



DRILL STEM TEST REPORT

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

Wynkoop st. Suite 700,
Denver CO,

ATTN: Tom Fertal

Elsie 2-13

13-16s-17w Rush

Start Date: 2012.01.13 @ 09:29:00

End Date: 2012.01.13 @ 17:19:00

Job Ticket #: 46343 DST #: 1

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

Printed: 2012.01.13 @ 17:24:25



**TRILOBITE
TESTING, INC.**

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Job Ticket: 46343

DST#: 1

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Test Start: 2012.01.13 @ 09:29:00

GENERAL INFORMATION:

Formation: **KC "A-C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:28:00

Time Test Ended: 17:19:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 39

Interval: 3244.00 ft (KB) To 3300.00 ft (KB) (TVD)

Reference Elevations: 1979.00 ft (KB)

Total Depth: 3300.00 ft (KB) (TVD)

1971.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8017

Inside

Press @ Run Depth: 186.60 psig @ 3280.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.01.13

End Date:

2012.01.13

Last Calib.:

2012.01.13

Start Time: 09:29:05

End Time:

17:18:59

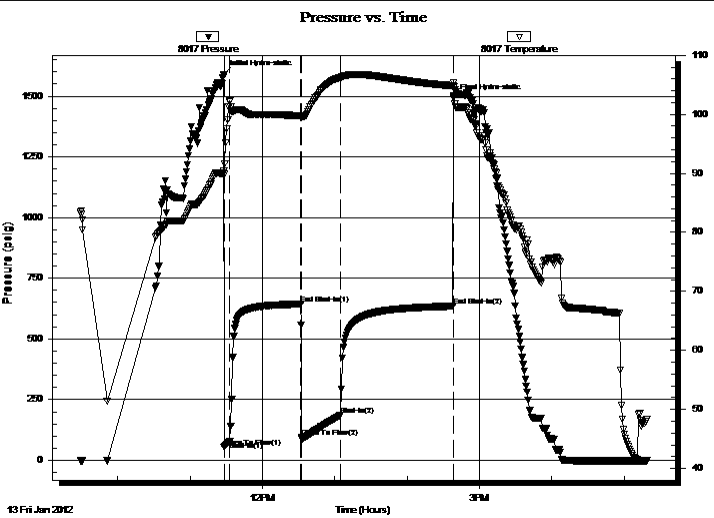
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2012.01.13 @ 11:27:50

Time Off Btm:

2012.01.13 @ 14:38:20

TEST COMMENT: 05 - IF- B.O.B. in 3 Min.
60 - IS- Surface blow, died in 17 Min.
FF- B.O.B. in 1 Min.
FS- B.O.B. in 27 Min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1589.63	90.34	Initial Hydro-static
1	53.92	89.81	Open To Flow (1)
5	77.48	102.06	Shut-In(1)
64	643.44	99.73	End Shut-In(1)
65	96.15	99.60	Open To Flow (2)
97	186.60	106.26	Shut-In(2)
191	634.93	104.82	End Shut-In(2)
191	1491.90	105.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	GMW, Oil scum, 5%G, 10%M, 85%W	2.33
186.00	GHOCM, 30%G, 30%M, 40%O	2.61
0.00	682' of G.I.P.	0.00

Gas Rates

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



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Serial #: 8352 Inside

Press @ Run Depth: psig @ 3280.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.01.13

End Date:

2012.01.13

Last Calib.:

2012.01.13

Start Time: 09:29:05

End Time:

