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: 2012.07.13 @ 09:18:00
End Date: 2012.07.13 @ 18:07:00
Job Ticket #: 49269 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
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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: 49269 **DST#: 1**

Test Start: 2012.07.13 @ 09:18:00

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 11:21:30
Time Test Ended: 18:07:00

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

Interval: 2951.00 ft (KB) To 2992.00 ft (KB) (TVD)
Total Depth: 2992.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

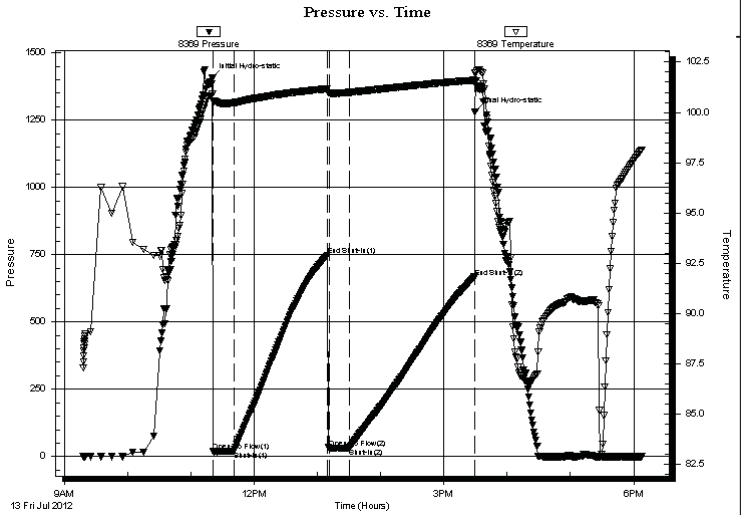
Reference Elevations: 1943.00 ft (KB)
1933.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8369 **Inside**

Press@RunDepth: 32.89 psig @ 2957.00 ft (KB)
Start Date: 2012.07.13 End Date: 2012.07.13
Start Time: 09:18:05 End Time: 18:07:30

Capacity: 8000.00 psig
Last Calib.: 2012.07.13
Time On Btm: 2012.07.13 @ 11:20:30
Time Off Btm: 2012.07.13 @ 15:29:30

TEST COMMENT: 20-IFP- BOB in 5 1/2 min
90-ISIP- Weak Surface Blow Died in 8 min
20-FFP- BOB in 30 sec
120-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1405.38	100.93	Initial Hydro-static
1	20.24	100.59	Open To Flow (1)
21	20.88	100.48	Shut-In(1)
109	747.95	101.17	End Shut-In(1)
111	30.65	100.97	Open To Flow (2)
130	32.89	100.99	Shut-In(2)
249	666.45	101.60	End Shut-In(2)
249	1281.48	101.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
43.00	OCM 20%o 80%m	0.60
640.00	GIP	8.98

Gas Rates

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

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Job Ticket: 49269 **DST#: 1**

Test Start: 2012.07.13 @ 09:18:00

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 11:21:30
Time Test Ended: 18:07:00

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

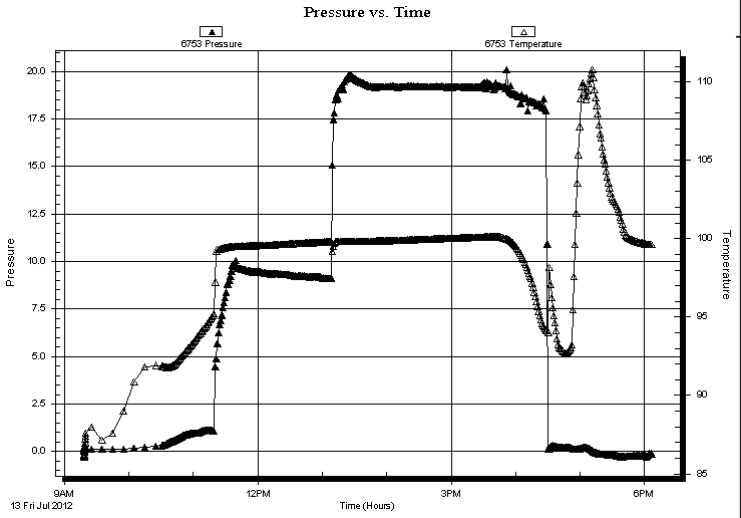
Interval: 2951.00 ft (KB) To 2992.00 ft (KB) (TVD)
Total Depth: 2992.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

