



DRILL STEM TEST REPORT

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

1515 Wynkoop St. Ste. #700
Denver, Co 80202

ATTN: Clayton Cammozi

10/16S/16W-Rush

Schenkel-Zimmerman 1-10

Start Date: 2010.09.27 @ 05:23:10

End Date: 2010.09.27 @ 12:21:10

Job Ticket #: 39573 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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Test Start: 2010.09.27 @ 05:23:10

GENERAL INFORMATION:

Formation: **Lansing D,F, & Upper**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:33:40

Time Test Ended: 12:21:10

Test Type: Conventional Bottom Hole

Tester: Dustin Rash

Unit No: 44

Interval: 3256.00 ft (KB) To 3309.00 ft (KB) (TVD)

Reference Elevations: 1969.00 ft (KB)

Total Depth: 3309.00 ft (KB) (TVD)

1961.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 8.00 ft

Serial #: 8321 Inside

Press @ Run Depth: 224.08 psig @ 3291.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.09.27 End Date: 2010.09.27

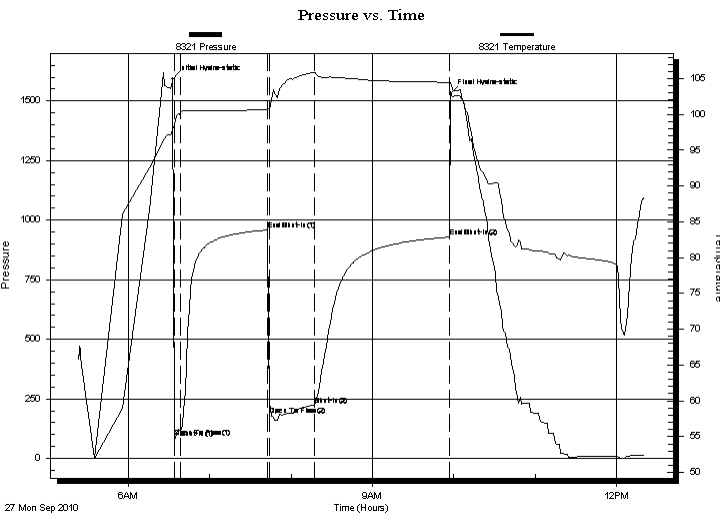
Last Calib.: 2010.09.27

Start Time: 05:23:11 End Time: 12:21:10

Time On Btm: 2010.09.27 @ 06:32:40

Time Off Btm: 2010.09.27 @ 09:57:40

TEST COMMENT: IF-Strong blow . BOB in 2 minutes.
 IS-No Return.
 FF-Strong blow . BOB in 2 minutes.
 FSI-Return @ 30 seconds. Built to 4 inches. GIP-540'



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1591.90	97.84	Initial Hydro-static
1	88.62	98.52	Open To Flow (1)
6	120.90	100.22	Shut-In(1)
70	958.56	100.70	End Shut-In(1)
71	183.53	100.81	Open To Flow (2)
105	224.08	105.84	Shut-In(2)
204	929.75	104.48	End Shut-In(2)
205	1531.23	104.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	5%Mud/15%Water/60%Oil/20%Gas	2.52
60.00	5%Mud/15%Water/20%Oil/60%Gas	0.84
60.00	20%Mud/20%Water/40%Oil/20%Gas	0.84
40.00	100%Mud	0.56

Gas Rates

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



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Reference Elevations: 1969.00 ft (KB)

Total Depth: 3309.00 ft (KB) (TVD)

1961.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 8.00 ft

Serial #: 8679 Outside

Press@RunDepth: psig @ 3291.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.09.27

End Date: 2010.09.27

Last Calib.: 2010.09.27

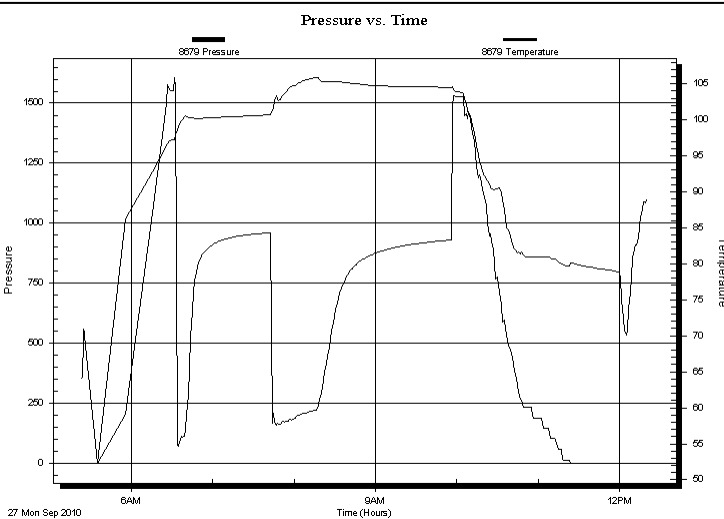
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PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
180.00	5%Mud/15%Water/60%Oil/20%Gas	2.52
60.00	5%Mud/15%Water/20%Oil/60%Gas	0.84
60.00	20%Mud/20%Water/40%Oil/20%Gas	0.84
40.00	100%Mud	0.56