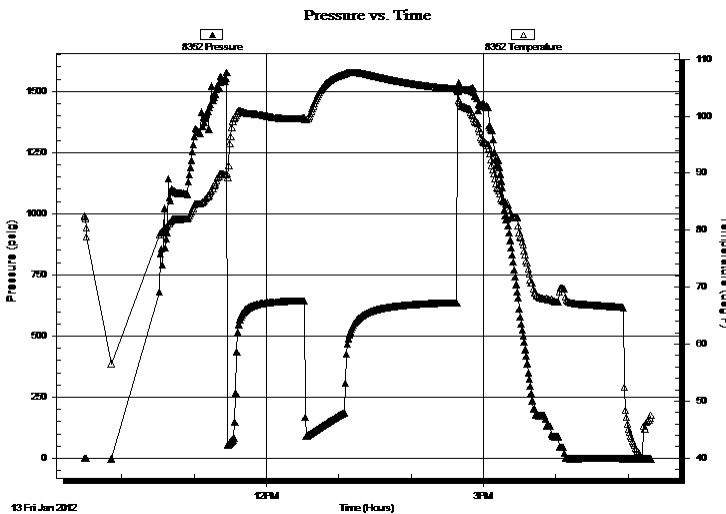
17:18:59

Time On Btm:

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PRESSURE SUMMARY



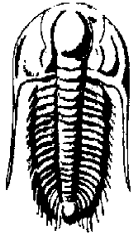
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
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186.00	GHOCM, 30%G, 30%M, 40%O	2.61
0.00	682' of G.I.P.	0.00

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



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Total Depth: 3300.00 ft (KB) (TVD)

1971.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8647

Fluid

Press @ Run Depth: psig @ 3208.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.01.13

End Date:

2012.01.13

Last Calib.:

2012.01.13

Start Time:

09:29:05

End Time:

17:17:09

Time On Btm:

Time Off Btm:

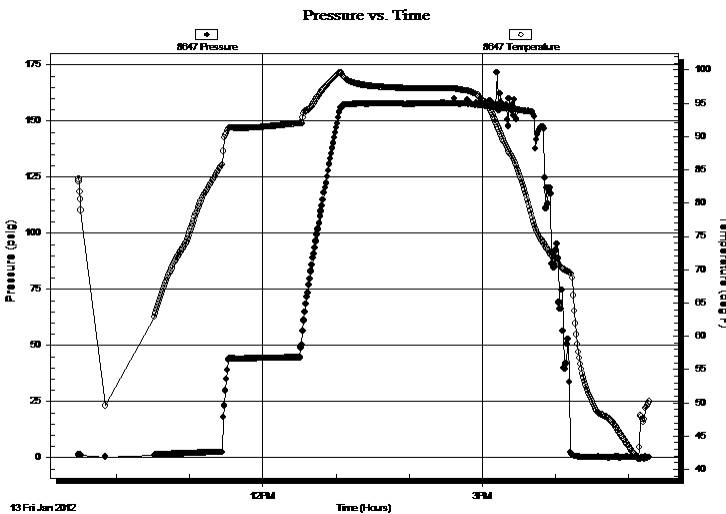
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PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
186.00	GMW, Oil scum, 5%G, 10%M, 85%W	2.33
186.00	GHOCM, 30%G, 30%M, 40%O	2.61
0.00	682' of G.I.P.	0.00

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr. & Ass.

13-16s-17w Rush

Wynkoop st. Suite 700,
Denver CO,

Elsie 2-13

Job Ticket: 46343

DST#: 1

ATTN: Tom Fertal

Test Start: 2012.01.13 @ 09:29:00

Tool Information

Drill Pipe:	Length: 3188.00 ft	Diameter: 3.80 inches	Volume: 44.72 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 44.87 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3244.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	93.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			3208.00	
Recorder	0.00	8647	Fluid	3208.00	
Change Over Sub	5.00			3213.00	
Shut In Tool	5.00			3218.00	
Sampler	3.00			3221.00	
Hydraulic tool	5.00			3226.00	
Jars	5.00			3231.00	
Safety Joint	3.00			3234.00	
Packer	5.00			3239.00	37.00 Bottom Of Top Packer
Packer	5.00			3244.00	
Stubb	1.00			3245.00	
Perforations	3.00			3248.00	
Change Over Sub	1.00			3249.00	
Drill Pipe	31.00			3280.00	
Recorder	0.00	8017	Inside	3280.00	
Recorder	0.00	8352	Inside	3280.00	
Change Over Sub	1.00			3281.00	
Perforations	16.00			3297.00	
Bullnose	3.00			3300.00	56.00 Bottom Packers & Anchor

