



## DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Company**

1700 North Waterfront Parkway Wichita  
Kansas  
67206

ATTN: Kevin Kessler

**Patricia 1-31**

**31-16s-22w-Ness**

Start Date: 2011.12.04 @ 09:30:00

End Date: 2011.12.04 @ 15:19:30

Job Ticket #: 17241                      DST #: 1

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

Printed: 2011.12.04 @ 15:32:55



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67206

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Job Ticket: 17241

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Test Start: 2011.12.04 @ 09:30:00

## GENERAL INFORMATION:

Formation: **Fort Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:30:00

Time Test Ended: 15:19:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-GB-150

**Interval: 4270.00 ft (KB) To 4320.00 ft (KB) (TVD)**

Reference Elevations: 2380.00 ft (KB)

Total Depth: 4320.00 ft (KB) (TVD)

2371.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

**Serial #: 6663 Outside**

Press @ RunDepth: 109.56 psia @ 4317.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.12.04

End Date: 2011.12.04

Last Calib.: 2011.12.04

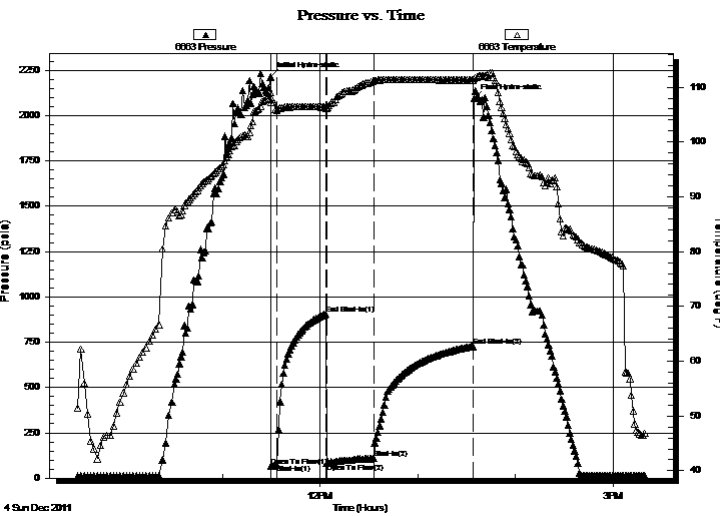
Start Time: 09:30:00

End Time: 15:19:30

Time On Btm: 2011.12.04 @ 11:29:30

Time Off Btm: 2011.12.04 @ 13:34:30

**TEST COMMENT:** 1st Open 5 minutes Weak building blow built to 1.5 inches into the bucket  
1st Shut in 30 minutes No blow back  
2nd Open 30 minutes Weak surface blow then died off  
2nd Shut in 60 minutes No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2212.97	108.96	Initial Hydro-static
1	66.75	107.18	Open To Flow (1)
4	74.88	105.82	Shut-In(1)
34	905.38	106.38	End Shut-In(1)
35	81.46	106.18	Open To Flow (2)
64	109.56	111.16	Shut-In(2)
125	726.00	111.31	End Shut-In(2)
125	2093.25	111.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	Drilling Mud	0.34

## Gas Rates

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



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2371.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

**Serial #: 6806 Inside**

Press @ Run Depth: 724.50 psia @ 4316.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.12.04

End Date:

2011.12.04

Last Calib.:

2011.12.04

Start Time:

09:30:00

End Time:

15:19:00

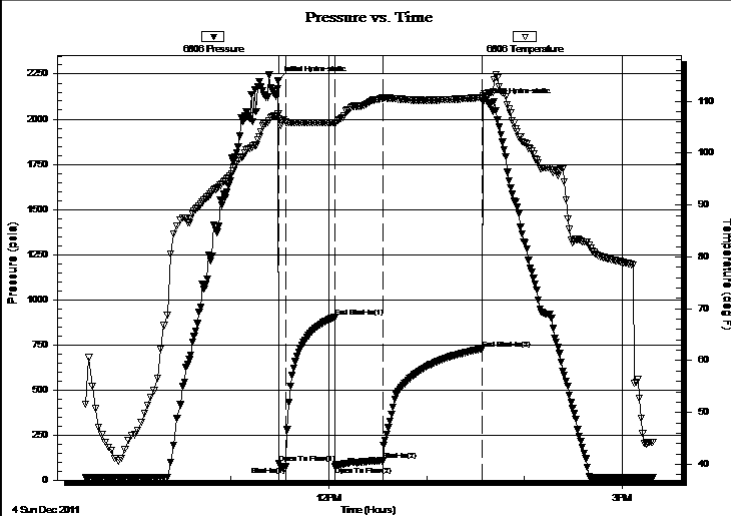
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## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2211.98	107.48	Initial Hydro-static
1	93.50	106.63	Open To Flow (1)
5	74.34	105.96	Shut-In(1)
35	901.37	105.81	End Shut-In(1)
35	78.46	105.63	Open To Flow (2)
64	107.27	110.60	Shut-In(2)
125	724.50	110.70	End Shut-In(2)
126	2093.59	111.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	Drilling Mud	0.34

