

DRILL STEM TEST REPORT

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

1515 Wynkoop st
suite 700
Denver Co 80202

ATTN: Tom Fertal

Elsie 1-13

13-16s-17w-Rush

Start Date: 2011.11.03 @ 21:40:02

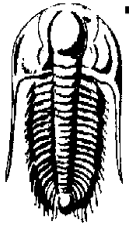
End Date: 2011.11.04 @ 06:27:02

Job Ticket #: 44867 DST #: 1

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

Printed: 2011.11.04 @ 16:46:44

Samuel Gary, Jr & Associates
13-16s-17w-Rush
Elsie 1-13
DST # 1
Topeka
2011.11.03



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Samuel Gary, Jr & Associates

13-16s-17w-Rush

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Job Ticket: 44867

DST#: 1

Test Start: 2011.11.03 @ 21:40:02

GENERAL INFORMATION:

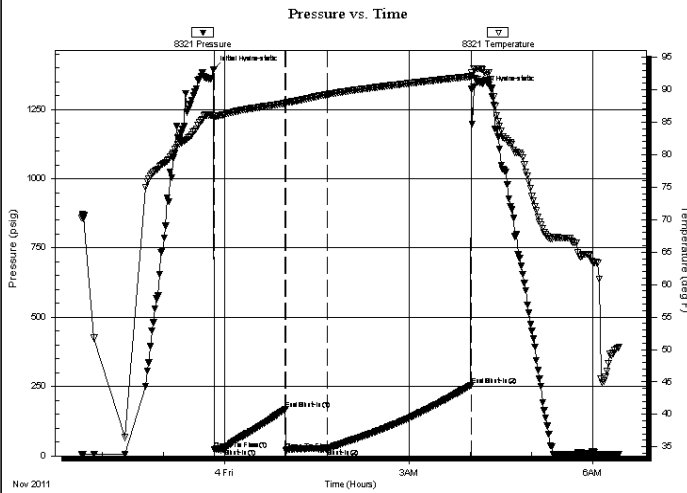
Formation: **Topeka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:49:32
 Time Test Ended: 06:27:02
 Interval: **2972.00 ft (KB) To 3012.00 ft (KB) (TVD)**
 Total Depth: 3012.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jeff Brown
 Unit No: 44
 Reference Elevations: 1983.00 ft (KB)
 1973.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8321

Inside

Press@RunDepth: 26.53 psig @ 2976.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.11.03 End Date: 2011.11.04 Last Calib.: 2011.11.04
 Start Time: 21:40:03 End Time: 06:26:02 Time On Btm: 2011.11.03 @ 23:49:02
 Time Off Btm: 2011.11.04 @ 04:01:32

TEST COMMENT: IFI-10-min-Weak blow built to 3 1/4 in
 ISI-60-min-Dead no blow back
 FFP-40-min-Fair blow built to 6 1/4 in
 FSI-140-min-Dead no blow back



PRESSURE SUMMARY

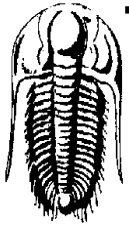
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1393.22	86.08	Initial Hydro-static
1	23.43	85.55	Open To Flow (1)
11	27.66	86.21	Shut-In(1)
70	169.66	87.89	End Shut-In(1)
71	19.55	87.95	Open To Flow (2)
111	26.53	89.27	Shut-In(2)
252	255.57	92.05	End Shut-In(2)
253	1322.54	92.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud with oil spots	0.14
2.00	VSOCM 3%O97%M	0.03

Gas Rates

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



**TRILOBITE
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TOOL DIAGRAM

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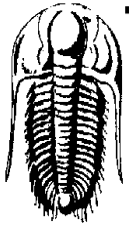
Tool Information

Drill Pipe:	Length: 2946.00 ft	Diameter: 3.80 inches	Volume: 41.32 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 69000.00 lb
			<u>Total Volume: 41.32 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	2972.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	74.00 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	8679	Fluid	2938.00	
Stubb	5.00			2943.00	
Shut In Tool	5.00			2948.00	
Sampler	2.00			2950.00	
Hydraulic tool	5.00			2955.00	
Jars	5.00			2960.00	
Safety Joint	3.00			2963.00	
Packer	4.00			2967.00	34.00 Bottom Of Top Packer
Packer	5.00			2972.00	
Stubb	1.00			2973.00	
Perforations	3.00			2976.00	
Recorder	0.00	8321	Inside	2976.00	
Recorder	0.00	8737	Outside	2976.00	
Perforations	33.00			3009.00	
Bullnose	3.00			3012.00	40.00 Bottom Packers & Anchor

