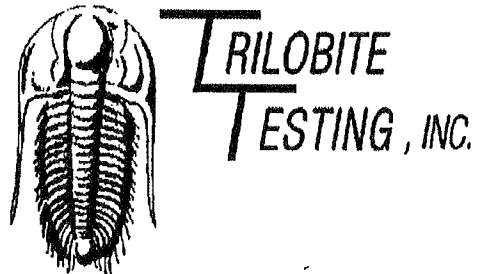


15-101-22239

23-16s-28w

MD



DRILL STEM TEST REPORT

Prepared For: **Flatirons Resources LLC**

303 E 17th
Ste Denver Co 80203

ATTN: John Marvin

23-16s-28w Lane KS

Munsell Lawrence Unit #21-23

Start Date: 2010.06.16 @ 21:29:21

End Date: 2010.06.17 @ 06:25:21

Job Ticket #: 38625 DST #: 1

KCC
AUG 2 5 2010
CONFIDENTIAL

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

RECEIVED
AUG 2 5 2010
KCC WICHITA



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Flatirons Resources LLC

303 E 17th
Ste Denver Co 80203

ATTN: John Marvin

Munsell Lawrence Unit #21-23

23-16s-28w Lane KS

Job Ticket: 38625

DST#: 1

Test Start: 2010.06.16 @ 21:29:21

GENERAL INFORMATION:

Formation: **LKC-"K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:29:21

Time Test Ended: 06:25:21

Test Type: Conventional Bottom Hole

Tester: Jeff Brown

Unit No: 44

Interval: **4153.00 ft (KB) To 4190.00 ft (KB) (TVD)**

Total Depth: 4190.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2664.00 ft (KB)

2659.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **6668**

Inside

Press@RunDepth: 308.89 psig @ 4158.00 ft (KB)

Start Date: 2010.06.16

End Date:

2010.06.17

Start Time: 21:29:22

End Time:

06:15:21

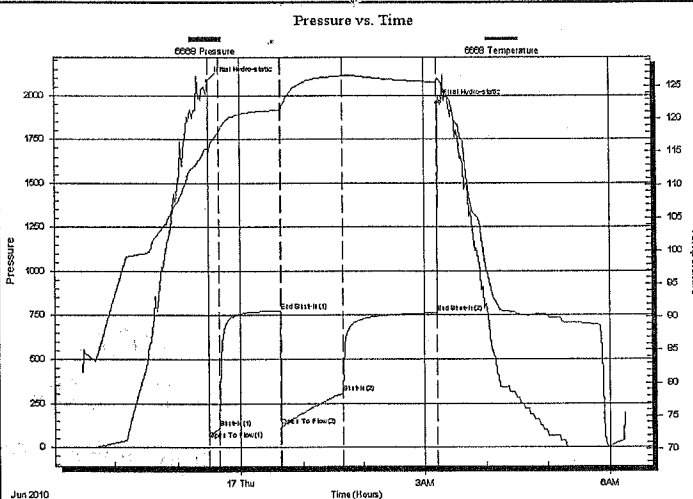
Capacity: 8000.00 psig

Last Calib.: 2010.06.17

Time On Btm: 2010.06.16 @ 23:28:51

Time Off Btm: 2010.06.17 @ 03:12:51

TEST COMMENT: IFF-Strong blow BOB in 3 min
ISI-Weak blow back built to 2 1/4 in died back to 1 1/4 in
FFP-Strong blow BOB in 3 min
FSI-Strong blow back BOB in 18 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2084.41	115.46	Initial Hydro-static
1	47.41	114.38	Open To Flow (1)
11	108.52	117.99	Shut-In (1)
70	776.95	121.32	End Shut-In (1)
71	123.94	121.24	Open To Flow (2)
131	308.89	126.57	Shut-In (2)
224	763.38	125.60	End Shut-In (2)
224	1955.20	126.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
252.00	VSOCMW5%O80%W15%M	2.42
252.00	HOCGM15%G25%O60%M	3.53
220.00	Free Oil	3.09
0.00	1386 GIP	0.00

