



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Herman L. Loeb, LLC

29-27s-18w Kiowa Ks.

P.O.Box 838
Lawrenceville Il. 62439

Rosenberger#2-29

Job Ticket: 51893

DST#: 4

ATTN: Jon Christensen

Test Start: 2014.03.26 @ 08:57:46

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:46:31

Time Test Ended: 17:32:01

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 56

Interval: 4746.00 ft (KB) To 4802.00 ft (KB) (TVD)

Reference Elevations: 2217.00 ft (KB)

Total Depth: 4802.00 ft (KB) (TVD)

2205.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 12.00 ft

Serial #: 8352

Inside

Press@RunDepth: 379.34 psig @ 4747.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.26

End Date: 2014.03.26

Last Calib.: 2014.03.26

Start Time: 08:57:51

End Time: 17:32:01

Time On Btm: 2014.03.26 @ 10:42:16

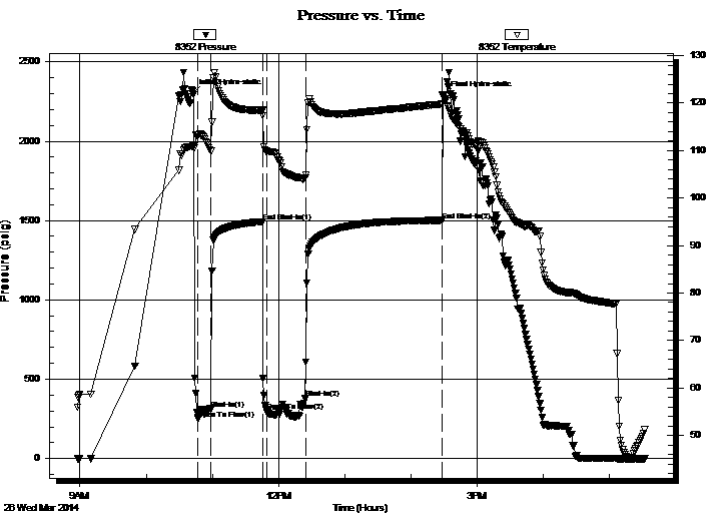
Time Off Btm: 2014.03.26 @ 14:29:46

TEST COMMENT: IF:Strong blow . GTS in 4 mins.(see gas flow report)

IS:Weak surface blow .

FF:Strong blow . See gas flow report)

FS:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2302.50	110.89	Initial Hydro-static
5	250.85	113.40	Open To Flow (1)
17	313.44	109.86	Shut-In(1)
64	1492.89	118.50	End Shut-In(1)
67	300.91	109.85	Open To Flow (2)
102	379.34	104.31	Shut-In(2)
226	1501.25	119.77	End Shut-In(2)
228	2289.68	120.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	CGO 26%g 74%o	0.59
360.00	GMCO 66%g 10%m 24%o	3.23
125.00	GOCM 25%g 15%o 60%m	1.75
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	66.00	1252.71
Last Gas Rate	0.75	64.00	1221.47
Max. Gas Rate	0.75	68.00	1283.95

* Recovery from multiple tests



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33.8 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

6000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	CGO 26%g 74%o	0.590
360.00	GMCO 66%g 10%m 24%o	3.228
125.00	GOCM 25%g 15%o 60%m	1.753
0.00	GTS	0.000

Total Length: 605.00 ft

Total Volume: 5.571 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: gp-4

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



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GAS RATES

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Rosenberger#2-29

Job Ticket: 51893

DST#: 4

ATTN: Jon Christensen

Test Start: 2014.03.26 @ 08:57:46

Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	10	0.75	66.00	1252.71
1	10	0.75	66.00	1252.71
1	15	0.75	68.00	1283.95
2	10	0.75	68.00	1283.95
2	20	0.75	66.00	1252.71
2	30	0.75	64.00	1221.47

