



DRILL STEM TEST REPORT

Prepared For: **SamGary Jr. Associates**

1515 Wynkoop STE 700
Denver Co

ATTN: Cloayton Camozzi

1-16-16, Rush Ks

Wagner Trust 3-1

Start Date: 2011.02.20 @ 01:45:00

End Date: 2011.02.20 @ 09:18:00

Job Ticket #: 41922 DST #: 3

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



**TRILOBITE
TESTING, INC**

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1515 Wynkoop STE 700
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Test Start: 2011.02.20 @ 01:45:00

GENERAL INFORMATION:

Formation: **KC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:31:30

Time Test Ended: 09:18:00

Test Type: Conventional Bottom Hole

Tester: Brett Dickinson

Unit No: 47

Interval: 3366.00 ft (KB) To 3378.00 ft (KB) (TVD)

Reference Elevations: 1941.00 ft (KB)

Total Depth: 3378.00 ft (KB) (TVD)

1933.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8369 Outside

Press @ Run Depth: 28.26 psig @ 3375.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.02.20 End Date: 2011.02.20

Last Calib.: 2011.02.20

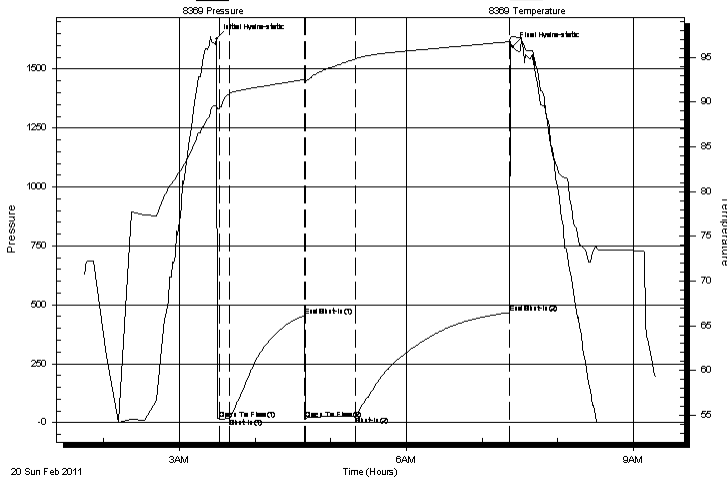
Start Time: 01:45:05 End Time: 09:17:59

Time On Btm: 2011.02.20 @ 03:29:30

Time Off Btm: 2011.02.20 @ 07:24:00

TEST COMMENT: IF 8 MIN-4.5in blow
ISI 60 MIN-No blow
FF 40 MIN-BOB in 6min
FSI 120 MIN-No blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1628.26	89.56	Initial Hydro-static
2	13.68	89.30	Open To Flow (1)
10	17.71	90.94	Shut-In(1)
70	453.92	92.52	End Shut-In(1)
71	14.44	92.44	Open To Flow (2)
110	28.26	94.81	Shut-In(2)
233	467.13	96.76	End Shut-In(2)
235	1593.76	97.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	SGOCM 5%G 45%O 50%M	0.85
0.00	180ft GIP	0.00

Gas Rates

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



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TOOL DIAGRAM

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Test Start: 2011.02.20 @ 01:45:00

Tool Information

Drill Pipe:	Length: 3326.00 ft	Diameter: 3.80 inches	Volume: 46.66 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - 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:	55000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
			- bbl	String Weight: Initial	47000.00 lb
Drill Pipe Above KB:	26.00 ft			Final	48000.00 lb
Depth to Top Packer:	3366.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	12.00 ft				
Tool Length:	48.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3331.00	
Recorder	0.00	8319	Fluid	3331.00	
Drill Pipe	5.00			3336.00	
Shut In Tool	5.00			3341.00	
Sampler	3.00			3344.00	
Hydraulic tool	5.00			3349.00	
Jars	5.00			3354.00	
Safety Joint	3.00			3357.00	
Packer	4.00			3361.00	36.00 Bottom Of Top Packer
Packer	5.00			3366.00	
Stubb	1.00			3367.00	
Perforations	8.00			3375.00	
Recorder	0.00	8369	Outside	3375.00	
Recorder	0.00	6719	Inside	3375.00	
Bullnose	3.00			3378.00	12.00 Bottom Packers & Anchor