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

Serial #: 6753 **Fluid**
Press@RunDepth: psig @ 2917.00 ft (KB)
Start Date: 2012.07.13 End Date: 2012.07.13
Start Time: 09:18:05 End Time: 18:06:30

Capacity: 8000.00 psig
Last Calib.: 2012.07.13
Time On Btm:
Time Off Btm:

TEST COMMENT: 20-IFP- BOB in 5 1/2 min
90-ISIP- Weak Surface Blow Died in 8 min
20-FFP- BOB in 30 sec
120-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
43.00	OCM 20%o 80%m	0.60
640.00	GIP	8.98

Gas Rates

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

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

1515 Wynkoop Ste 700
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ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49269 **DST#: 1**

Test Start: 2012.07.13 @ 09:18:00

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: 1943.00 ft (KB)
Time Tool Opened: 11:21:30
Time Test Ended: 18:07:00

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

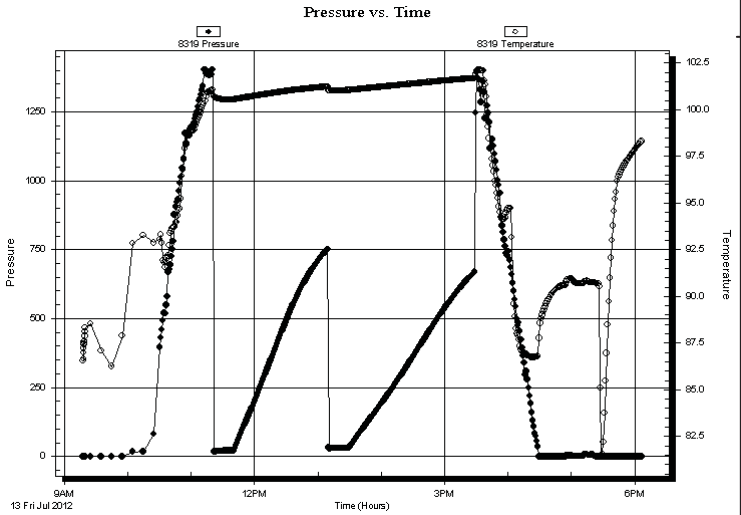
Interval: 2951.00 ft (KB) To 2992.00 ft (KB) (TVD)
Total Depth: 2992.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

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

Serial #: 8319 **Outside**
Press@RunDepth: psig @ 2957.00 ft (KB)
Start Date: 2012.07.13 End Date: 2012.07.13
Start Time: 09:18:05 End Time: 18:07:00

Capacity: 8000.00 psig
Last Calib.: 2012.07.13
Time On Btm:
Time Off Btm:

TEST COMMENT: 20-IFP- BOB in 5 1/2 min
90-ISIP- Weak Surface Blow Died in 8 min
20-FFP- BOB in 30 sec
120-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
43.00	OCM 20%o 80%m	0.60
640.00	GIP	8.98

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: 49269 **DST#: 1**

Test Start: 2012.07.13 @ 09:18:00

Tool Information

Drill Pipe:	Length:	2940.00 ft	Diameter:	3.80 inches	Volume:	41.24 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:	41.24 bbl	

Drill Pipe Above KB:	24.00 ft
Depth to Top Packer:	2951.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	41.00 ft
Tool Length:	76.00 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:	50000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	46000.00 lb
Final	46000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			2917.00		
Recorder	0.00	6753	Fluid	2917.00		
Stubb	5.00			2922.00		
Shut In Tool	5.00			2927.00		
Sampler	2.00			2929.00		
Hydraulic tool	5.00			2934.00		
Jars	5.00			2939.00		
Safety Joint	2.00			2941.00		
Packer	5.00			2946.00	35.00	Bottom Of Top Packer
Packer	5.00			2951.00		
Stubb	1.00			2952.00		
Perforations	4.00			2956.00		
Change Over Sub	1.00			2957.00		
Recorder	0.00	8369	Inside	2957.00		
Recorder	0.00	8319	Outside	2957.00		
Blank Spacing	31.00			2988.00		
Change Over Sub	1.00			2989.00		
Bullnose	3.00			2992.00	41.00	Bottom Packers & Anchor
Total Tool Length:	**76.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

