

DRILL STEM TEST REPORT

Prepared For: **Great Plains Energy, Inc.**

6121 S. 58th St., Ste B
Lincoln NE. 68516

ATTN: Richard Bell

Colleen Rall #1-10

10-6s-36w Thomas,KS

Start Date: 2014.11.22 @ 02:30:00

End Date: 2014.11.22 @ 09:38:45

Job Ticket #: 61008 DST #: 1

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.26 @ 13:30:06

Great Plains Energy, Inc.

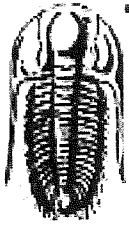
10-6s-36w Thomas,KS

Colleen Rall #1-10

DST # 1

Lans, - 'E & F'

2014.11.22



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Great Plains Energy, Inc.

6121 S. 58th St., Ste B
Lincoln NE 68516

ATTN: Richard Bell

10-6s-36w Thomas, KS

Colleen Rall #1-10

Job Ticket: 61008

DST#: 1

Test Start: 2014.11.22 @ 02:30:00

GENERAL INFORMATION:

Formation: **Lans, - 'E & F'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:33:15
 Time Test Ended: 09:38:45

Test Type: Conventional Bottom Hole (Initial)
 Tester: Royal Fisher
 Unit No: #54

Interval: **4289.00 ft (KB) To 4318.00 ft (KB) (TVD)**
 Total Depth: 4318.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3380.00 ft (KB)
 3371.00 ft (CF)
 KB to GR/CF: 9.00 ft

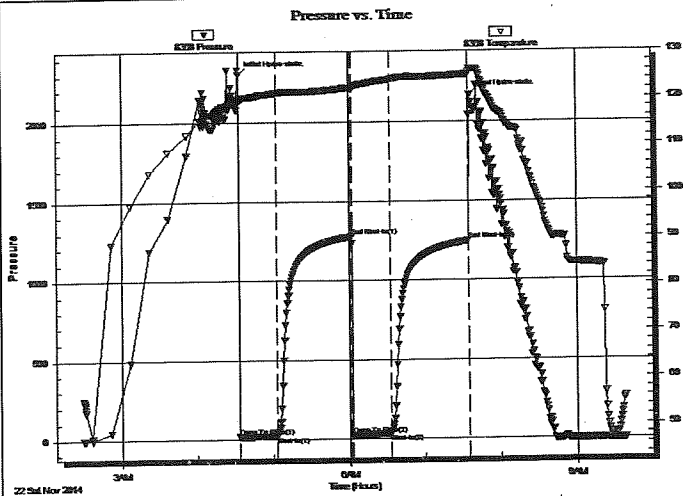
Serial #: 8368

Outside

Press@RunDepth: 30.94 psig @ 4290.00 ft (KB)
 Start Date: 2014.11.22 End Date: 2014.11.22
 Start Time: 02:30:05 End Time: 09:38:44

Capacity: 8000.00 psig
 Last Calib.: 2014.11.22
 Time On Btm: 2014.11.22 @ 04:33:00
 Time Off Btm: 2014.11.22 @ 07:36:00

TEST COMMENT: 30 - IF - Surface blow built to 1 1/4"
 60 - ISI - No Return
 30 - FF - No Surface blow
 60 - FSI - No Return



PRESSURE SUMMARY

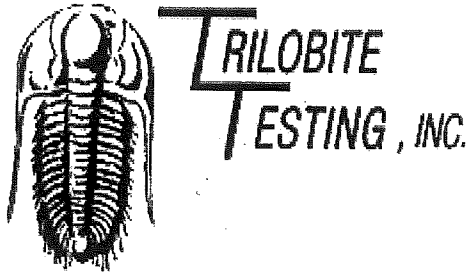
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2304.24	119.96	Initial Hydro-static
1	15.62	119.33	Open To Flow (1)
30	20.79	121.12	Shut-In(1)
89	1277.47	122.25	End Shut-In(1)
90	23.54	121.81	Open To Flow (2)
120	30.94	123.94	Shut-In(2)
182	1247.18	125.02	End Shut-In(2)
183	2168.18	126.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Free Oil - 100o	0.01
13.00	OCM - 80M - 20o	0.06

Gas Rates

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



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ATTN: Richard Bell

Colleen Rall #1-10

10-6s-36w Thomas,KS

Start Date: 2014.11.22 @ 22:42:00

End Date: 2014.11.23 @ 06:02:45

Job Ticket #: 61009 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Great Plains Energy, Inc.

