

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 East 22nd St. North
Wichita Kansas 67278

ATTN: Max Lovely

C&W #1

31-16s-37w-Wichita

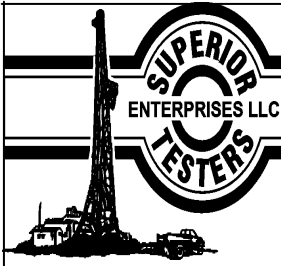
Start Date: 2014.07.16 @ 05:40:00

End Date: 2014.07.16 @ 13:09:30

Job Ticket #: 18349 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

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DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

31-16s-37w-Wichita

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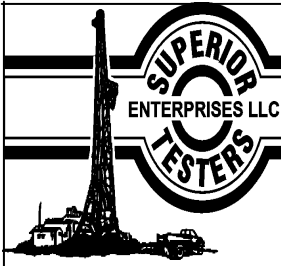
Test Start: 2014.07.16 @ 05:40:00

Tool Information

Drill Pipe:	Length: 4406.00 ft	Diameter: 3.80 inches	Volume: 61.80 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 116.94 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 62.38 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.94 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4537.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4514.00	
Hydraulic tool	5.00			4519.00	
Jars	6.00			4525.00	
Safety Joint	2.00			4527.00	
Top Packer	5.00			4532.00	
Packer	5.00			4537.00	28.00 Bottom Of Top Packer
Perforations	18.00			4555.00	
Recorder	0.00	8731	Inside	4555.00	
Recorder	0.00	6999	Outside	4555.00	
Bull Plug	5.00			4560.00	23.00 Anchor Tool
Total Tool Length:	51.00				



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FLUID SUMMARY

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C&W #1

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DST#: 1

ATTN: Max Lovely

Test Start: 2014.07.16 @ 05:40:00

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
122.00	Gassy mud cut oil	0.646
0.00	Mud 60% Oil 20% Gas 20%	0.000
156.00	Gassy mud cut oil	2.188
0.00	Mud 50% Oil 25% Gas 25%	0.000
0.00	270 Ft. Gas in pipe.	0.000

Total Length: 278.00 ft

Total Volume: 2.834 bbl

Num Fluid Samples: 0

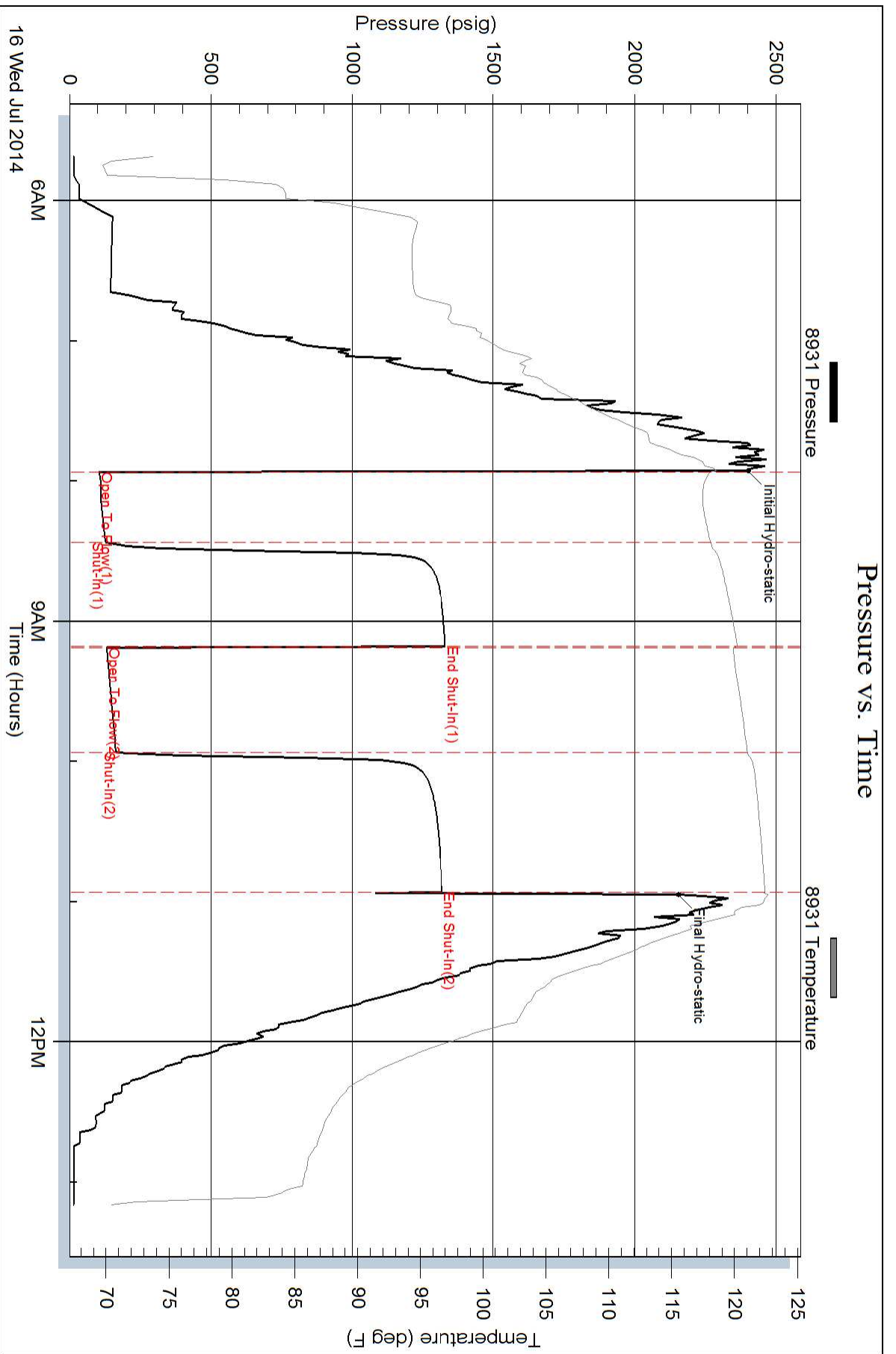
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Pressure vs. Time

