



DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr. and Associates, Inc.**

1515 Wynkoop St. Ste 700
Denver, CO
80202

ATTN: Clayton Camozzi

1-16-16 Rush, Ks

Wagner Trust 5-1

Start Date: 2011.05.06 @ 04:32:34

End Date: 2011.05.06 @ 11:38:34

Job Ticket #: 42562 DST #: 1

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



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TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr. and Associates, Inc.

Wagner Trust 5-1

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80202
ATTN: Clayton Camozzi

1-16-16 Rush, Ks

Job Ticket: 42562

DST#: 1

Test Start: 2011.05.06 @ 04:32:34

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:24:04

Time Test Ended: 11:38:34

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 41

Interval: 3158.00 ft (KB) To 3218.00 ft (KB) (TVD)

Reference Elevations: 1909.00 ft (KB)

Total Depth: 3218.00 ft (KB) (TVD)

1901.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8734 Outside

Press @ Run Depth: 34.54 psig @ 3162.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.05.06 End Date: 2011.05.06

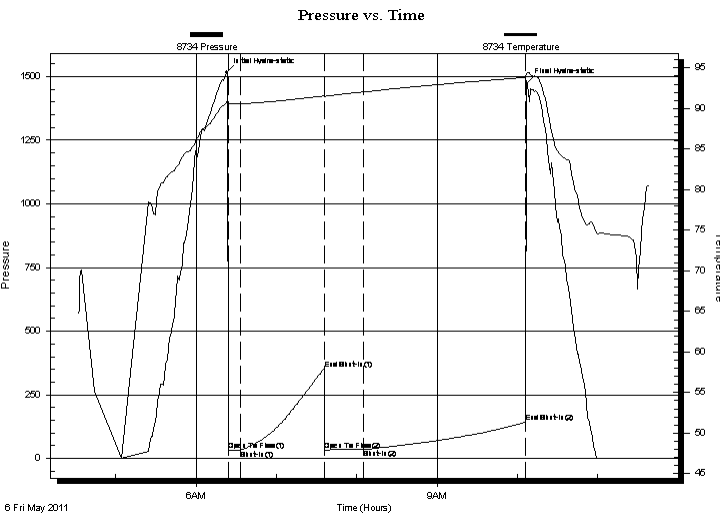
Last Calib.: 2011.05.06

Start Time: 04:32:35 End Time: 11:38:34

Time On Btm: 2011.05.06 @ 06:23:04

Time Off Btm: 2011.05.06 @ 10:07:04

TEST COMMENT: 10 - IFP - weak blow throughout 1/4" - 3/4"
60 - ISI - no blow back
30 - FFP - no blow 6 min - sur blow died 12 min
120 - FSI - no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1515.58	90.81	Initial Hydro-static
1	31.21	90.53	Open To Flow (1)
11	32.01	90.60	Shut-In(1)
73	352.00	91.57	End Shut-In(1)
73	33.34	91.45	Open To Flow (2)
102	34.54	92.05	Shut-In(2)
223	141.86	93.83	End Shut-In(2)
224	1474.72	94.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	VSOCM 3%O, 97%M	0.02

Gas Rates

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



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Job Ticket: 42562

DST#: 1

Test Start: 2011.05.06 @ 04:32:34

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

Deviated: No Whipstock: ft (KB)

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Time Test Ended: 11:38:34

Interval: 3158.00 ft (KB) To 3218.00 ft (KB) (TVD)

Total Depth: 3218.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 41

Reference Elevations: 1909.00 ft (KB)

1901.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8372

Inside

Press @ Run Depth: psig @ 3162.00 ft (KB)

Start Date: 2011.05.06

End Date: 2011.05.06

Start Time: 04:32:16

End Time: 11:38:15

Capacity: 8000.00 psig

Last Calib.: 2011.05.06

Time On Btm:

Time Off Btm:

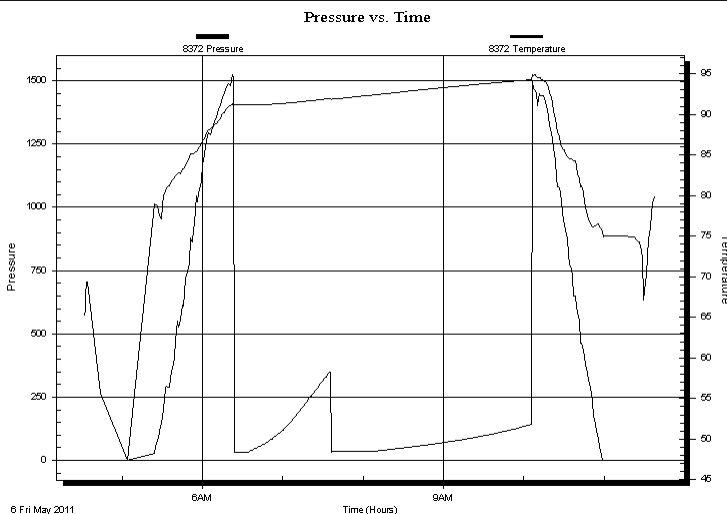
TEST COMMENT: 10 - IFP - weak blow throughout 1/4" - 3/4"

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30 - FFP - no blow 6 min - sur blow died 12 min

120 - FSI - no blow back

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	V SOCM 3%O, 97%M	0.02

Gas Rates

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



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Wagner Trust 5-1

1-16-16 Rush, Ks

Job Ticket: 42562 **DST#: 1**
 Test Start: 2011.05.06 @ 04:32:34

GENERAL INFORMATION:

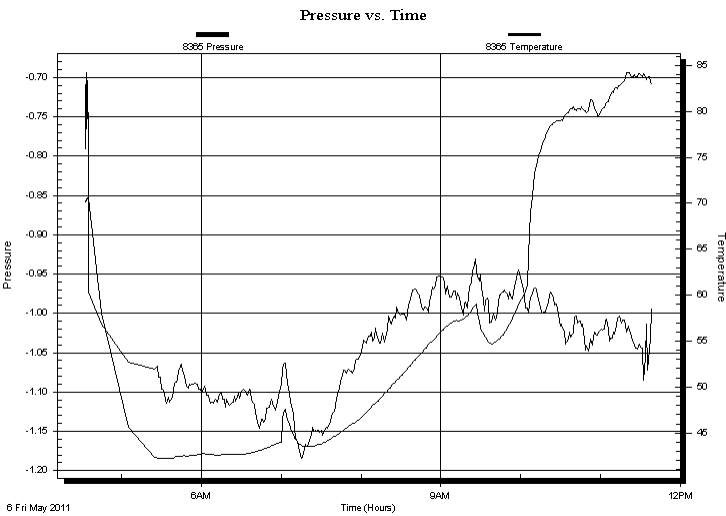
Formation: **LKC "A-C"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:24:04
 Time Test Ended: 11:38:34
Interval: 3158.00 ft (KB) To 3218.00 ft (KB) (TVD)
 Total Depth: 3218.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Brian Fairbank
 Unit No: 41
 Reference Elevations: 1909.00 ft (KB)
 1901.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8365

Fluid

Press @ Run Depth: psig @ 3124.00 ft (KB)
 Start Date: 2011.05.06 End Date: 2011.05.06
 Start Time: 04:32:48 End Time: 11:38:47
 Capacity: 8000.00 psig
 Last Calib.: 2011.05.06
 Time On Btm:
 Time Off Btm:

TEST COMMENT: 10 - IFP - weak blow throughout 1/4" - 3/4"
 60 - ISI - no blow back
 30 - FFP - no blow 6 min - sur blow died 12 min
 120 - FSI - no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	V/SOCM 3%O, 97%M	0.02

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr. and Associates, Inc.

