



DRILL STEM TEST REPORT

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

1515 Wynkoop
Suite 700
Denver, CO. 80202

ATTN: Neil Sharp

11-16s-17w-Rush

Younger et al #1-11

Start Date: 2011.09.17 @ 20:07:48

End Date: 2011.09.18 @ 02:42:18

Job Ticket #: 43482 DST #: 1

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

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Job Ticket: 43482

DST#: 1

Test Start: 2011.09.17 @ 20:07:48

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:47:18

Time Test Ended: 02:42:18

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 54

Interval: 3504.00 ft (KB) To 3578.00 ft (KB) (TVD)

Reference Elevations: 1972.00 ft (KB)

Total Depth: 3578.00 ft (KB) (TVD)

1962.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 6755 Inside

Press @ Run Depth: 74.64 psig @ 3570.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.09.17 End Date: 2011.09.18

Last Calib.: 2011.09.18

Start Time: 20:07:50 End Time: 02:42:18

Time On Btm: 2011.09.17 @ 21:47:03

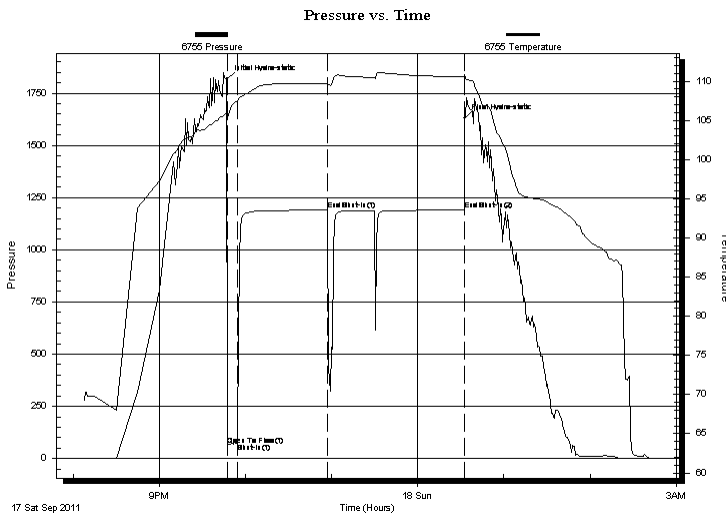
Time Off Btm: 2011.09.18 @ 00:32:33

TEST COMMENT: IFP-Weak Blow ,Built to 2"

ISI-Dead

FFP-Dead

FSI-Dead



PRESSURE SUMMARY

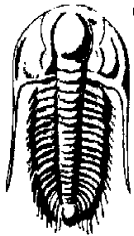
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1817.14	105.95	Initial Hydro-static
1	61.59	105.09	Open To Flow (1)
7	74.64	107.43	Shut-In(1)
71	1189.49	109.71	End Shut-In(1)
166	1189.33	110.64	End Shut-In(2)
166	1628.79	110.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
55.00	Mud W/Oil Scum	0.77

Gas Rates

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



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Job Ticket: 43482 **DST#: 1**
Test Start: 2011.09.17 @ 20:07:48

GENERAL INFORMATION:

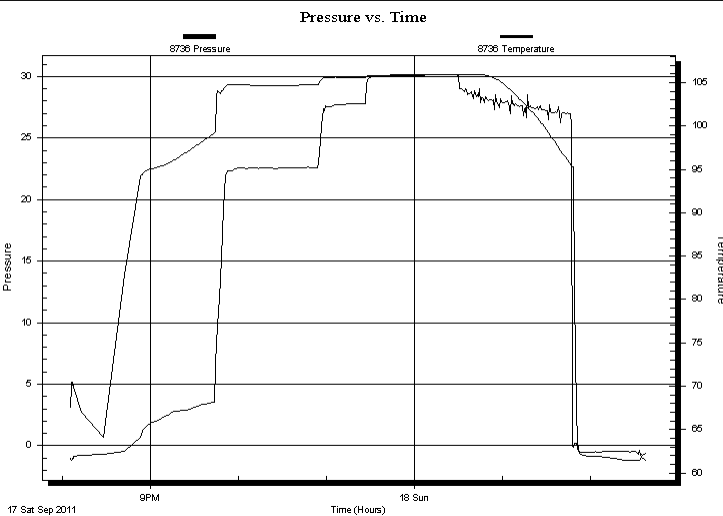
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:47:18
 Time Test Ended: 02:42:18
 Interval: **3504.00 ft (KB) To 3578.00 ft (KB) (TVD)**
 Total Depth: 3578.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Jason McLemore
 Unit No: 54
 Reference Elevations: 1972.00 ft (KB)
 1962.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8736