Total Tool Length: 93.00



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FLUID SUMMARY

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Elsie 2-13

Job Ticket: 46343

DST#: 1

ATTN: Tom Fertal

Test Start: 2012.01.13 @ 09:29:00

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:

98000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 cm³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
186.00	GMW, Oil scum, 5%G, 10%M, 85%W	2.327
186.00	GHOCM, 30%G, 30%M, 40%O	2.609
0.00	682' of G.I.P.	0.000

Total Length: 372.00 ft Total Volume: 4.936 bbl

Num Fluid Samples: 0

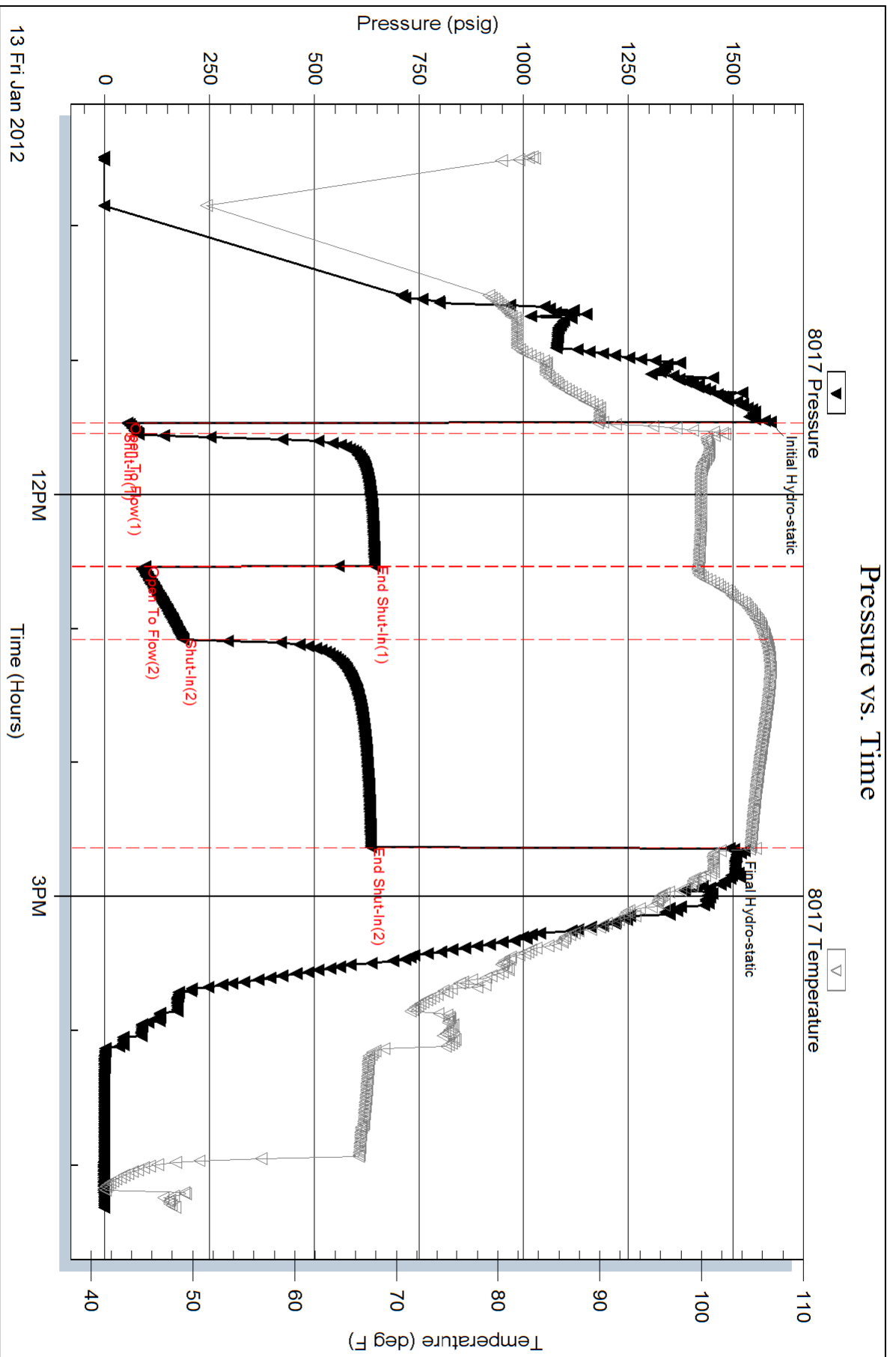
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: have a new sampler, Did not work, replacing sampler with a different one. Did NOT recover anything in sampler.



