

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

Jacobs et al #1-1

1-16s-17w Rush,KS

Start Date: 2012.07.15 @ 11:57:00
End Date: 2012.07.15 @ 19:25:00
Job Ticket #: 49271 DST #: 3

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

Printed: 2012.07.19 @ 10:07:10

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49271 **DST#: 3**

Test Start: 2012.07.15 @ 11:57:00

GENERAL INFORMATION:

Formation: **LKC " J "**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 13:42:00
Time Test Ended: 19:25:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 59

Interval: 3420.00 ft (KB) To 3436.00 ft (KB) (TVD)
Total Depth: 3436.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

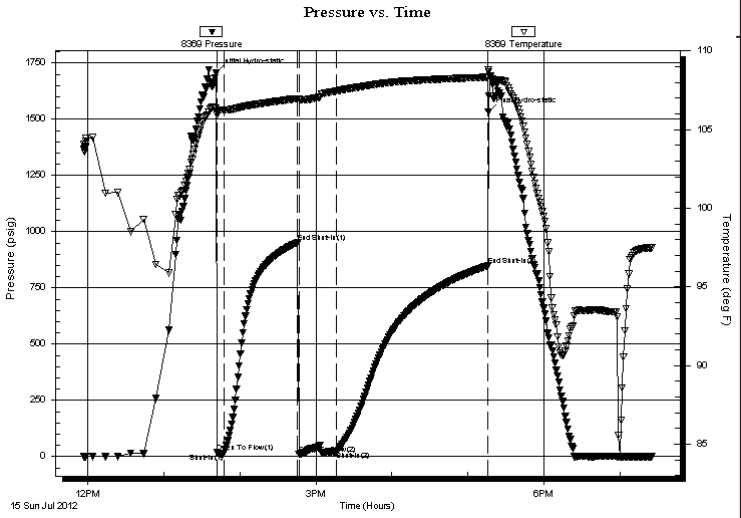
Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8369 **Inside**

Press@RunDepth: 22.57 psig @ 3421.00 ft (KB)
Start Date: 2012.07.15 End Date: 2012.07.15
Start Time: 11:57:05 End Time: 19:24:59

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm: 2012.07.15 @ 13:41:30
Time Off Btm: 2012.07.15 @ 17:16:00

TEST COMMENT: 5-IFP- Surface Blow Building to 5 1/2"
60-ISIP- No Blow
30-FFP- BOB in 17 1/2 min
120-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1705.97	106.39	Initial Hydro-static
1	20.93	105.89	Open To Flow (1)
6	14.99	106.22	Shut-In(1)
64	952.64	106.96	End Shut-In(1)
65	12.01	106.95	Open To Flow (2)
95	22.57	107.44	Shut-In(2)
214	848.36	108.32	End Shut-In(2)
215	1533.36	108.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
36.00	W&MCO 10%w 15%m 75%o	0.50
0.00	217 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

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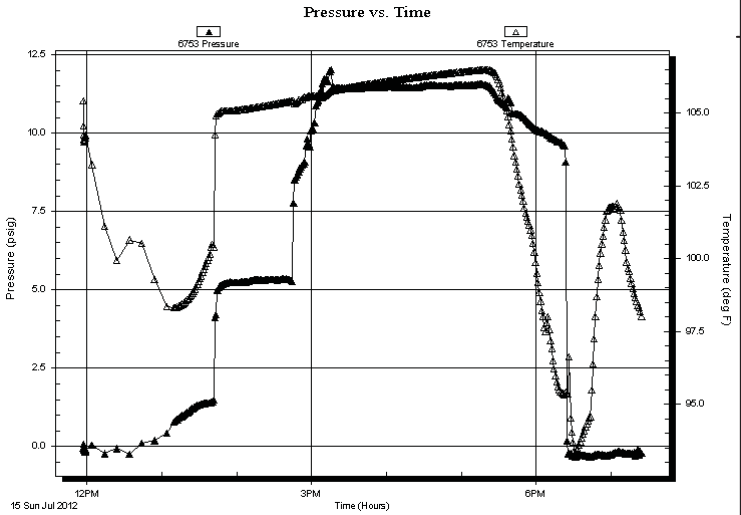
Interval: 3420.00 ft (KB) To 3436.00 ft (KB) (TVD)
Total Depth: 3436.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6753 **Fluid**
Press@RunDepth: psig @ 3387.00 ft (KB)
Start Date: 2012.07.15 End Date: 2012.07.15
Start Time: 11:57:05 End Time: 19:24:29