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr. & Assoc.

Schenkel-Zimmerman 1-10

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Denver, Co 80202

10/16S/16W-Rush

Job Ticket: 39573

DST#: 3

ATTN: Clayton Cammozi

Test Start: 2010.09.27 @ 05:23:10

Tool Information

Drill Pipe:	Length: 3240.00 ft	Diameter: 3.80 inches	Volume: 45.45 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: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 10000.00 lb
			<u>Total Volume: 45.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3256.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	81.00 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			3229.00	
Shut In Tool	5.00			3234.00	
Hydraulic tool	5.00			3239.00	
Jars	5.00			3244.00	
Safety Joint	2.00			3246.00	
Packer	5.00			3251.00	28.00 Bottom Of Top Packer
Packer	5.00			3256.00	
Stubb	1.00			3257.00	
Change Over Sub	1.00			3258.00	
Drill Pipe	32.00			3290.00	
Change Over Sub	1.00			3291.00	
Recorder	0.00	8321	Inside	3291.00	
Recorder	0.00	8679	Outside	3291.00	
Perforations	15.00			3306.00	
Bullnose	3.00			3309.00	53.00 Bottom Packers & Anchor

Total Tool Length: 81.00



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FLUID SUMMARY

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Test Start: 2010.09.27 @ 05:23:10

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:

6800 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: 0.73 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
180.00	5%Mud/15%Water/60%Oil/20%Gas	2.525
60.00	5%Mud/15%Water/20%Oil/60%Gas	0.842
60.00	20%Mud/20%Water/40%Oil/20%Gas	0.842
40.00	100%Mud	0.561

