



DRILL STEM TEST REPORT

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

1515 Wynkoop St. Ste. 700
Denver Co. 80202

ATTN: Clayton Camozzi

7-16s-16w Rush Ks.

Stramel #1-7

Start Date: 2010.12.16 @ 03:25:47

End Date: 2010.12.16 @ 12:35:32

Job Ticket #: 039293 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
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TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

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Stramel #1-7

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Job Ticket: 039293

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Test Start: 2010.12.16 @ 03:25:47

GENERAL INFORMATION:

Formation: **Lans.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:01:02

Time Test Ended: 12:35:32

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 39

Interval: 3386.00 ft (KB) To 3435.00 ft (KB) (TVD)

Reference Elevations: 1949.00 ft (KB)

Total Depth: 3435.00 ft (KB) (TVD)

1942.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8167 Inside

Press @ Run Depth: 186.82 psig @ 3387.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.12.16 End Date: 2010.12.16

Last Calib.: 2010.12.16

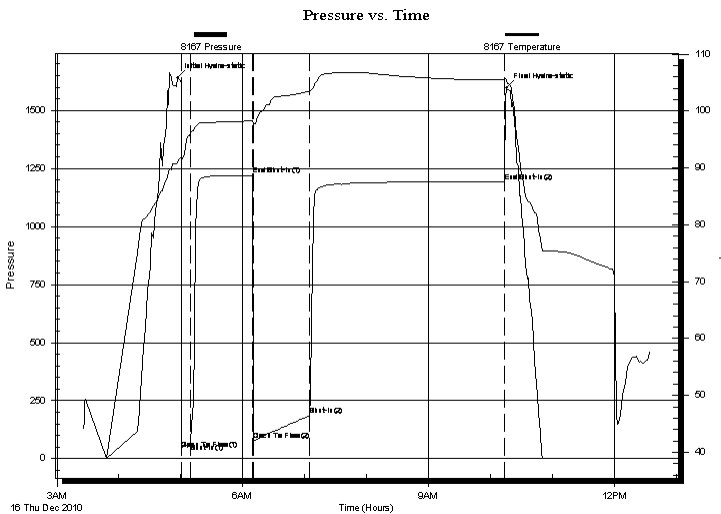
Start Time: 03:25:52 End Time: 12:35:32

Time On Btm: 2010.12.16 @ 04:57:02

Time Off Btm: 2010.12.16 @ 10:15:47

TEST COMMENT: IF: Strong blow . B.O.B. in 2 mins.
IS: Weak blow . 1/2".
FF: Strong blow . B.O.B. in 20 secs.
FS: Strong blow . GTS w hile bleeding off. Vent FSIP.

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1640.87 | 90.84 | Initial Hydro-static |
| 4 | 41.42 | 91.44 | Open To Flow (1) |
| 13 | 67.36 | 96.00 | Shut-In(1) |
| 73 | 1221.84 | 98.30 | End Shut-In(1) |
| 74 | 80.22 | 97.86 | Open To Flow (2) |
| 128 | 186.82 | 103.54 | Shut-In(2) |
| 317 | 1194.86 | 105.47 | End Shut-In(2) |
| 319 | 1597.25 | 105.64 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------------|--------------|
| 250.00 | GOCM 30%g 27%o 43%m | 3.51 |
| 60.00 | CGO 41%g 59%o | 0.84 |
| 125.00 | GOCM 27%g 33%o 40%m | 1.75 |
| 0.00 | Gas in all fluid free pipe | 0.00 |
| | | |
| | | |

Gas Rates

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



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TOOL DIAGRAM

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7-16s-16w Rush Ks.