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ATTN: Clayton Camozzi

1-16s-17w Rush,KS

Jacobs et al #1-1

Job Ticket: 49269 **DST#: 1**

Test Start: 2012.07.13 @ 09:18:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	10.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	27.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	94000.00 ppm				
Filter Cake:	inches				

Recovery Information

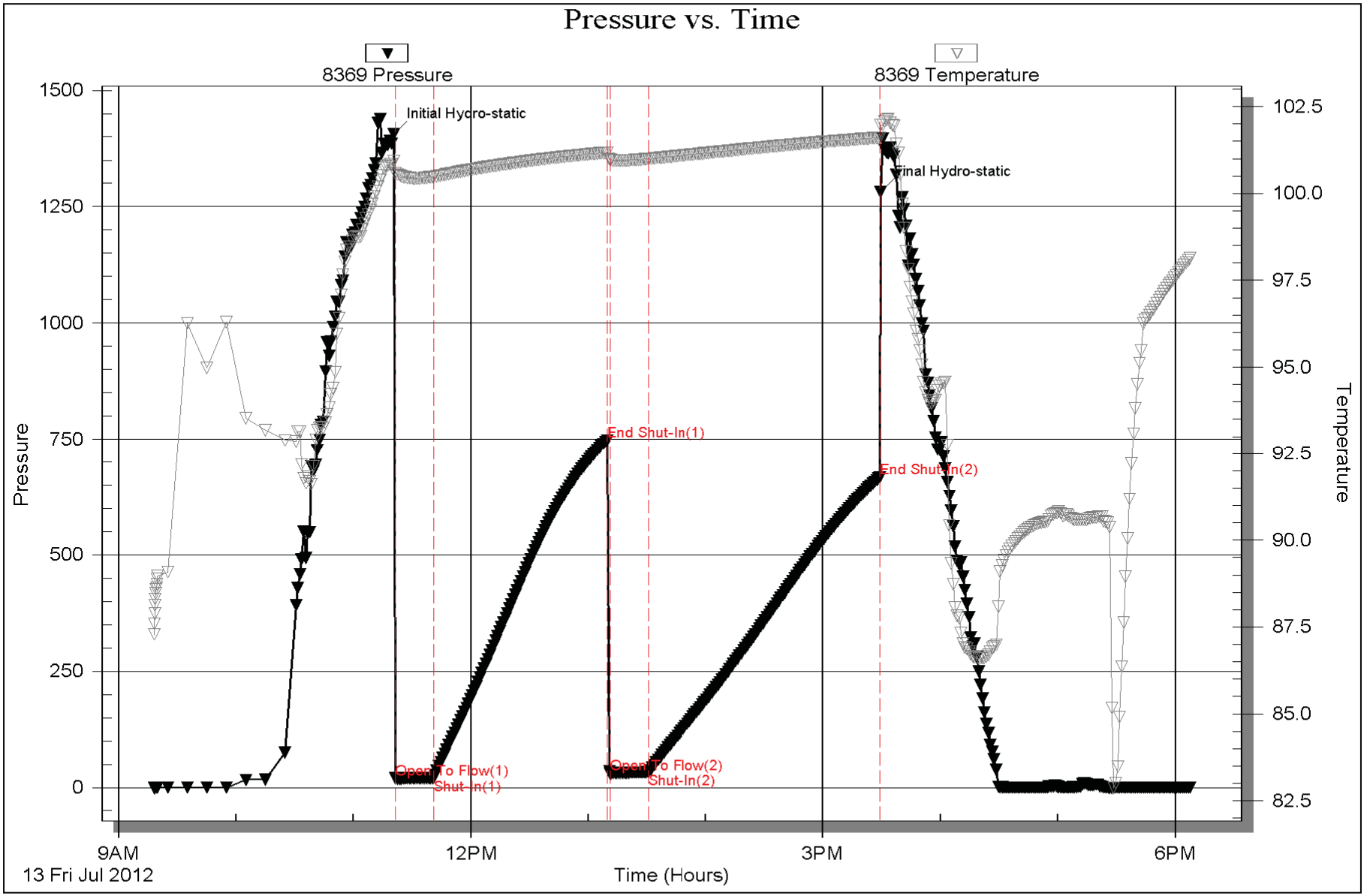
Recovery Table

Length ft	Description	Volume bbl
43.00	OCM 20%o 80%m	0.603
640.00	GIP	8.978

Total Length: 683.00 ft Total Volume: 9.581 bbl

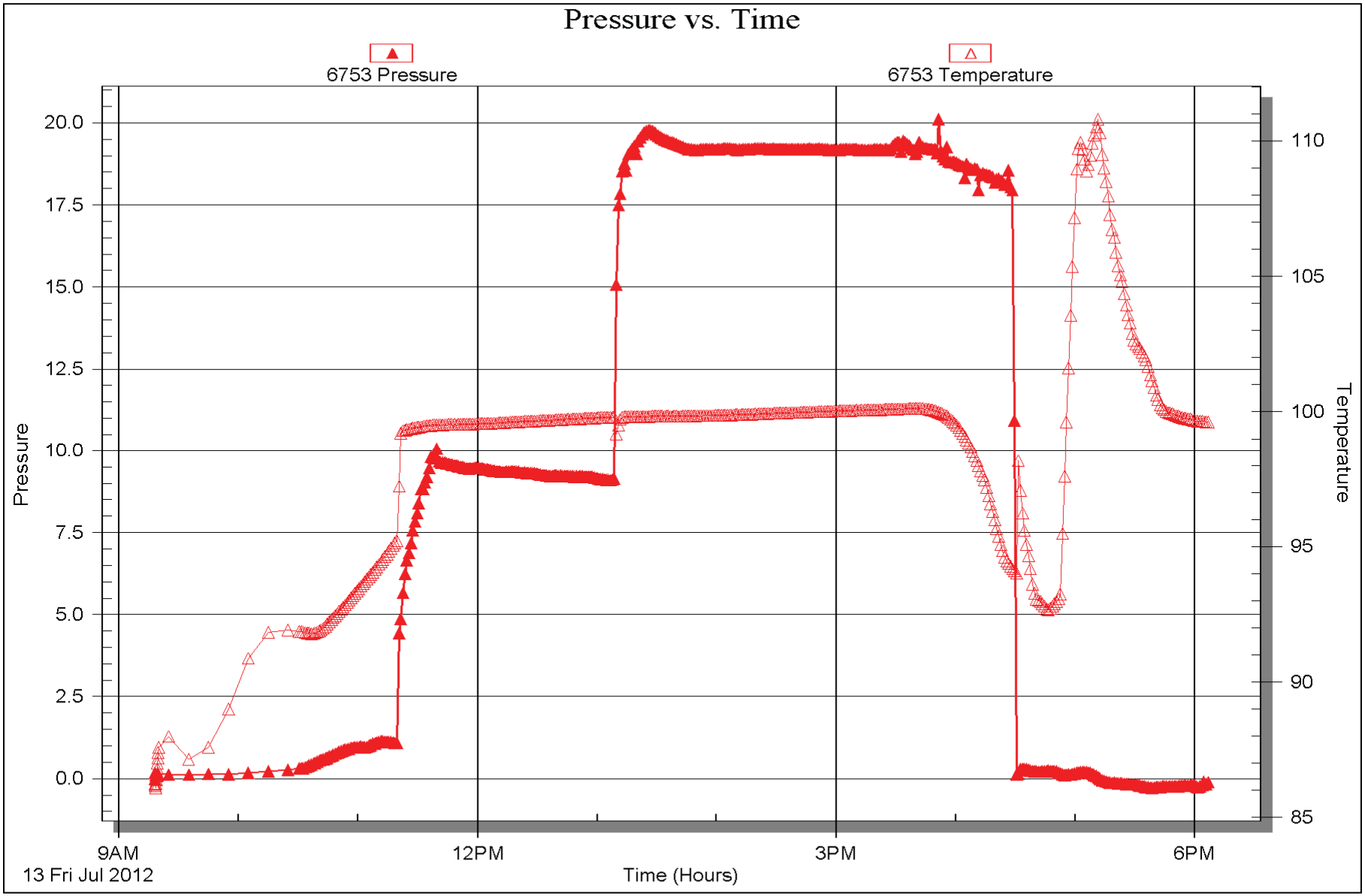
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

