

## DRILL STEM TEST REPORT

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

1515 Wynkoop St. Ste. #700  
Denver, Co 80202

ATTN: Clayton Cammozi

**10/16S/16W-Rush**

**Schenkel-Zimmerman 1-10**

Start Date: 2010.09.26 @ 12:19:57

End Date: 2010.09.26 @ 19:05:57

Job Ticket #: 39572                      DST #: 2

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Samuel Gary Jr. & Assoc.

**Schenkel-Zimmerman 1-10**

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**10/16S/16W-Rush**

Job Ticket: 39572

**DST#: 2**

ATTN: Clayton Cammozi

Test Start: 2010.09.26 @ 12:19:57

## GENERAL INFORMATION:

Formation: **Lansing A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:46:57

Time Test Ended: 19:05:57

Test Type: Conventional Bottom Hole

Tester: Dustin Rash

Unit No: 44

**Interval: 3229.00 ft (KB) To 3250.00 ft (KB) (TVD)**

Reference Elevations: 1969.00 ft (KB)

Total Depth: 3250.00 ft (KB) (TVD)

1961.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 8.00 ft

**Serial #: 8321 Outside**

Press @ Run Depth: 119.50 psig @ 3230.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.09.26 End Date: 2010.09.26

Last Calib.: 2010.09.26

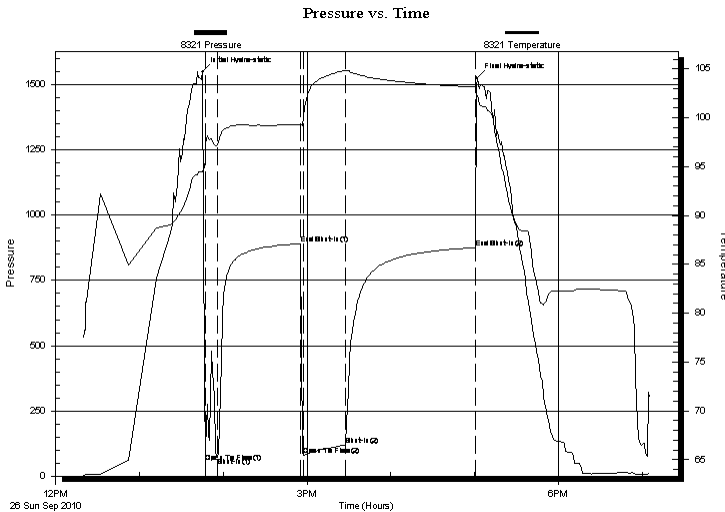
Start Time: 12:19:58 End Time: 19:05:57

Time On Btm: 2010.09.26 @ 13:45:27

Time Off Btm: 2010.09.26 @ 17:01:57

**TEST COMMENT:** IF- Strong building blow . BOB in 8 minutes.  
IS- No Return.  
FF- Strong building blow . BOB in 3 minutes.  
FS- Return at 30 seconds. Built to 4 inches. GIP-540'

## PRESSURE SUMMARY



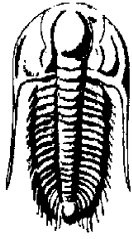
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1549.22	94.46	Initial Hydro-static
2	53.28	95.71	Open To Flow (1)
11	70.59	97.21	Shut-In(1)
70	890.76	99.32	End Shut-In(1)
72	81.25	100.03	Open To Flow (2)
102	119.50	104.82	Shut-In(2)
195	875.46	103.16	End Shut-In(2)
197	1526.91	102.29	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	10%Mud/80%Water/10%Oil	1.68
60.00	10%Mud/10%Water/60%Oil/20%Gas	0.84
60.00	10%Mud/30%Water/40%Oil/20%Gas	0.84
30.00	100%Mud	0.42
0.00	540' GIP	0.00

## Gas Rates

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



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**10/16S/16W-Rush**

Job Ticket: 39572

**DST#: 2**

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Tester: Dustin Rash

Unit No: 44

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Total Depth: 3250.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1969.00 ft (KB)