Job Ticket: 039293

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2010.12.16 @ 03:25:47

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3360.00 ft | Diameter: 3.80 inches | Volume: 47.13 bbl | Tool Weight: 2400.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 24000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 61000.00 lb |
| | | | <u>Total Volume: 47.13 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 4.00 ft | | | String Weight: Initial 45000.00 lb |
| Depth to Top Packer: | 3386.00 ft | | | Final 47500.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 49.00 ft | | | |
| Tool Length: | 79.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|----------------|
|------------------|-------------|------------|----------|------------|----------------|

| | | | | | |
|--------------|-------|------|---------|---------|-------------------------------|
| Recorder | 0.00 | 8646 | Fluid | 3356.00 | |
| C.O. Sub | 1.00 | | | 3357.00 | |
| Shut in tool | 5.00 | | | 3362.00 | |
| Sampler | 2.00 | | | 3364.00 | |
| HMV | 5.00 | | | 3369.00 | |
| Jars | 5.00 | | | 3374.00 | |
| Safety Joint | 3.00 | | | 3377.00 | |
| Packer | 4.00 | | | 3381.00 | 30.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3386.00 | |
| Stubb | 1.00 | | | 3387.00 | |
| Recorder | 0.00 | 8167 | Inside | 3387.00 | |
| Recorder | 0.00 | 8370 | Outside | 3387.00 | |
| Perforations | 43.00 | | | 3430.00 | |
| Bullnose | 5.00 | | | 3435.00 | 49.00 Bottom Packers & Anchor |

Total Tool Length: 79.00



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FLUID SUMMARY

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Job Ticket: 039293

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2010.12.16 @ 03:25:47

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36.4 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4600.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|----------------------------|----------------|
| 250.00 | GOCM 30%g 27%o 43%m | 3.507 |
| 60.00 | CGO 41%g 59%o | 0.842 |
| 125.00 | GOCM 27%g 33%o 40%m | 1.753 |
| 0.00 | Gas in all fluid free pipe | 0.000 |