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



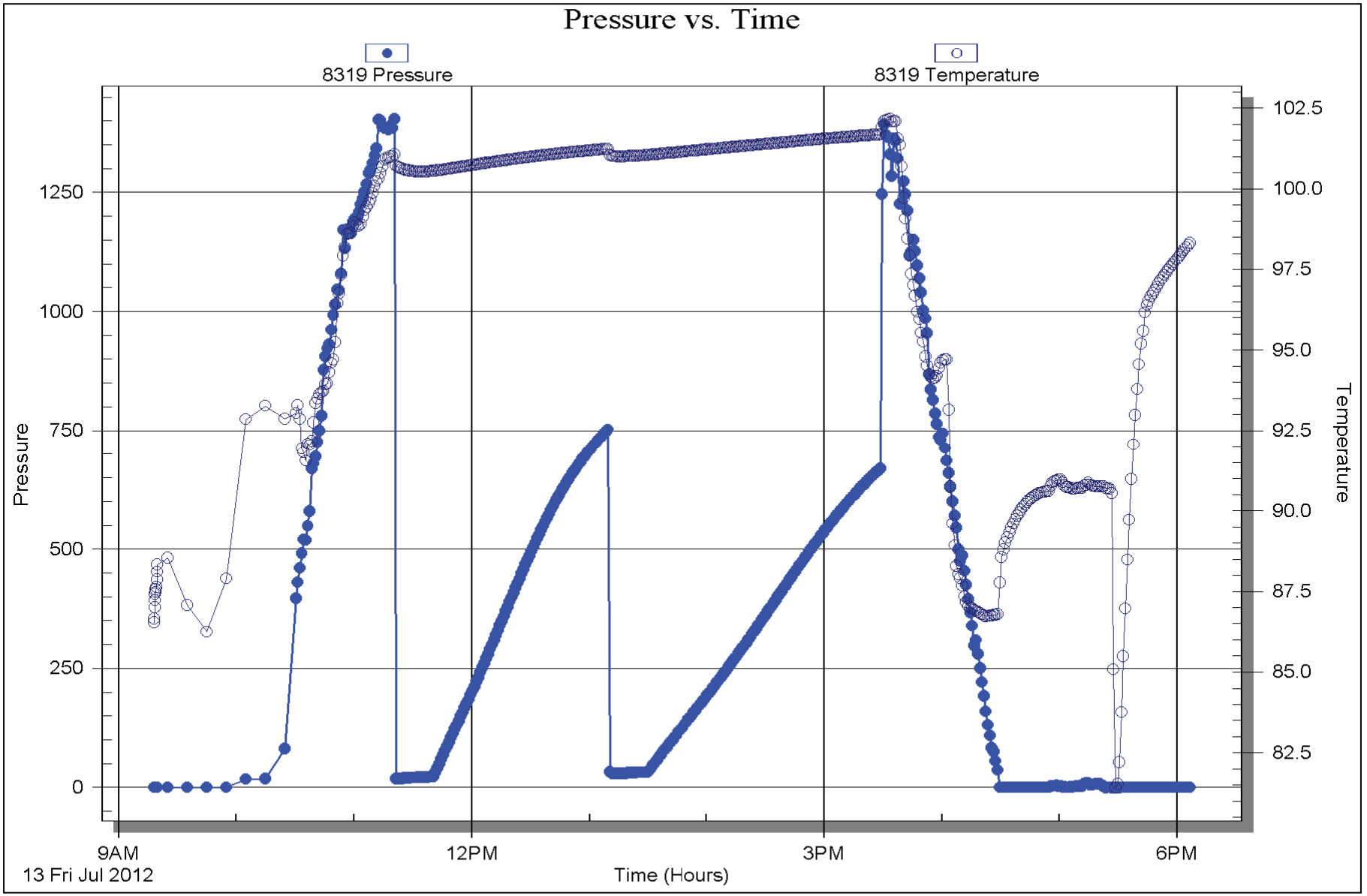
Trilobite Testing, Inc Ref. No: 49269 Printed: 2012.07.19 @ 10:09:02

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



Trilobite Testing, Inc Ref. No: 49269 Printed: 2012.07.19 @ 10:09:02

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



Trilobite Testing, Inc Ref. No: 49269 Printed: 2012.07.19 @ 10:09:03