



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Herman L. Loeb LLC
 P.O.Box 838
 Lawrenceville Ill. 62439
 ATTN: Jon Christensen

20-27s-18w Kiowa Ks.
Randel#2-20
 Job Ticket: 51887 **DST#: 3**
 Test Start: 2014.03.14 @ 07:55:22

GENERAL INFORMATION:

Formation: **K.C. I&J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:34:22
 Time Test Ended: 15:42:07
 Interval: **4436.00 ft (KB) To 4466.00 ft (KB) (TVD)**
 Total Depth: 4466.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Gary Pevoteaux
 Unit No: 56
 Reference Elevations: 2218.00 ft (KB)
 2205.00 ft (CF)
 KB to GR/CF: 13.00 ft

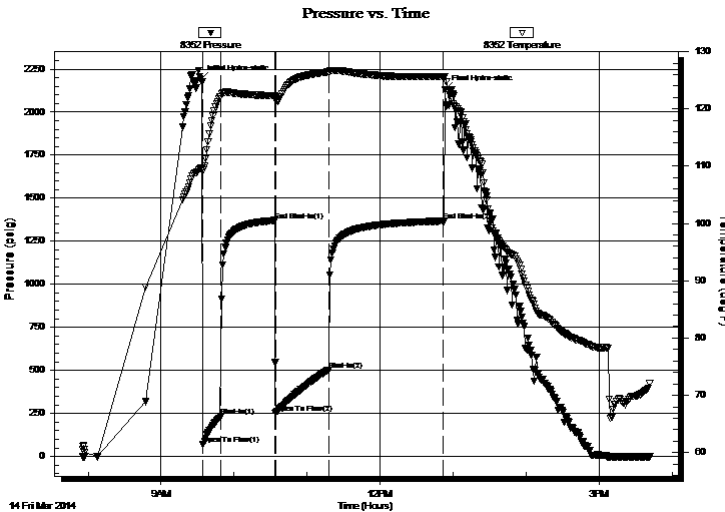
Serial #: 8352

Inside

Press@RunDepth: 503.25 psig @ 4437.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.14 End Date: 2014.03.14 Last Calib.: 2014.03.14
 Start Time: 07:55:27 End Time: 15:42:06 Time On Btm: 2014.03.14 @ 09:32:52
 Time Off Btm: 2014.03.14 @ 12:53:37

TEST COMMENT: IF:Strong blow . B.O.B. in 2 mins.
 IS:Fair blow . Increase to 12".
 FF:Strong blow . B.O.B. in 4 mins.
 FS:Fair to strong blow . B.O.B.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2188.37	109.65	Initial Hydro-static
2	70.67	109.26	Open To Flow (1)
16	233.65	122.12	Shut-In(1)
61	1370.84	122.31	End Shut-In(1)
61	252.73	122.00	Open To Flow (2)
105	503.25	126.43	Shut-In(2)
200	1367.45	125.59	End Shut-In(2)
201	2130.98	125.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
840.00	GCW 6%g 94%w /Rw .07@ 73deg	8.87
150.00	GOCMW 30%g 18%o 25%m 27%w	2.10
0.00	930 ft.of GIP	0.00

* Recovery from multiple tests

Gas Rates

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



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FLUID SUMMARY

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Lawrenceville Ill. 62439

Randel#2-20

Job Ticket: 51887

DST#: 3

ATTN: Jon Christensen

Test Start: 2014.03.14 @ 07:55:22

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

113000 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
840.00	GCW 6%g 94%w /Rw .07@ 73deg	8.868
150.00	GOCMW 30%g 18%o 25%m 27%w	2.104
0.00	930 ft.of GIP	0.000

Total Length: 990.00 ft

Total Volume: 10.972 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