Wagner Trust 5-1

1515 Wynkoop St. Ste 700
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ATTN: Clayton Camozzi

1-16-16 Rush, Ks

Job Ticket: 42562

DST#: 1

Test Start: 2011.05.06 @ 04:32:34

Tool Information

Drill Pipe:	Length: 3104.00 ft	Diameter: 3.80 inches	Volume: 43.54 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 43.69 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3158.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	94.00 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	8365	Fluid	3124.00	
Blank Spacing	5.00			3129.00	
Shut In Tool	5.00			3134.00	
Sampler	2.00			3136.00	
Hydraulic tool	5.00			3141.00	
Jars	5.00			3146.00	
Safety Joint	2.00			3148.00	
Packer	5.00			3153.00	34.00 Bottom Of Top Packer
Packer	5.00			3158.00	
Stubb	1.00			3159.00	
Perforations	2.00			3161.00	
Change Over Sub	1.00			3162.00	
Recorder	0.00	8372	Inside	3162.00	
Recorder	0.00	8734	Outside	3162.00	
Blank Spacing	32.00			3194.00	
Change Over Sub	1.00			3195.00	
Perforations	20.00			3215.00	
Bullnose	3.00			3218.00	60.00 Bottom Packers & Anchor

Total Tool Length: 94.00



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FLUID SUMMARY

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Job Ticket: 42562

DST#: 1

Test Start: 2011.05.06 @ 04:32:34

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 63.00 sec/qt

Water Loss: 9.18 in³

Resistivity: ohm.m

Salinity: 4500.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	VSOCM 3%O, 97%M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