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (MMcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Flatirons Resources LLC

303 E 17th
Ste Denver Co 80203

ATTN: John Marvin

Munsell Lawrence Unit #21-23

23-16s-28w Lane KS

Job Ticket: 38625

DST#: 1

Test Start: 2010.06.16 @ 21:29:21

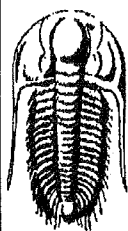
Tool Information

Drill Pipe:	Length: 4042.00 ft	Diameter: 3.80 inches	Volume: 56.70 bbl	Tool Weight:	0.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	70000.00 lb
			Total Volume: 57.30 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	46000.00 lb
Depth to Top Packer:	4153.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	37.00 ft				
Tool Length:	58.00 ft				
Number of Packers:	2	Diameter:	inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4133.00	
Shut In Tool	5.00			4138.00	
Hydraulic tool	5.00			4143.00	
Packer	5.00			4148.00	21.00 Bottom-Of Top Packer
Packer	5.00			4153.00	
Stubb	1.00			4154.00	
Perforations	4.00			4158.00	
Recorder	0.00	6668	Inside	4158.00	
Recorder	0.00	6669	Outside	4158.00	
Perforations	29.00			4187.00	
Bullnose	3.00			4190.00	37.00 Bottom Packers & Anchor

Total Tool Length: 58.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Flatirons Resources LLC

Munsell Lawrence Unit #21-23

303 E 17th
Ste Denver Co 80203

23-16s-28w Lane KS

Job Ticket: 38625

DST#: 1

ATTN: John Marvin

Test Start: 2010.06.16 @ 21:29:21

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API: 38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity: 55000 ppm

Viscosity: 55.00 sec/l

Cushion Volume:

bbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
252.00	VSOCWM5%O80%W15%M	2.424
252.00	HOCGM15%G25%O60%M	3.535
220.00	Free Oil	3.086
0.00	1386 GIP	0.000

Total Length: 724.00 ft Total Volume: 9.045 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