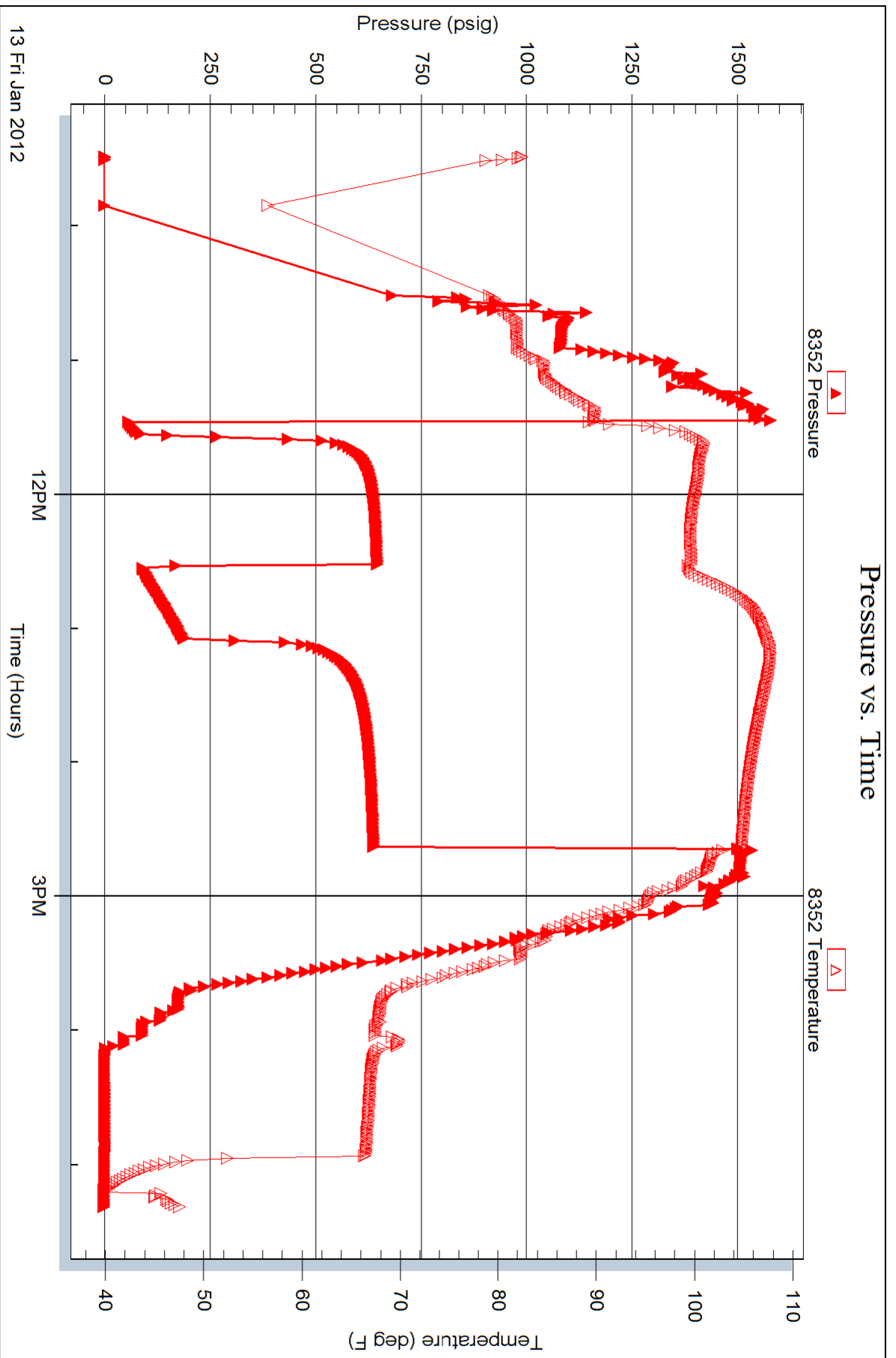
Serial #: 8352

Inside

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Esie 2-13

DST Test Number: 1



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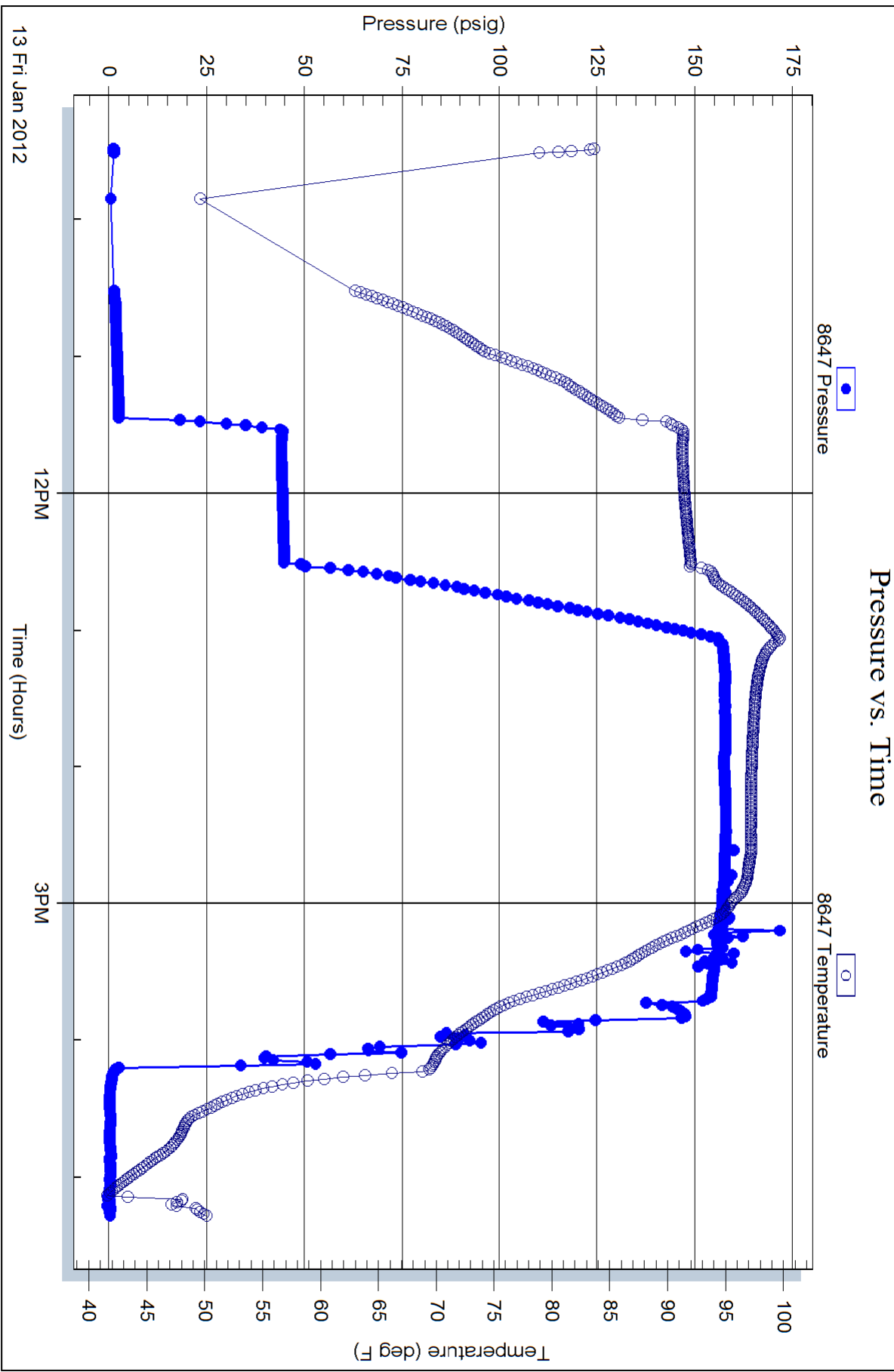
Serial #: 8647