Total Length: 340.00 ft

Total Volume: 4.770 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

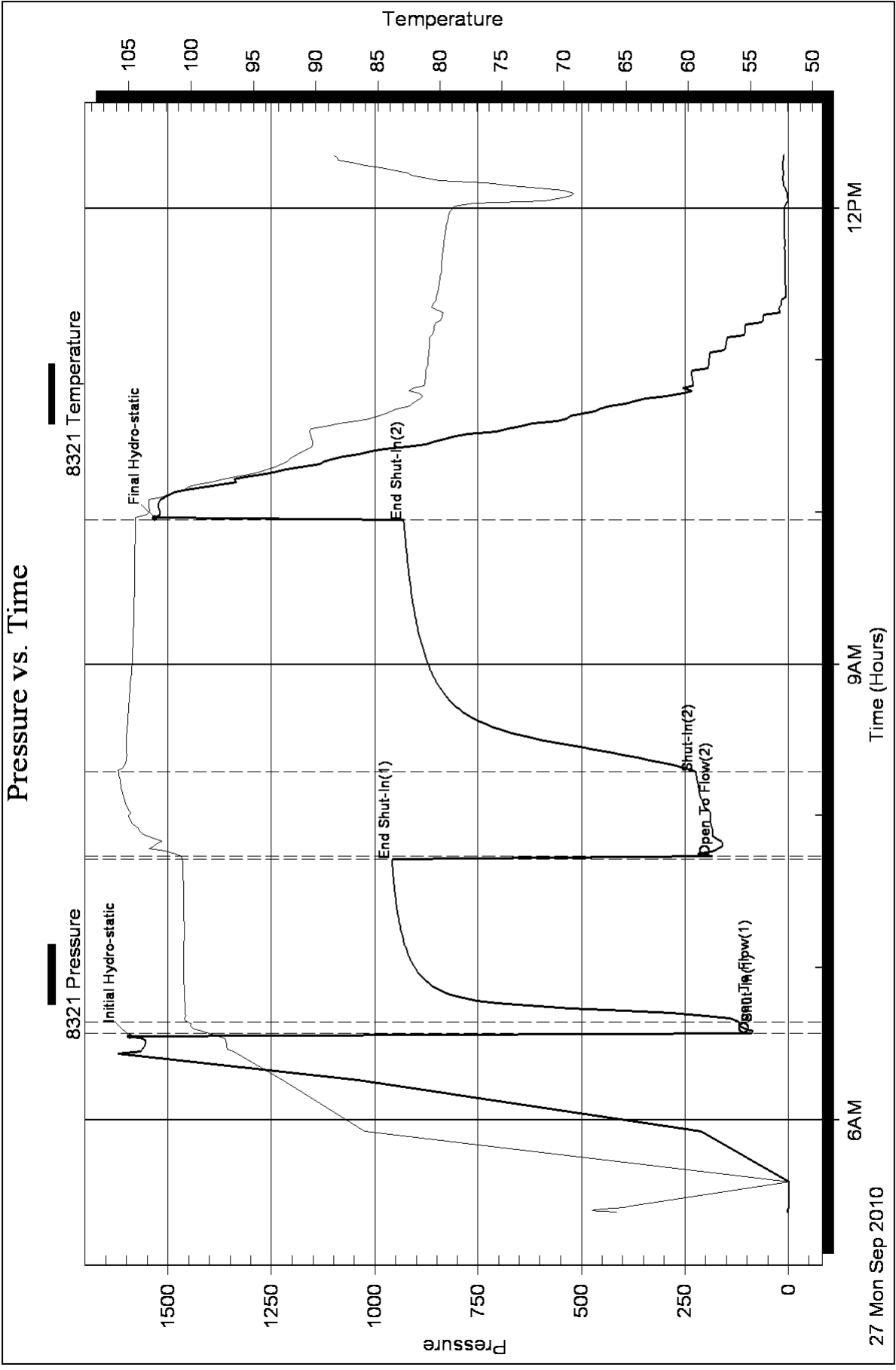