Total Tool Length: 74.00



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FLUID SUMMARY

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Elsie 1-13

Job Ticket: 44867

DST#: 1

Test Start: 2011.11.03 @ 21:40:02

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: sec/qt	Cushion Volume: bbl		
Water Loss: in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud with oil spots	0.140
2.00	VSOCM 3%O97%M	0.028

Total Length: 12.00 ft Total Volume: 0.168 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: 2000 ml of Mud with a scum of oil
200 PSI

Serial #: 8321

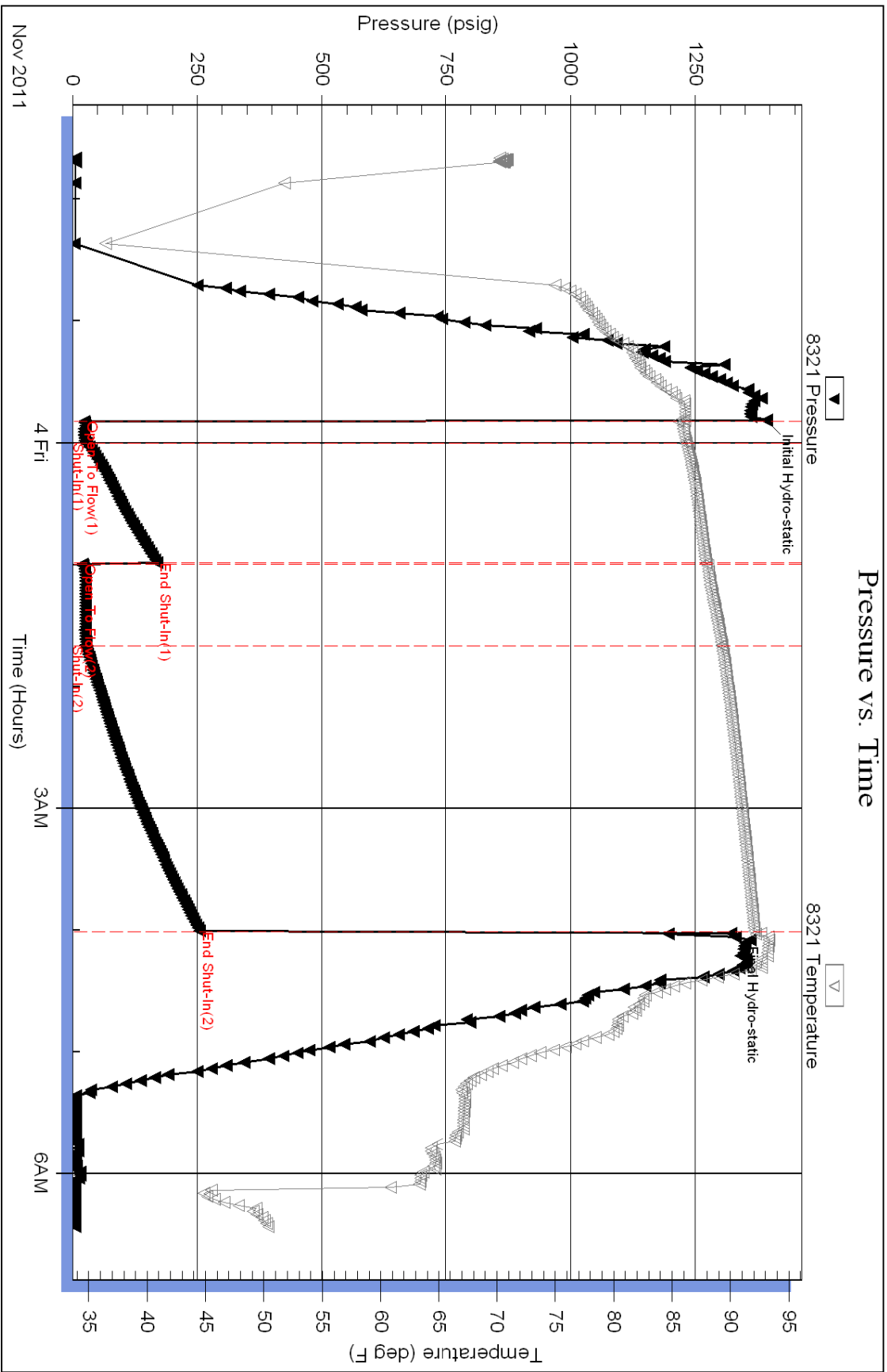
Inside

Samuel Gary, Jr & Associates

Esle 1-13

DST Test Number: 1

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 44867

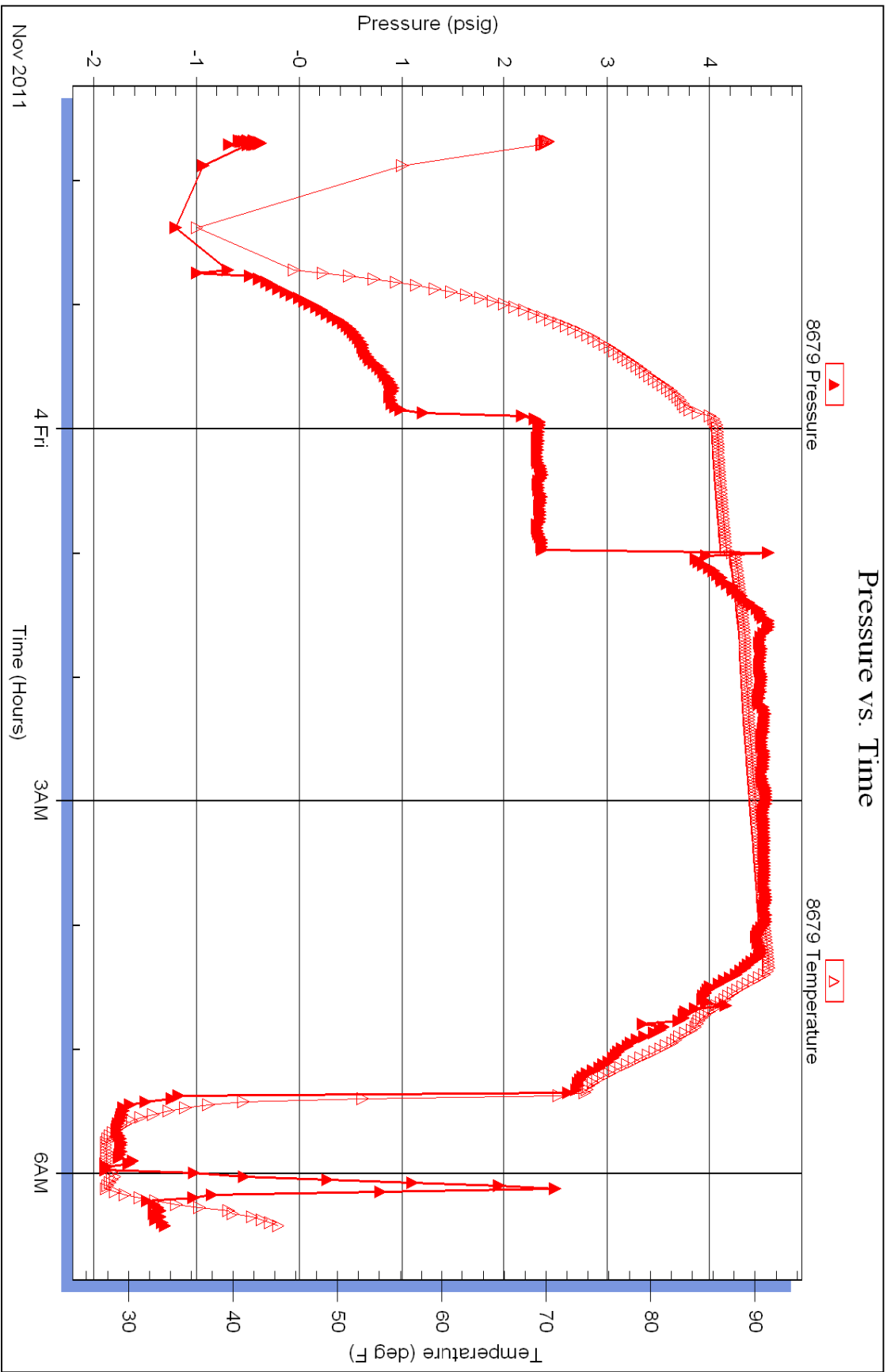
