft (KB)	
Total Depth: 3470.00 ft (KB) (TVD)		1866.00 ft (CF)	
Hole Diameter: 7.85 inches	Hole Condition: Fair	KB to GR/CF: 8.00 ft	

## Serial #: 8372 Below (Straddle)

Press @ Run Depth: psig @ 3379.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2010.07.30	End Date: 2010.07.30
Start Time: 03:17:59	End Time: 08:36:53
	Last Calib.: 2010.07.30
	Time On Btm:
	Time Off Btm:

**TEST COMMENT:** IFP - 1/2" blow - died 5 min.  
ISI - no blow back  
FFP - no blow  
FSI - no blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	free oil tstm	0.01
3.00	vsocm 5%o, 95%m	0.04

## 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

**Schiller #1-23**

1515 Wynkoop, Ste 700  
Denver Co 80202

**23-17s-12w Barton KS**

Job Ticket: 39529

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2010.07.30 @ 03:18:48

## Tool Information

Drill Pipe:	Length: 3318.00 ft	Diameter: 3.80 inches	Volume: 46.54 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 42000.00 lb
			<u>Total Volume: 46.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3332.00 ft			Final 35000.00 lb
Depth to Bottom Packer:	3356.00 ft			
Interval between Packers:	24.00 ft			
Tool Length:	169.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3310.00	
Hydraulic tool	5.00			3315.00	
Jars	5.00			3320.00	
Safety Joint	2.00			3322.00	
Packer	5.00			3327.00	27.00 Bottom Of Top Packer
Packer	5.00			3332.00	
Stubb	1.00			3333.00	
Perforations	8.00			3341.00	
Recorder	0.00	8647	Inside	3341.00	
Recorder	0.00	8371	Outside	3341.00	
Perforations	10.00			3351.00	
Blank Off Sub	1.00			3352.00	
Blank Spacing	4.00			3356.00	24.00 Tool Interval
Packer	5.00			3361.00	
Stubb	1.00			3362.00	
Perforations	17.00			3379.00	
Recorder	0.00	8372	Below	3379.00	
Blank Spacing	95.00			3474.00	118.00 Bottom Packers & Anchor

**Total Tool Length: 169.00**



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**FLUID SUMMARY**

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**23-17s-12w Barton KS**

Job Ticket: 39529

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2010.07.30 @ 03:18:48

**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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5900.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
1.00	free oil tstm	0.014
3.00	vsocm 5%o, 95%m	0.042