Fluid

Press @ Run Depth: psig @ 3470.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.09.17 End Date: 2011.09.18 Last Calib.: 2011.09.18
 Start Time: 20:05:20 End Time: 02:38:48 Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP-Weak Blow ,Built to 2"
 ISI-Dead
 FFP-Dead
 FSI-Dead



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
55.00	Mud W/Oil Scum	0.77

Gas Rates

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



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TOOL DIAGRAM

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Job Ticket: 43482

DST#: 1

Test Start: 2011.09.17 @ 20:07:48

Tool Information

Drill Pipe:	Length: 3478.00 ft	Diameter: 3.80 inches	Volume: 48.79 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 48.79 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3504.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	74.00 ft			
Tool Length:	108.00 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	8736	Fluid	3470.00	
Change Over Sub	4.00			3474.00	
Shut In Tool	5.00			3479.00	
Sampler	3.00			3482.00	
Hydraulic tool	5.00			3487.00	
Jars	5.00			3492.00	
Safety Joint	2.00			3494.00	
Packer	5.00			3499.00	34.00 Bottom Of Top Packer
Packer	5.00			3504.00	
Stubb	1.00			3505.00	
Perforations	1.00			3506.00	
Change Over Sub	1.00			3507.00	
Blank Spacing	62.00			3569.00	
Change Over Sub	1.00			3570.00	
Recorder	0.00	6755	Inside	3570.00	
Recorder	0.00	8673	Outside	3570.00	
Perforations	5.00			3575.00	
Bullnose	3.00			3578.00	74.00 Bottom Packers & Anchor

Total Tool Length: 108.00



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FLUID SUMMARY

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Job Ticket: 43482

DST#: 1

Test Start: 2011.09.17 @ 20:07:48

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:	ppm
Viscosity: 69.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5100.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
55.00	Mud W/Oil Scum	0.772

Total Length: 55.00 ft Total Volume: 0.772 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: 125#, 3000ml Mud



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GAS RATES

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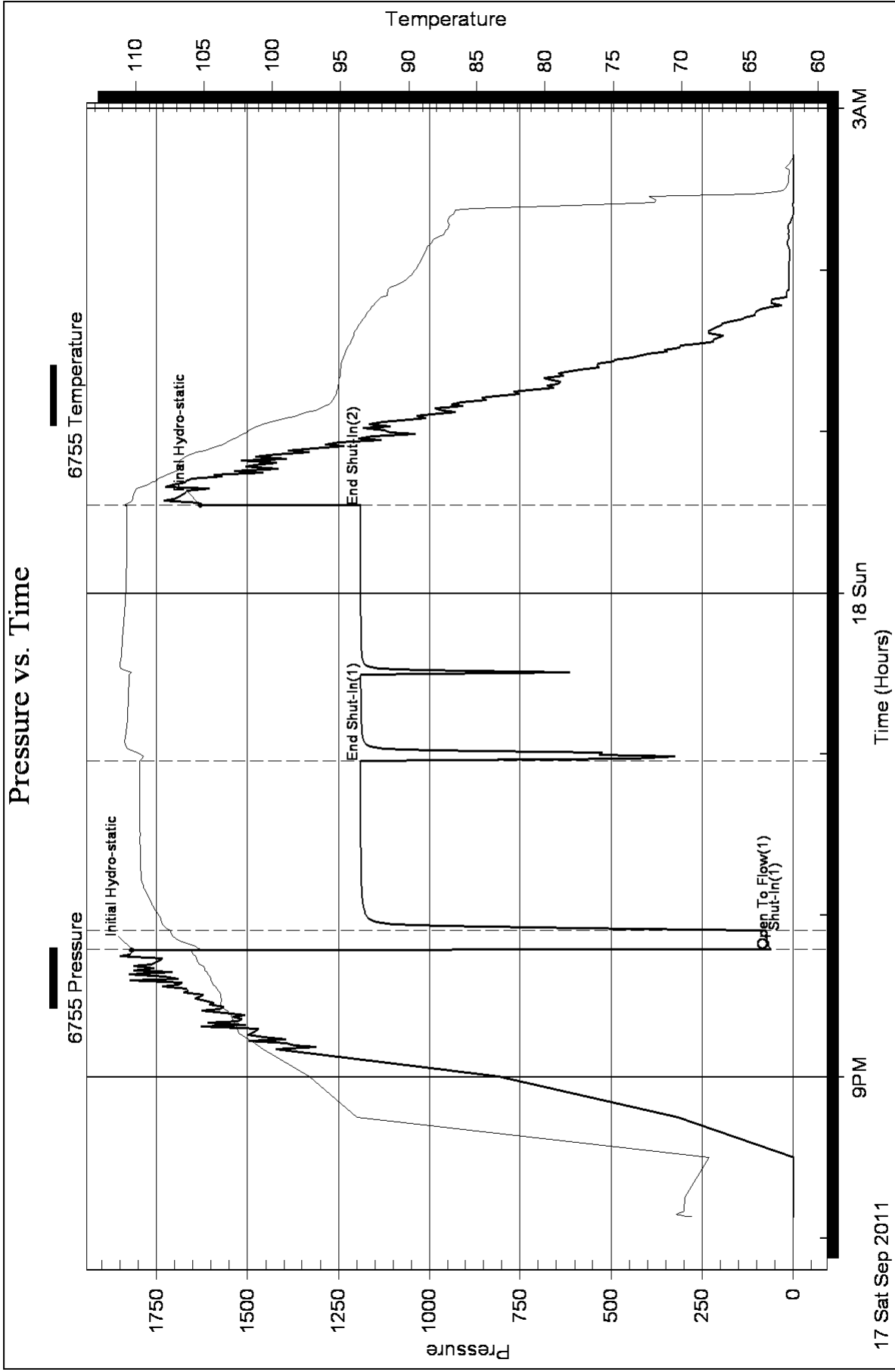
Test Start: 2011.09.17 @ 20:07:48