10-6s-36w Thomas,KS

6121 S. 58th St., Ste B
Lincoln NE 68516

Colleen Rail #1-10

Job Ticket: 61009

DST#: 2

ATTN: Richard Bell

Test Start: 2014.11.22 @ 22:42:00

GENERAL INFORMATION:

Formation: **LKC - 'J'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:40:45

Time Test Ended: 06:02:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: 54

Interval: **4376.00 ft (KB) To 4420.00 ft (KB) (TVD)**

Reference Elevations: 3380.00 ft (KB)

Total Depth: 4420.00 ft (KB) (TVD)

3371.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 6753 Outside

Press@RunDepth: 67.06 psig @ 4377.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.22

End Date: 2014.11.23

Last Calib.: 2014.11.23

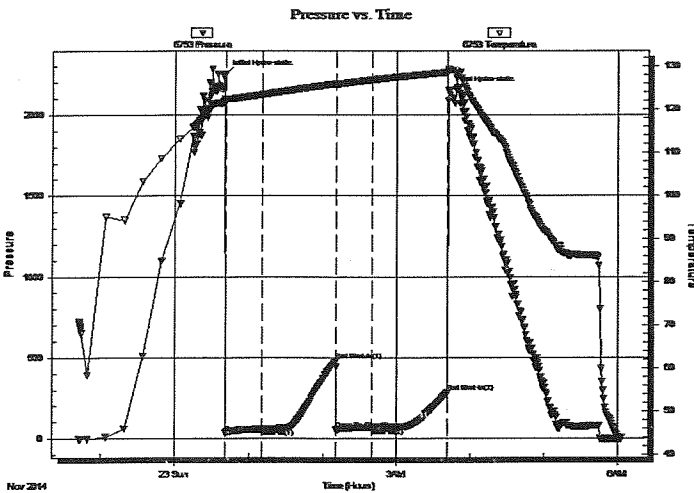
Start Time: 22:42:05

End Time: 06:02:44

Time On Btm: 2014.11.23 @ 00:40:30

Time Off Btm: 2014.11.23 @ 03:42:30

TEST COMMENT: 30 - IF - Surface blow built to 1/4"
60 - ISI - No Return
30 - FF - No Surface blow
60 - FSI - No Return



PRESSURE SUMMARY

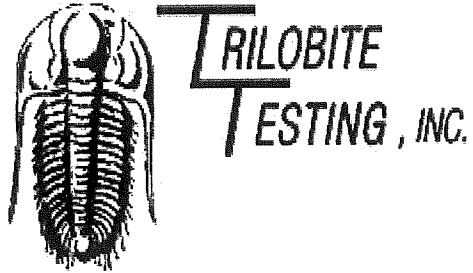
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2251.64	122.40	Initial Hydro-static
1	33.02	121.74	Open To Flow (1)
30	58.45	123.50	Shut-In(1)
90	479.29	126.00	End Shut-In(1)
91	52.62	125.85	Open To Flow (2)
120	67.06	126.93	Shut-In(2)
181	283.45	128.68	End Shut-In(2)
182	2151.65	129.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM - 100M - Oil Spots	0.02

Gas Rates

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



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6121 S. 58th St., Ste B
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ATTN: Richard Bell

Colleen Rall #1-10

10-6s-36w Thomas,KS

Start Date: 2014.11.24 @ 01:18:00

End Date: 2014.11.24 @ 09:48:45

Job Ticket #: 61010 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.26 @ 13:29:01

Great Plains Energy, Inc. 10-6s-36w Thomas,KS Colleen Rall #1-10 DST # 3 Marmaton 2014.11.24



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Great Plains Energy, Inc.

10-6s-36w Thomas,KS

6121 S. 58th St., Ste B
Lincoln NE 68516

Colleen Rall #1-10

ATTN: Richard Bell

Job Ticket: 61010

DST#: 3

Test Start: 2014.11.24 @ 01:18:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:36:00

Time Test Ended: 09:48:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: 54

Interval: **4477.00 ft (KB) To 4580.00 ft (KB) (TVD)**

Reference Elevations: 3380.00 ft (KB)

Total Depth: 4580.00 ft (KB) (TVD)

3371.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: **6753**

Outside

Press@RunDepth: 329.33 psig @ 4478.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.24

End Date: 2014.11.24

Last Calib.: 2014.11.24

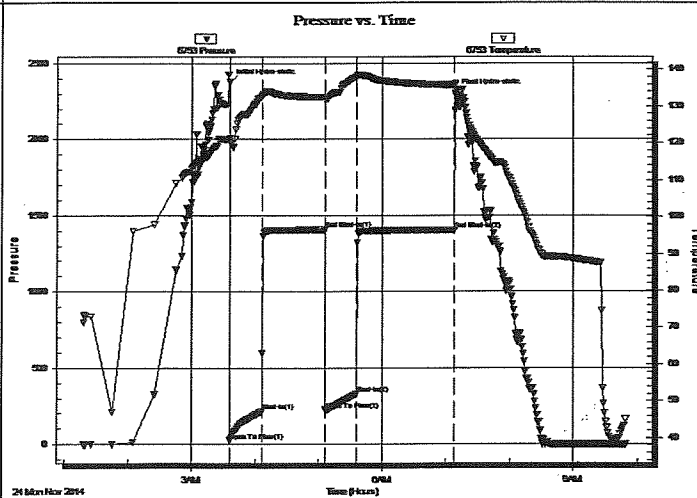
Start Time: 01:18:05

End Time: 09:48:44

Time On Btm: 2014.11.24 @ 03:35:45

Time Off Btm: 2014.11.24 @ 07:09:00

TEST COMMENT: 30 - IF - Surface blow built to bottom of the bucket in 15 mins.
60 - ISI - No Return
30 - FF - Surface blow built to bottom of the bucket in 21 mins.
90 - FSI - No Return



PRESSURE SUMMARY

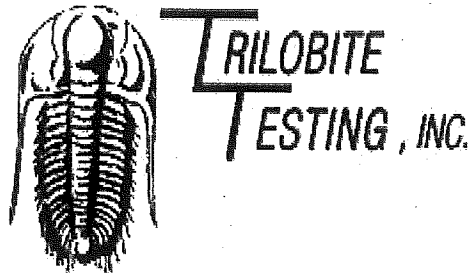
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2376.42	121.20	Initial Hydro-static
1	23.91	120.18	Open To Flow (1)
31	215.41	132.69	Shut-In(1)
91	1408.28	132.43	End Shut-In(1)
91	224.87	131.64	Open To Flow (2)
121	329.33	138.00	Shut-In(2)
213	1405.05	135.72	End Shut-In(2)
214	2304.34	136.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
347.00	OSMW - 30M - 70W - Oil Spots	2.74
347.00	OSWM - 90M - 10W - Oil Spots	4.87

Gas Rates

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



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ATTN: Richard Bell

Colleen Rall #1-10

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Start Date: 2014.11.25 @ 23:47:00

End Date: 2014.11.26 @ 08:01:30

Job Ticket #: 61011 DST #: 4

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



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10-6s-36w Thomas,KS

6121 S. 58th St., Ste B
Lincoln NE 68516

Colleen Rall #1-10

Job Ticket: 61011

DST#: 4

ATTN: Richard Bell

Test Start: 2014.11.25 @ 23:47:00

GENERAL INFORMATION:

Formation: **LKC - 'K'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:35:30

Time Test Ended: 08:01:30

Test Type: Conventional Straddle (Initial)

Tester: Royal Fisher

Unit No: #54

Interval: **4448.00 ft (KB) To 4458.00 ft (KB) (TVD)**

Reference Elevations: 3380.00 ft (KB)

Total Depth: 4967.00 ft (KB) (TVD)

3371.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 6753

Inside

Press@RunDepth: 513.33 psig @ 4449.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.25

End Date: 2014.11.26

Last Calib.: 2014.11.26

Start Time: 23:47:05

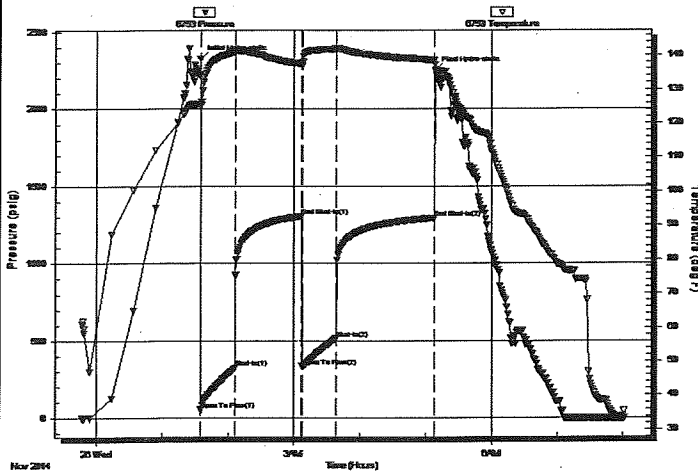
End Time: 08:01:29

Time On Btm: 2014.11.26 @ 01:35:15

Time Off Btm: 2014.11.26 @ 05:08:45

TEST COMMENT: 30 - IF - BOB in 4 mins.
60 - ISI - Very faint return started in 4 mins. then dead in 11 mins.
30 - FF - Surface blow built to bottom of the bucket in 10 mins.
90 - FSI - No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2327.51	125.59	Initial Hydro-static
1	53.84	125.19	Open To Flow (1)
32	323.75	140.94	Shut-In(1)
92	1307.00	137.51	End Shut-In(1)
92	333.79	136.87	Open To Flow (2)
123	513.33	141.86	Shut-In(2)
213	1295.36	138.43	End Shut-In(2)
214	2252.69	137.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
882.00	OSMW - 5M - 95W - Oil Spots	10.25
198.00	OSMW - 35M - 65W - Oil Spots	2.78
1.00	Free Oil - 100o	0.01

Gas Rates

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