



DRILL STEM TEST REPORT

Prepared For: **Sam Gary Jr & Associates**

1515 Wynkoop St
Suite 700 Denver Co 80202

ATTN:

Tuzicka-Dewald 1-34

34-16s-16w-Rush

Start Date: 2011.11.16 @ 22:35:33

End Date: 2011.11.17 @ 05:38:03

Job Ticket #: 46226 DST #: 3

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

Printed: 2011.11.17 @ 10:22:12



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sam Gary Jr & Associates
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 Suite 700 Denver Co 80202
 ATTN:

34-16s-16w-Rush
Tuzicka-Dewald 1-34
 Job Ticket: 46226 **DST#: 3**
 Test Start: 2011.11.16 @ 22:35:33

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:12:03
 Time Test Ended: 05:38:03
 Interval: **3535.00 ft (KB) To 3547.00 ft (KB) (TVD)**
 Total Depth: 3634.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Straddle (Reset)
 Tester: Jeff Brown
 Unit No: 44
 Reference Elevations: 1977.00 ft (KB)
 1969.00 ft (CF)
 KB to GR/CF: 8.00 ft

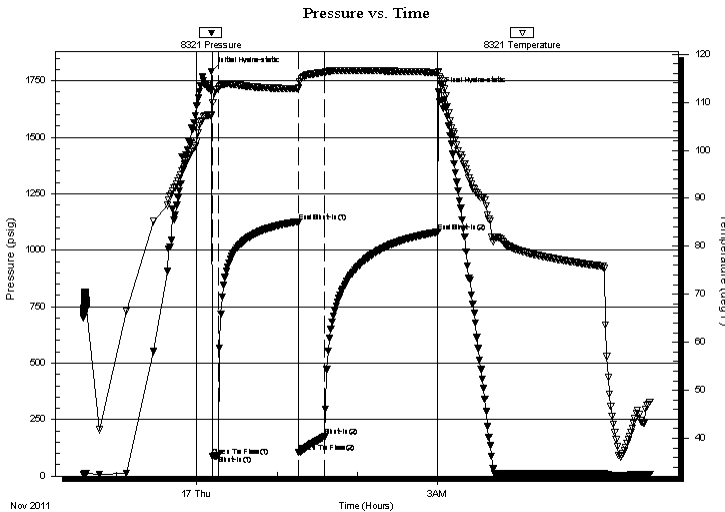
Serial #: 8321

Inside

Press @ RunDepth: 174.26 psig @ 3538.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.11.16 End Date: 2011.11.17 Last Calib.: 2011.11.17
 Start Time: 22:35:34 End Time: 05:38:03 Time On Btm: 2011.11.17 @ 00:11:03
 Time Off Btm: 2011.11.17 @ 03:00:33

TEST COMMENT: IFP-5-min-Strong blow BOB in 1 1/4 min
 ISI-60-min-Weak blow back built to 1 1/2 in
 FFP-20-min-Strong blow BOB in 1 1/2 min
 FSI-70-min-Fair blow back built to 7 in

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1792.33	107.35	Initial Hydro-static
1	88.30	109.98	Open To Flow (1)
5	91.42	112.88	Shut-In(1)
65	1124.02	112.85	End Shut-In(1)
65	105.91	113.04	Open To Flow (2)
85	174.26	116.21	Shut-In(2)
169	1081.79	116.20	End Shut-In(2)
170	1702.97	116.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	MCGO10%G30%M60%O	1.48
310.00	Gassy Oil 10%G90%O	4.35

* Recovery from multiple tests

Gas Rates

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



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34-16s-16w-Rush
Tuzicka-Dewald 1-34
Job Ticket: 46226 **DST#: 3**
Test Start: 2011.11.16 @ 22:35:33

GENERAL INFORMATION:

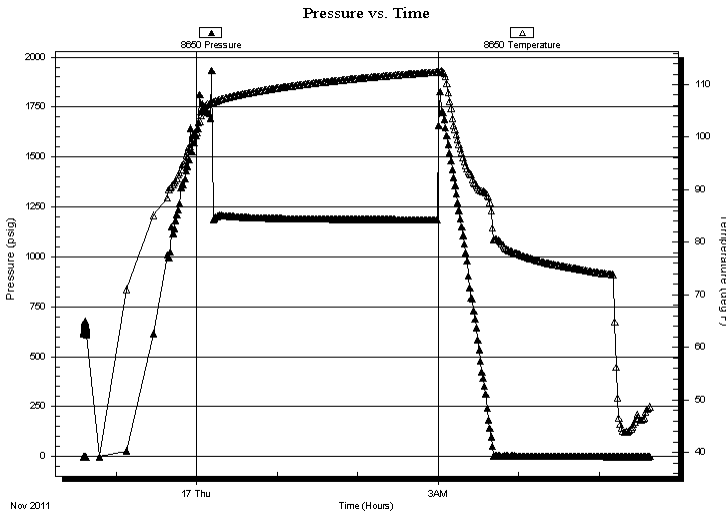
Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:12:03
Time Test Ended: 05:38:03
Interval: **3535.00 ft (KB) To 3547.00 ft (KB) (TVD)**
Total Depth: 3634.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Straddle (Reset)
Tester: Jeff Brown
Unit No: 44
Reference Elevations: 1977.00 ft (KB)
1969.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8650 Below (Straddle)

Press @ Run Depth: psig @ 3568.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.11.16 End Date: 2011.11.17 Last Calib.: 2011.11.17
Start Time: 22:35:53 End Time: 05:37:22 Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-5-min-Strong blow BOB in 1 1/4 min
ISI-60-min-Weak blow back built to 1 1/2 in
FFP-20-min-Strong blow BOB in 1 1/2 min
FSI-70-min-Fair blow back built to 7 in

PRESSURE SUMMARY



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

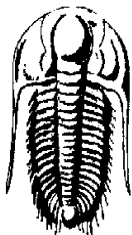
Recovery

Length (ft)	Description	Volume (bbl)
124.00	MCGO10%G30%M60%O	1.48
310.00	Gassy Oil 10%G90%O	4.35

* Recovery from multiple tests

Gas Rates

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



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ATTN:

34-16s-16w-Rush

Tuzicka-Dewald 1-34

Job Ticket: 46226 **DST#: 3**
Test Start: 2011.11.16 @ 22:35:33

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:12:03
Time Test Ended: 05:38:03

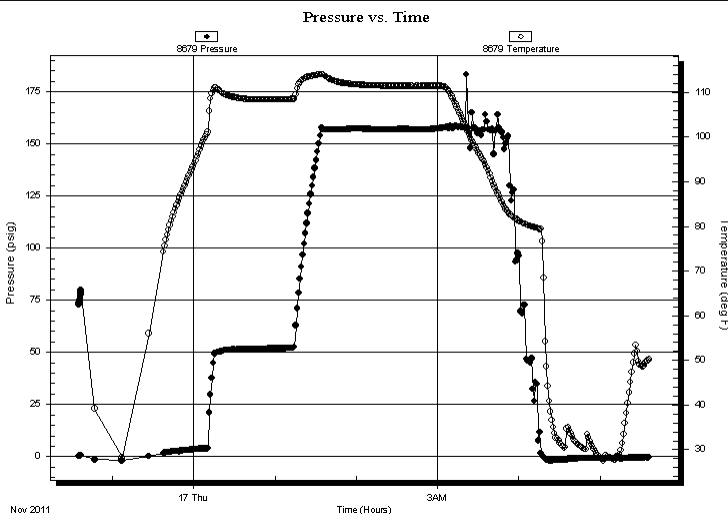
Test Type: Conventional Straddle (Reset)
Tester: Jeff Brown
Unit No: 44

Interval: **3535.00 ft (KB) To 3547.00 ft (KB) (TVD)**
Reference Elevations: 1977.00 ft (KB)
Total Depth: 3634.00 ft (KB) (TVD) 1969.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 8.00 ft

Serial #: 8679 Fluid

Press @ Run Depth: psig @ 3500.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.11.16 End Date: 2011.11.17 Last Calib.: 2011.11.17
Start Time: 22:35:03 End Time: 05:36:32 Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-5-min-Strong blow BOB in 1 1/4 min
ISI-60-min-Weak blow back built to 1 1/2 in
FFP-20-min-Strong blow BOB in 1 1/2 min
FSI-70-min-Fair blow back built to 7 in