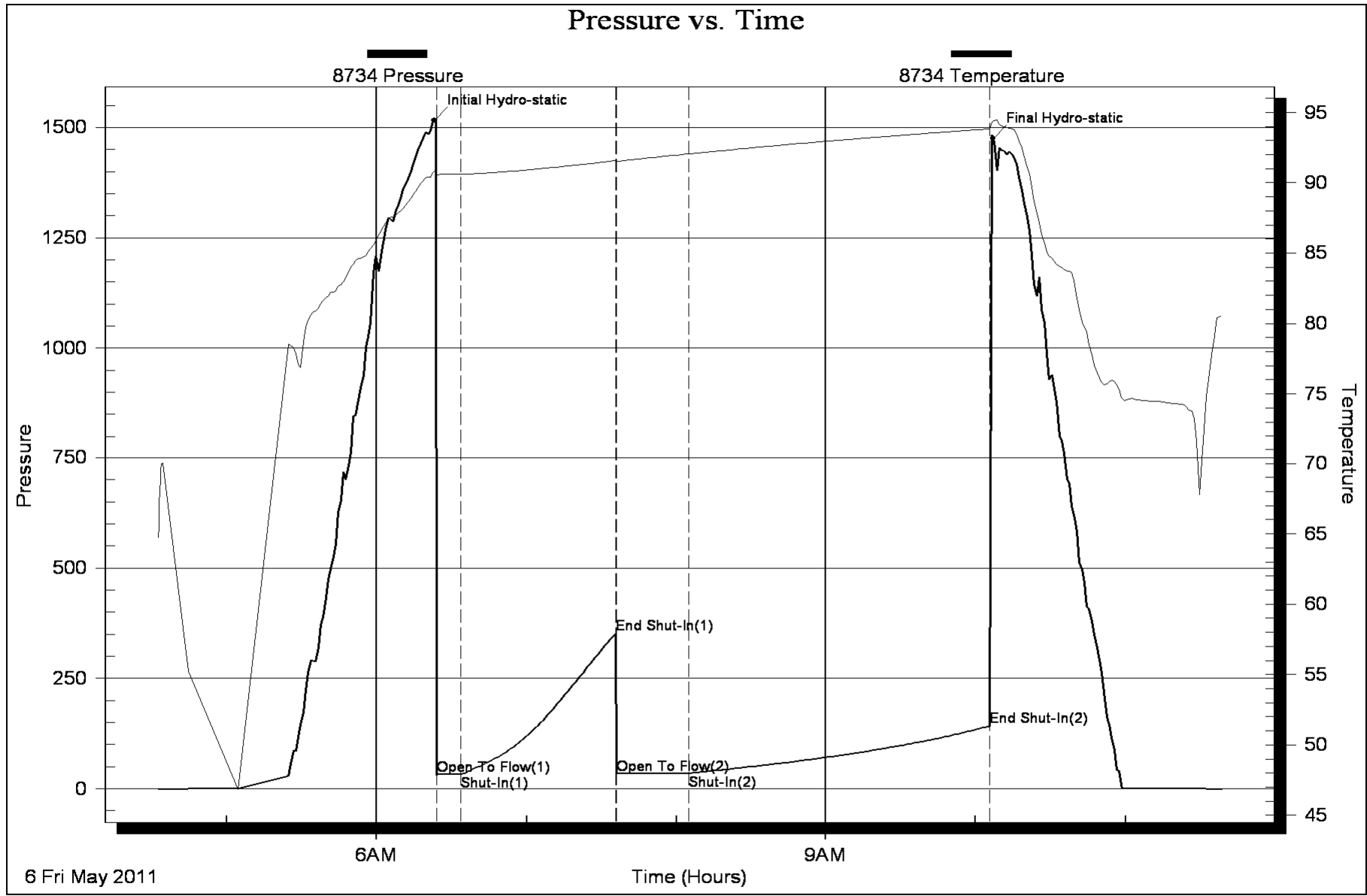
Num Gas Bombs: 0

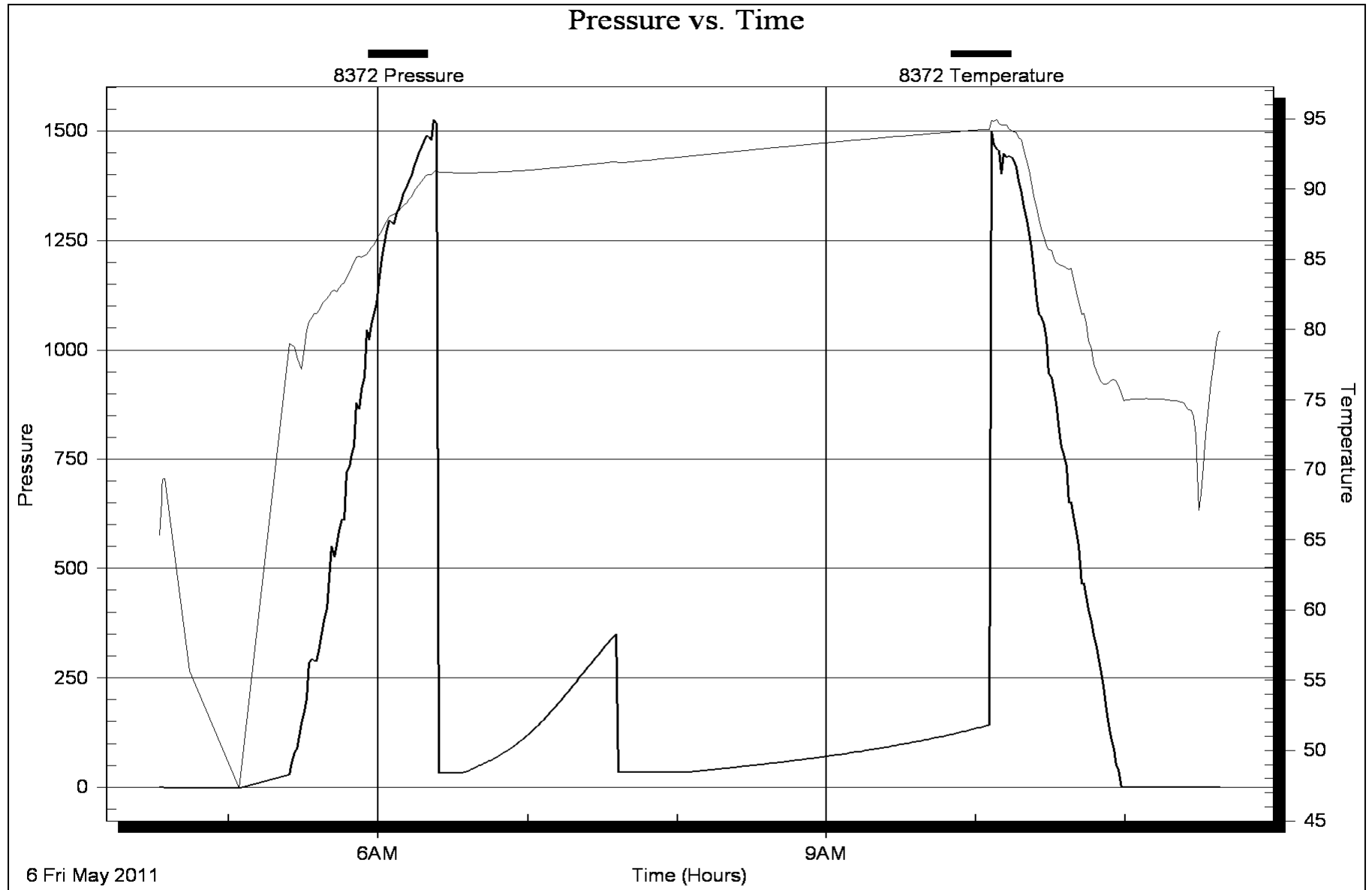
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