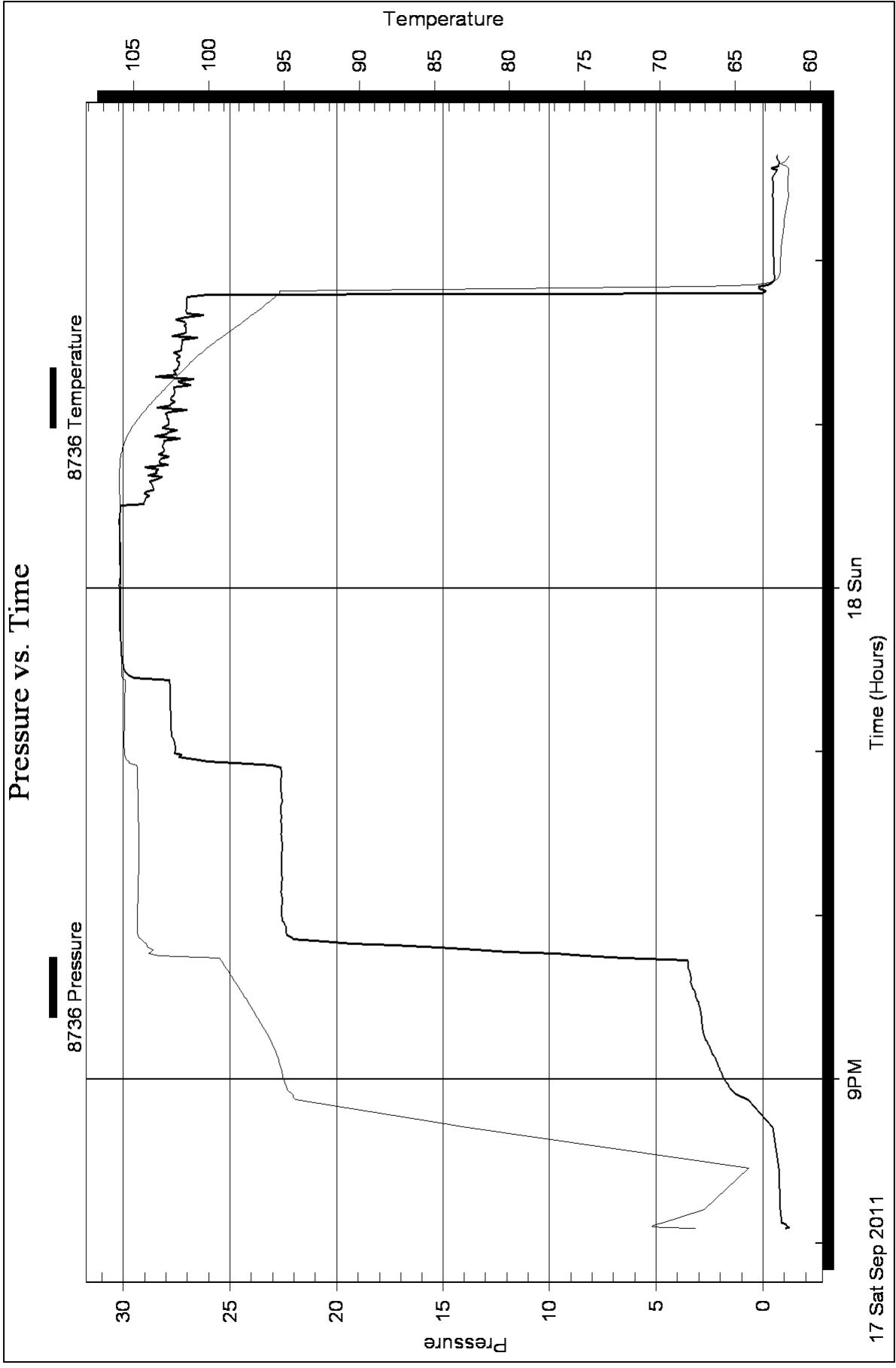
Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