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 5-IFP- Surface Blow Building to 5 1/2"
60-ISIP- No Blow
30-FFP- BOB in 17 1/2 min
120-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
36.00	W&MCO 10%w 15%m 75%o	0.50
0.00	217 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

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Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
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Jacobs et al #1-1

Job Ticket: 49271 **DST#: 3**

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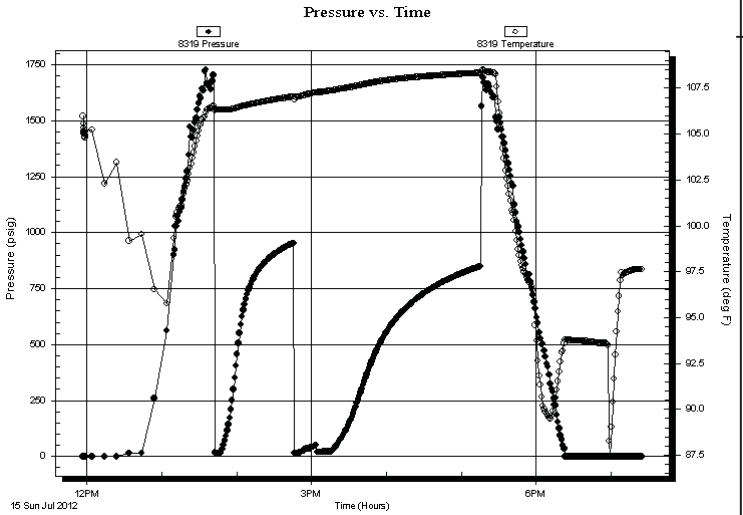
Interval: 3420.00 ft (KB) To 3436.00 ft (KB) (TVD)
Total Depth: 3436.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8319 **Outside**
Press@RunDepth: psig @ 3421.00 ft (KB)
Start Date: 2012.07.15 End Date: 2012.07.15
Start Time: 11:57:05 End Time: 19:24:59

Capacity: 8000.00 psig
Last Calib.: 2012.07.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 5-IFP- Surface Blow Building to 5 1/2"
60-ISIP- No Blow
30-FFP- BOB in 17 1/2 min
120-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
36.00	W&MCO 10%w 15%m 75%o	0.50
0.00	217 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49271 **DST#: 3**

Test Start: 2012.07.15 @ 11:57:00

Tool Information

Drill Pipe:	Length:	3410.00 ft	Diameter:	3.80 inches	Volume:	47.83 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	
					Total Volume:	47.83 bbl	

Drill Pipe Above KB:	23.00 ft
Depth to Top Packer:	3420.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	16.00 ft
Tool Length:	49.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		60000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	50000.00 lb
	Final	50000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Recorder	0.00	6753	Fluid	3387.00		
Stubb	5.00			3392.00		
Shut In Tool	5.00			3397.00		
Sampler	2.00			3399.00		
Hydraulic tool	5.00			3404.00		
Jars	5.00			3409.00		
Safety Joint	2.00			3411.00		
Packer	4.00			3415.00	33.00	Bottom Of Top Packer
Packer	5.00			3420.00		
Stubb	1.00			3421.00		
Recorder	0.00	8369	Inside	3421.00		
Recorder	0.00	8319	Outside	3421.00		
Perforations	12.00			3433.00		
Bullnose	3.00			3436.00	16.00	Bottom Packers & Anchor
Total Tool Length:	**49.00**					

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FLUID SUMMARY

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ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49271 **DST#: 3**

Test Start: 2012.07.15 @ 11:57:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	41 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	67.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	11.17 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	9200.00 ppm				
Filter Cake:	inches				