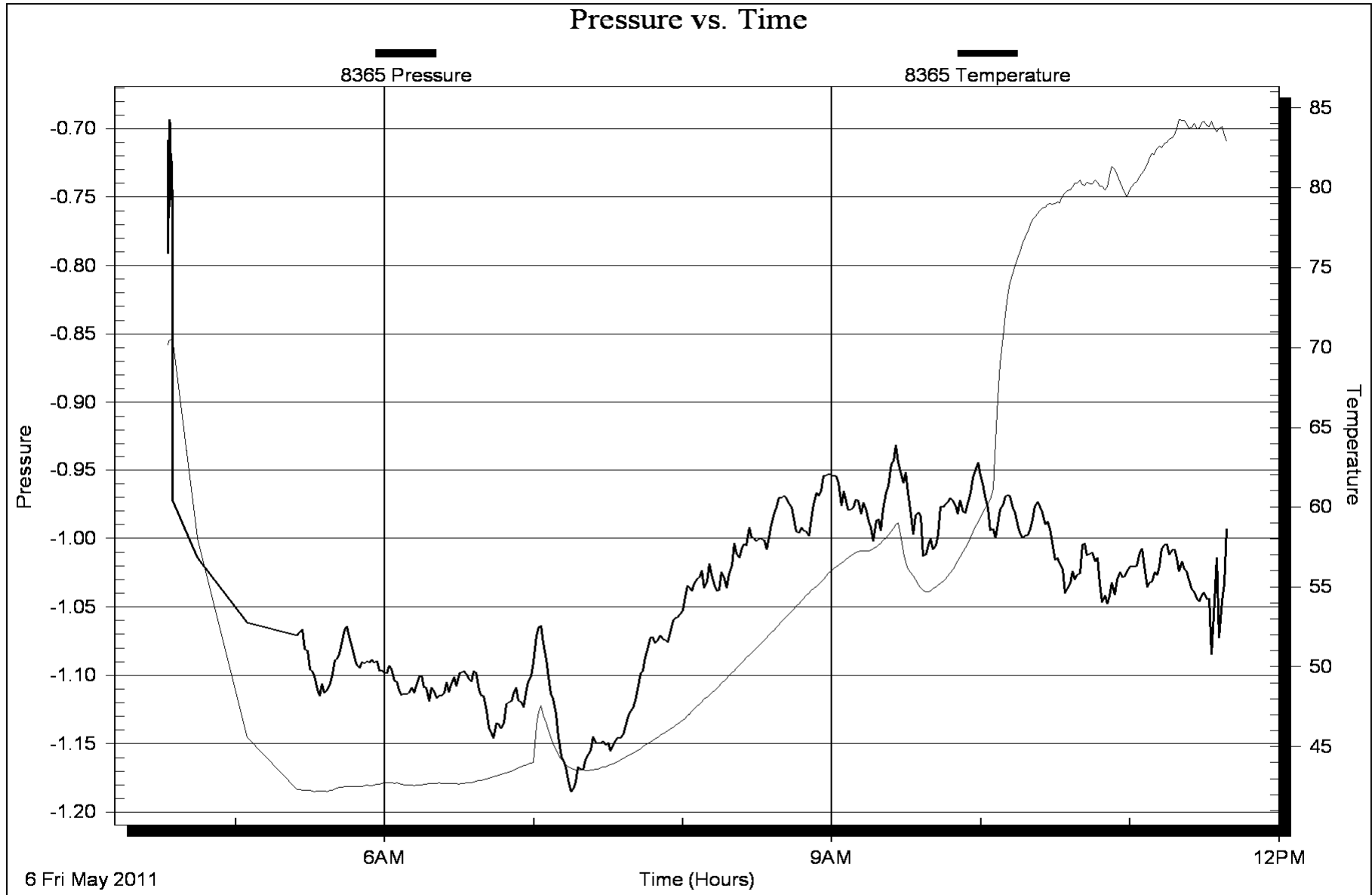
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Laboratory Location:

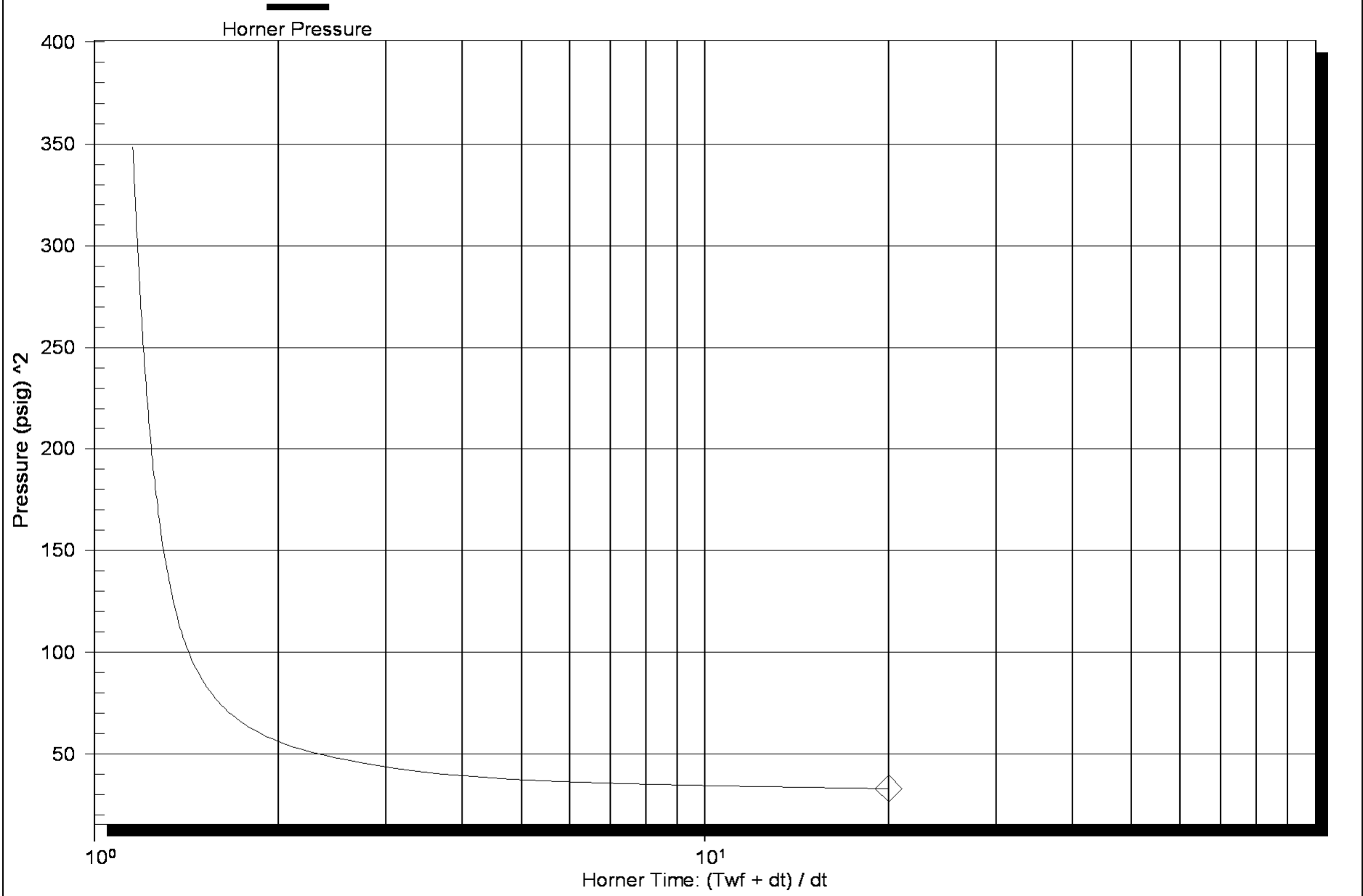
Recovery Comments: O 120 ML, M 3880 ML, 95 LBS