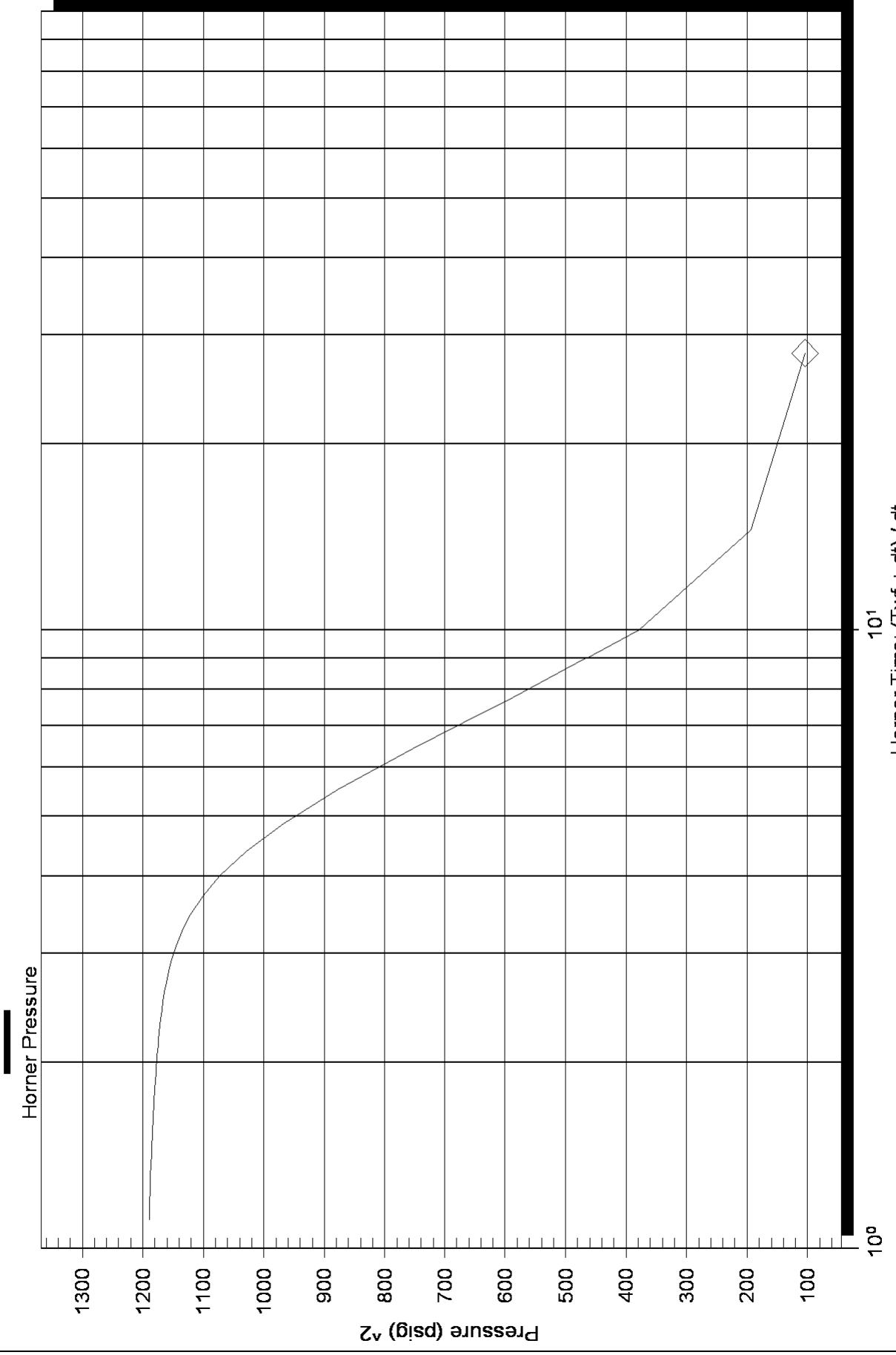
Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
		0.00	0.00	0.00





Homer Plot



Log-Log and Pseudo-Derivative