Fluid

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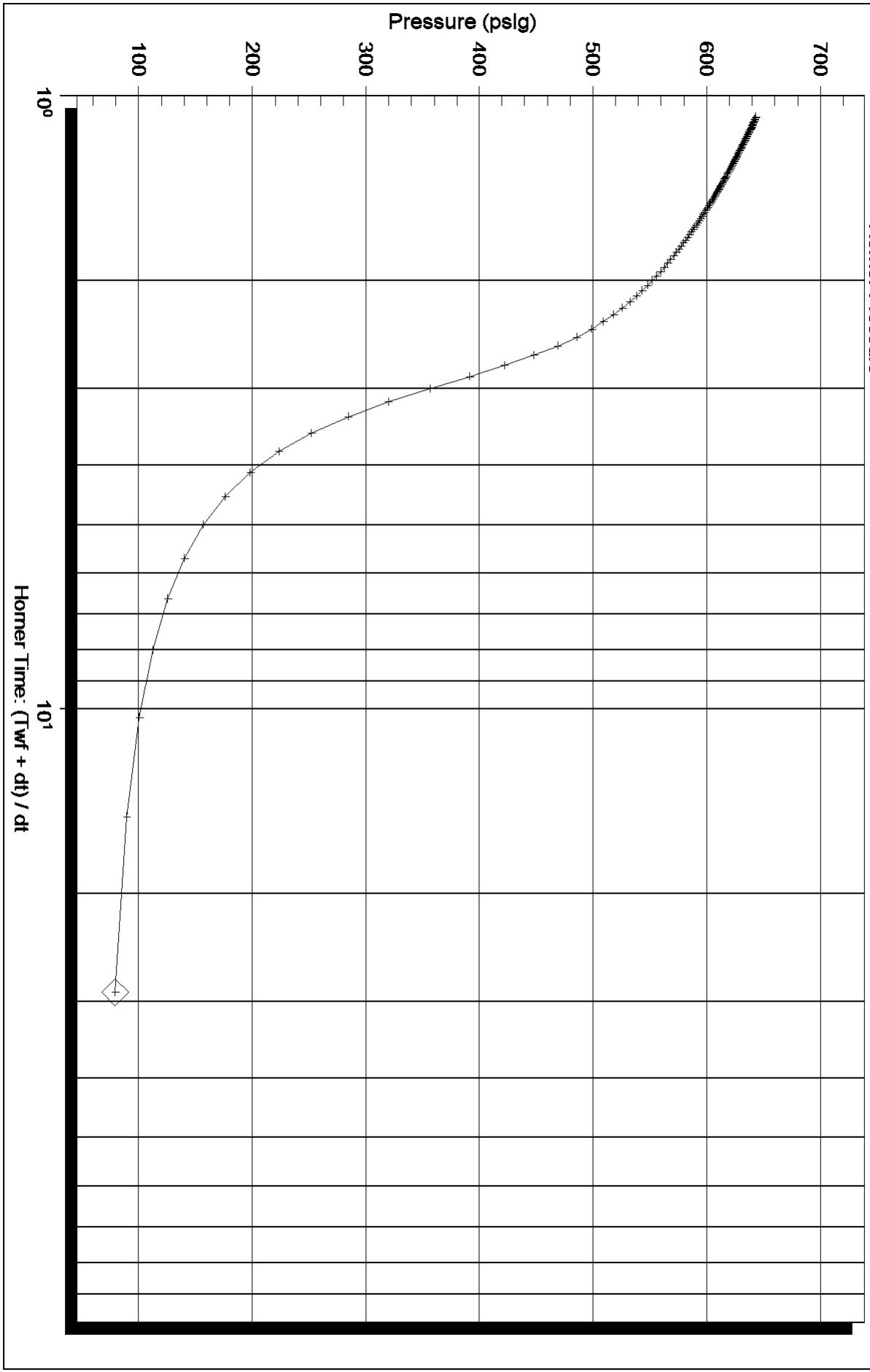
Esie 2-13