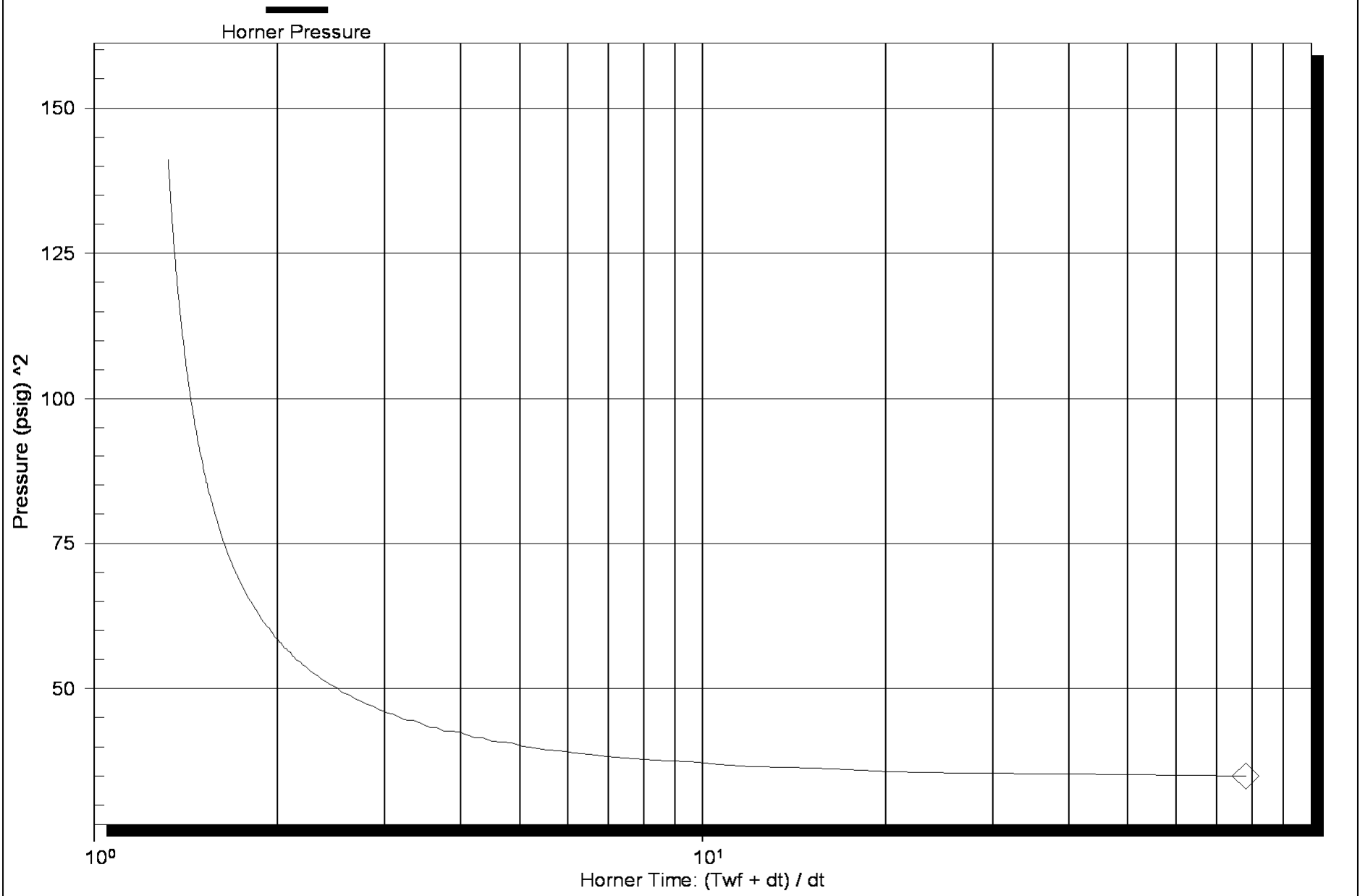




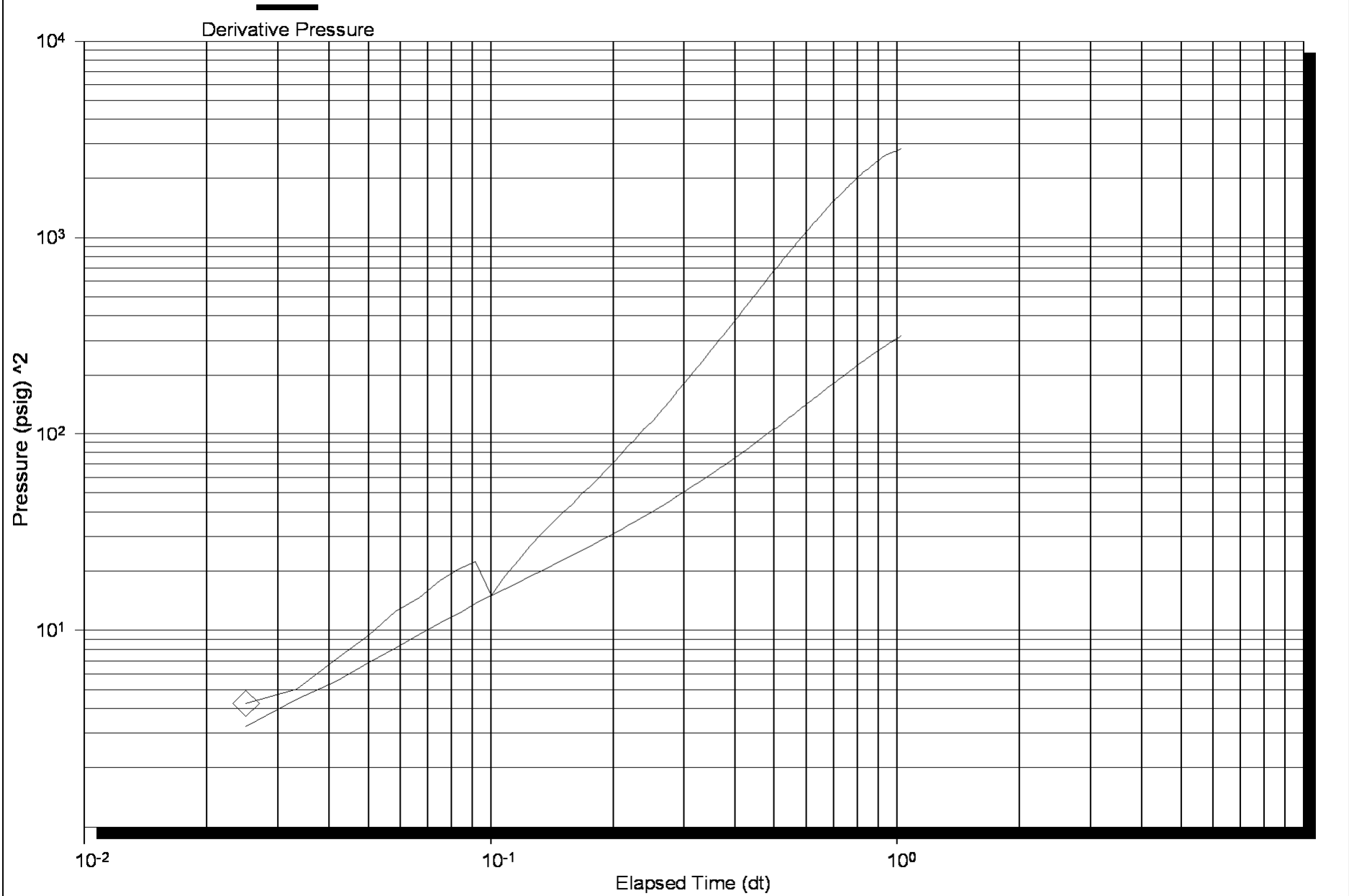
Horner Plot



Horner Plot



Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative