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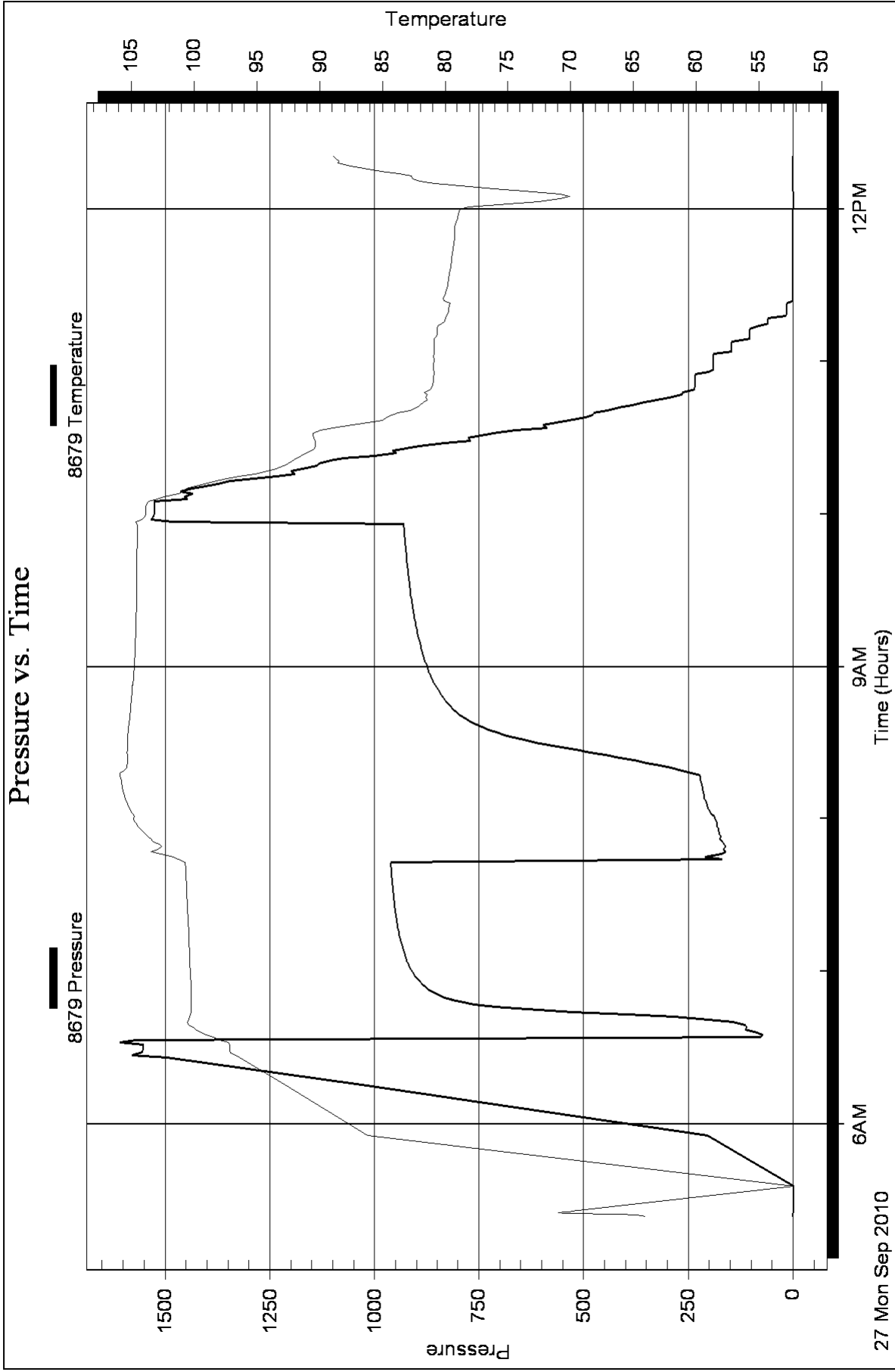
Laboratory Name:

Laboratory Location:

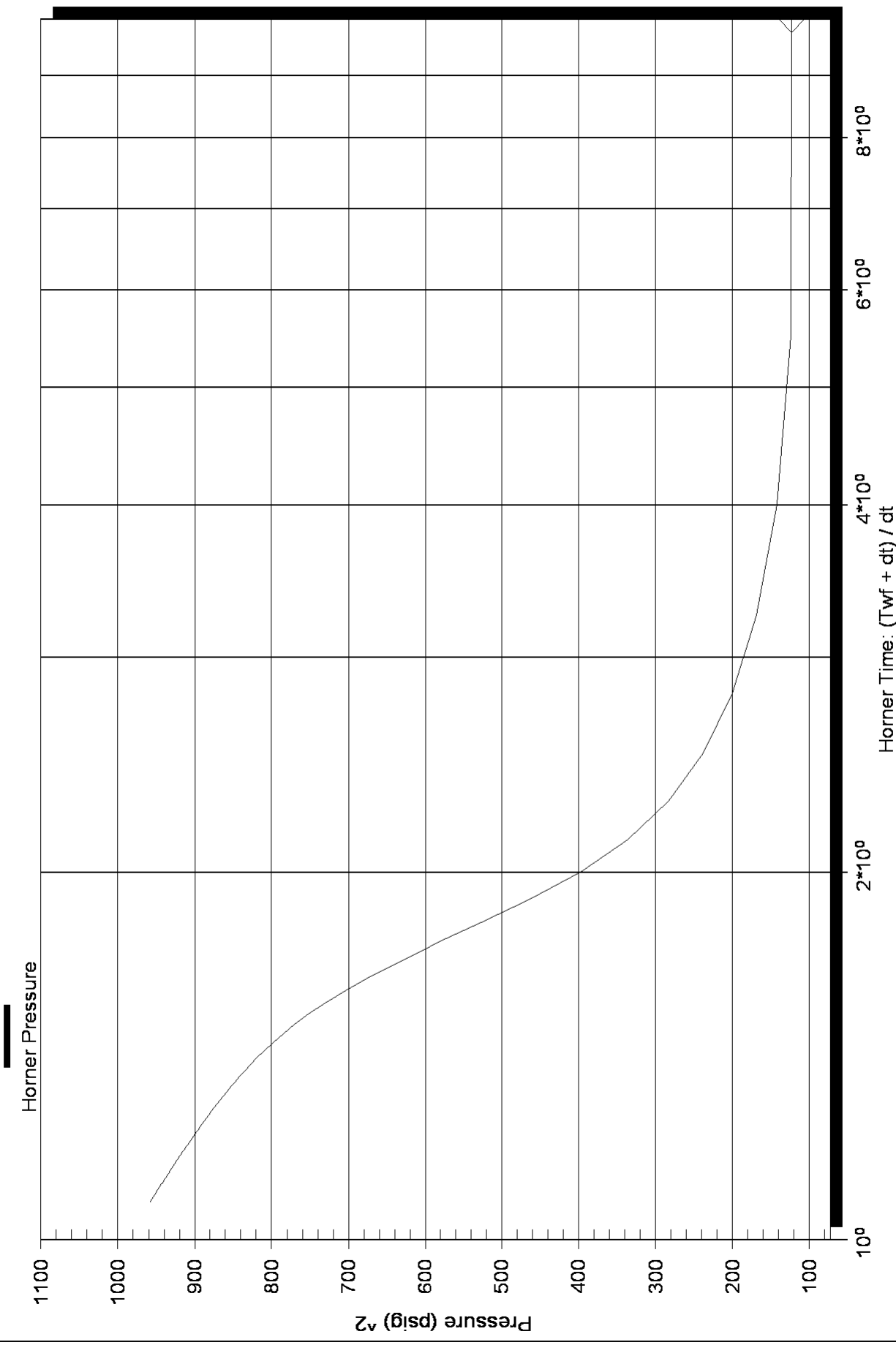
Recovery Comments: 540'-GIP

Pressure vs. Time

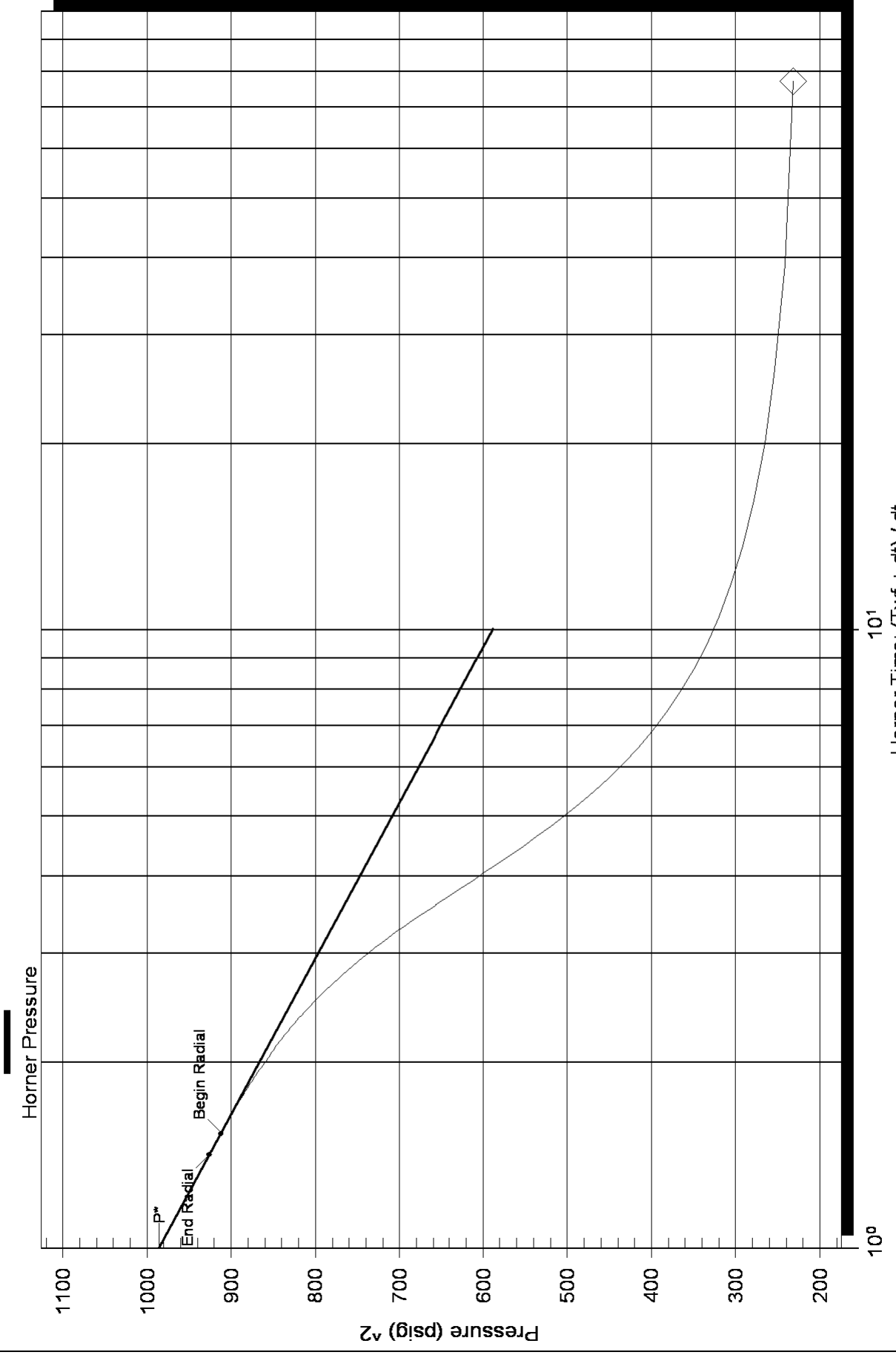