Total Length: 435.00 ft

Total Volume: 6.102 bbl

Num Fluid Samples: 0

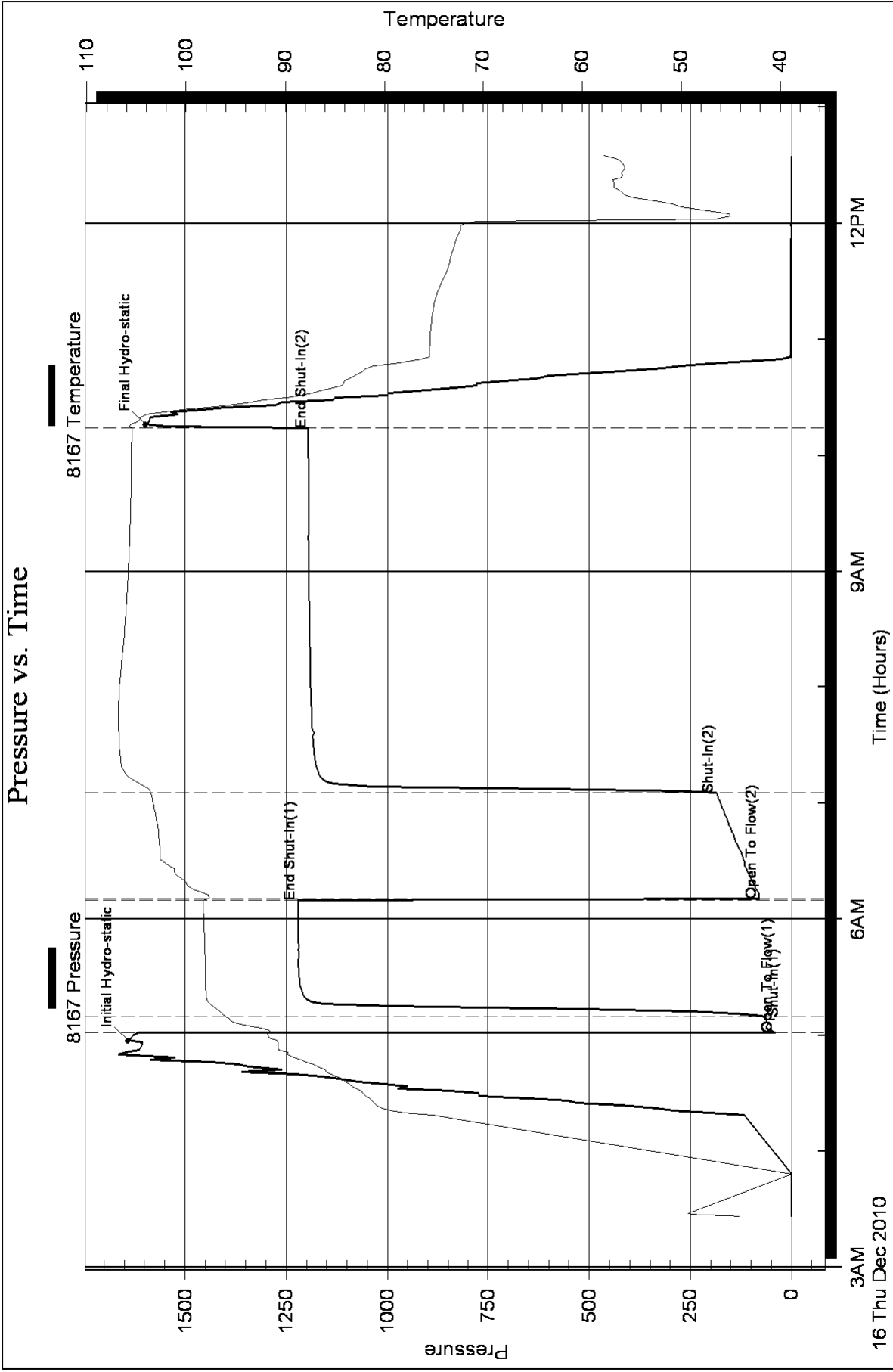
