



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc
8100 E 22nd St. N 700
Wichita, Ks 67278
ATTN: John Goldsmith

5-16s-36w Wichita, ks

Miller Trust #1

Job Ticket: 64547

DST#: 3

Test Start: 2016.05.26 @ 08:58:08

GENERAL INFORMATION:

Formation: **LKC E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:32:38

Time Test Ended: 15:08:08

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4133.00 ft (KB) To 4178.00 ft (KB) (TVD)

Reference Elevations: 3311.00 ft (KB)

Total Depth: 4178.00 ft (KB) (TVD)

3306.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8166 Outside

Press@RunDepth: 87.56 psig @ 4134.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.05.26

End Date: 2016.05.26

Last Calib.: 2016.05.26

Start Time: 08:58:13

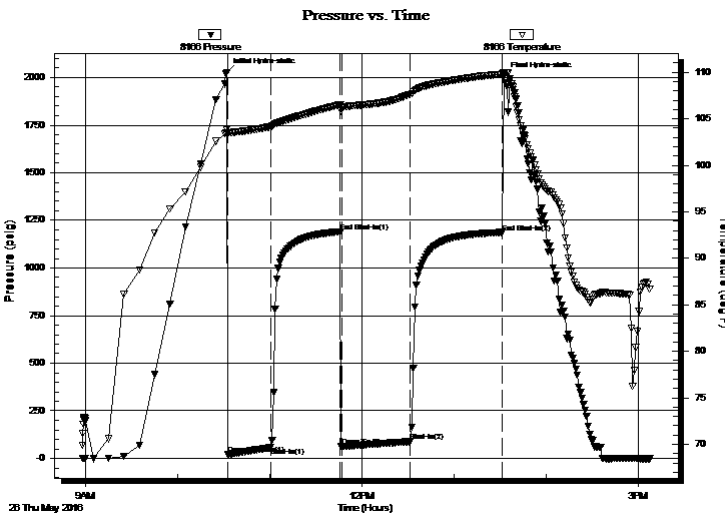
End Time: 15:08:07

Time On Btm: 2016.05.26 @ 10:32:08

Time Off Btm: 2016.05.26 @ 13:32:38

TEST COMMENT: IF: 1/4 blow built to 5 in 30 min.
IS: No return.
FF: Surface blow built to 7 in 45 min.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2027.01	103.81	Initial Hydro-static
1	19.23	103.44	Open To Flow (1)
29	57.19	104.15	Shut-In(1)
74	1190.97	106.53	End Shut-In(1)
75	62.10	106.29	Open To Flow (2)
120	87.56	107.62	Shut-In(2)
180	1186.82	109.81	End Shut-In(2)
181	2004.69	109.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	ocm 20%o 80%m	0.30
60.00	ogcm 10%g 40%o 50%m	0.31
50.00	go 10%g 90%o	0.70
0.00	30 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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DST#: 3

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Test Start: 2016.05.26 @ 08:58:08

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

27 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	ocm 20%o 80%m	0.295
60.00	ogcm 10%g 40%o 50%m	0.313
50.00	go 10%g 90%o	0.701
0.00	30 GIP	0.000

Total Length: 170.00 ft

Total Volume: 1.309 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 29@80=27