Printed: 2011.11.04 @ 16:46:49

Serial #: 8679

Fluid Samuel Gary, Jr & Associates

Esle 1-13

DST Test Number: 1

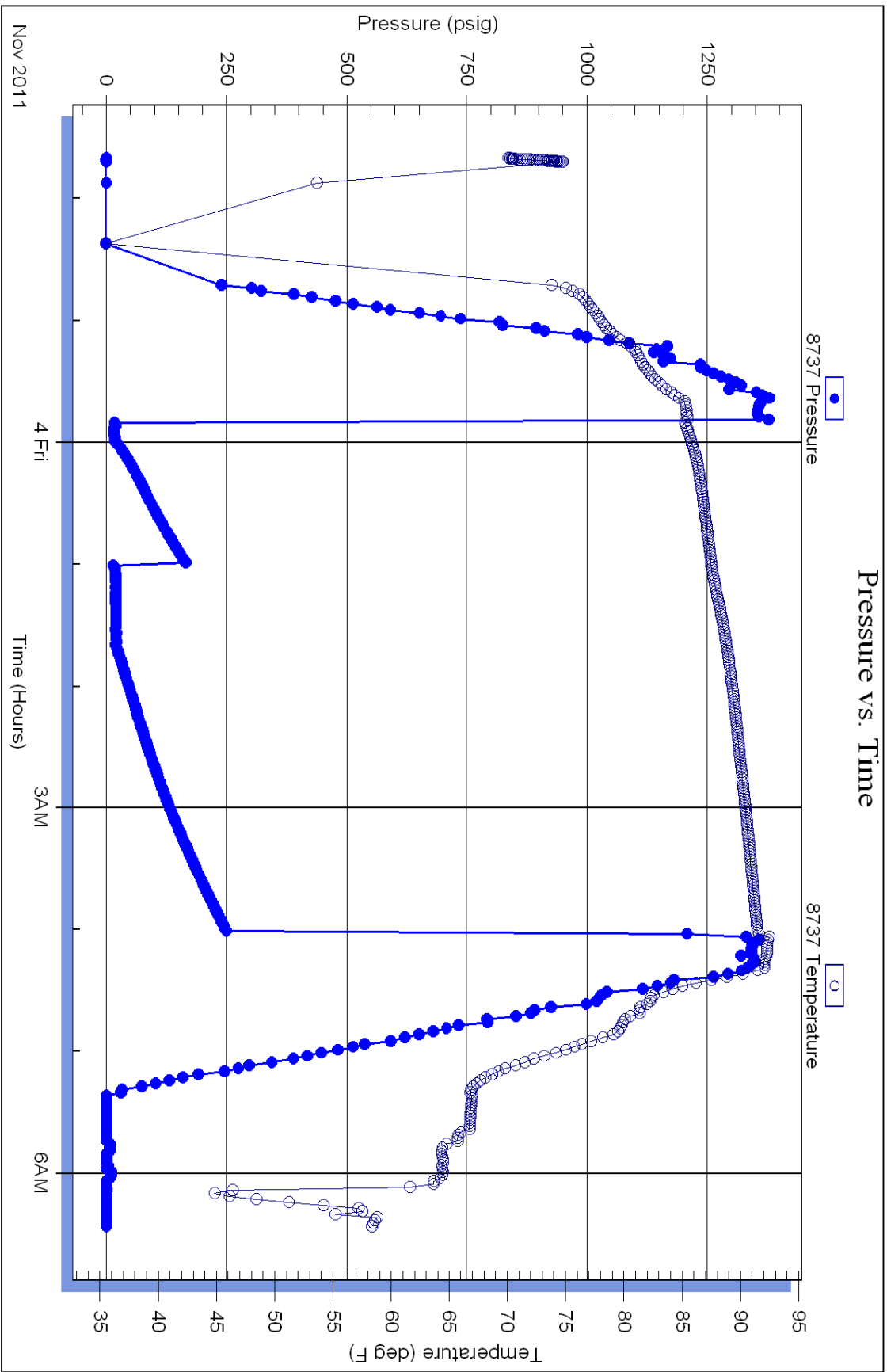


Serial #: 8737

Outside Samuel Gary, Jr & Associates

Esle 1-13

DST Test Number: 1

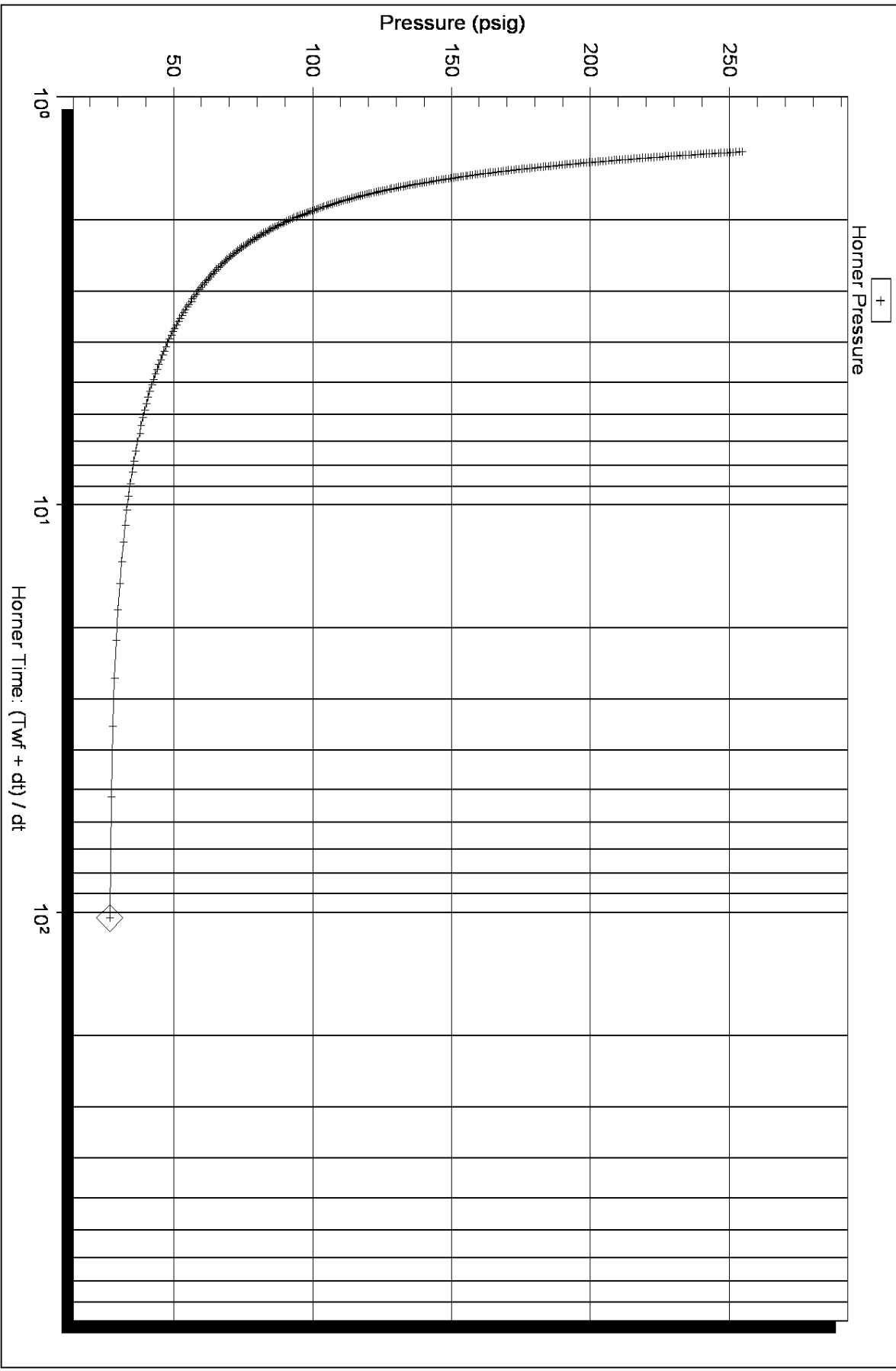


