



DRILL STEM TEST REPORT

Prepared For: **SGA Inc.**

1515 Wykoop
STE 700
Denver Co 80202

ATTN: Dan Pritchard

Wagoner #2-2

2-5S-24W - Norton KS

Start Date: 2014.10.10 @ 17:02:00

End Date: 2014.10.11 @ 00:27:00

Job Ticket #: 60027 DST #: 2

Trilobite Testing, Inc
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TESTING, INC**

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Test Start: 2014.10.10 @ 17:02:00

GENERAL INFORMATION:

Formation: **LKC " B "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:47:30
 Time Test Ended: 00:27:00
 Interval: **3518.00 ft (KB) To 3548.00 ft (KB) (TVD)**
 Total Depth: 3548.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Nichols
 Unit No: 78
 Reference Elevations: 2391.00 ft (KB)
 2386.00 ft (CF)
 KB to GR/CF: 5.00 ft

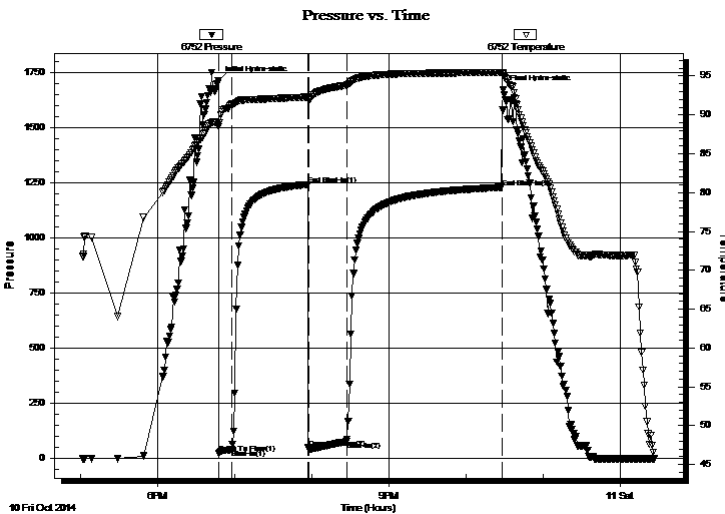
Serial #: 6752

Inside

Press@RunDepth: 75.81 psig @ 3519.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.10.10 End Date: 2014.10.11 Last Calib.: 2014.10.11
 Start Time: 17:02:05 End Time: 00:26:59 Time On Btm: 2014.10.10 @ 18:47:15
 Time Off Btm: 2014.10.10 @ 22:28:30

TEST COMMENT: 10 IF - 1/2" blow built to 7 1/4"
 60 ISI - Surface blow died @ 33 mins
 30 FF - 1/2" blow built to BoB @ 11 mins
 120 FSI - Surface blow built to 4 1/4"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1711.98	88.78	Initial Hydro-static
1	20.41	88.51	Open To Flow (1)
11	39.92	91.33	Shut-In(1)
70	1240.87	92.28	End Shut-In(1)
71	44.37	92.01	Open To Flow (2)
100	75.81	93.84	Shut-In(2)
221	1228.03	95.47	End Shut-In(2)
222	1669.56	95.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GOCM - 10%G - 30%o - 60%M	0.60
63.00	GO - 15%G - 85%o	0.88
24.00	GO - 5%G - 95%o	0.34

* Recovery from multiple tests

Gas Rates

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



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TOOL DIAGRAM

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Tool Information

Drill Pipe:	Length: 3474.00 ft	Diameter: 3.80 inches	Volume: 48.73 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: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 48.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3518.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	63.00 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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Recorder	0.00	8734	Fluid	3485.00	
Handling Sub	5.00			3490.00	
Shut In Tool	5.00			3495.00	
Sampler	2.00			3497.00	
Hydraulic tool	5.00			3502.00	
Jars	5.00			3507.00	
Safety Joint	2.00			3509.00	
Packer	5.00			3514.00	33.00 Bottom Of Top Packer
Packer	4.00			3518.00	
Stubb	1.00			3519.00	
Recorder	0.00	6752	Inside	3519.00	
Recorder	0.00	8322	Outside	3519.00	
Perforations	26.00			3545.00	
Bullnose	3.00			3548.00	30.00 Bottom Packers & Anchor

Total Tool Length: 63.00



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 27 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.78 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 500.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

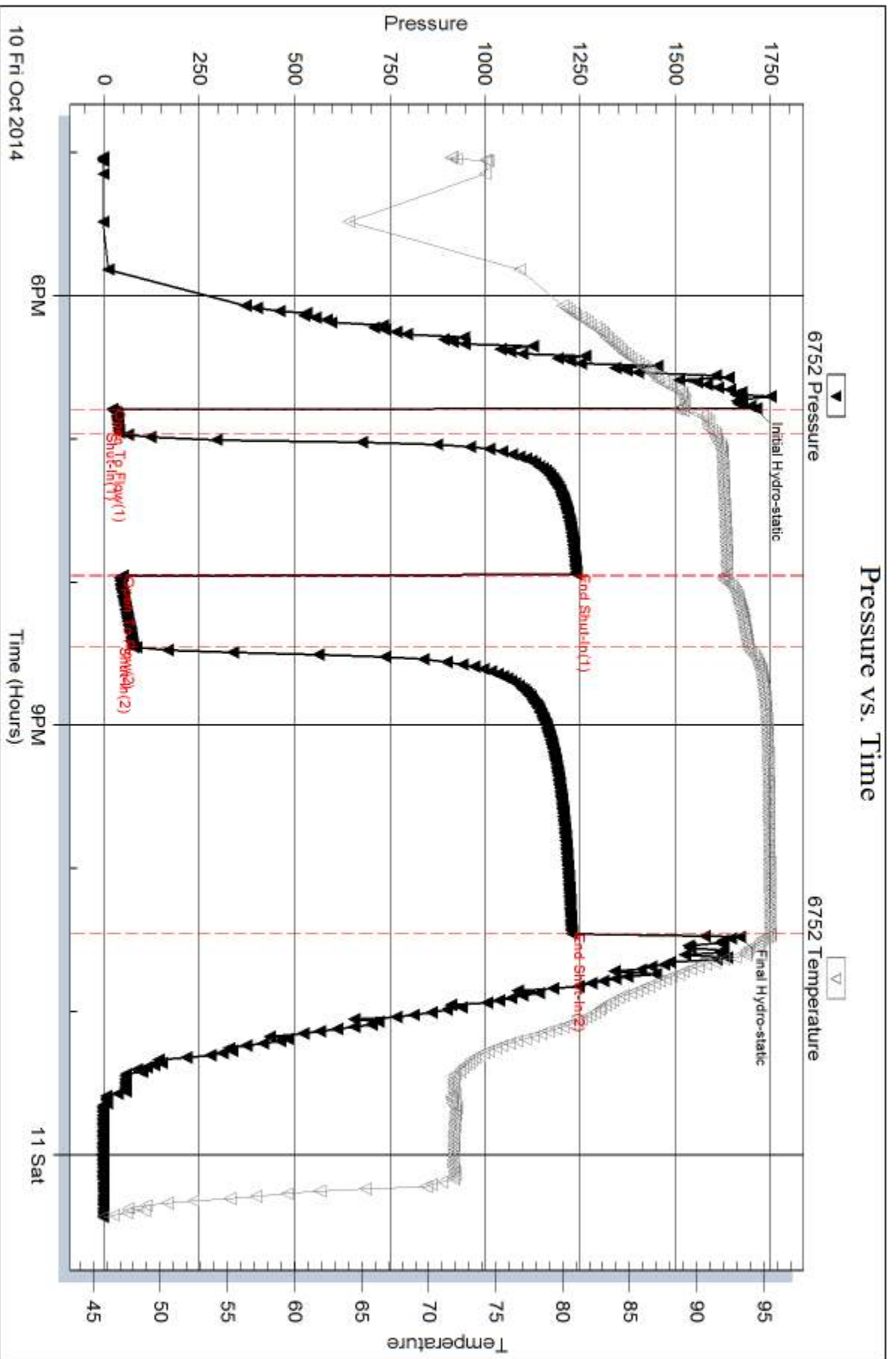
Length ft	Description	Volume bbl
63.00	GOCM - 10%G - 30%o - 60%M	0.601
63.00	GO - 15%G - 85%o	0.884
24.00	GO - 5%G - 95%o	0.337

Total Length: 150.00 ft Total Volume: 1.822 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Sampler = 900ml G - 1100ml o - 20000ml total - 440 PSI
OIL API = 28 @ 70 DEG F = 27 COR 60 DEG F



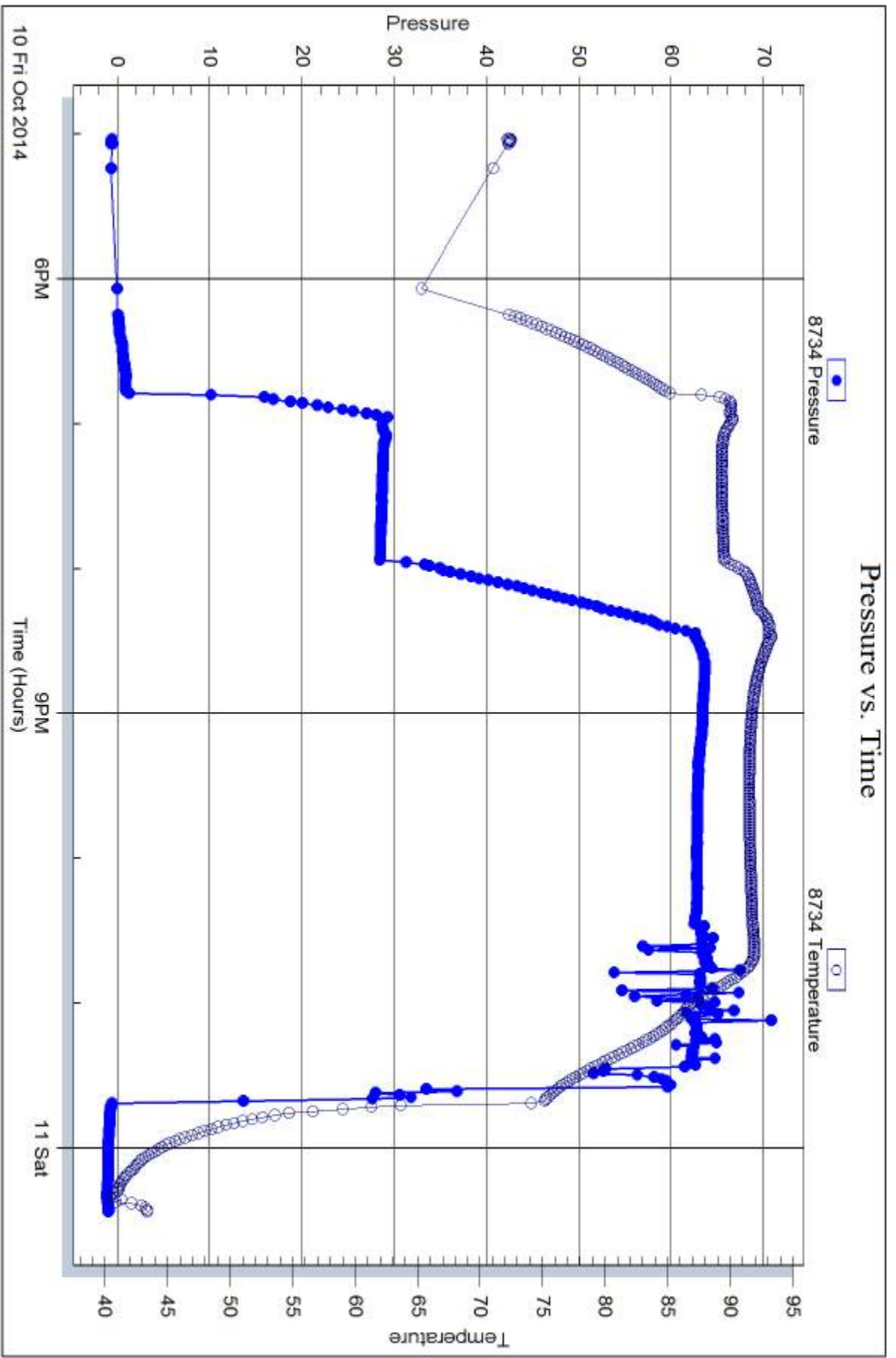
Serial #: 8734

Fluid

SGA Inc.

Wagner #2-2

DST Test Number: 2



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Ref. No: 60027

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