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mull Drilling Company

**31-16s-22w-Ness**

1700 North Waterfront Parkway Wichita Kansas  
67206

**Patricia 1-31**

Job Ticket: 17241

**DST#: 1**

ATTN: Kevin Kessler

Test Start: 2011.12.04 @ 09:30:00

## Tool Information

Drill Pipe:	Length: 4098.00 ft	Diameter: 3.80 inches	Volume: 57.48 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: 163.25 ft	Diameter: 2.25 inches	Volume: 0.80 bbl	Weight to Pull Loose: 71000.00 lb
			<u>Total Volume: 58.28 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.25 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4270.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	78.00 ft			
Number of Packers:	2	Diameter: 6.25 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			4247.00	
Hydraulic Tool	5.00			4252.00	
Jars	6.00			4258.00	
Safety Joint	2.00			4260.00	
Packer	5.00			4265.00	28.00 Bottom Of Top Packer
Packer	5.00			4270.00	
Perforations	0.00			4270.00	
Change Over Sub	0.75			4270.75	
Drill Pipe	31.00			4301.75	
Change Over Sub	0.75			4302.50	
Perforations	12.50			4315.00	
Recorder	1.00	6806	Inside	4316.00	
Recorder	1.00	6663	Outside	4317.00	
Bull Plug	3.00			4320.00	50.00 Bottom Packers & Anchor

**Total Tool Length: 78.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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### 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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
70.00	Drilling Mud	0.344

Total Length: 70.00 ft      Total Volume: 0.344 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

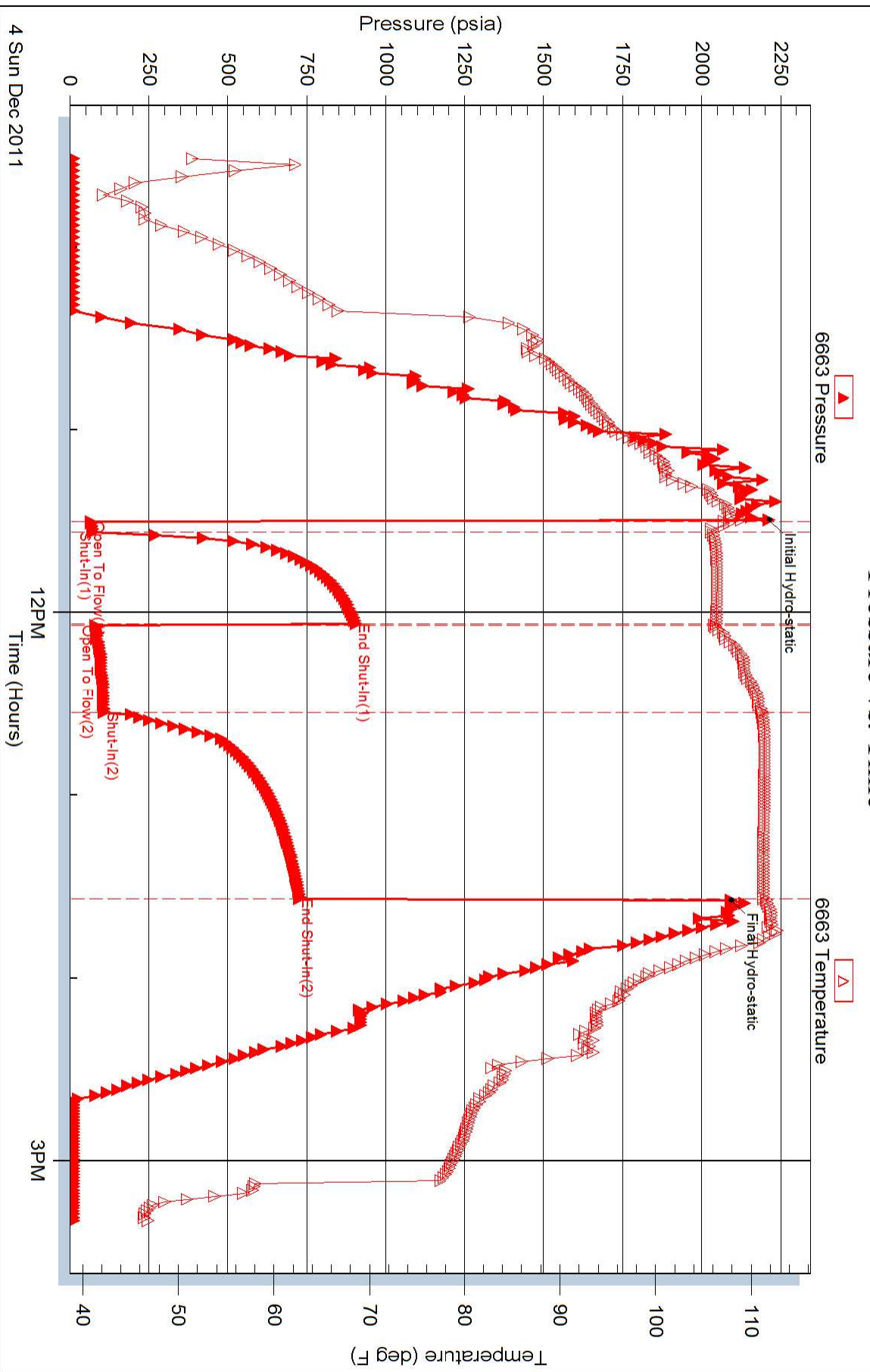
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time

