



## DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Company Inc.**

250 North Water Suite 300  
Wichita Kansas 67202

ATTN: Phil Askey

**15/17S/45W Kiowa/Col**

**APC-Scherler #1-15**

Start Date: 2011.03.28 @ 02:45:00

End Date: 2011.03.28 @ 12:25:00

Job Ticket #: 15979                      DST #: 2

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

Printed: 2011.03.28 @ 13:42:08

Mull Drilling Company Inc.

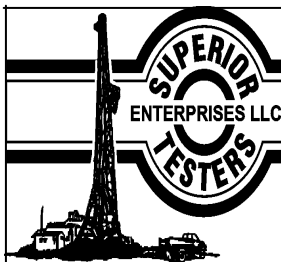
APC-Scherler #1-15

15/17S/45W Kiowa/Col

DST # 2

Lansing

2011.03.28



# DRILL STEM TEST REPORT

Mull Drilling Company Inc.

250 North Water Suite 300  
Wichita Kansas 67202

ATTN: Phil Askey

APC-Scherler #1-15

15/17S/45W Kiowa/Col

Job Ticket: 15979

DST#: 2

Test Start: 2011.03.28 @ 02:45:00

## GENERAL INFORMATION:

Formation: **Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:38:00

Time Test Ended: 12:25:00

Interval: **4229.00 ft (KB) To 4242.00 ft (KB) (TVD)**

Total Depth: 4242.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345/Scott City/170

Reference Elevations: 4128.00 ft (KB)

4117.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: **8400** Outside

Press @ Run Depth: 732.85 psia @ 4239.00 ft (KB)

Start Date: 2011.03.28

End Date:

2011.03.28

Start Time: 02:45:00

End Time:

12:25:00

Capacity: 5000.00 psia

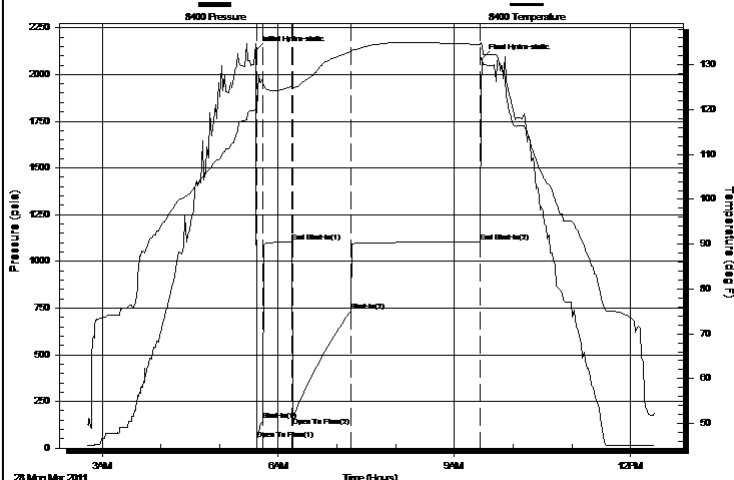
Last Calib.: 2011.03.28

Time On Btm: 2011.03.28 @ 05:37:00

Time Off Btm: 2011.03.28 @ 09:28:00

TEST COMMENT: 1ST Opening 5 Minutes good blow/blow built to 10 inches into bucket of water  
1ST Shut-In 30 Minutes no blow back  
2ND Opening 60 Minutes good blow/blow blew to bottom of bucket of water in 7 minutes  
2ND Shut-In 120 Minutes no blow back

Pressure vs. Time



PRESSURE SUMMARY

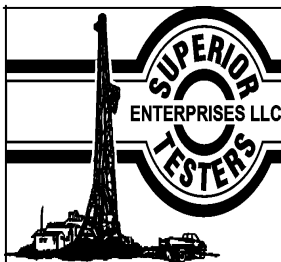
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2126.11	120.38	Initial Hydro-static
1	47.53	120.08	Open To Flow (1)
8	149.81	126.31	Shut-In (1)
37	1101.89	125.18	End Shut-In (1)
38	166.87	124.95	Open To Flow (2)
97	732.85	132.96	Shut-In (2)
230	1101.35	134.60	End Shut-In (2)
231	2083.72	134.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1638.00	Salt Water with a few Oil specks on top	21.28
0.00	100% Water	0.00
0.00	Chlorides were 21,000.0	0.00
0.00	Resistivity was .30 @ 54 degrees	0.00

Gas Rates

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



# DRILL STEM TEST REPORT

Mull Drilling Company Inc.

250 North Water Suite 300  
Wichita Kansas 67202

ATTN: Phil Askey

APC-Scherler #1-15

15/17S/45W Kiowa/Col

Job Ticket: 15979

DST#: 2

Test Start: 2011.03.28 @ 02:45:00

## GENERAL INFORMATION:

Formation: **Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:38:00

Time Test Ended: 12:25:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345/Scott City/170

Interval: **4229.00 ft (KB) To 4242.00 ft (KB) (TVD)**

Total Depth: 4242.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 4128.00 ft (KB)

4117.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: **8405** Inside

Press @ Run Depth: 1098.62 psia @ 4238.00 ft (KB)

Start Date: 2011.03.28

End Date:

2011.03.28

Start Time: 02:45:00

End Time:

12:24:34

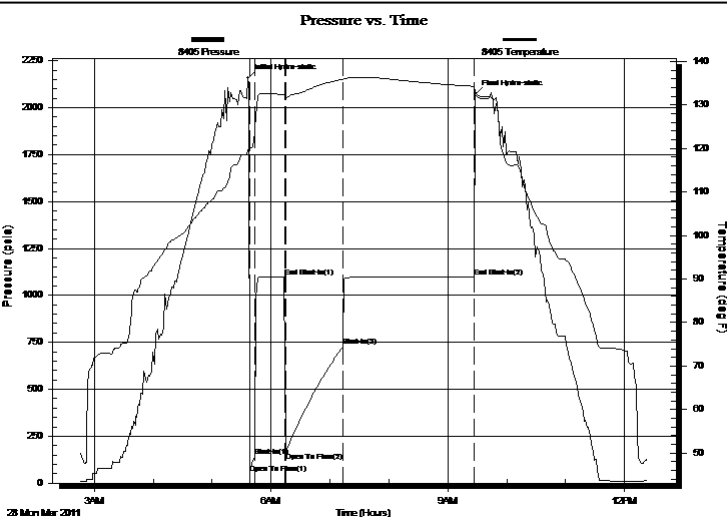
Capacity: 5000.00 psia

Last Calib.: 2011.03.28

Time On Btm: 2011.03.28 @ 05:36:34

Time Off Btm: 2011.03.28 @ 09:28:04

TEST COMMENT: 1ST Opening 5 Minutes good blow/blow built to 10 inches into bucket of water  
1ST Shut-In 30 Minutes no blow back  
2ND Opening 60 Minutes good blow/blow blew to bottom of bucket of water in 7 minutes  
2ND Shut-In 120 Minutes no blow back



## PRESSURE SUMMARY

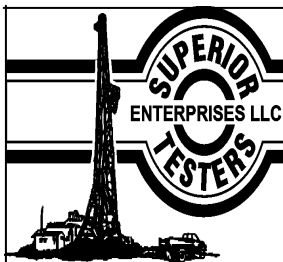
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2156.73	119.39	Initial Hydro-static
2	52.71	119.48	Open To Flow (1)
7	142.56	124.66	Shut-In(1)
37	1100.04	132.25	End Shut-In(1)
38	162.94	131.87	Open To Flow (2)
97	728.66	135.86	Shut-In(2)
231	1098.62	134.25	End Shut-In(2)
232	2071.53	133.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1638.00	Salt Water with a few Oil specks on top	21.28
0.00	100% Water	0.00
0.00	Chlorides were 21,000.0	0.00
0.00	Resistivity was .30 @ 54 degrees	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Company Inc.

APC-Scherler #1-15

250 North Water Suite 300  
Wichita Kansas 67202

15/17S/45W Kiowa/Col

Job Ticket: 15979

DST#: 2

ATTN: Phil Askey

Test Start: 2011.03.28 @ 02:45:00

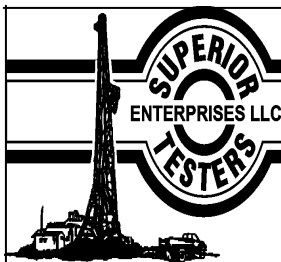
## Tool Information

Drill Pipe:	Length:	4028.00 ft	Diameter:	3.80 inches	Volume:	56.50 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:	186.11 ft	Diameter:	2.25 inches	Volume:	0.92 bbl	Weight to Pull Loose:	12000.00 lb
					Total Volume:	57.42 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		5.11 ft					String Weight: Initial	62000.00 lb
Depth to Top Packer:		4229.00 ft					Final	66000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		13.00 ft						
Tool Length:		33.00 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			4214.00	
Hydraulic Tool	5.00			4219.00	
Packer	5.00			4224.00	20.00 Bottom Of Top Packer
Packer	5.00			4229.00	
Perforations	8.00			4237.00	
Recorder	1.00	8405	Inside	4238.00	
Recorder	1.00	8400	Outside	4239.00	
Bull Plug	3.00			4242.00	13.00 Bottom Packers & Anchor

**Total Tool Length: 33.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Mull Drilling Company Inc.

**APC-Scherler #1-15**

250 North Water Suite 300  
Wichita Kansas 67202

**15/17S/45W Kiowa/Col**

Job Ticket: 15979

**DST#: 2**

ATTN: Phil Askey

Test Start: 2011.03.28 @ 02:45:00

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 11.20 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 9200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1638.00	Salt Water w ith a few Oil specks on top	21.281
0.00	100% Water	0.000
0.00	Chlorides were 21,000.0	0.000
0.00	Resistivity was .30 @ 54 degrees	0.000

Total Length: 1638.00 ft

Total Volume: 21.281 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

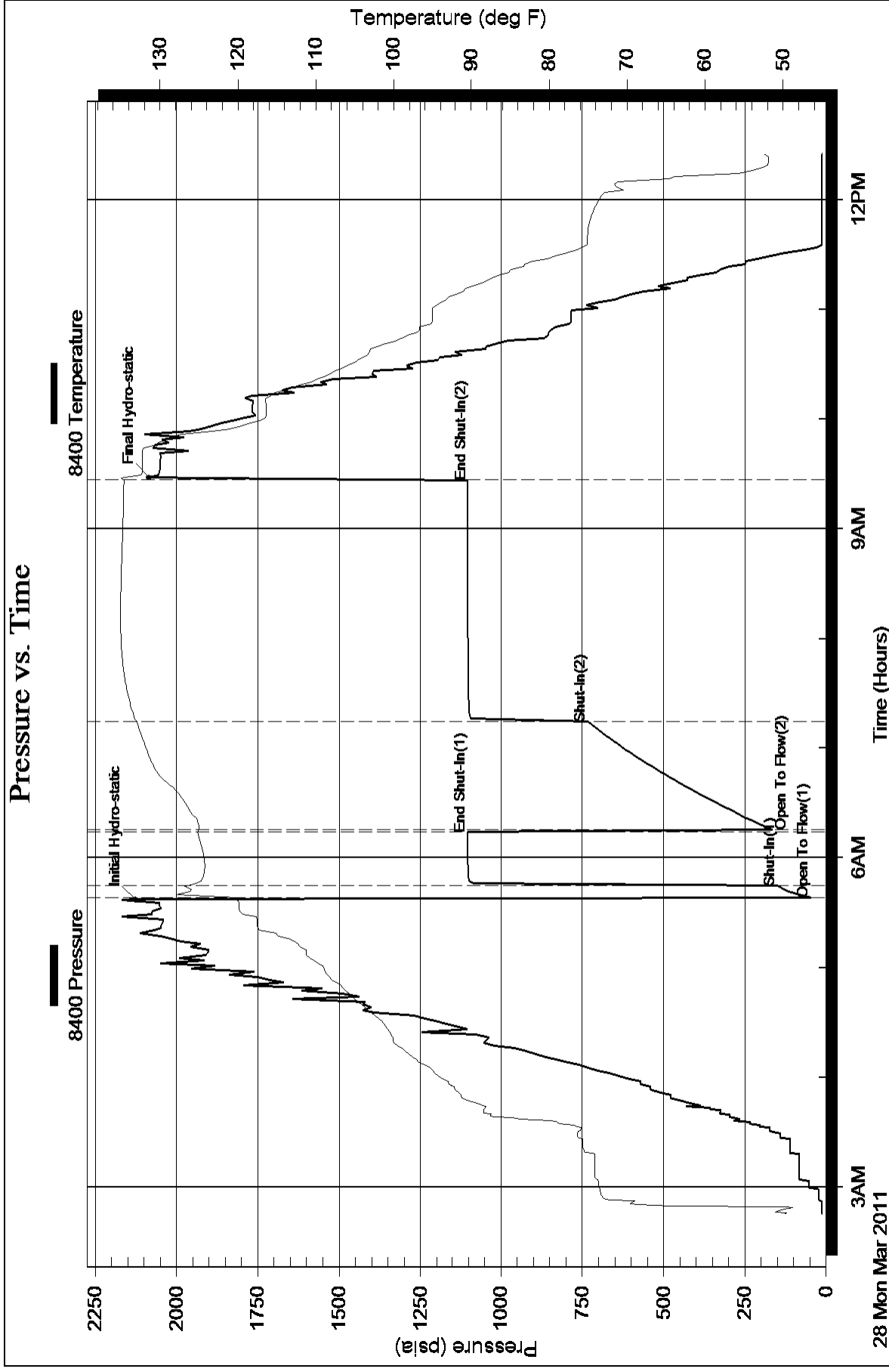
Recovery Comments:

Serial #: 8400

Outside Mull Drilling Company Inc.

15/17S/45W Kiow a/Col

DST Test Number: 2



Serial #: 8405

Inside

Mull Drilling Company Inc.

15/17S/45W Kiow a/Col

DST Test Number: 2

## Pressure vs. Time