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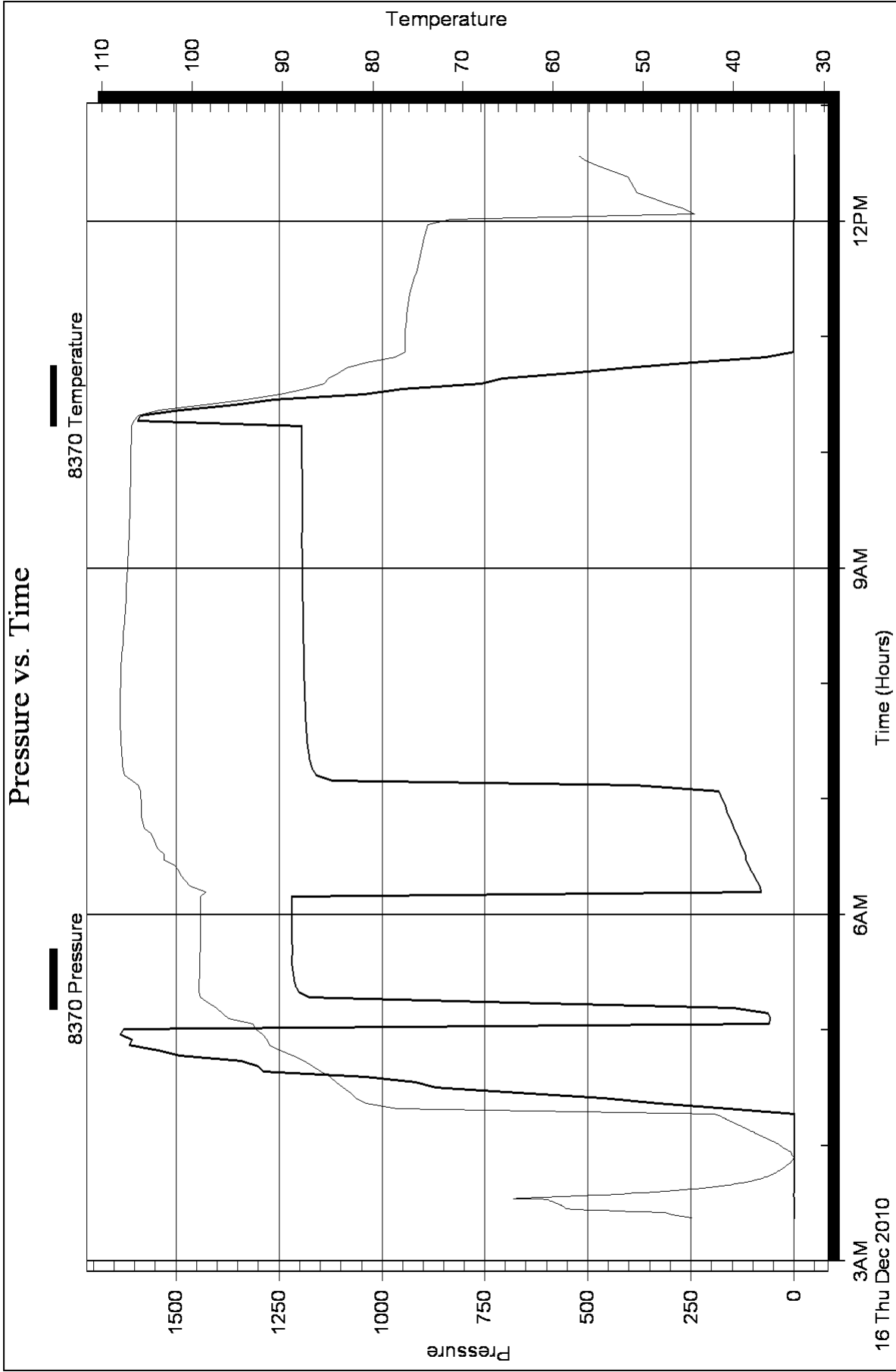
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





