



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: 2011.03.30 @ 04:53:00

End Date: 2011.03.30 @ 12:40:02

Job Ticket #: 15981 DST #: 4

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

Printed: 2011.03.31 @ 01:54:13

Mull Drilling Company Inc.

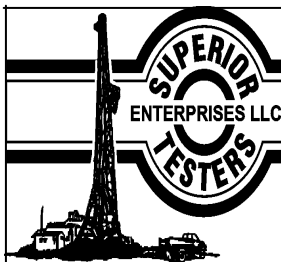
APC-Scherler #1-15

15/17S/45W KiowaCol

DST # 4

Marmoton

2011.03.30



DRILL STEM TEST REPORT

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250 North Water Suite 300
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APC-Scherler #1-15

15/17S/45W Kiowa/Col

Job Ticket: 15981

DST#: 4

Test Start: 2011.03.30 @ 04:53:00

GENERAL INFORMATION:

Formation: **Marmoton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:36:02

Time Test Ended: 12:40:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345/Scott City/170

Interval: **4419.00 ft (KB) To 4452.00 ft (KB) (TVD)**

Total Depth: 4452.00 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 @ RunDepth: 304.20 psia @ 4448.00 ft (KB)

Start Date: 2011.03.30

End Date:

2011.03.30

Start Time: 04:53:00

End Time:

12:40:02

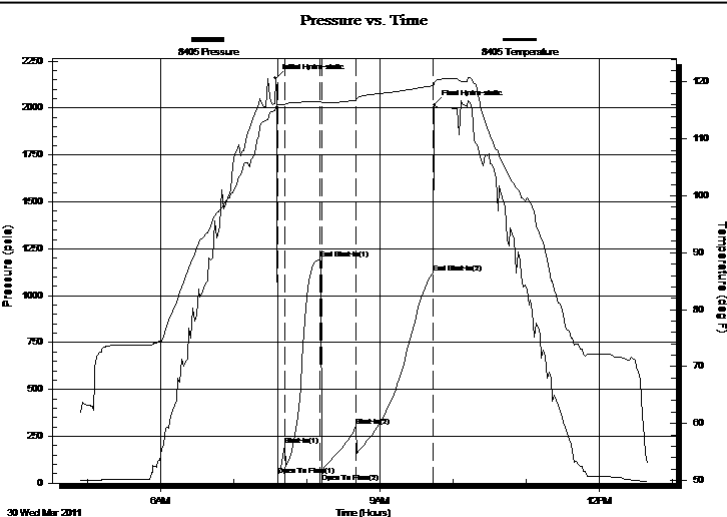
Capacity: 5000.00 psia

Last Calib.: 2011.03.31

Time On Btm: 2011.03.30 @ 07:34:02

Time Off Btm: 2011.03.30 @ 09:44:32

TEST COMMENT: 1ST Opening 5 Minutes weak surface blow / blow died in 4 minutes
1ST Shut-In 30 Minutes no blow back
2ND Opening 30 Minutes weak surface blow / blow died in 6 minutes
2ND Shut-In 60 Minutes no blow back



PRESSURE SUMMARY

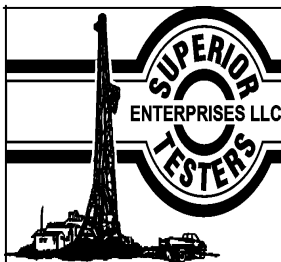
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2159.64	115.28	Initial Hydro-static
2	43.73	115.97	Open To Flow (1)
8	200.01	116.08	Shut-In (1)
37	1193.48	116.58	End Shut-In (1)
38	54.16	116.33	Open To Flow (2)
66	304.20	116.80	Shut-In (2)
129	1119.64	119.35	End Shut-In (2)
131	2018.35	119.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Drilling Mud 100%	0.15

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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15/17S/45W Kiowa/Col

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Unit No: 3345/Scott City/170

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Total Depth: 4452.00 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 #: **8400** Outside

Press @ Run Depth: 1121.02 psia @ 4449.00 ft (KB)

Start Date: 2011.03.30

End Date:

2011.03.30

Start Time: 04:53:00

End Time:

12:40:30

Capacity: 5000.00 psia

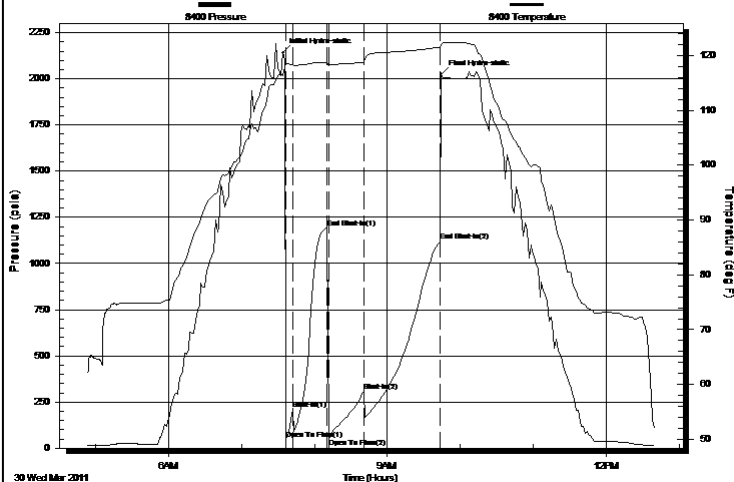
Last Calib.: 2011.03.31

Time On Btm: 2011.03.30 @ 07:34:00

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TEST COMMENT: 1ST Opening 5 Minutes weak surface blow / blow died in 4 minutes
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Pressure vs. Time



PRESSURE SUMMARY

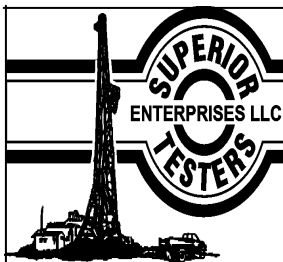
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2141.57	116.35	Initial Hydro-static
3	46.79	118.47	Open To Flow (1)
8	209.82	118.35	Shut-In(1)
37	1192.94	118.78	End Shut-In(1)
38	55.89	118.47	Open To Flow (2)
67	306.97	118.77	Shut-In(2)
130	1121.02	121.50	End Shut-In(2)
131	2023.60	122.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Drilling Mud 100%	0.15

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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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: 15981

DST#: 4

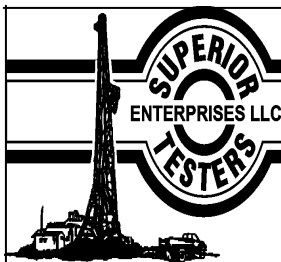
ATTN: Phil Askey

Test Start: 2011.03.30 @ 04:53:00

Tool Information

Drill Pipe:	Length: 4219.00 ft	Diameter: 3.80 inches	Volume: 59.18 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: 44000.00 lb
		Total Volume:	60.10 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.11 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4419.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	61.00 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			4396.00	
Hydrolic Tool	5.00			4401.00	
Jars	6.00			4407.00	
Safety Joint	2.00			4409.00	
Packer	5.00			4414.00	28.00 Bottom Of Top Packer
Packer	5.00			4419.00	
Perforations	28.00			4447.00	
Recorder	1.00	8405	Inside	4448.00	
Recorder	1.00	8400	Outside	4449.00	
Bull Plug	3.00			4452.00	33.00 Bottom Packers & Anchor
Total Tool Length:	61.00				



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FLUID SUMMARY

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DST#: 4

ATTN: Phil Askey

Test Start: 2011.03.30 @ 04:53:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 64.00 sec/qt

Water Loss: 8.00 in³

Resistivity: ohm.m

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psia

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Drilling Mud 100%	0.148

Total Length: 30.00 ft

Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

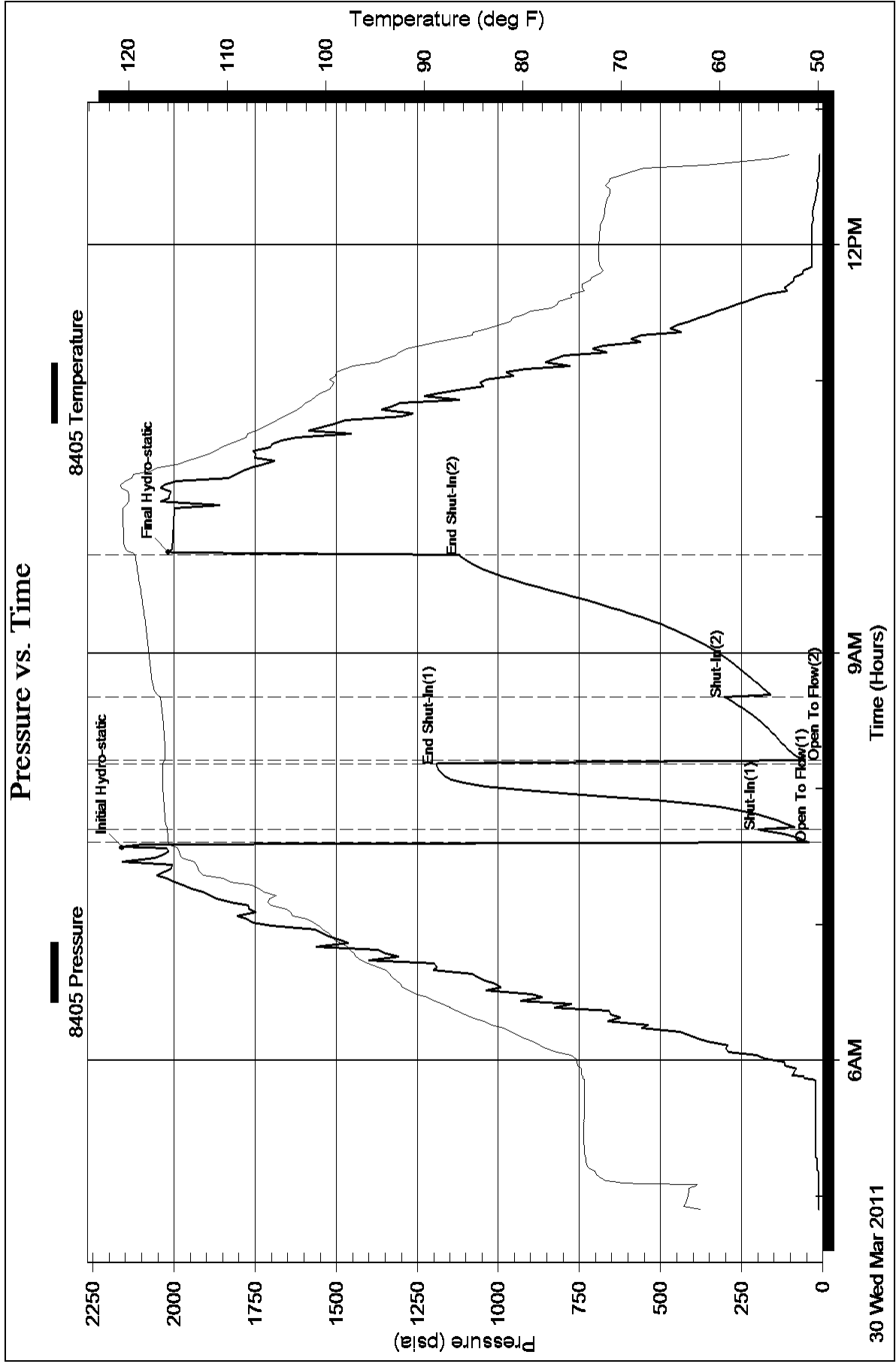
Serial #: 8405

Inside

Mull Drilling Company Inc.

15/17S/45W Kiow a/Col

DST Test Number: 4



Serial #: 8400

Outside Mull Drilling Company Inc.

15/17S/45W Kiow a/Col

DST Test Number: 4

Pressure vs. Time