1961.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8679**

**Inside**

Press @ Run Depth: psig @ 3230.00 ft (KB)

Start Date: 2010.09.26

End Date: 2010.09.26

Start Time: 12:21:21

End Time: 19:05:50

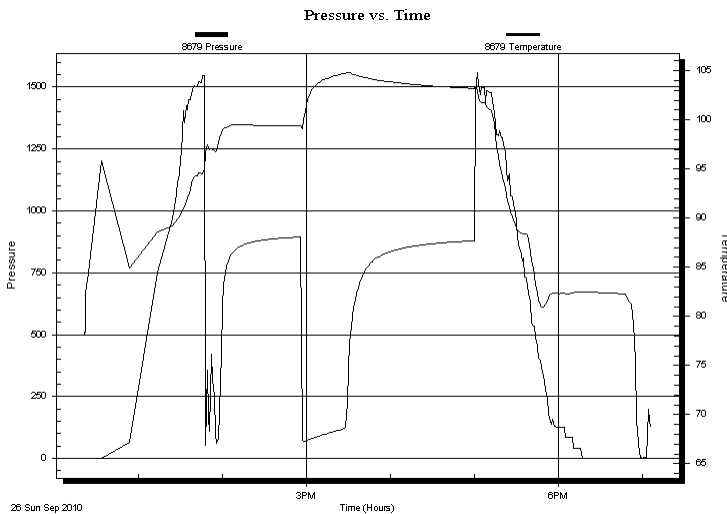
Capacity: 8000.00 psig

Last Calib.: 2010.09.26

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF- Strong building blow . BOB in 8 minutes.  
 IS- No Return.  
 FF- Strong building blow . BOB in 3 minutes.  
 FS- Return at 30 seconds. Built to 4 inches. GIP-540'



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
120.00	10%Mud/80%Water/10%Oil	1.68
60.00	10%Mud/10%Water/60%Oil/20%Gas	0.84
60.00	10%Mud/30%Water/40%Oil/20%Gas	0.84
30.00	100%Mud	0.42
0.00	540' GIP	0.00

### Gas Rates

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



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TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Samuel Gary Jr. & Assoc.

**Schenkel-Zimmerman 1-10**

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Denver, Co 80202

**10/16S/16W-Rush**

Job Ticket: 39572

**DST#: 2**

ATTN: Clayton Cammozi

Test Start: 2010.09.26 @ 12:19:57

**Tool Information**

Drill Pipe:	Length: 3210.00 ft	Diameter: 3.80 inches	Volume: 45.03 bbl	Tool Weight: 2500.00 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: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 15000.00 lb
			<u>Total Volume: 45.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3229.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3202.00	
Shut In Tool	5.00			3207.00	
Hydraulic tool	5.00			3212.00	
Jars	5.00			3217.00	
Safety Joint	2.00			3219.00	
Packer	5.00			3224.00	28.00 Bottom Of Top Packer
Packer	5.00			3229.00	
Stubb	1.00			3230.00	
Recorder	0.00	8679	Inside	3230.00	
Recorder	0.00	8321	Outside	3230.00	
Perforations	17.00			3247.00	
Bullnose	3.00			3250.00	21.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



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**FLUID SUMMARY**

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**10/16S/16W-Rush**

Job Ticket: 39572

**DST#: 2**

ATTN: Clayton Cammozi

Test Start: 2010.09.26 @ 12:19:57

**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: 145000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.07 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
120.00	10%Mud/80%Water/10%Oil	1.683
60.00	10%Mud/10%Water/60%Oil/20%Gas	0.842
60.00	10%Mud/30%Water/40%Oil/20%Gas	0.842
30.00	100%Mud	0.421
0.00	540' GIP	0.000