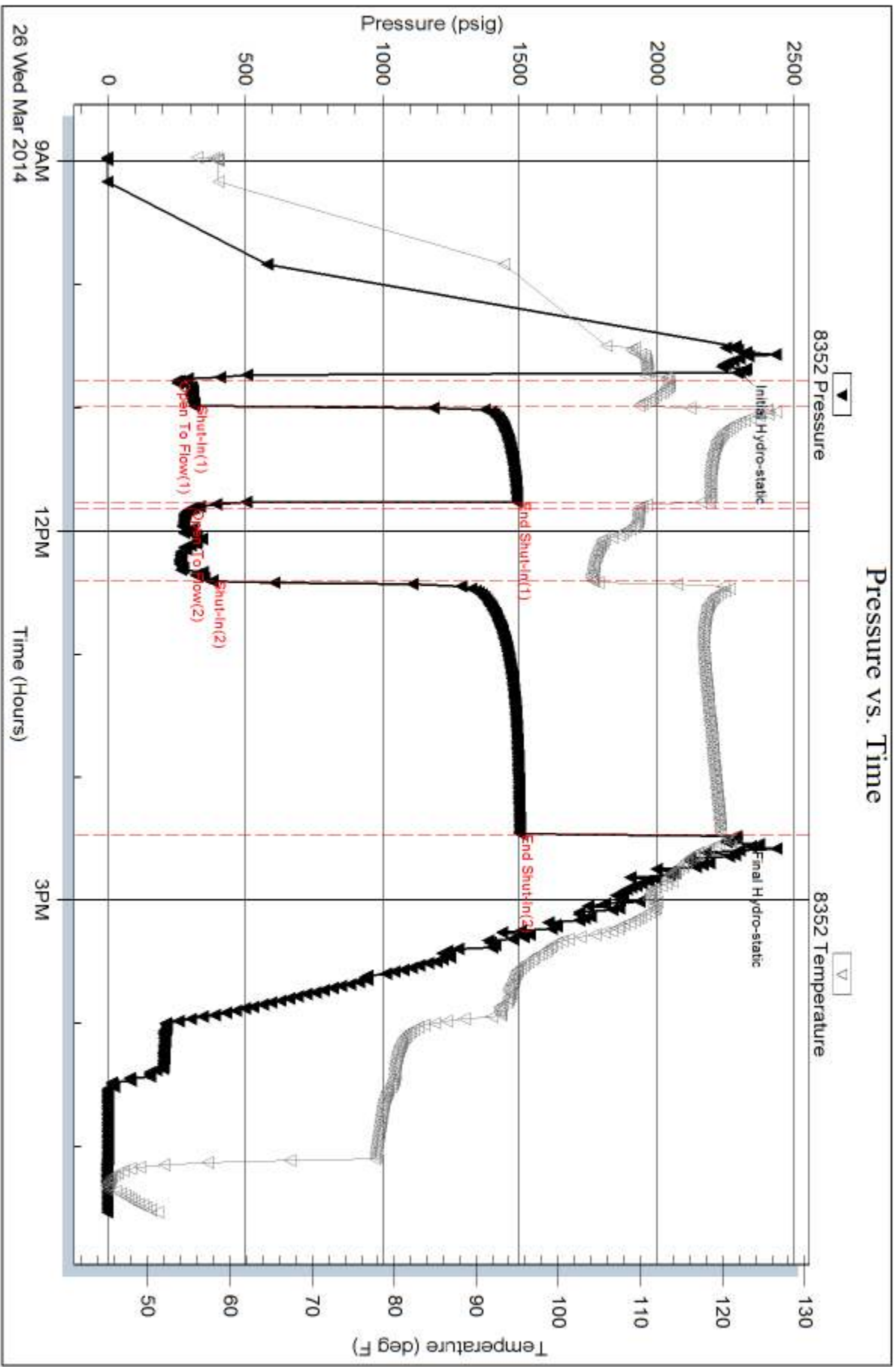
Serial #: 8352

Inside

Herman L. Loeb, LLC

Rosenberger#2-29

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 51893

Printed: 2014.03.27 @ 08:10:12