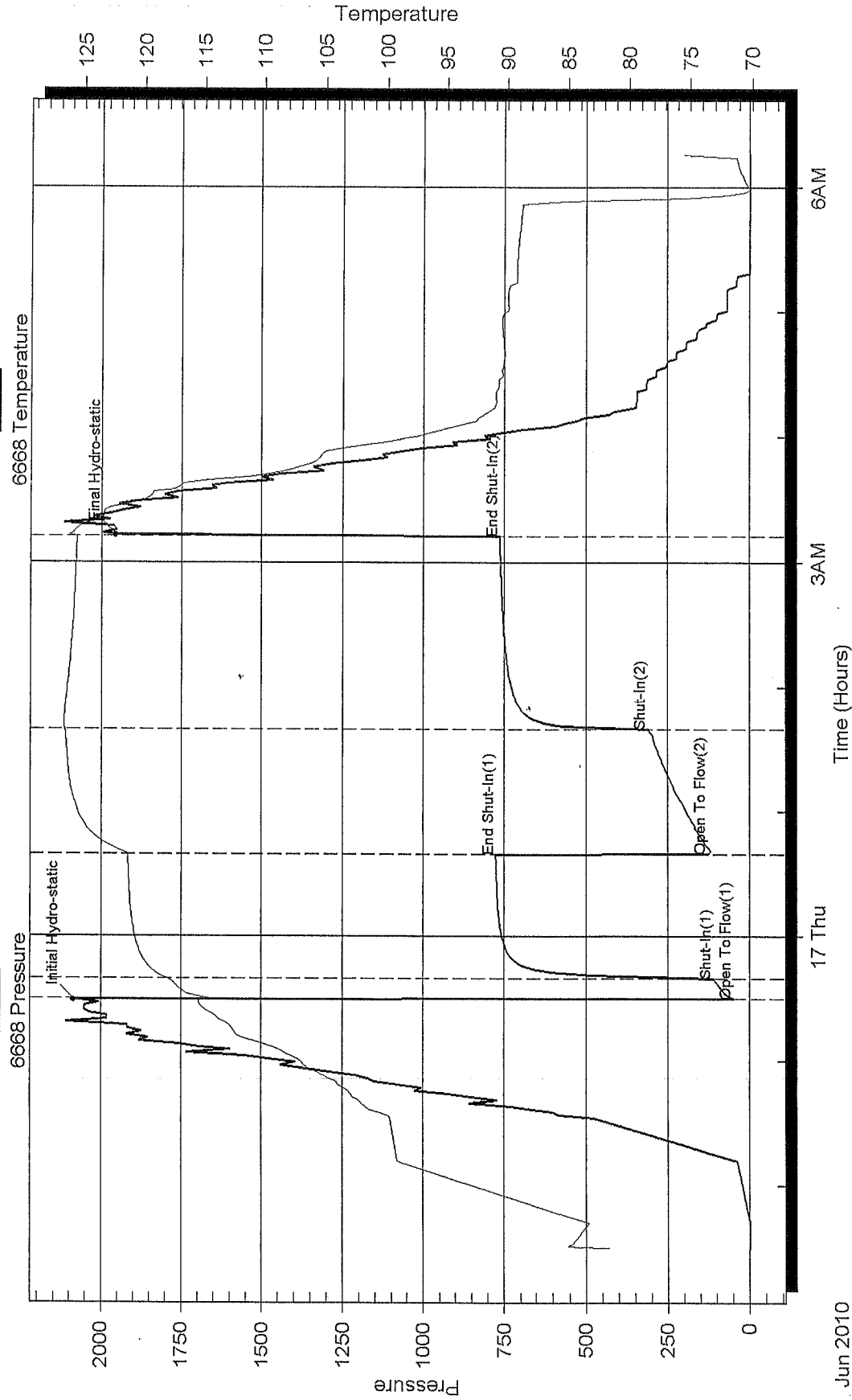
Serial #:

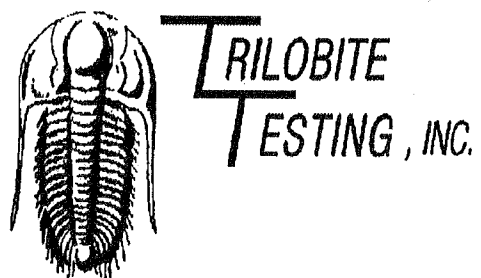
Laboratory Name:

Laboratory Location:

Recovery Comments: RW.136 @ 64.6 F = 55000 chlorides

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Flatirons Resources LLC**

303 E 17th
Ste Denver Co 80203

ATTN: John Marvin

23-16s-28w Lane KS

Munsell Lawrence Unit #21-23

Start Date: 2010.06.17 @ 21:25:54

End Date: 2010.06.18 @ 03:24:24

Job Ticket #: 37226 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Flatirons Resources LLC

303 E 17th
Ste Denver Co 80203

ATTN: John Marvin

Munsell Lawrence Unit #21-23

23-16s-28w Lane KS

Job Ticket: 37226

DST#: 2

Test Start: 2010.06.17 @ 21:25:54

GENERAL INFORMATION:

Formation: **Marminton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:15:24

Time Test Ended: 03:24:24

Test Type: Conventional Bottom Hole

Tester: Jeff Brown

Unit No: 44

Interval: **4285.00 ft (KB) To 4314.00 ft (KB) (TVD)**

Total Depth: 4314.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2664.00 ft (KB)

2659.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **6668**

Inside

Press@RunDepth: 20.31 psig @ 4291.00 ft (KB)

Start Date: 2010.06.17

End Date:

2010.06.18

Start Time: 21:25:55

End Time:

03:24:24

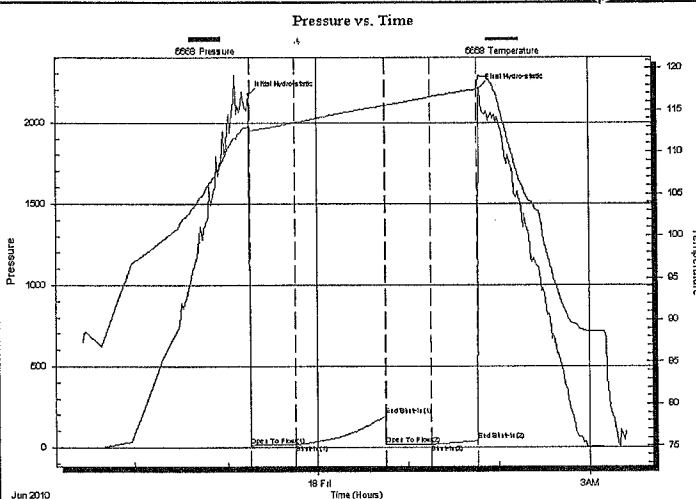
Capacity: 8000.00 psig

Last Calib.: 2010.06.18

Time On Btm: 2010.06.17 @ 23:14:54

Time Off Btm: 2010.06.18 @ 01:47:54

TEST COMMENT: IFP-Weak blow built to 1/4 in
ISI-Dead no blow back
FFP-Dead no blow
FSI-Dead no blow back



PRESSURE SUMMARY

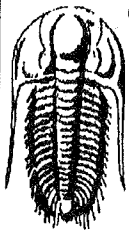
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2173.71	113.09	Initial Hydro-static
1	14.38	112.53	Open To Flow (1)
30	17.39	113.48	Shut-In(1)
90	194.54	115.52	End Shut-In(1)
91	18.89	115.53	Open To Flow (2)
120	20.31	116.55	Shut-In(2)
152	40.67	117.48	End Shut-In(2)
153	2211.57	119.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	VSOCV3%O98%M	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Flatirons Resources LLC

303 E 17th
Ste Denver Co 80203

ATTN: John Marvin

Munsell Lawrence Unit #21-23

23-16s-28w Lane KS

Job Ticket: 37226

DST#: 2

Test Start: 2010.06.17 @ 21:25:54

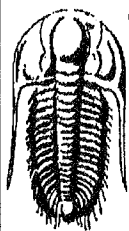
Tool Information

Drill Pipe:	Length: 4166.00 ft	Diameter: 3.80 inches	Volume: 58.44 bbl	Tool Weight:	0.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	57000.00 lb
			Total Volume: 59.04 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	4285.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	29.00 ft				
Tool Length:	50.00 ft				
Number of Packers:	2	Diameter:	inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4265.00	
Shut In Tool	5.00			4270.00	
Hydraulic tool	5.00			4275.00	
Packer	5.00			4280.00	21.00 Bottom Of Top Packer
Packer	5.00			4285.00	
Stubb	1.00			4286.00	
Perforations	5.00			4291.00	
Recorder	0.00	6668	Inside	4291.00	
Recorder	0.00	6669	Outside	4291.00	
Perforations	20.00			4311.00	
Bullnose	3.00			4314.00	29.00 Bottom Packers & Anchor

Total Tool Length: 50.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Flatirons Resources LLC

Munsell Lawrence Unit #21-23

303 E 17th
Ste Denver Co 80203

23-16s-28w Lane KS

Job Ticket: 37226

DST#: 2

ATTN: John Marvin

Test Start: 2010.06.17 @ 21:25:54

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:

ppm

Viscosity: 46.00 sec/l

Cushion Volume:

bbl

Water Loss: 11.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	VSOCMB%O98%M	0.025

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