DST Test Number: 1



Horner Plot

Horner Pressure +



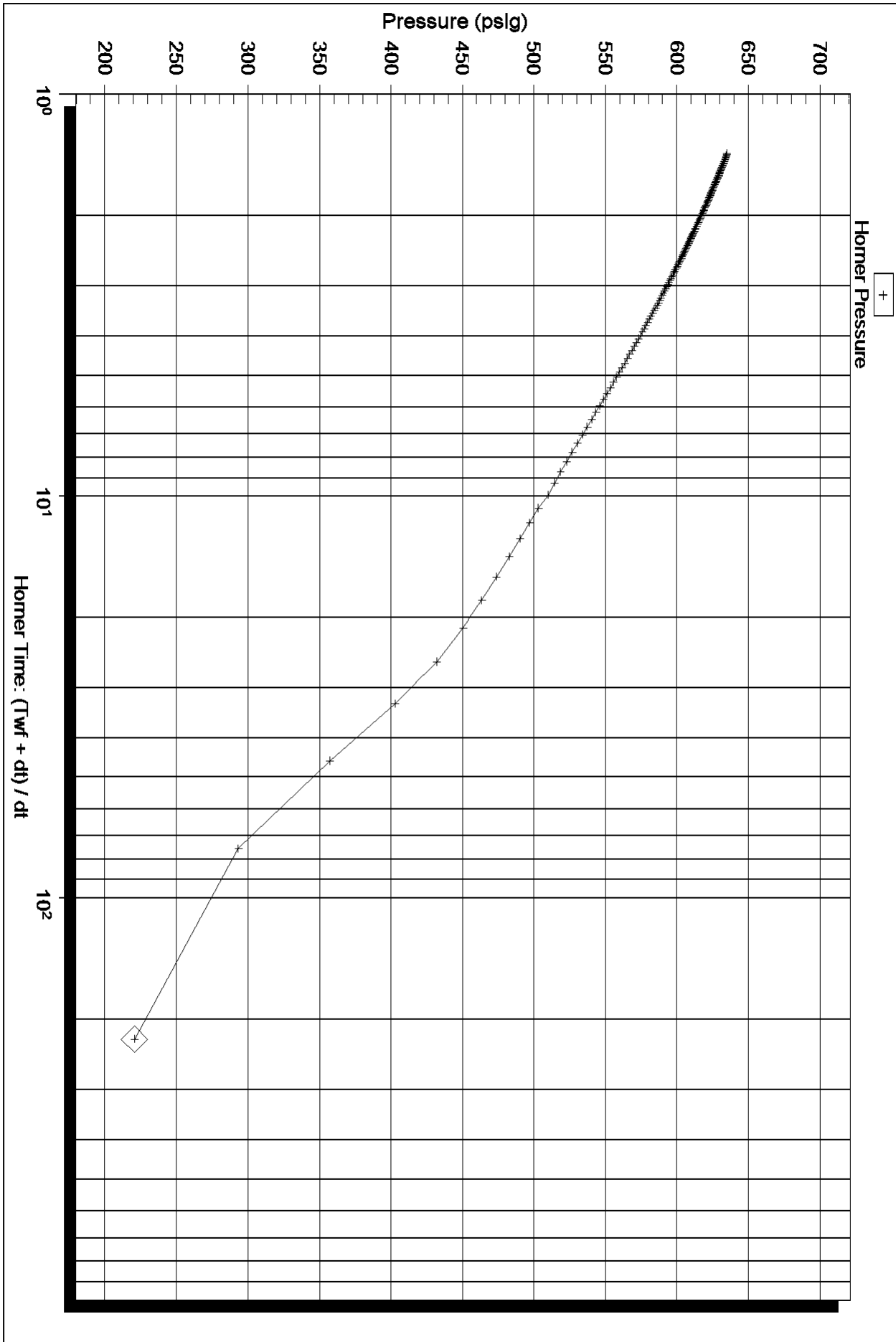
Serial Number: 8017 (Inside)