Recovery Information

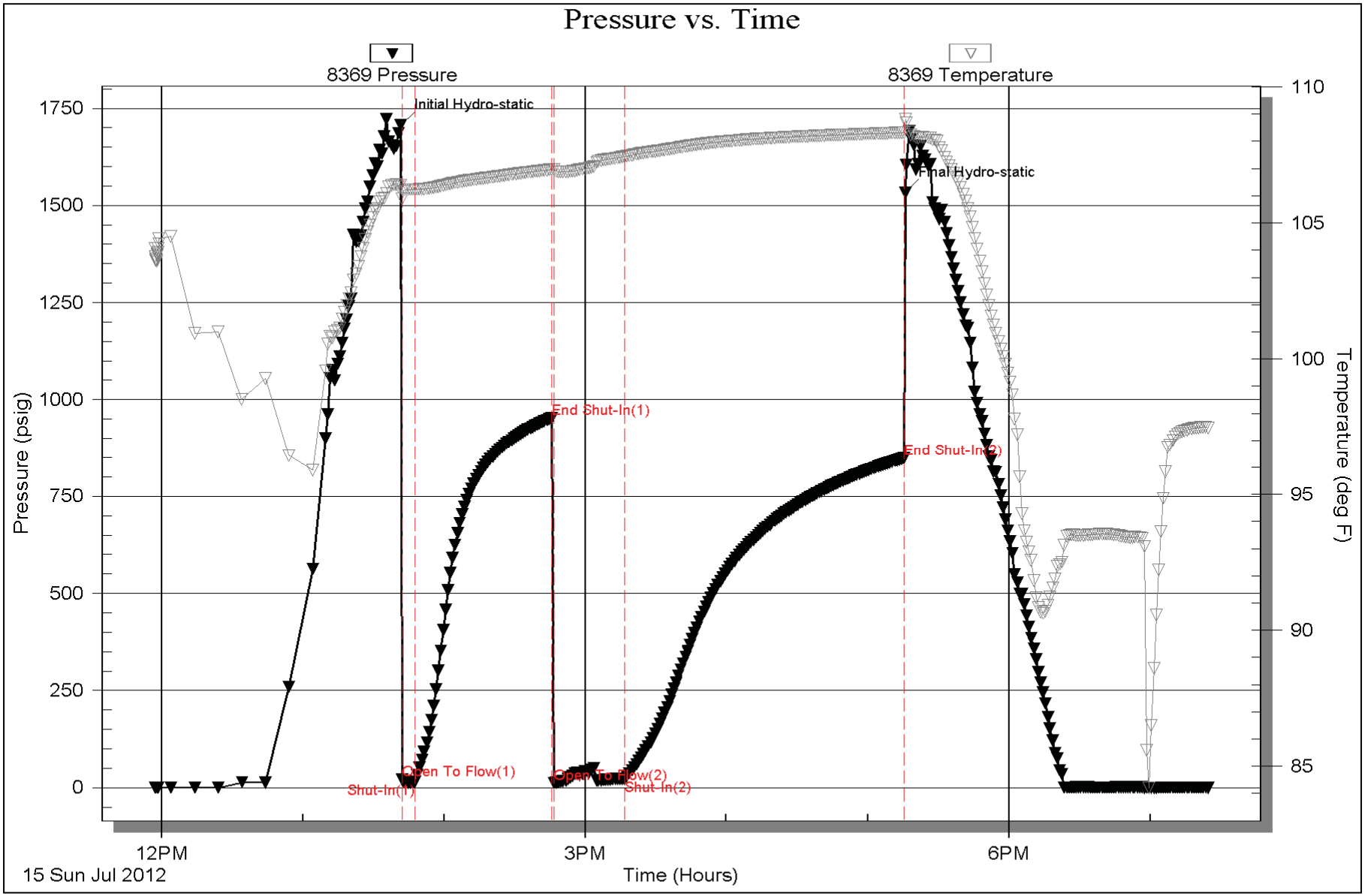
Recovery Table

Length ft	Description	Volume bbl
36.00	W&MCO 10%w 15%m 75%o	0.505
0.00	217 GIP	0.000