PRESSURE SUMMARY

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

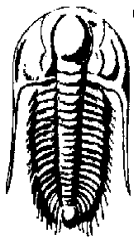
Recovery

Length (ft)	Description	Volume (bbl)
124.00	MCGO10%G30%M60%O	1.48
310.00	Gassy Oil 10%G90%O	4.35

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

Sam Gary Jr & Associates
1515 Wynkoop St
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ATTN:

34-16s-16w-Rush

Tuzicka-Dewald 1-34

Job Ticket: 46226

DST#: 3

Test Start: 2011.11.16 @ 22:35:33

GENERAL INFORMATION:

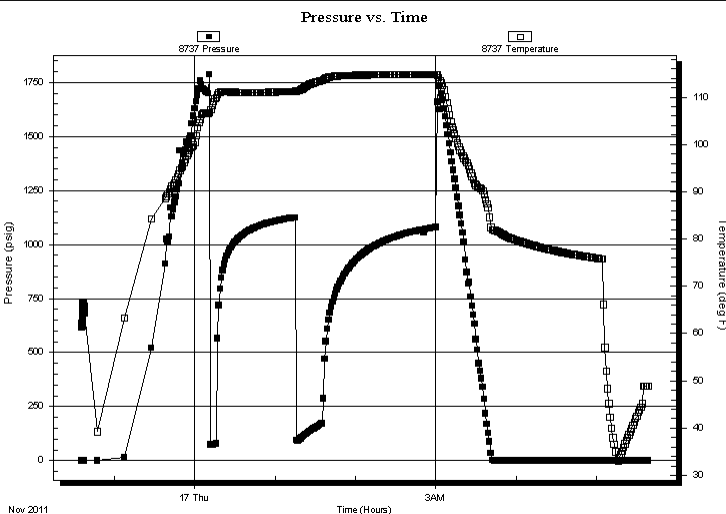
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Interval: **3535.00 ft (KB) To 3547.00 ft (KB) (TVD)**
Total Depth: 3634.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Straddle (Reset)
Tester: Jeff Brown
Unit No: 44
Reference Elevations: 1977.00 ft (KB)
1969.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8737

Outside

Press @ Run Depth: psig @ 3538.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.11.16 End Date: 2011.11.17 Last Calib.: 2011.11.17
Start Time: 22:35:36 End Time: 05:38:05 Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-5-min-Strong blow BOB in 1 1/4 min
ISI-60-min-Weak blow back built to 1 1/2 in
FFP-20-min-Strong blow BOB in 1 1/2 min
FSI-70-min-Fair blow back built to 7 in



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	MCGO10%G30%M60%O	1.48
310.00	Gassy Oil 10%G90%O	4.35

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Sam Gary Jr & Associates

34-16s-16w-Rush

1515 Wynkoop St
Suite 700 Denver Co 80202

Tuzicka-Dewald 1-34

Job Ticket: 46226

DST#: 3

ATTN:

Test Start: 2011.11.16 @ 22:35:33

Tool Information

Drill Pipe:	Length: 3503.00 ft	Diameter: 3.80 inches	Volume: 49.14 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 49.28 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3535.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	3547.00 ft			
Interval between Packers:	12.00 ft			
Tool Length:	134.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Recorder	0.00	8679	Fluid	3500.00	
Stubb	5.00			3505.00	
Shut In Tool	5.00			3510.00	
Sampler	3.00			3513.00	
Hydraulic tool	5.00			3518.00	
Jars	5.00			3523.00	
Safety Joint	3.00			3526.00	
Packer	4.00			3530.00	35.00 Bottom Of Top Packer
Packer	5.00			3535.00	
Stubb	1.00			3536.00	
Perforations	2.00			3538.00	
Recorder	0.00	8321	Inside	3538.00	
Recorder	0.00	8737	Outside	3538.00	
Perforations	5.00			3543.00	
Blank Off Sub	1.00			3544.00	
Stubb	3.00			3547.00	12.00 Tool Interval
Packer	1.00			3548.00	
Stubb	1.00			3549.00	
Perforations	18.00			3567.00	
Change Over Sub	1.00			3568.00	
Recorder	0.00	8650	Below	3568.00	
Drill Pipe	62.00			3630.00	
Change Over Sub	1.00			3631.00	
Bullnose	3.00			3634.00	87.00 Bottom Packers & Anchor
Total Tool Length:	134.00				