Total Tool Length: 48.00



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FLUID SUMMARY

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Test Start: 2011.02.20 @ 01:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
80.00	SGOCM 5%G 45%O 50%M	0.849
0.00	180ft GIP	0.000

Total Length: 80.00 ft Total Volume: 0.849 bbl

Num Fluid Samples: 0

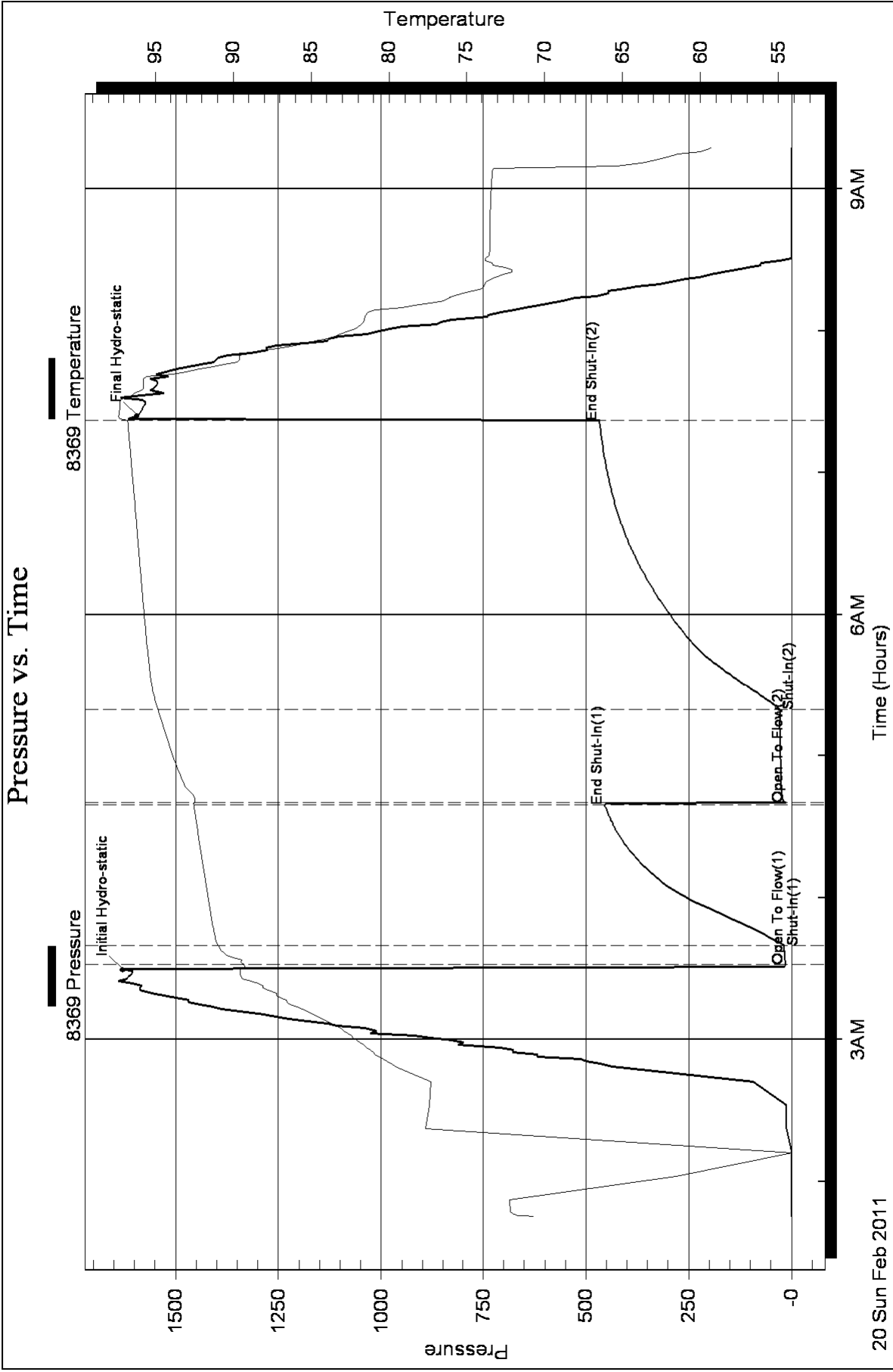