Total Length: 36.00 ft Total Volume: 0.505 bbl

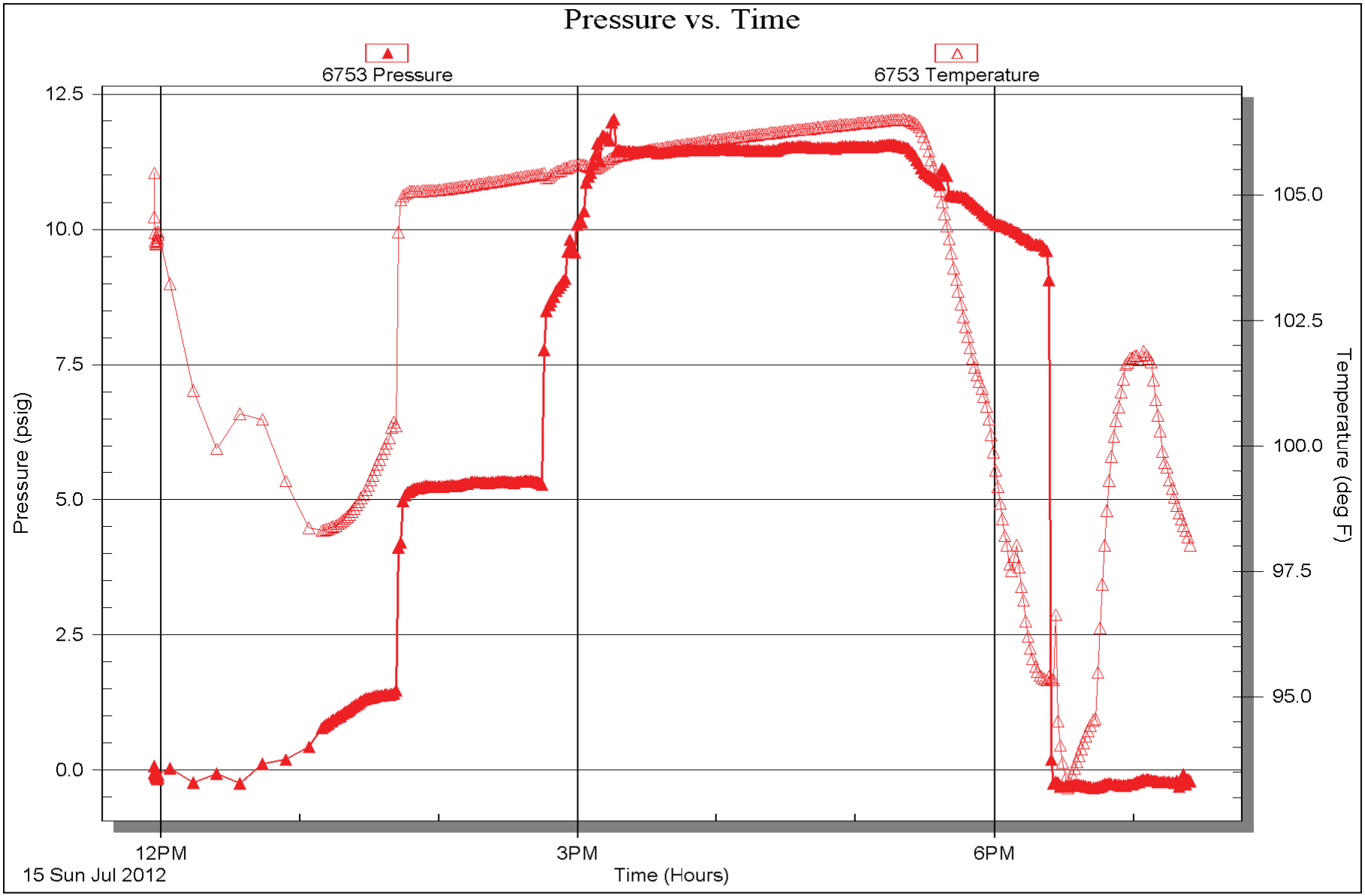
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8369 **Inside** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 3