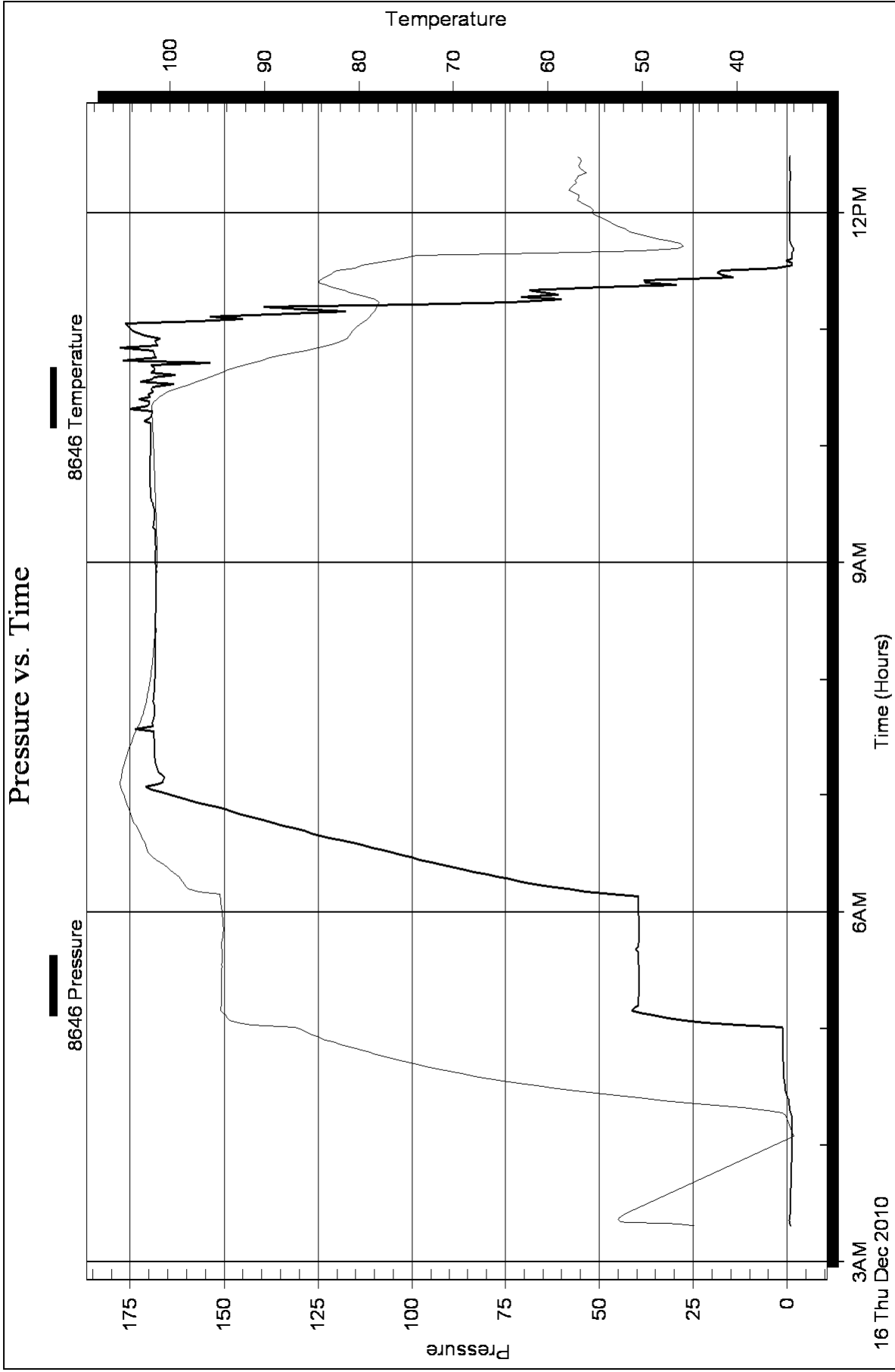
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Fluid