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Horner Plot



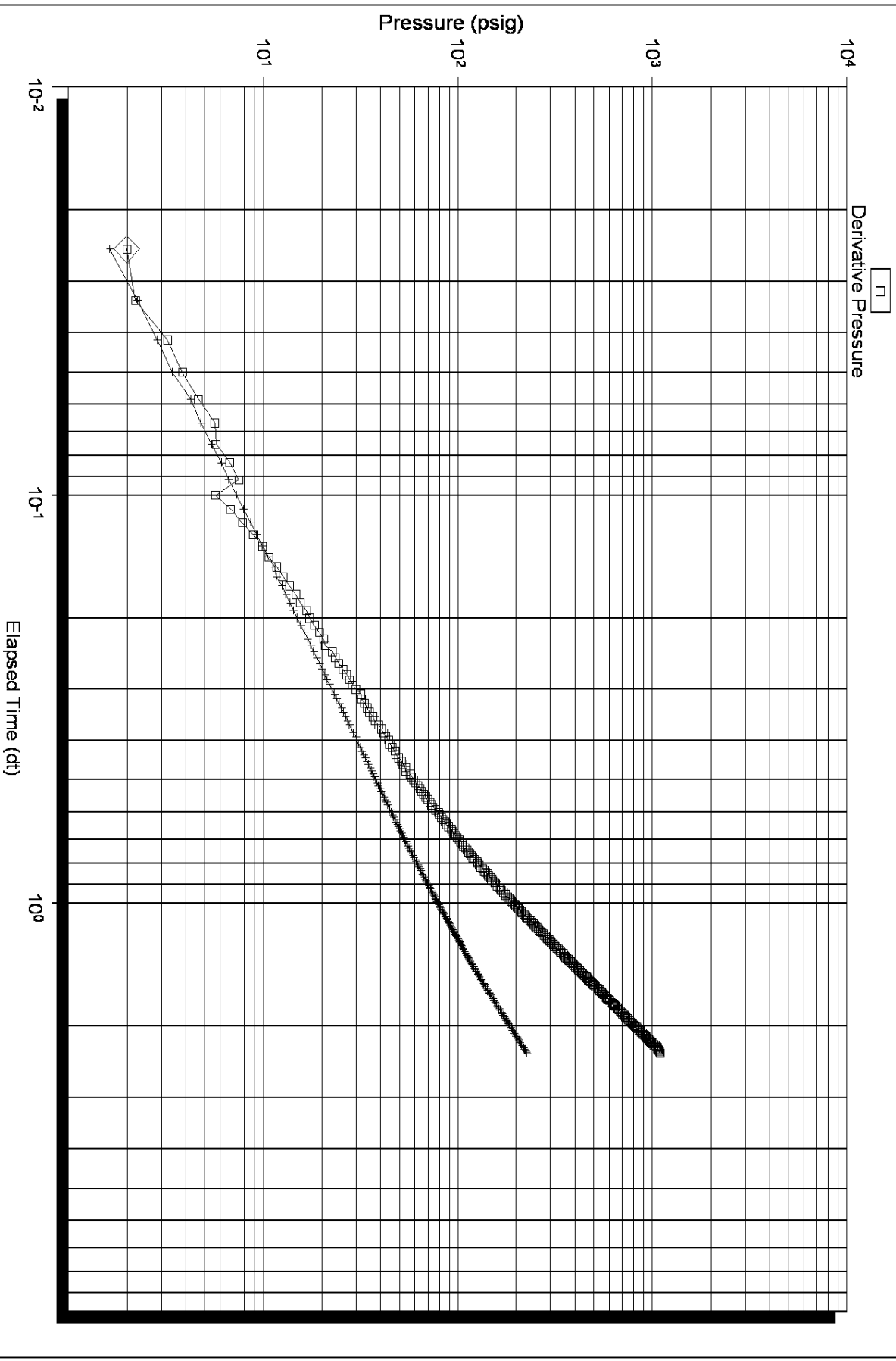
Serial Number: 8321 (Inside)

P* :

Slope (m) : kpa/log cycle

Flow Cycle: 2

Log-Log and Pseudo-Derivative



Serial Number: 8321 (Inside)

Flow Cycle: 2