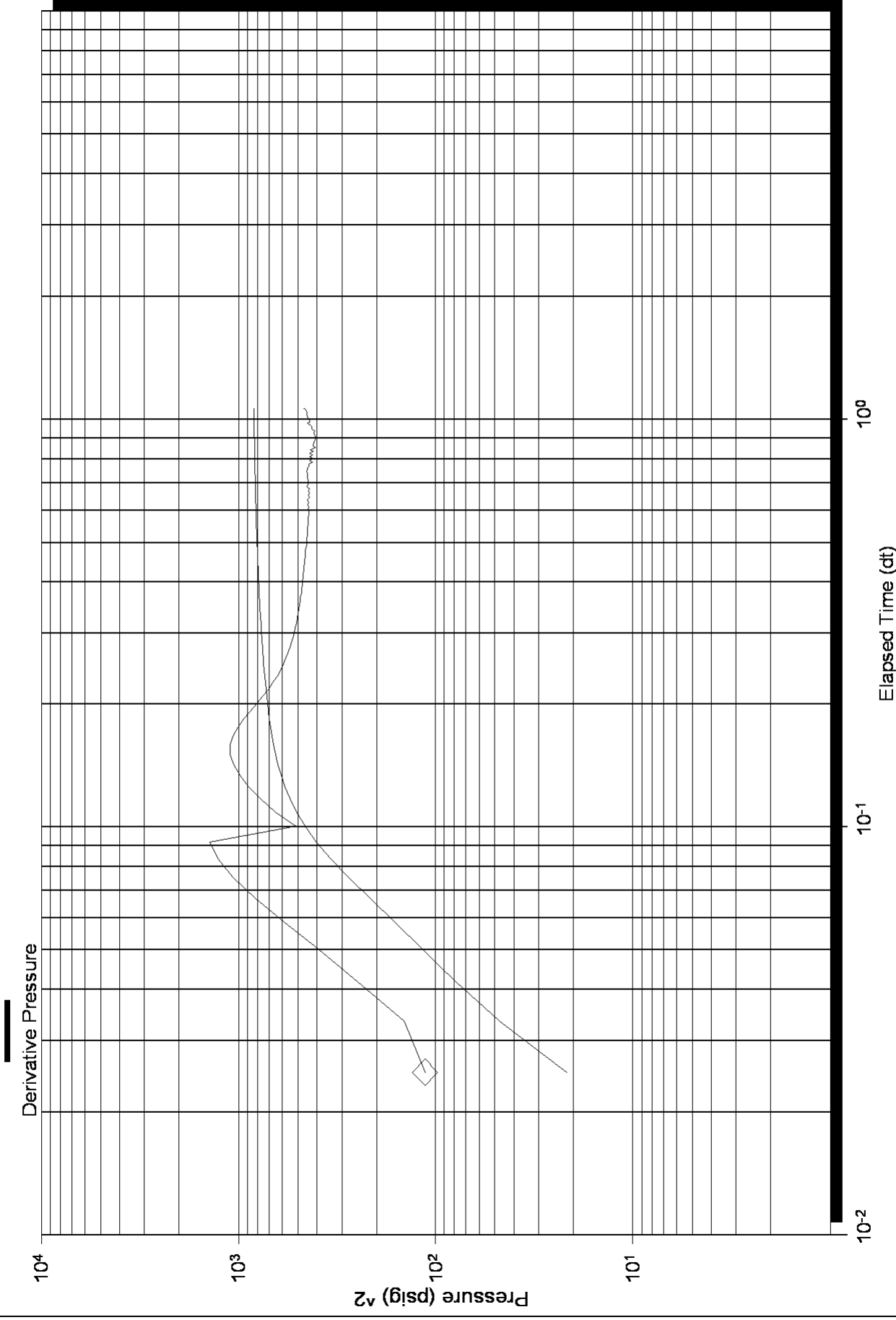
Homer Plot



Homer Plot



Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative