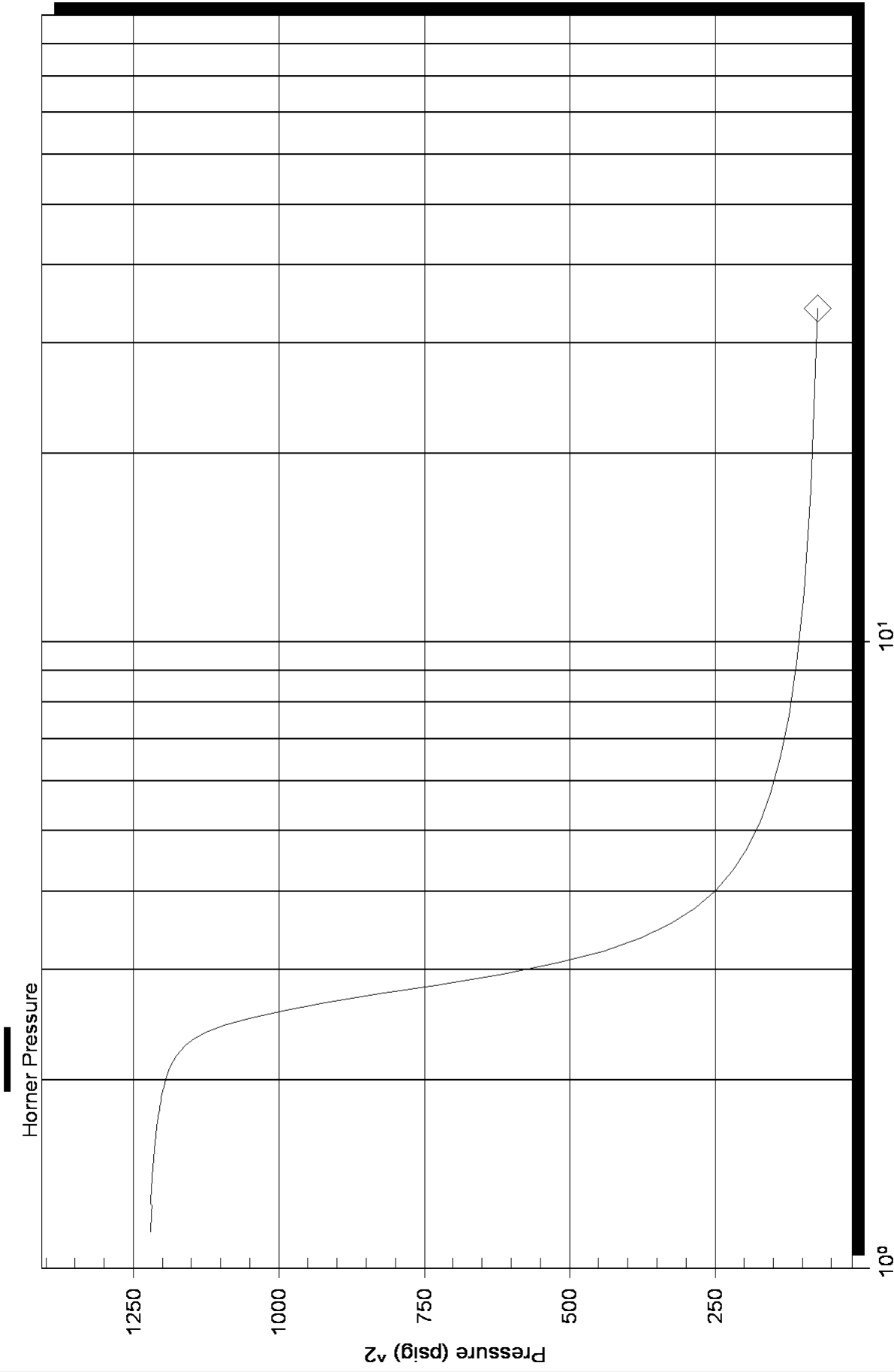
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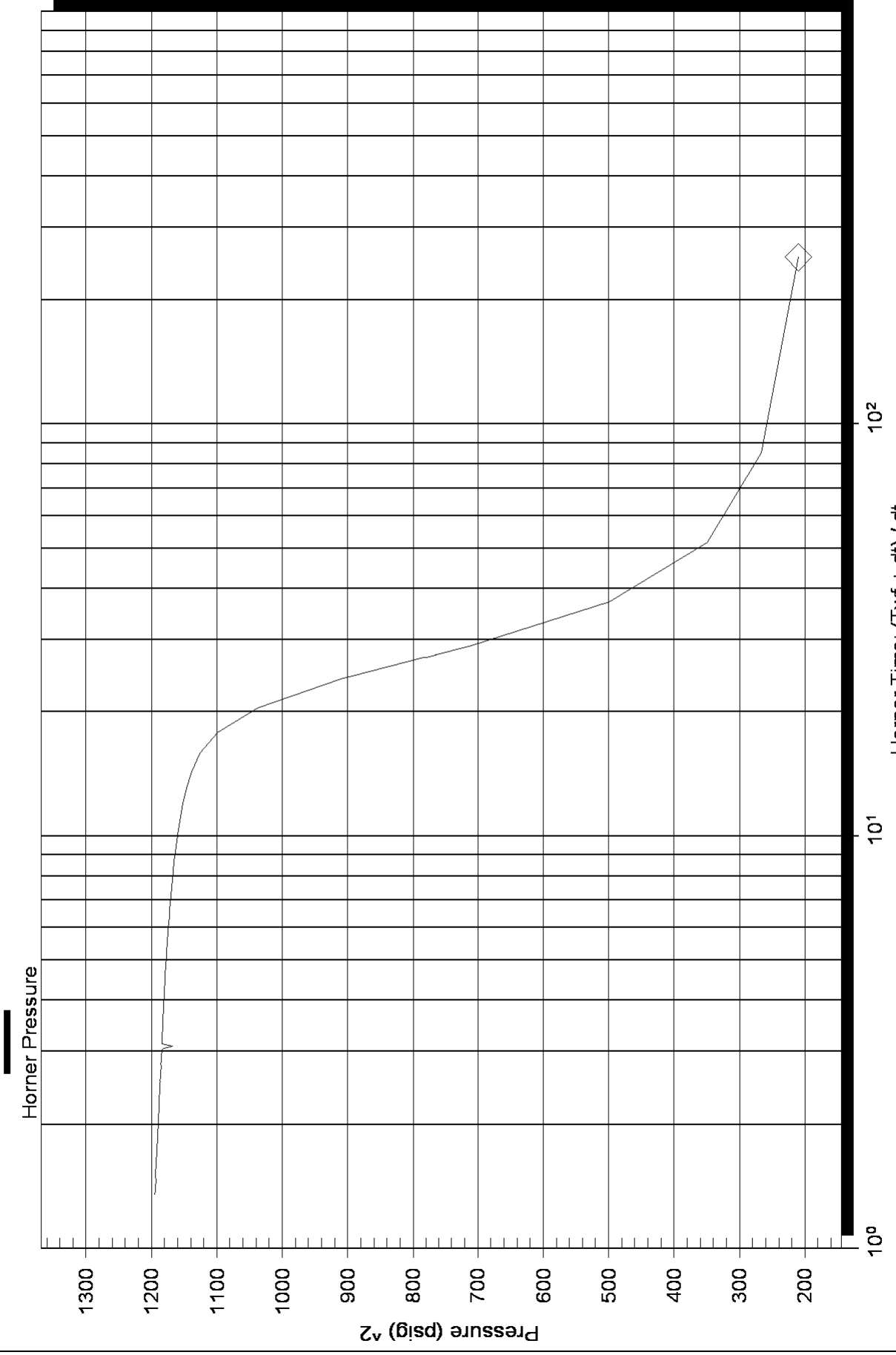
DST Test Number: 2