Num Gas Bombs: 0

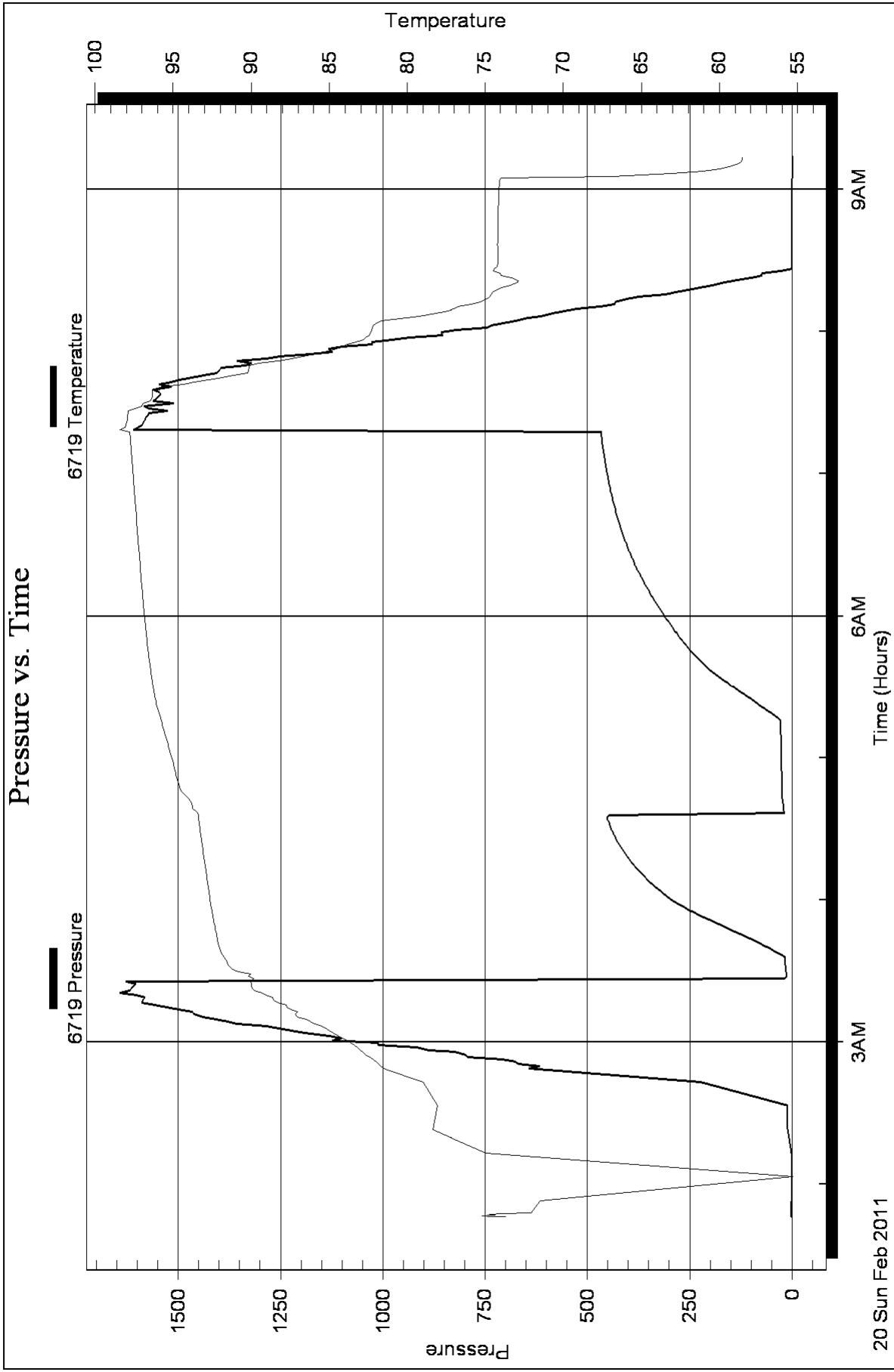
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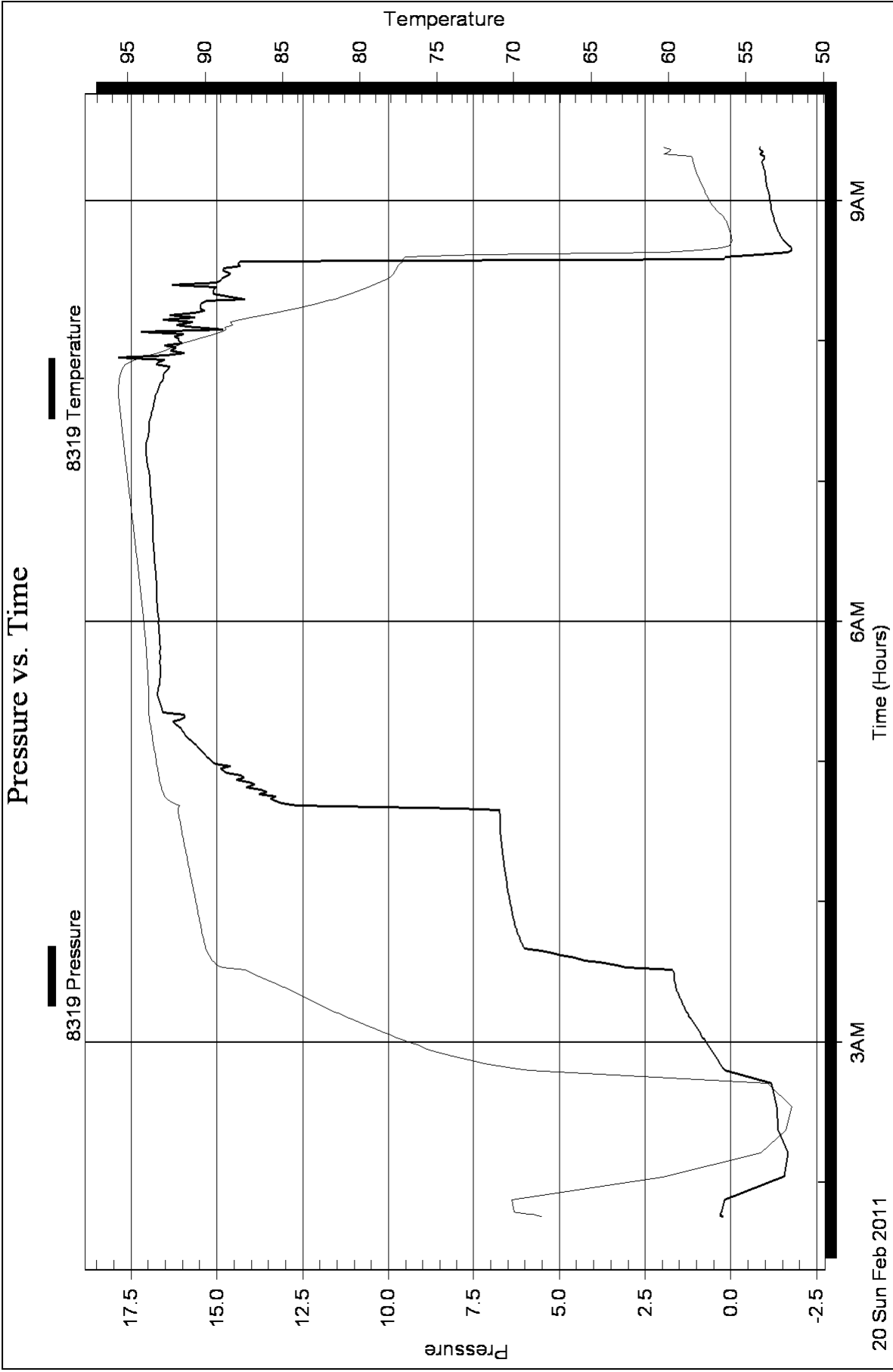
Laboratory Name:

Laboratory Location:

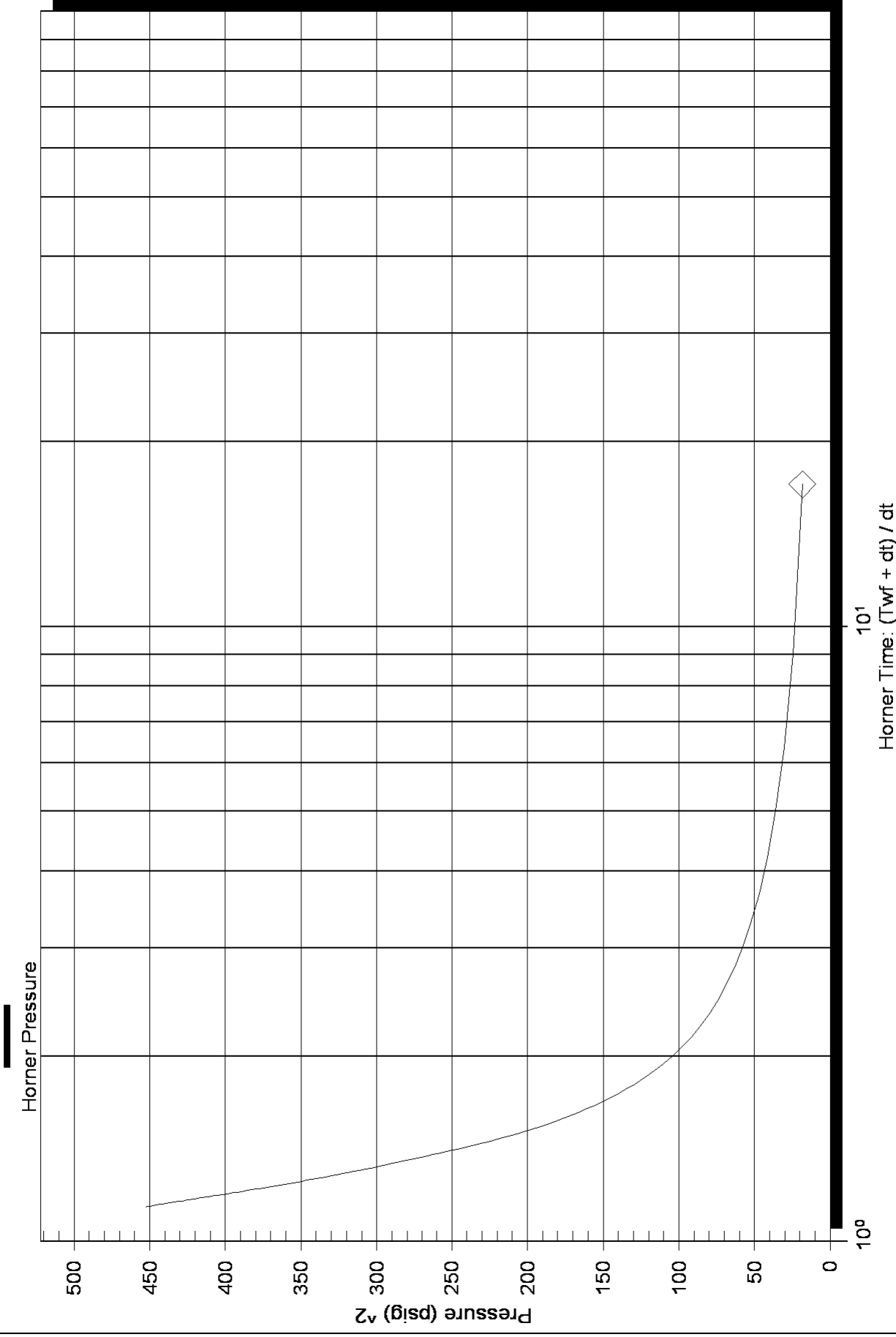
Recovery Comments: Sampler Data, Gas 1250 ml, Oil 2750 ml, 125 psi