Total Length: 4.00 ft      Total Volume: 0.056 bbl

Num Fluid Samples: 0

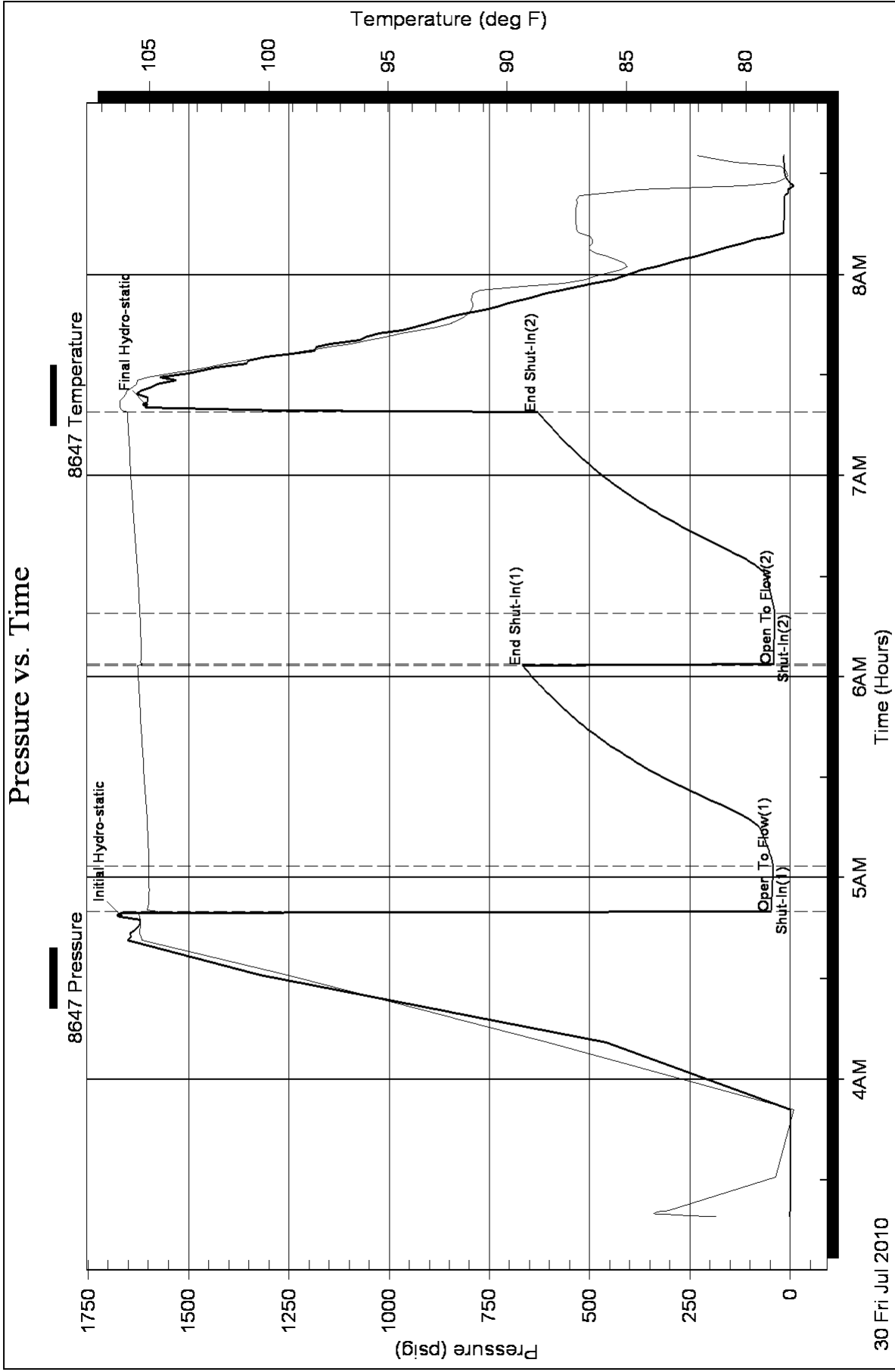
Num Gas Bombs: 0

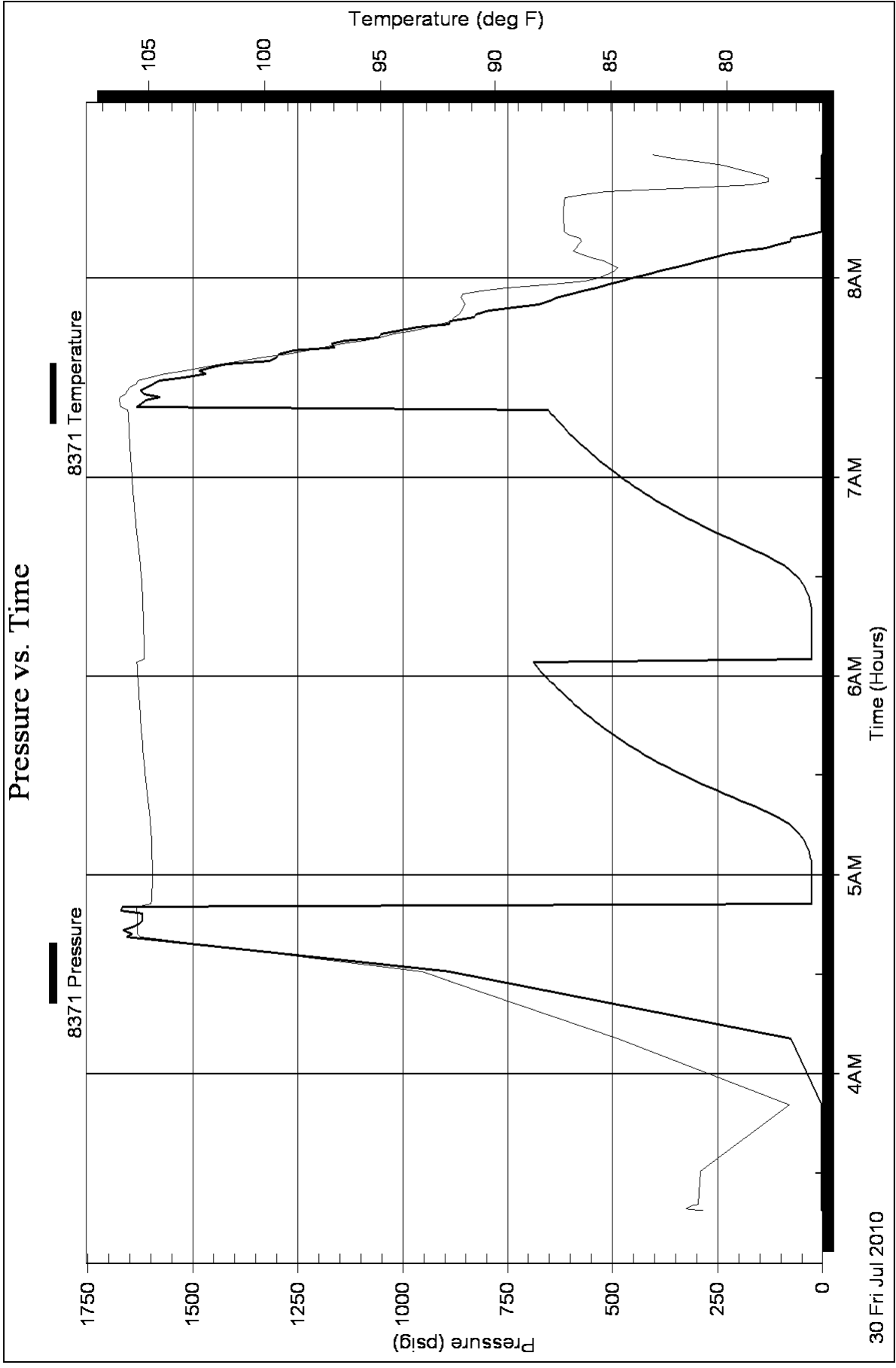
Serial #:

Laboratory Name:

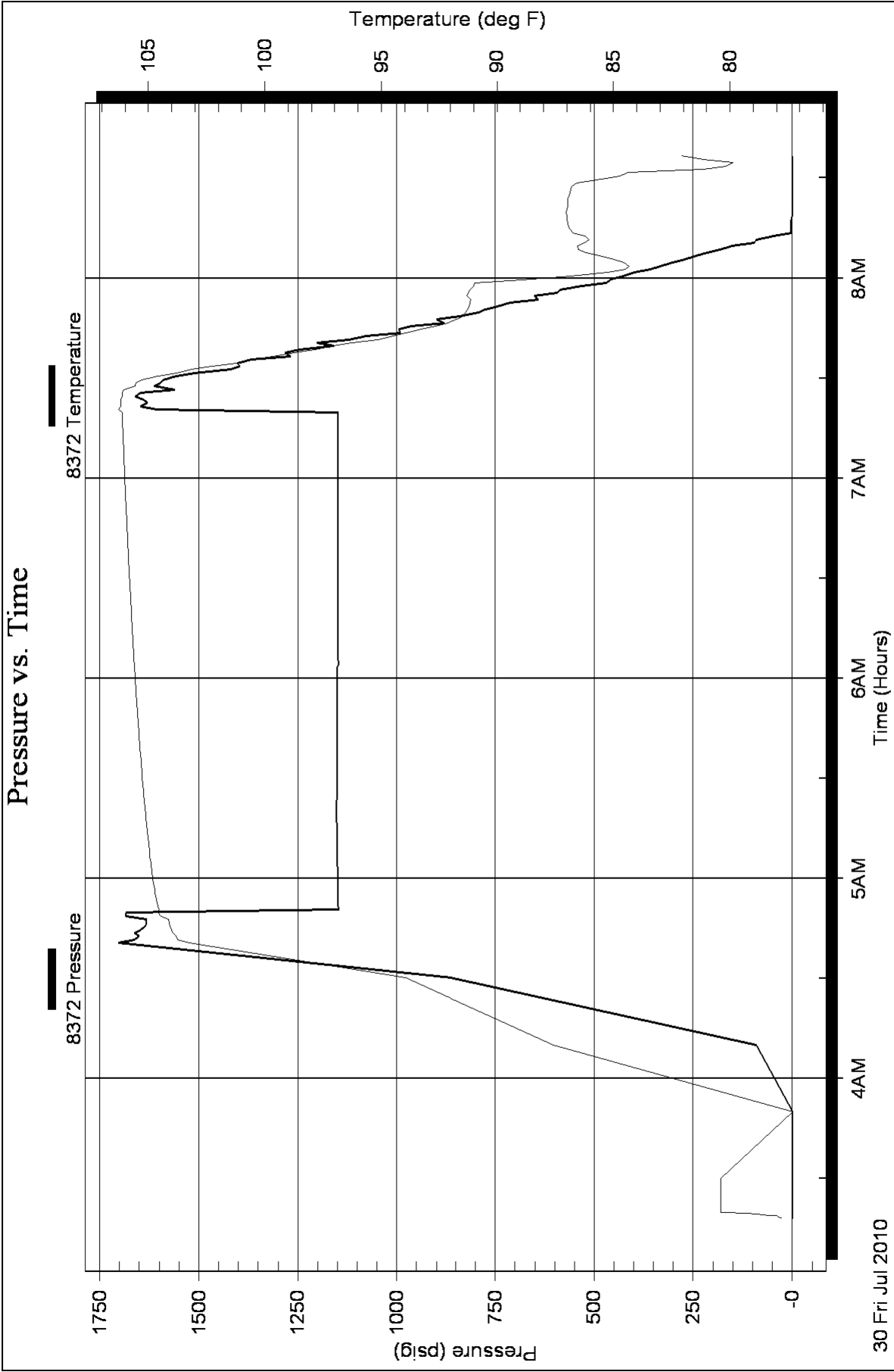
Laboratory Location:

Recovery Comments:



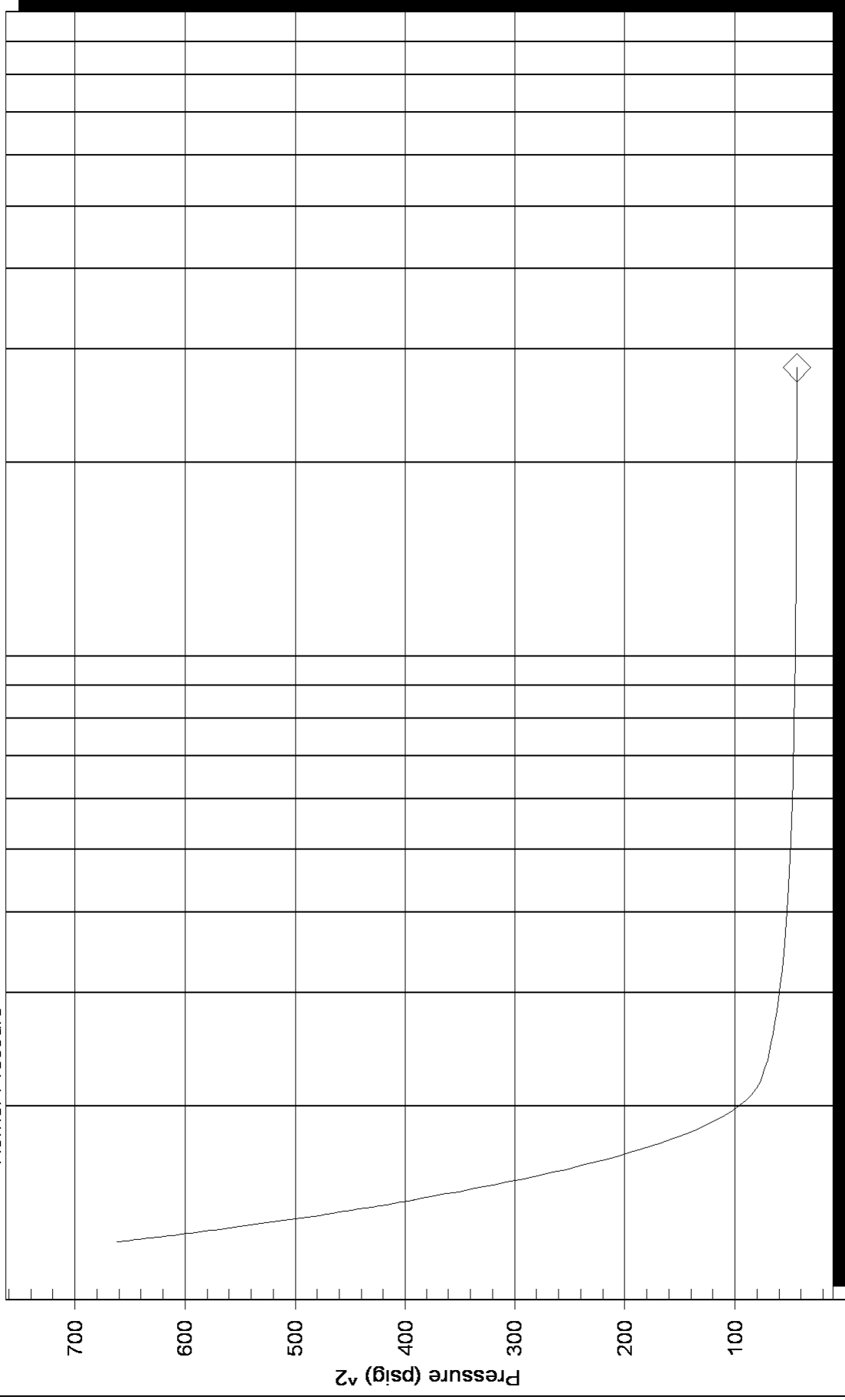






### Homer Plot

Horner Pressure



10<sup>0</sup>

10<sup>1</sup>

Horner Time:  $(T_{wf} + dt) / dt$

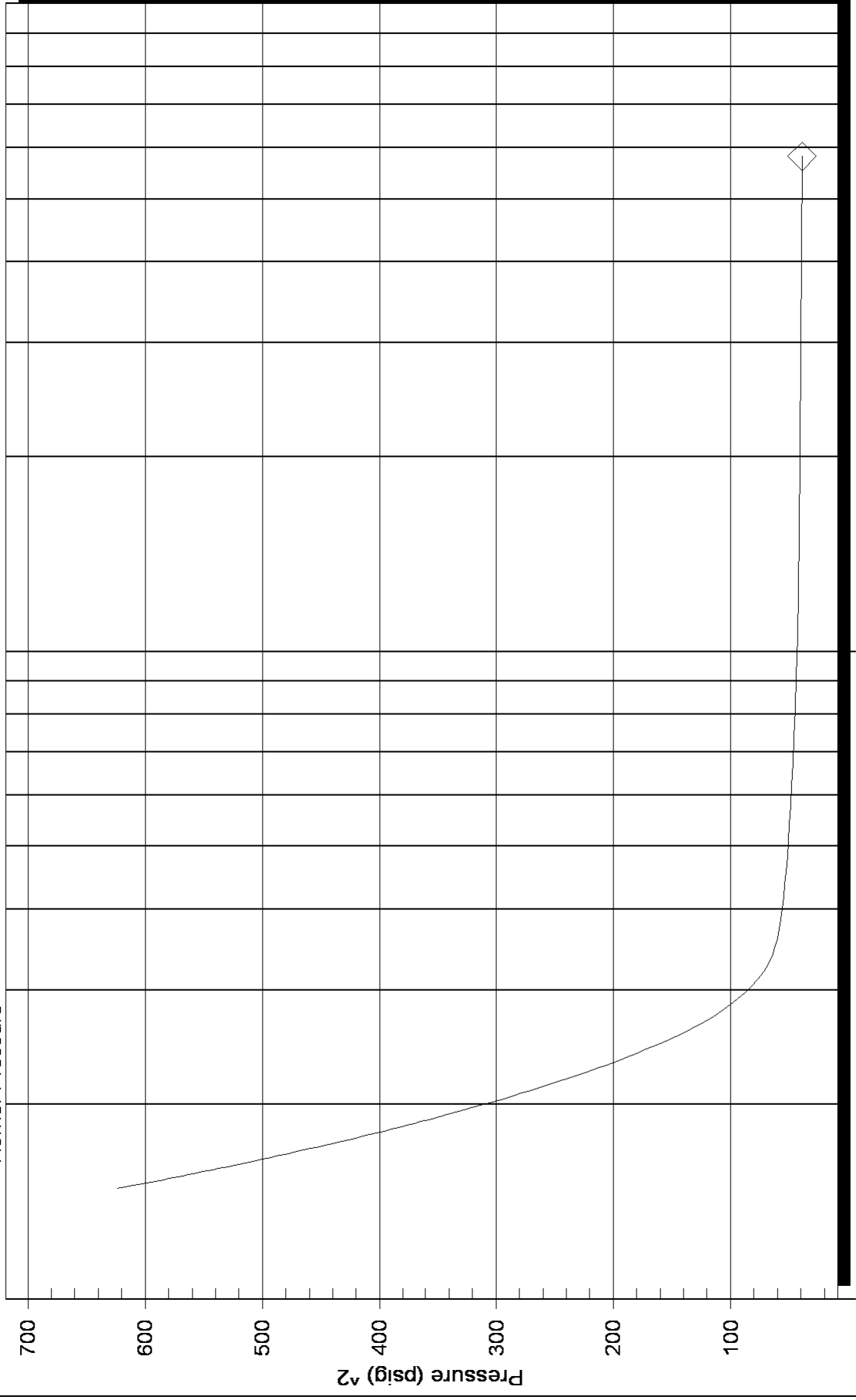
Serial Number: 8647 (Inside)