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FLUID SUMMARY

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Job Ticket: 46226

DST#: 3

ATTN:

Test Start: 2011.11.16 @ 22:35:33

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	MCGO10%G30%M60%O	1.475
310.00	Gassy Oil 10%G90%O	4.348

Total Length: 434.00 ft Total Volume: 5.823 bbl

Num Fluid Samples: 0

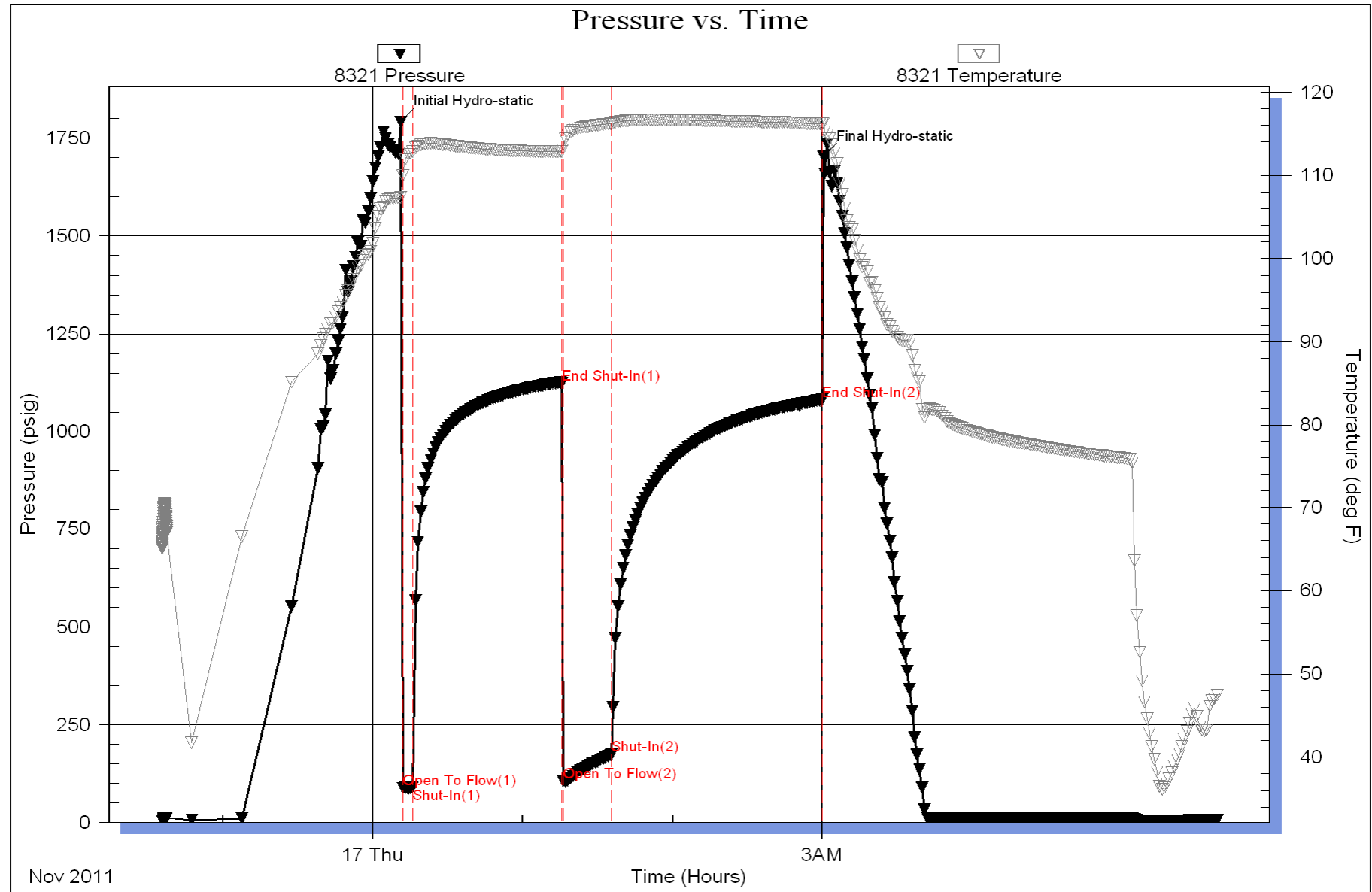
Num Gas Bombs: 0

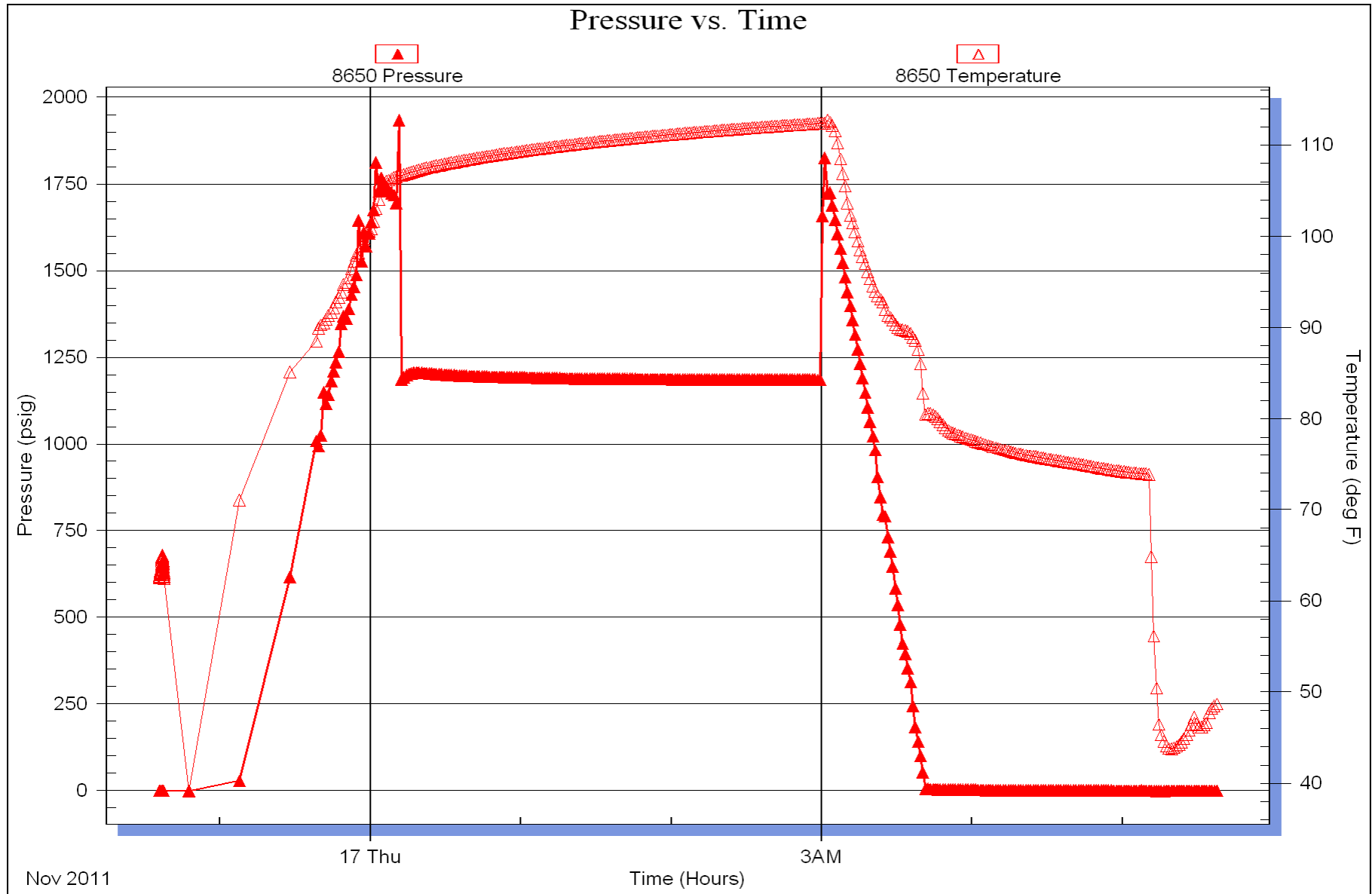
Serial #:

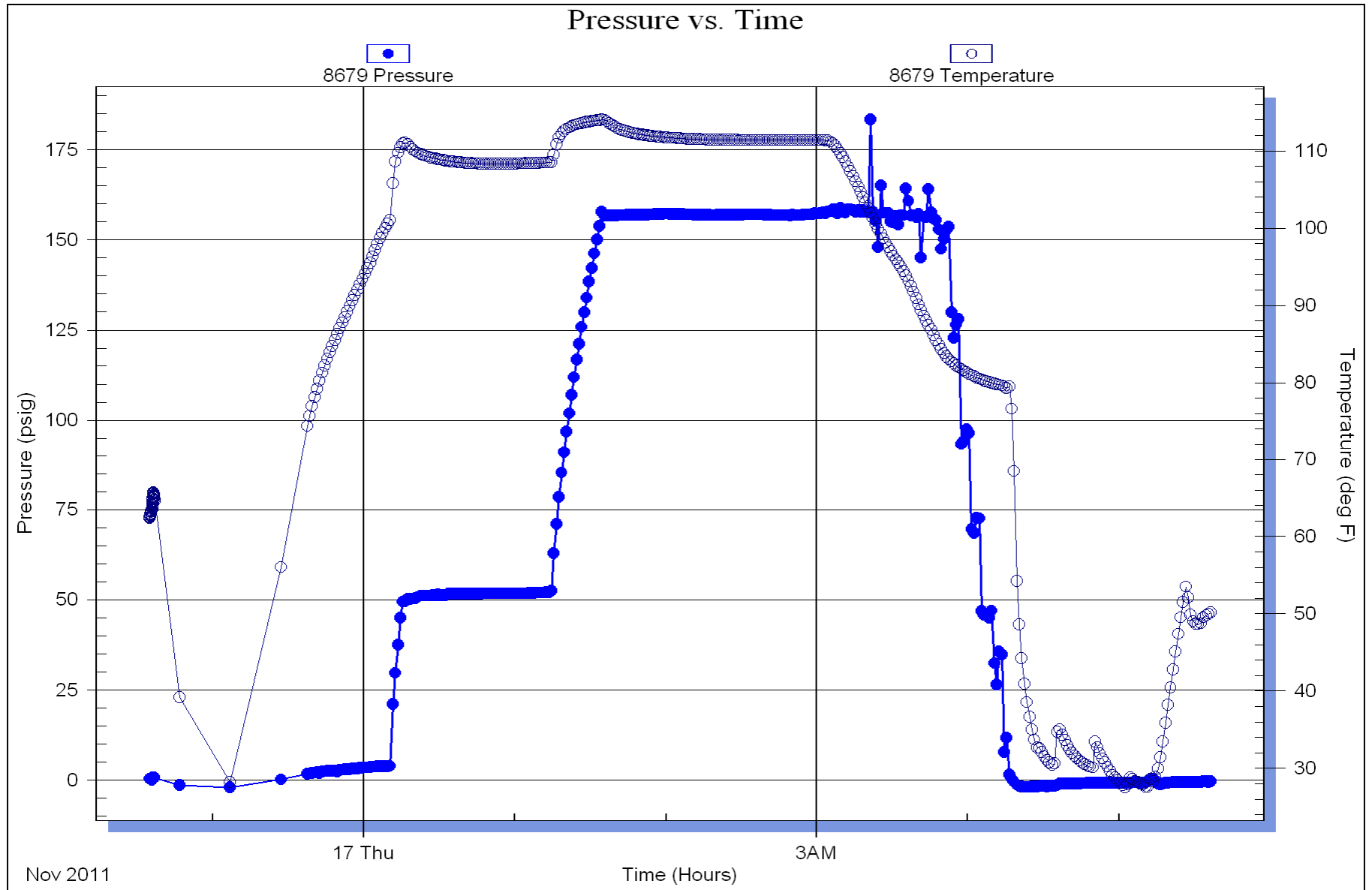
Laboratory Name:

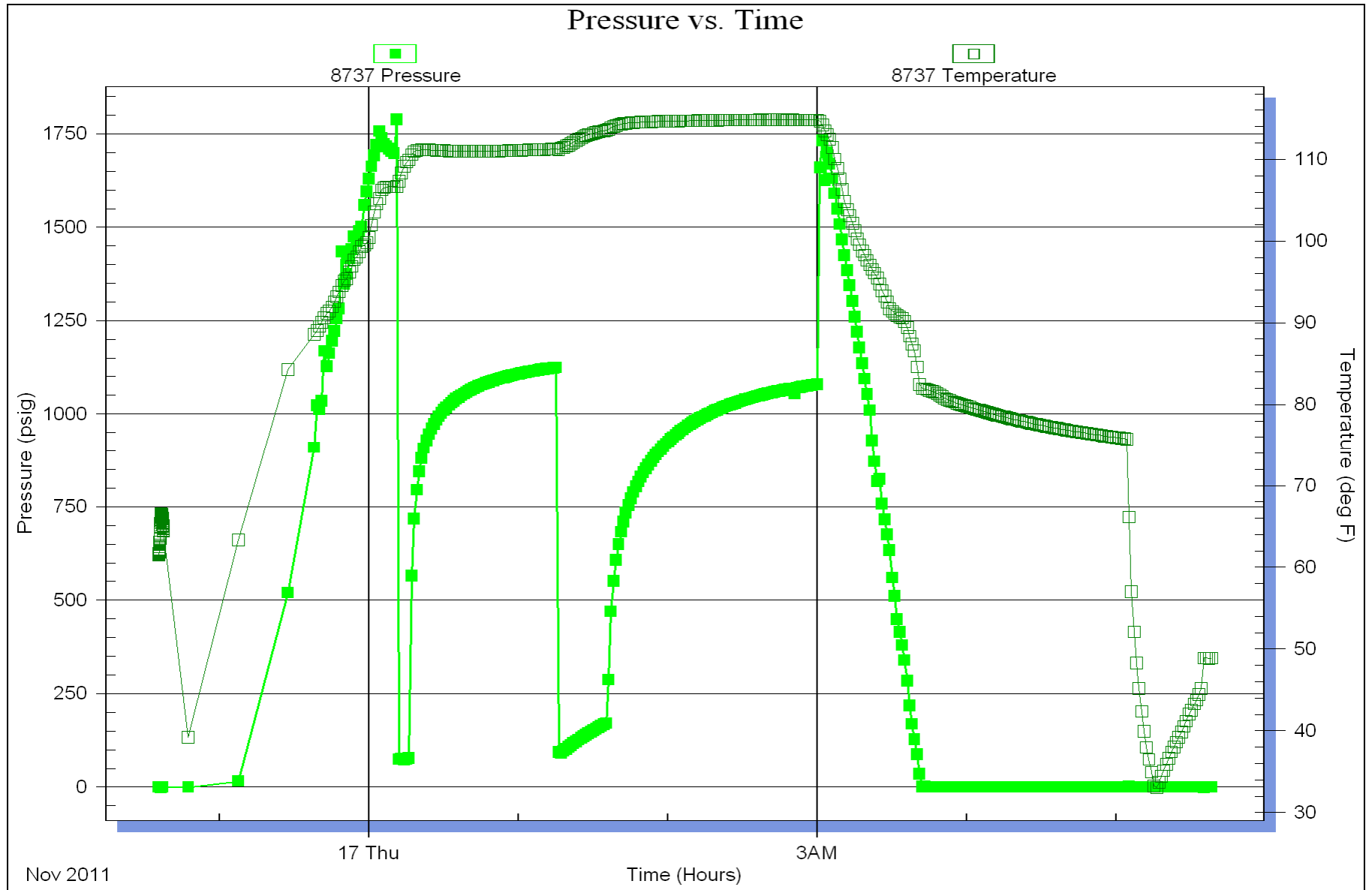
Laboratory Location:

Recovery Comments: 4000 ML of Oil 200 PSI

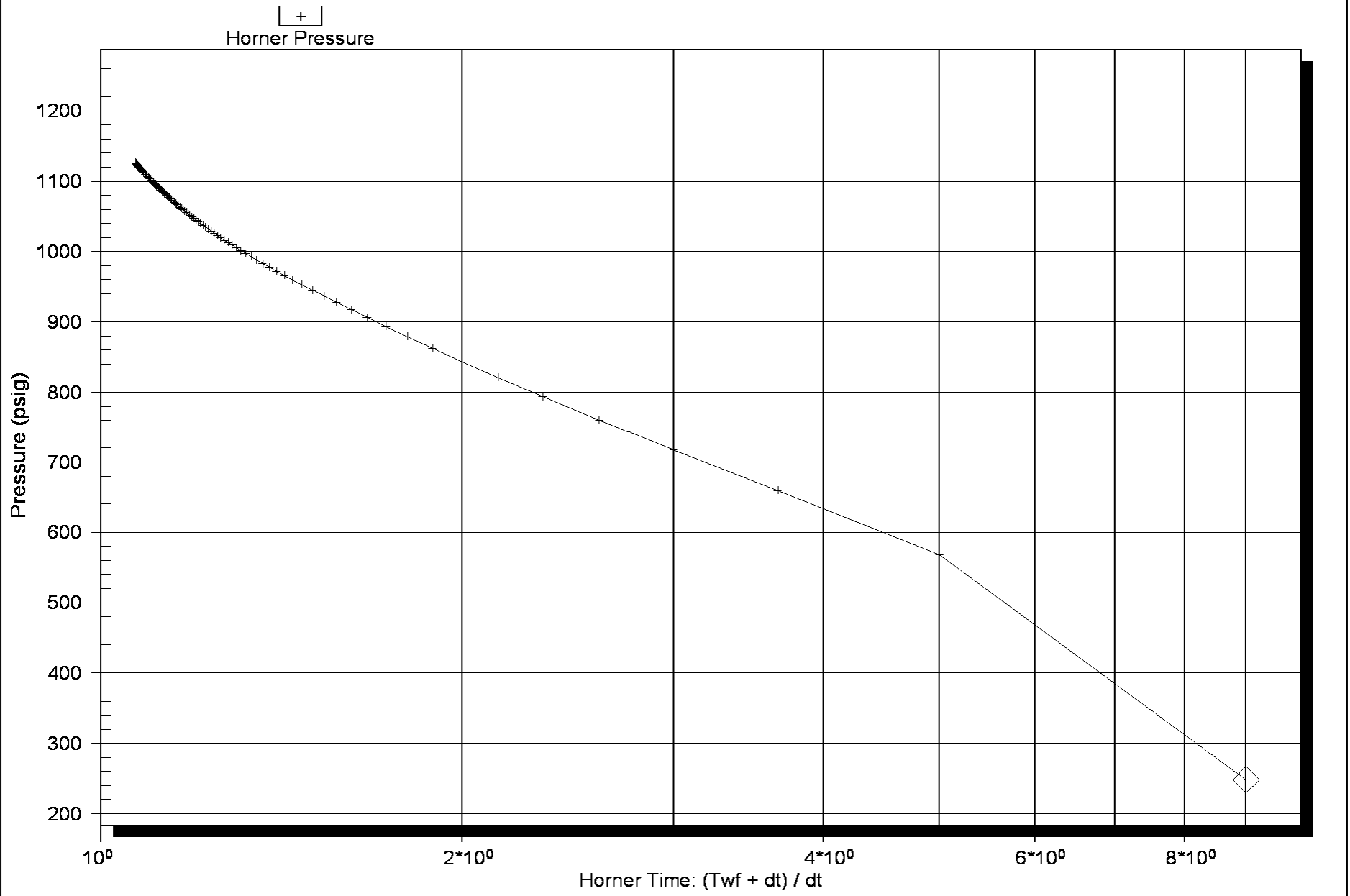








Horner Plot



Horner Plot