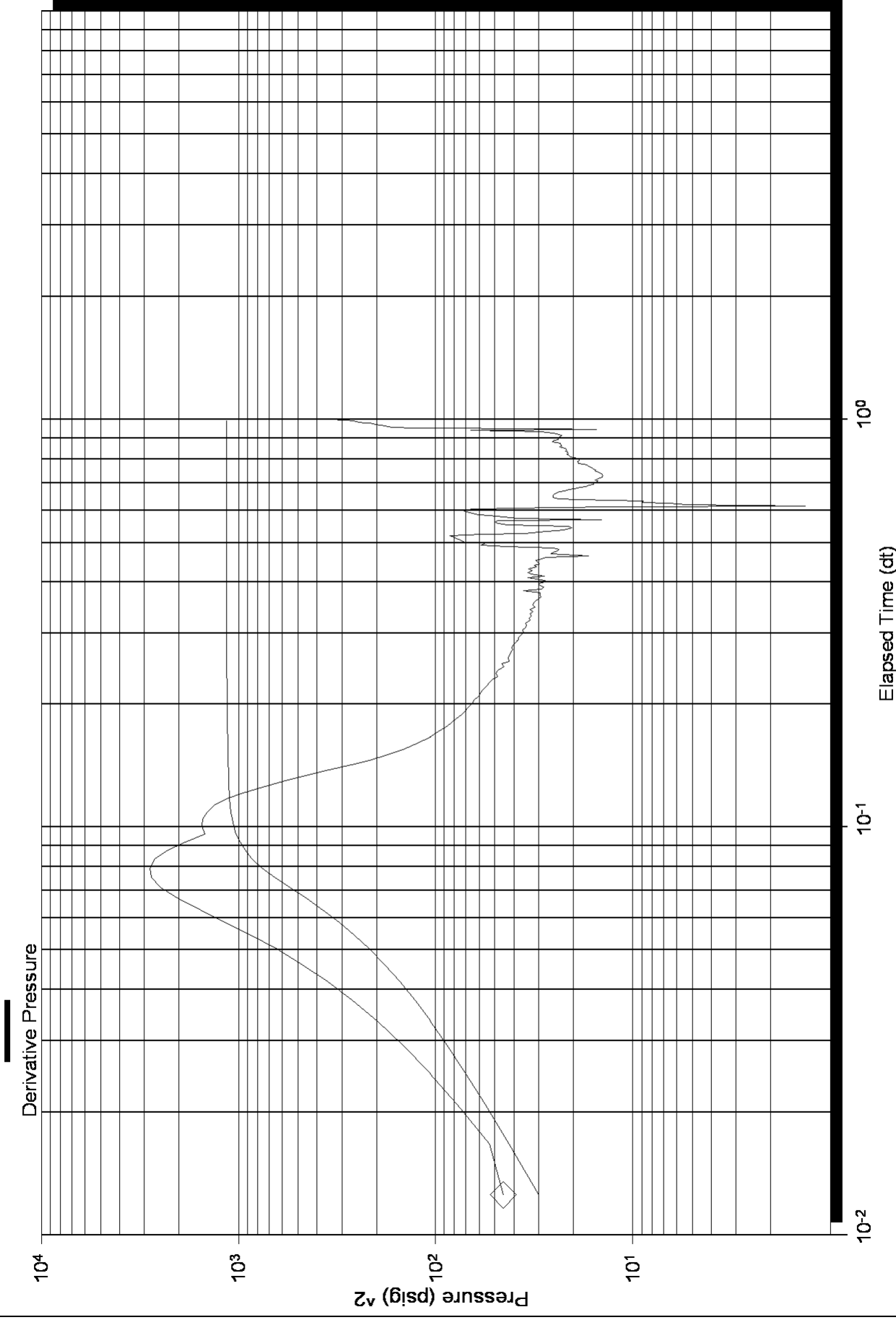
Homer Plot



Homer Plot



Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative