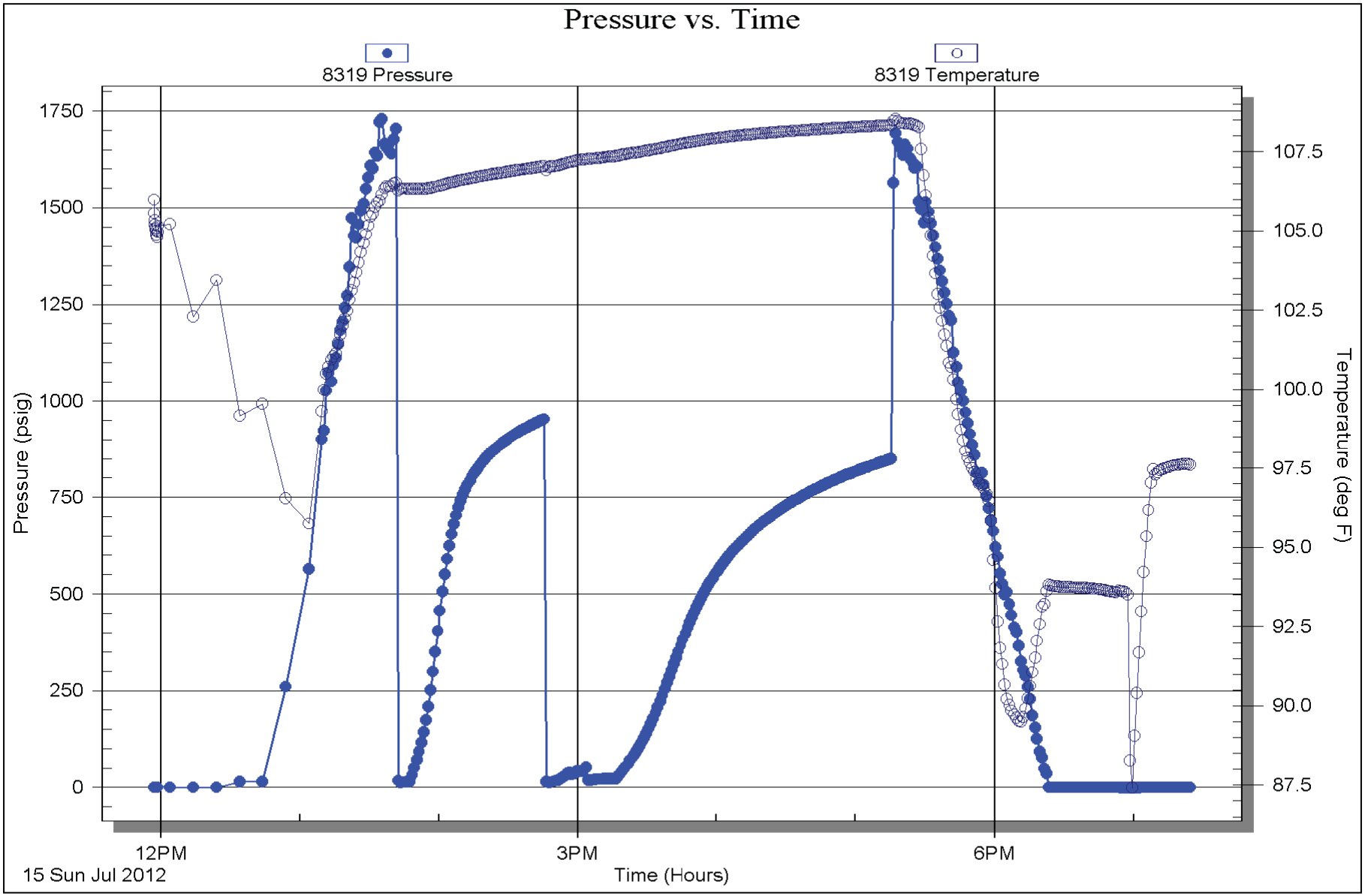
Trilobite Testing, Inc Ref. No: 49271 Printed: 2012.07.19 @ 10:07:12

Serial #: 6753 **Fluid** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 49271 Printed: 2012.07.19 @ 10:07:13

Serial #: 8319 **Outside** Samuel Gary Jr & Assoc Inc Jacobs et al #1-1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 49271 Printed: 2012.07.19 @ 10:07:13