Total Length: 270.00 ft

Total Volume: 3.788 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

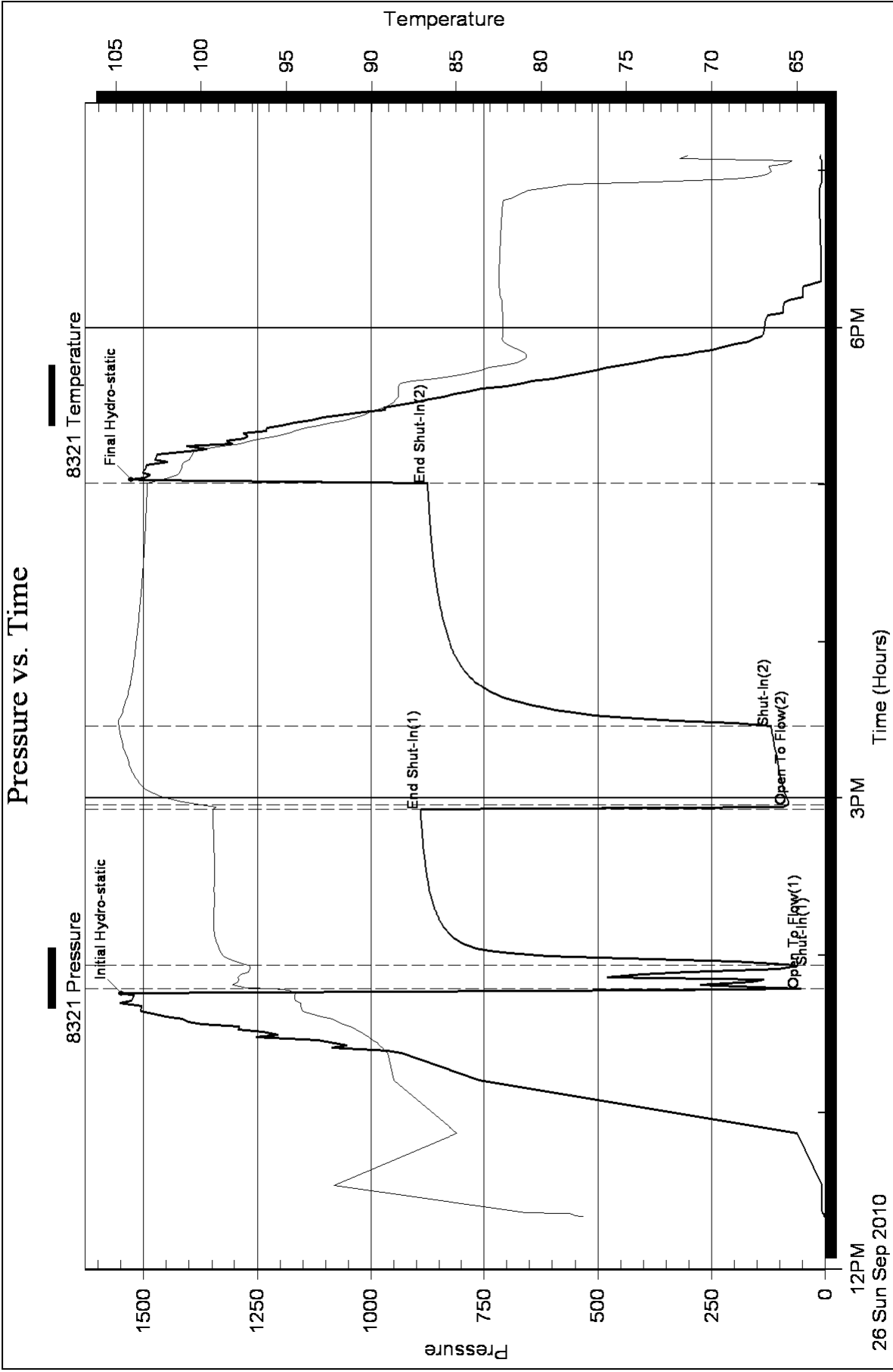
Serial #:

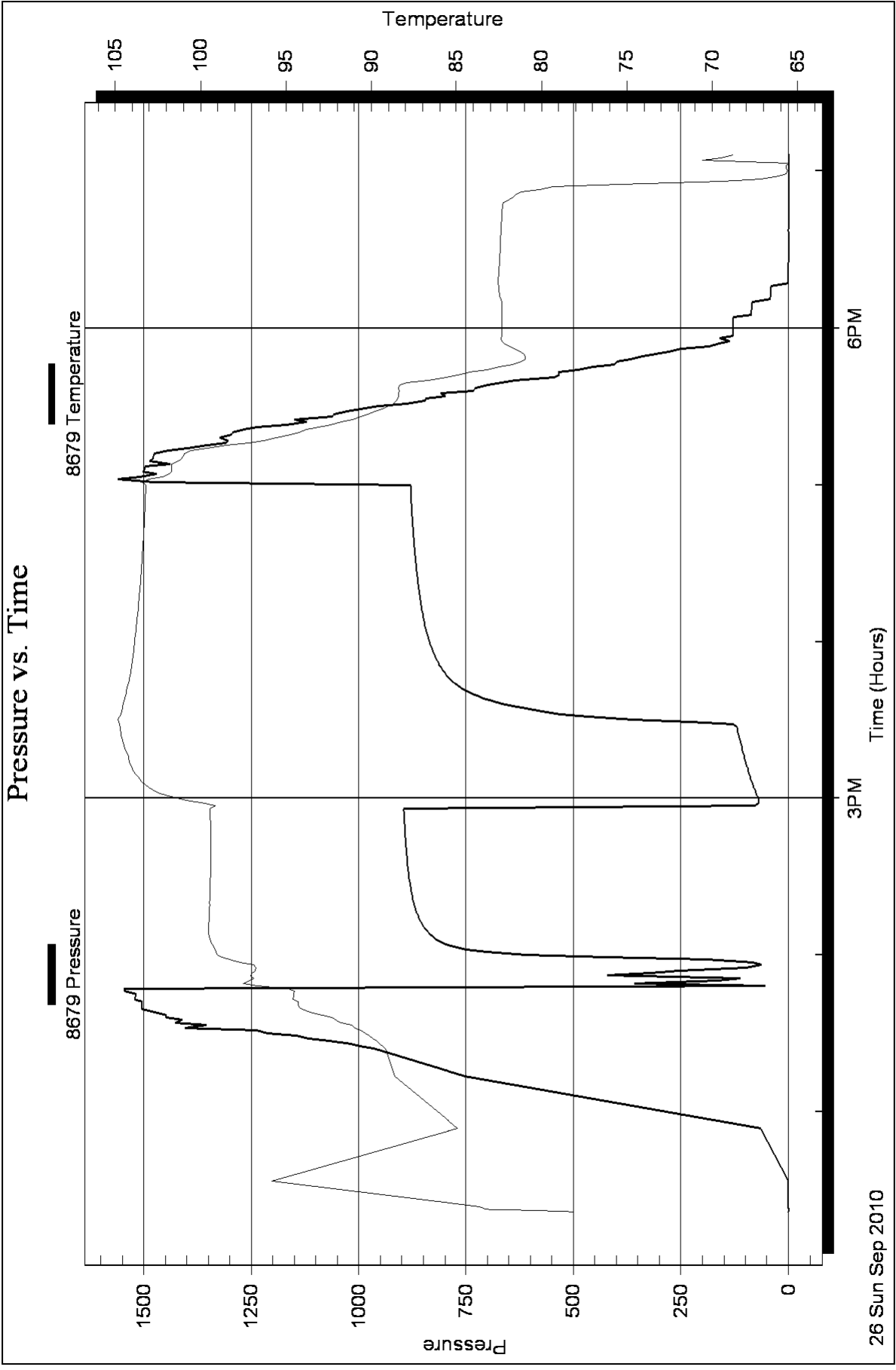
Laboratory Name:

Laboratory Location:

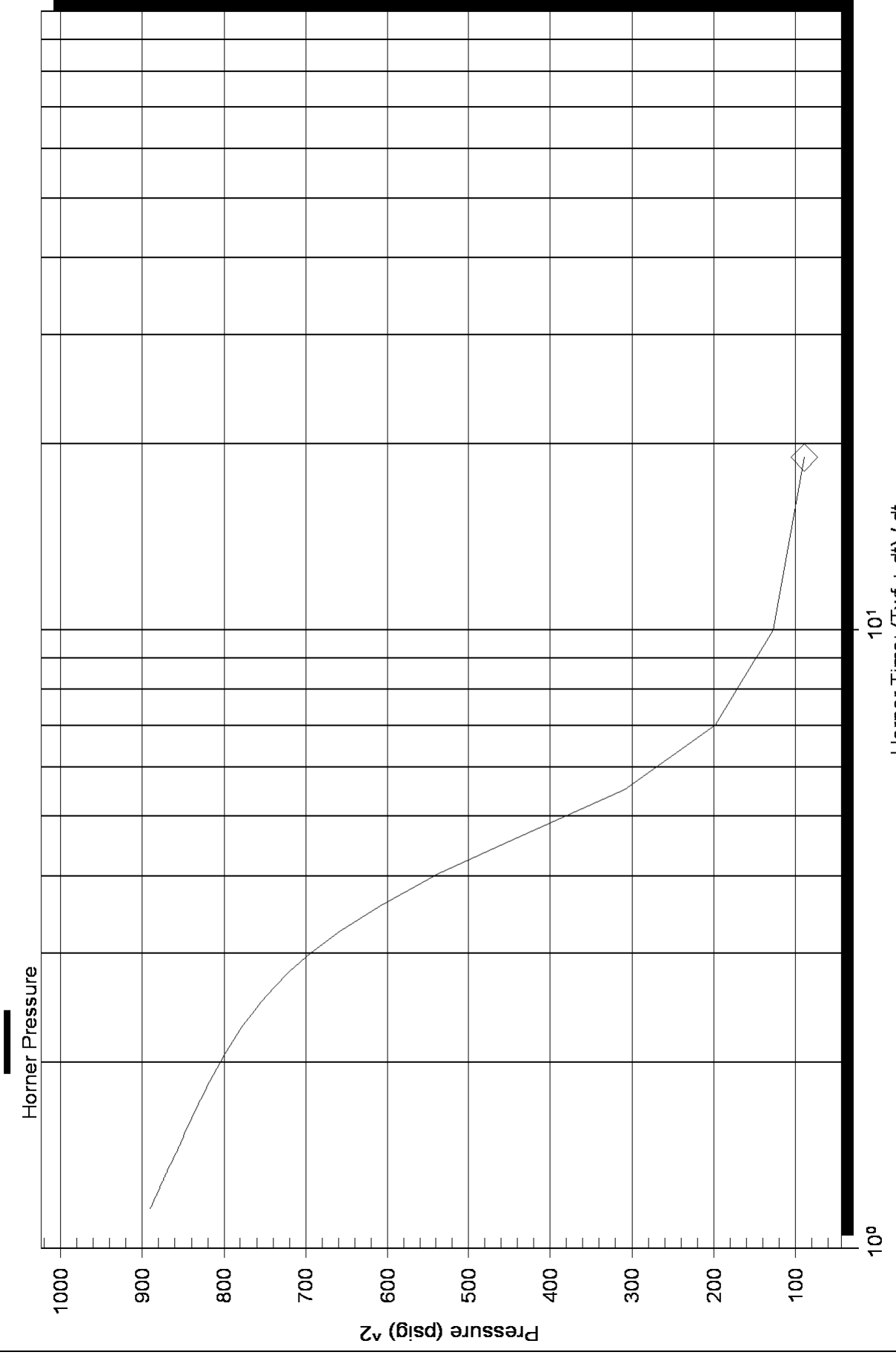
Recovery Comments:

### Pressure vs. Time



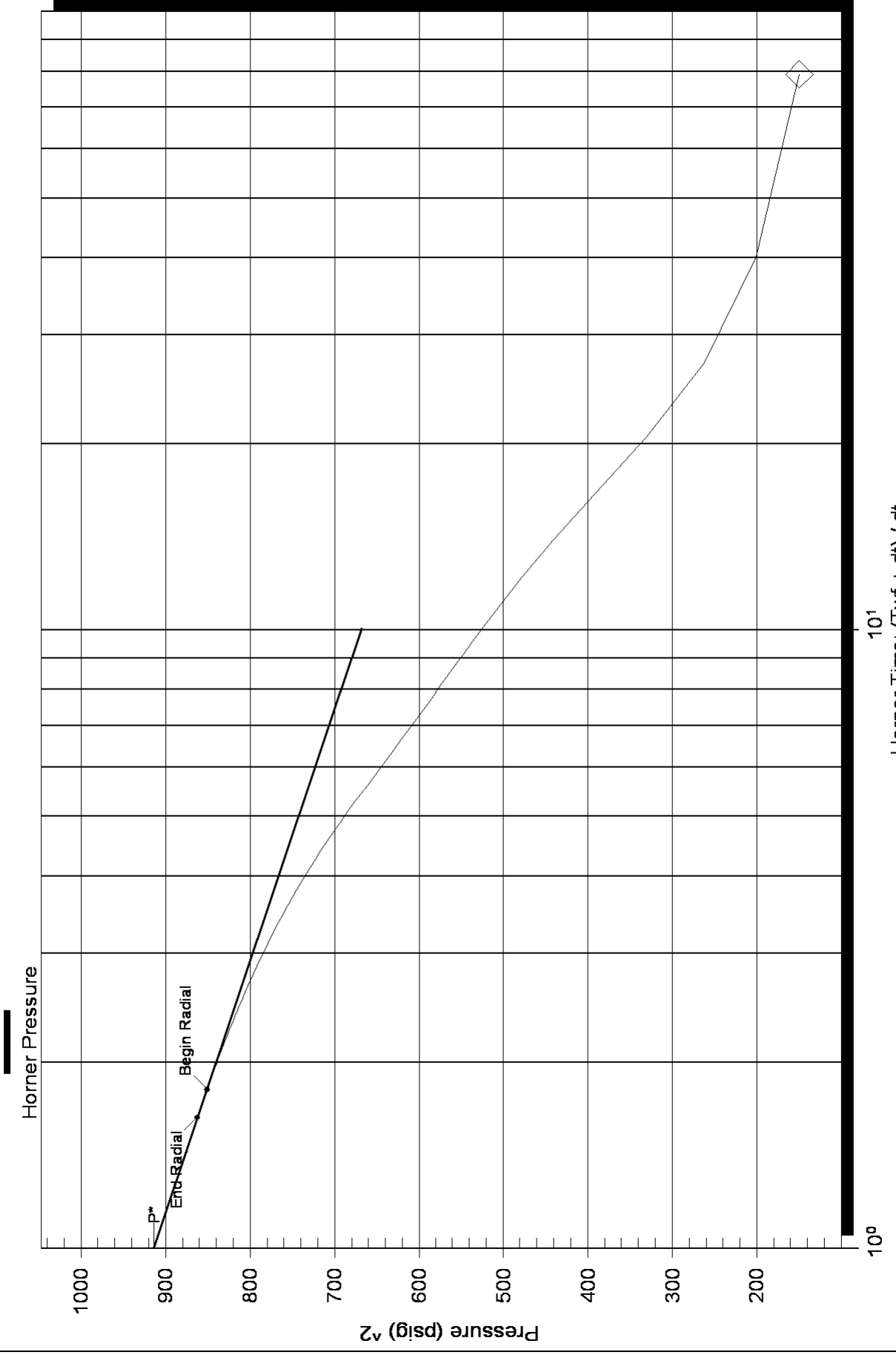


### Homer Plot

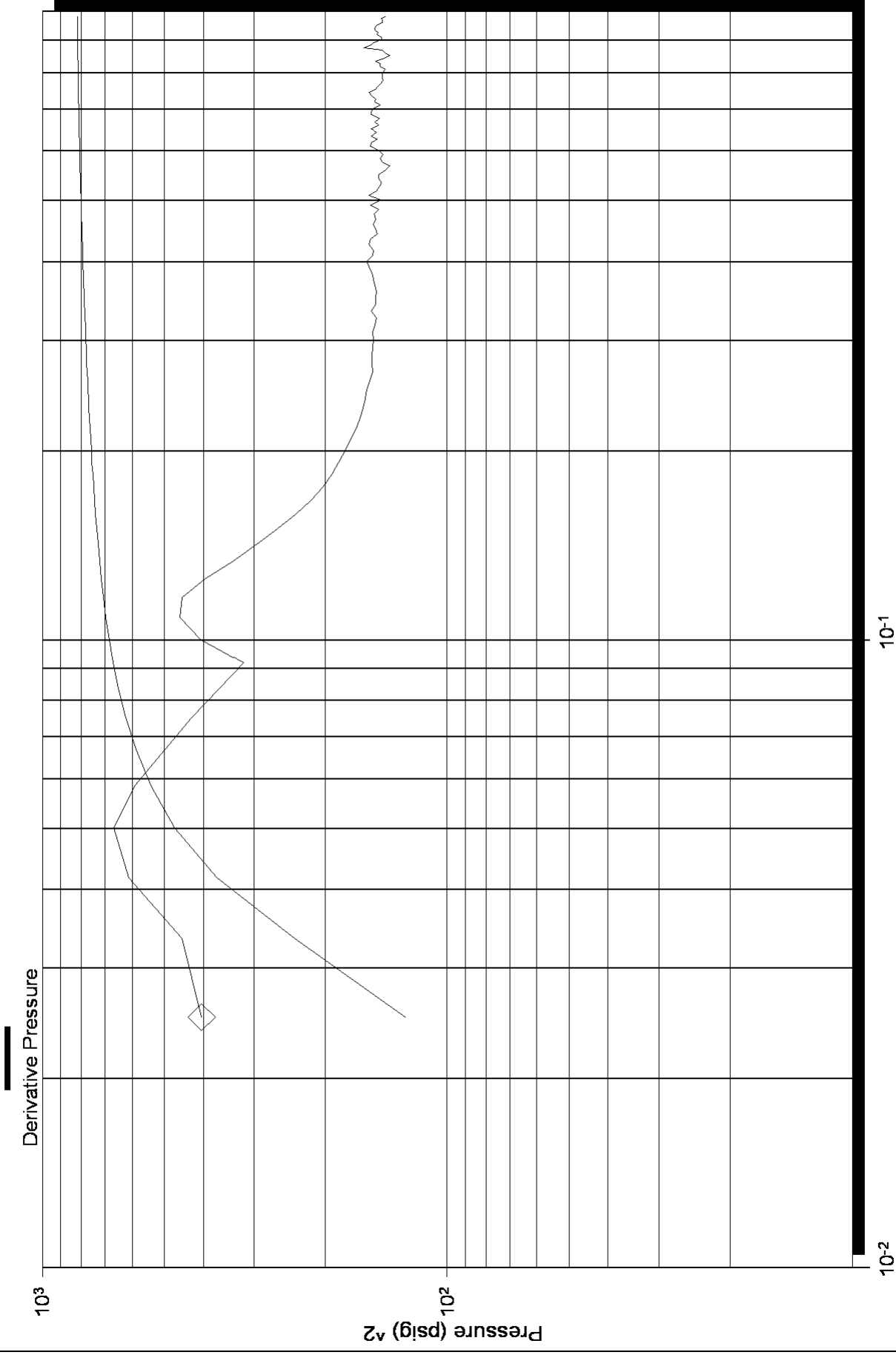




### Homer Plot



# Log-Log and Pseudo-Log-Derivative



# Log-Log and Pseudo-Derivative