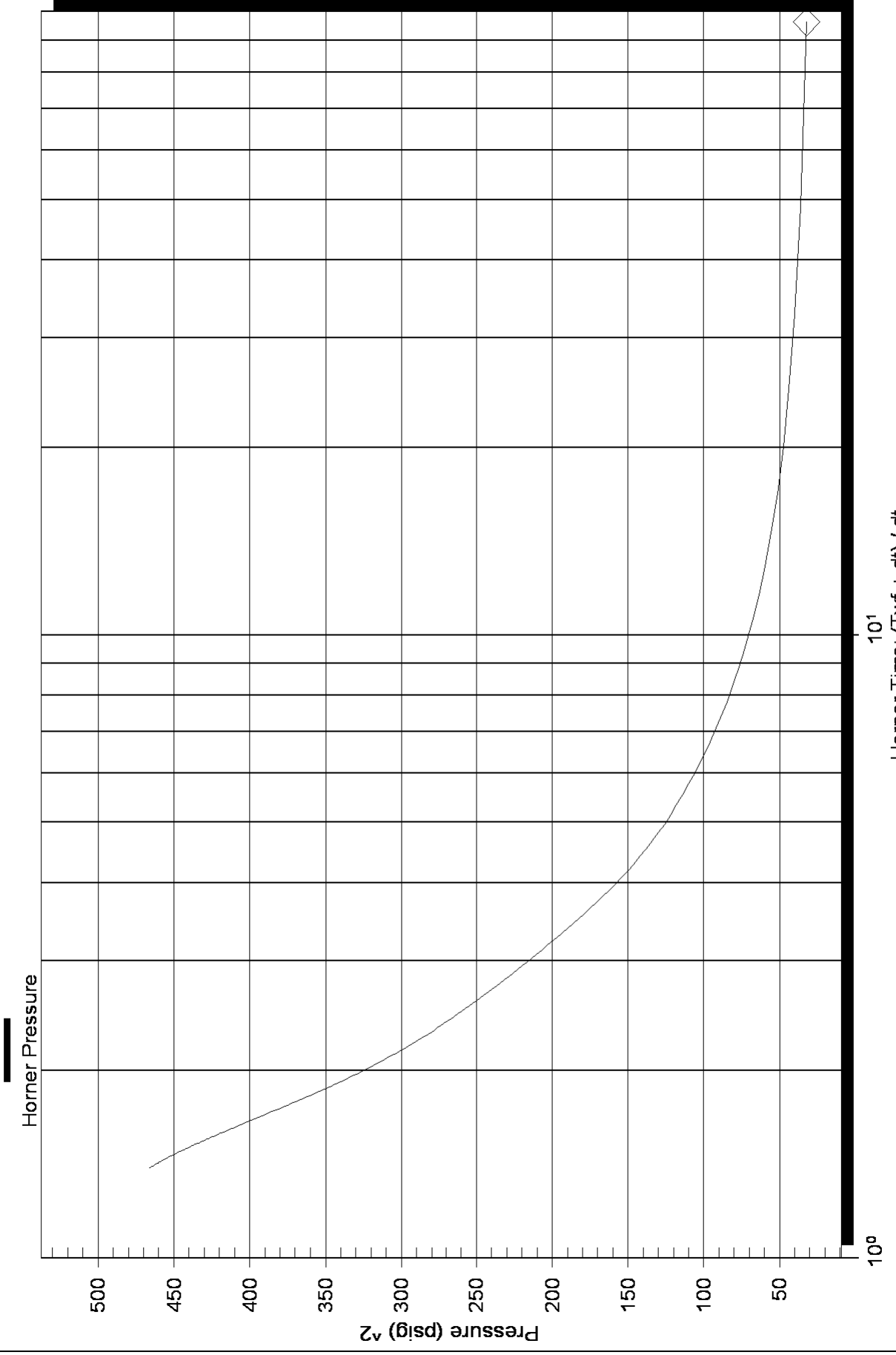




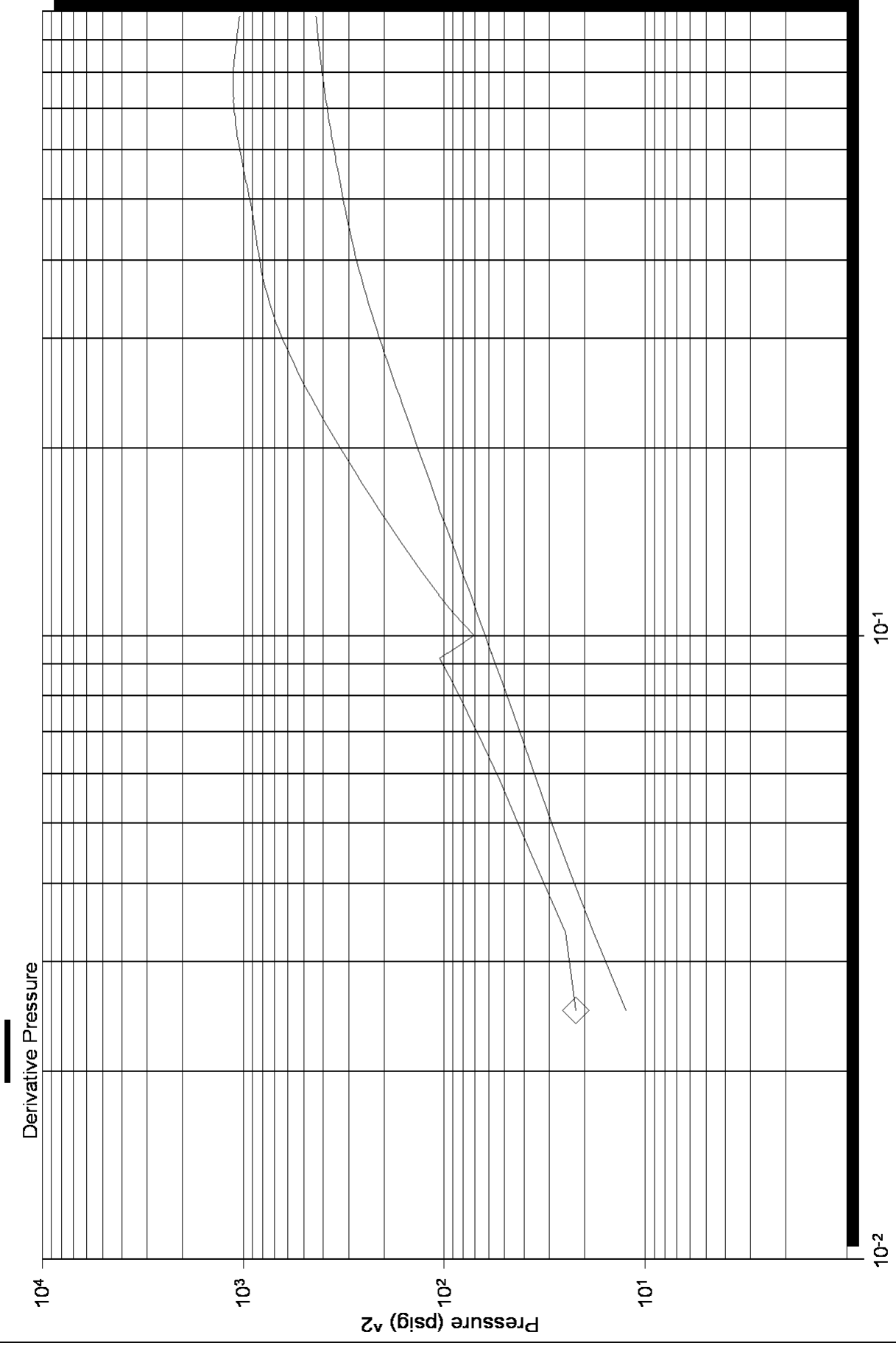
Homer Plot



Homer Plot



Log-Log and Pseudo-Log-Derivative



Log-Log and Pseudo-Derivative

