



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

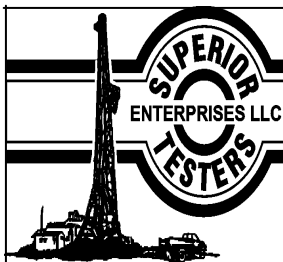
Start Date: 2011.03.26 @ 08:20:00

End Date: 2011.03.26 @ 17:22:00

Job Ticket #: 15978 DST #: 1

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

Printed: 2011.03.27 @ 06:30:44



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APC-Scherler #1-15

15/17S/45W Kiowa/Col

Job Ticket: 15978

DST#: 1

Test Start: 2011.03.26 @ 08:20:00

GENERAL INFORMATION:

Formation: **Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:23:30

Time Test Ended: 17:22:00

Interval: **4052.00 ft (KB) To 4086.00 ft (KB) (TVD)**

Total Depth: 4086.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345/Great Bend/460

Reference Elevations: 4128.00 ft (KB)

4117.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: **8400** Outside

Press @ Run Depth: 178.48 psia @ 4083.00 ft (KB)

Start Date: 2011.03.26

End Date:

2011.03.26

Start Time: 08:20:00

End Time:

17:22:00

Capacity: 5000.00 psia

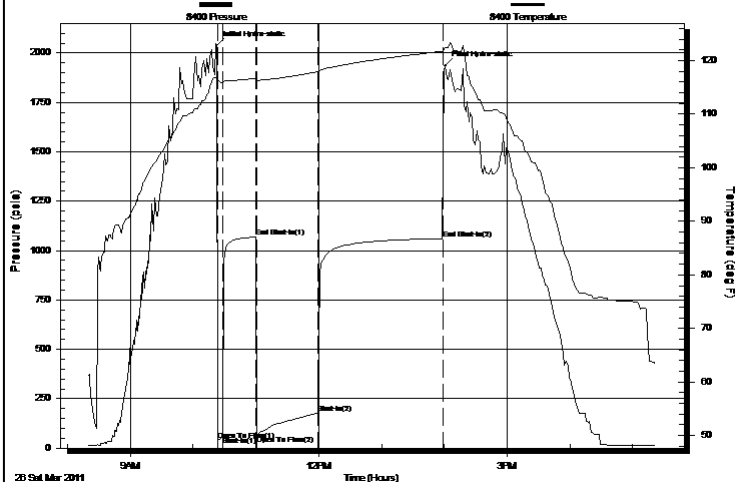
Last Calib.: 2011.03.27

Time On Btm: 2011.03.26 @ 10:22:30

Time Off Btm: 2011.03.26 @ 14:01:00

TEST COMMENT: 1ST Opening 5 Minutes weak blow /blow blew to 1 inch into bucket of water
1ST Shut-In 30 Minutes no blow back
2ND Opening 60 Minutes weak blow /blow blew 2.50 inches into bucket of water
2ND Shut-In 120 Minutes no blow

Pressure vs. Time



PRESSURE SUMMARY

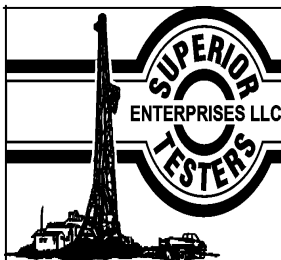
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2038.67	116.83	Initial Hydro-static
1	42.01	116.19	Open To Flow (1)
6	57.71	115.90	Shut-In(1)
37	1068.07	116.64	End Shut-In(1)
38	63.48	116.36	Open To Flow (2)
97	178.48	117.94	Shut-In(2)
216	1061.24	121.73	End Shut-In(2)
219	1936.67	122.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
360.00	Slightly Oil cut Muddy Water	3.35
0.00	Skim of Oil/Mud and Water was blended	0.00
0.00	Chlorides were 31,000.0	0.00
0.00	Resistivity was 10 @ 56 degrees	0.00

Gas Rates

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

Job Ticket: 15978

DST#: 1

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Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345/Great Bend/460

Reference Elevations: 4128.00 ft (KB)

4117.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: **8405** Inside

Press @ Run Depth: 1060.05 psia @ 4082.00 ft (KB)

Start Date: 2011.03.26

End Date:

2011.03.26

Start Time: 08:20:00

End Time:

17:22:35

Capacity: 5000.00 psia

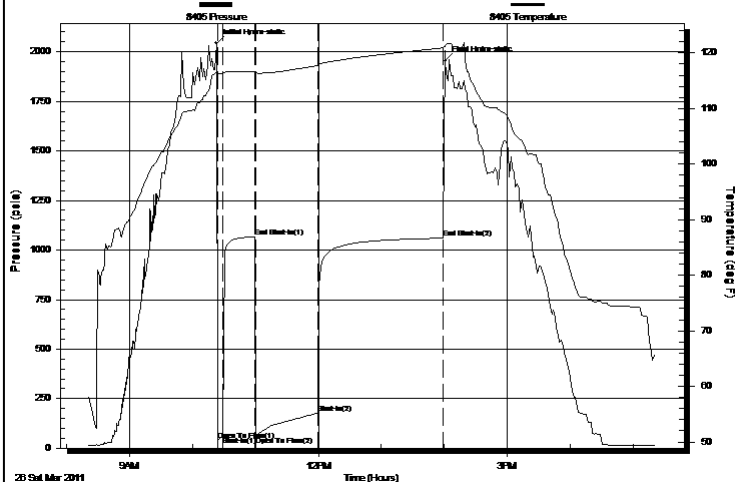
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2ND Shut-In 120 Minutes no blow

Pressure vs. Time



PRESSURE SUMMARY

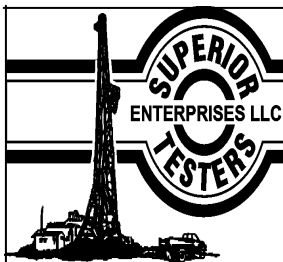
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2043.75	116.62	Initial Hydro-static
2	41.78	116.29	Open To Flow (1)
7	57.72	116.27	Shut-In(1)
37	1066.91	116.64	End Shut-In(1)
38	61.12	116.40	Open To Flow (2)
97	176.73	117.74	Shut-In(2)
217	1060.05	120.92	End Shut-In(2)
219	1954.04	121.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
360.00	Slightly Oil cut Muddy Water	3.35
0.00	Skim of Oil/Mud and Water was blended	0.00
0.00	Chlorides were 31,000.0	0.00
0.00	Resistivity was 10 @ 56 degrees	0.00

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: 15978

DST#: 1

ATTN: Phil Askey

Test Start: 2011.03.26 @ 08:20:00

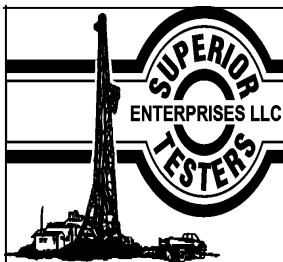
Tool Information

Drill Pipe:	Length:	3870.00 ft	Diameter:	3.80 inches	Volume:	54.29 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:	15000.00 lb
					Total Volume:	55.21 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		24.11 ft					String Weight: Initial	62000.00 lb
Depth to Top Packer:		4052.00 ft					Final	62000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		34.00 ft						
Tool Length:		54.00 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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Shut-In Tool	5.00			4037.00	
Hydraulic Tool	5.00			4042.00	
Packer	5.00			4047.00	20.00 Bottom Of Top Packer
Packer	5.00			4052.00	
Perforations	29.00			4081.00	
Recorder	1.00	8405	Inside	4082.00	
Recorder	1.00	8400	Outside	4083.00	
Bull Plug	3.00			4086.00	34.00 Bottom Packers & Anchor

Total Tool Length: 54.00



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FLUID SUMMARY

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Job Ticket: 15978

DST#: 1

ATTN: Phil Askey

Test Start: 2011.03.26 @ 08:20:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 15.20 in³

Resistivity: ohm.m

Salinity: 5700.00 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
360.00	Slightly Oil cut Muddy Water	3.354
0.00	Skim of Oil/Mud and Water w as blended	0.000
0.00	Chlorides were 31,000.0	0.000
0.00	Resistivity was 10 @ 56 degrees	0.000

Total Length: 360.00 ft

Total Volume: 3.354 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

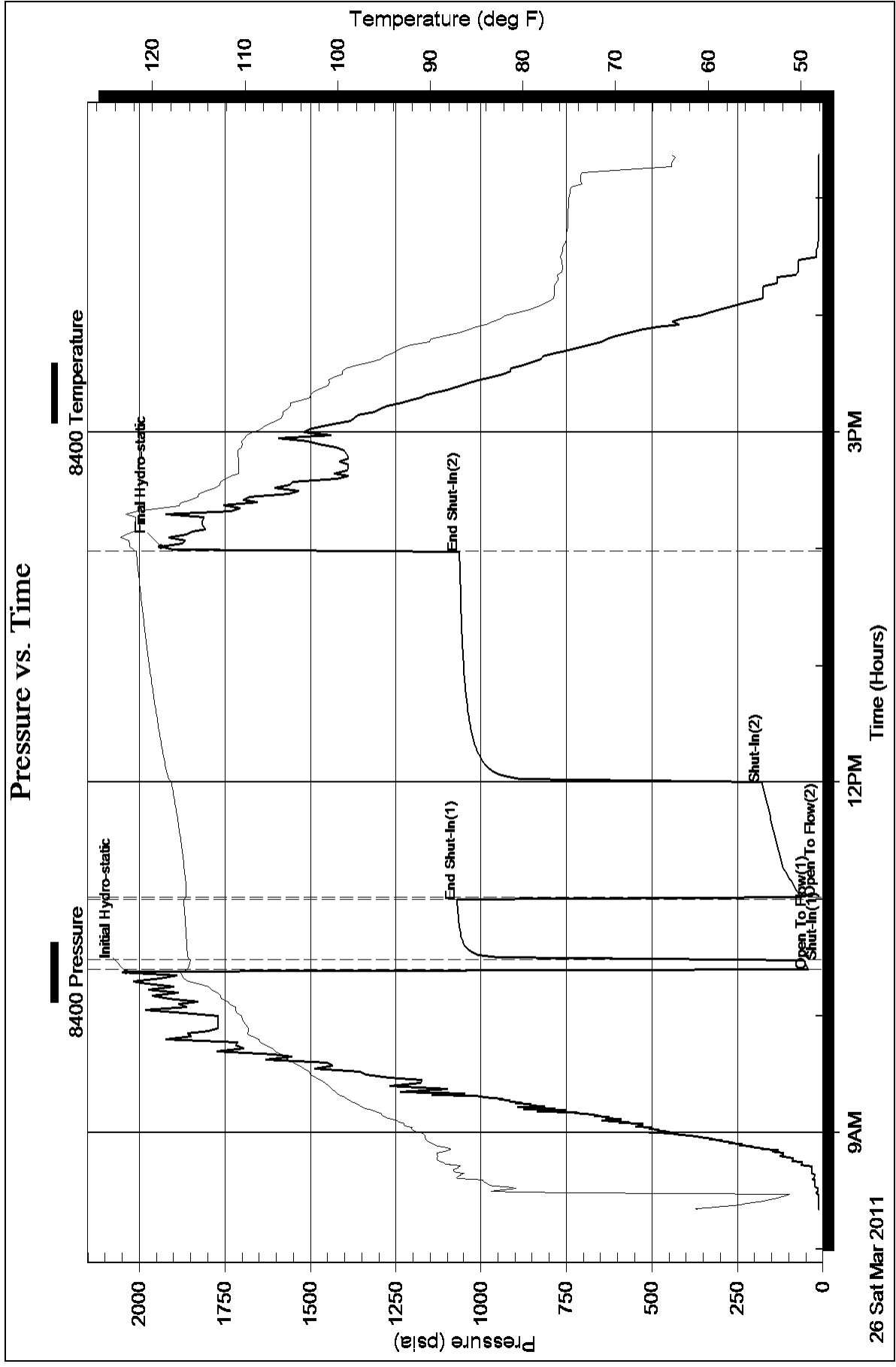
Serial #: 8400

Outside

Mull Drilling Company Inc.

15/17S/45W Kiowa/Col

DST Test Number: 1



Serial #: 8405

Inside

Mull Drilling Company Inc.

15/17S/45W Kiow a/Col

DST Test Number: 1