P\* : Slope (m) : kpa/log cycle

Flow Cycle: 1

### Homer Plot

Horner Pressure



Horner Time: (Twf + dt) / dt

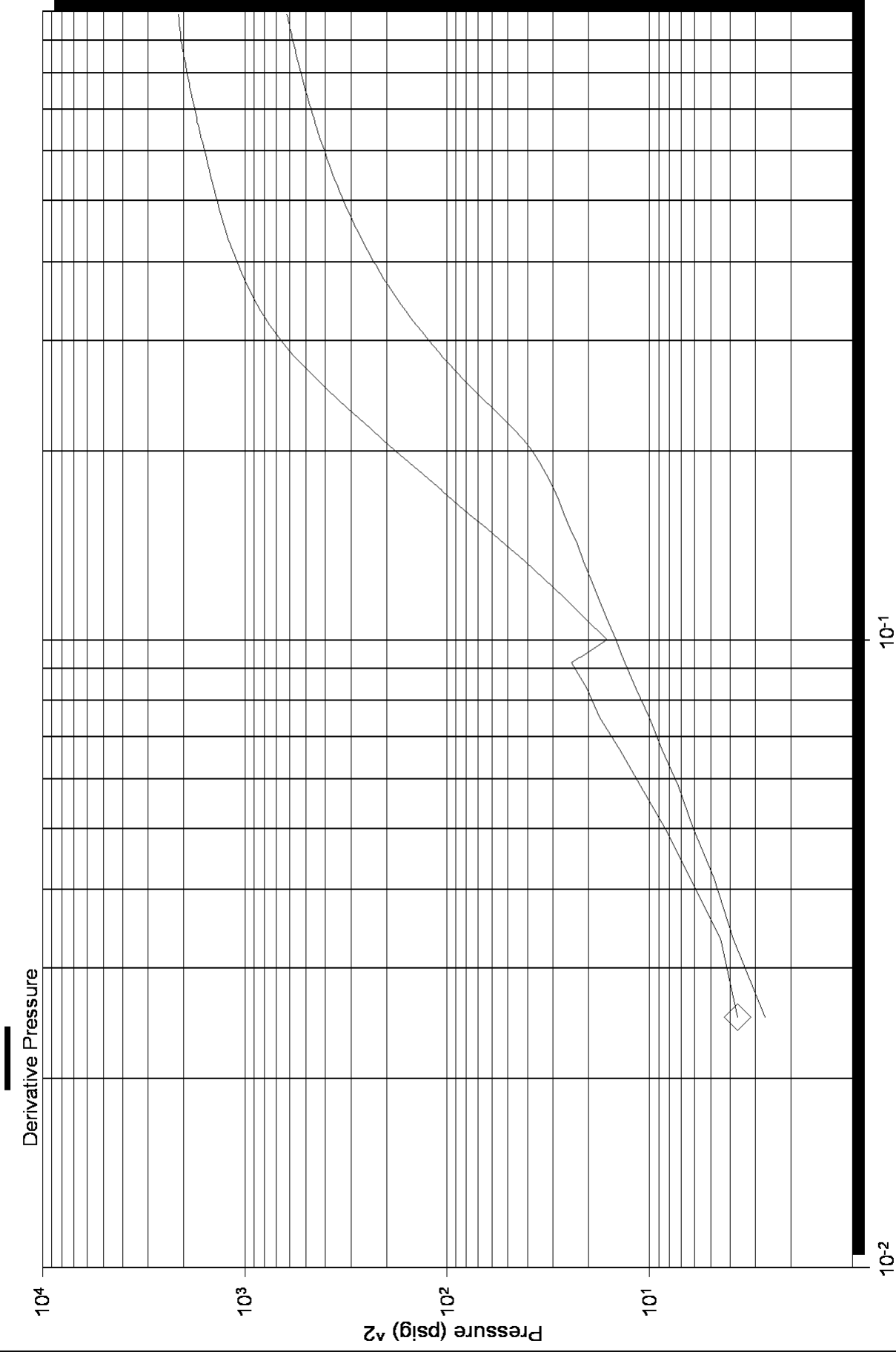
Slope (m) : kpa/log cycle

P\* :

Serial Number: 8647 (Inside)

Flow Cycle: 2

# Log-Log and Pseudo-Derivative



# Log-Log and Pseudo-Derivative