P* :

Slope (m) : kpa/log cycle

Flow Cycle: 1

Horner Plot



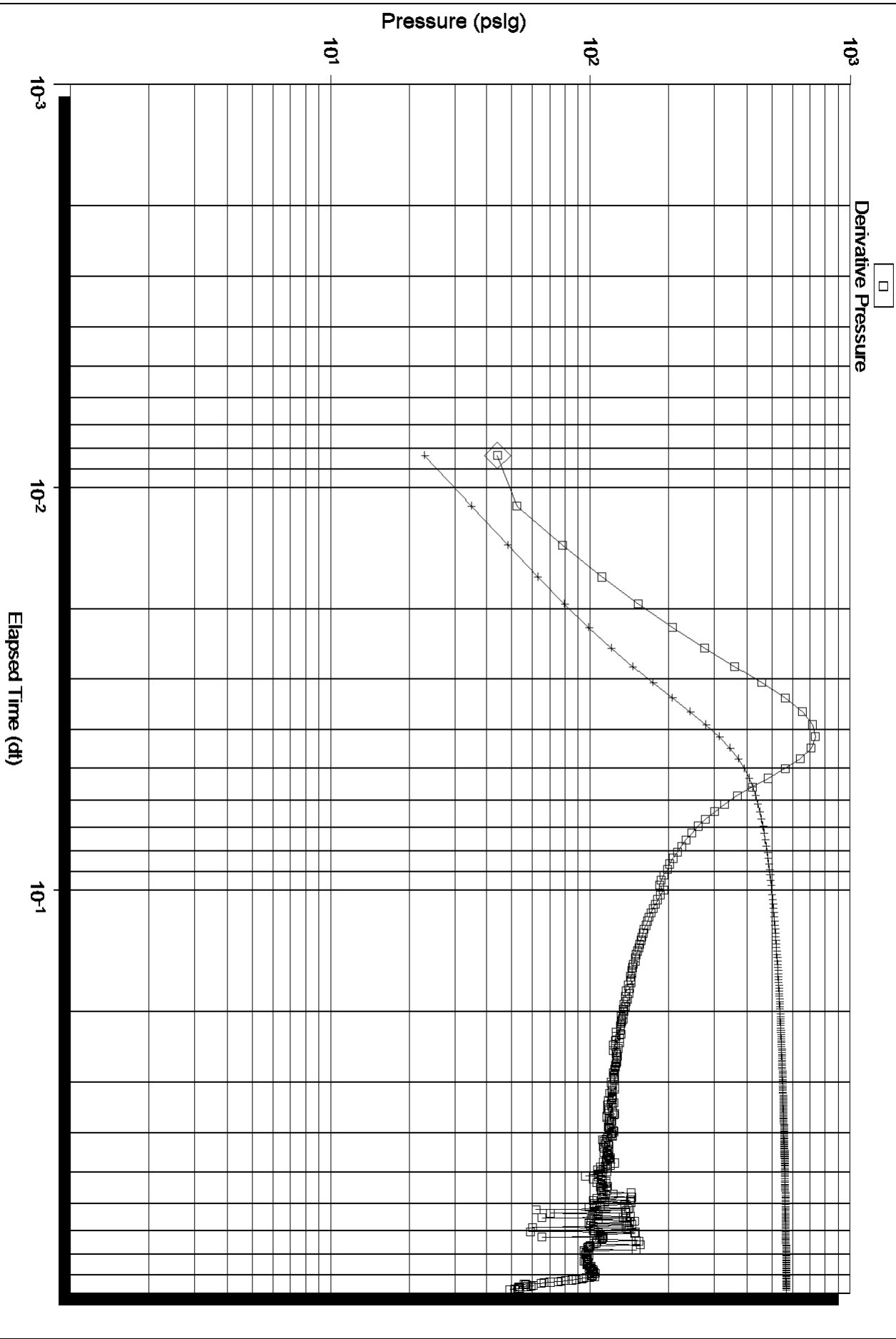
Serial Number: 8017 (Inside)

P* :

Slope (m) : kpa/log cycle

Flow Cycle: 2

Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative

