

DRILL STEM TEST REPORT

Prepared For: **Dark Horse**

34861 Forest Park Dr.
Elizabeth CO 80107

ATTN: Paul Gunzelman

14 2 27 Decatur KS

Long Ranch #6-14

Start Date: 2008.09.19 @ 19:55:05

End Date: 2008.09.20 @ 03:27:29

Job Ticket #: 33507 DST #: 1

Api # 15-039-21071-0000

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dark Horse

34861 Forest Park Dr.
Elizabeth CO 80107

ATTN: Paul Gunzelman

Long Ranch #6-14

14 2 27 Decatur KS

Job Ticket: 33507

DST#: 1

Test Start: 2008.09.19 @ 19:55:05

GENERAL INFORMATION:

Formation: Tor. & Lans A-C

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:18:00

Time Test Ended: 03:27:29

Interval: 3506.00 ft (KB) To 3582.00 ft (KB) (TVD)

Total Depth: 3582.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Brandon Dmsch

Unit No: 25

Reference Elevations: 2673.00 ft (KB)

2668.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8353

Inside

Press@RunDepth: 231.12 psig @ 3507.00 ft (KB)

Start Date: 2008.09.19

End Date:

2008.09.20

Start Time: 19:55:05

End Time:

03:27:29

Capacity: 7000.00 psig

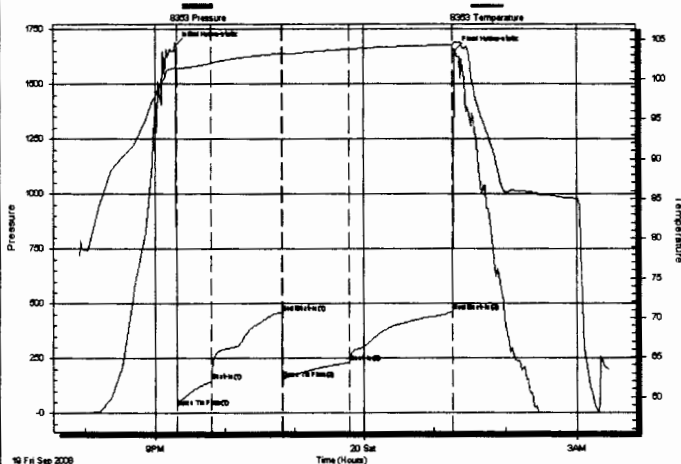
Last Calib.: 2008.09.20

Time On Btm: 2008.09.19 @ 21:17:30

Time Off Btm: 2008.09.20 @ 01:18:29

TEST COMMENT: IF: BOB in 12 1/2 mins.
IS: Built to 1 1/2 inch died in 44 mins.
FF: BOB in 34 mins.
FS: Built to 1/2 inch died in 28 mins.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1677.36	101.61	Initial Hydro-static
1	26.85	101.01	Open To Flow (1)
31	147.15	101.98	Shut-In (1)
92	458.26	103.16	End Shut-In (1)
93	155.61	103.10	Open To Flow (2)
151	231.12	103.75	Shut-In (2)
239	463.51	104.27	End Shut-In (2)
241	1653.16	104.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	SO&GCM 20%g 15%o 65%rm	0.30
182.00	G&OCM 25%g 25%o 50%rm	0.90
306.00	CGO 25%g 75%o	1.53
0.00	GP 124 FT	0.00
0.00	API = 35@60F=35	0.00

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Dark Horse

Long Ranch #6-14

34861 Forest Park Dr.
Elizabeth CO 80107

14 2 27 Decatur KS

Job Ticket: 33507

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2008.09.19 @ 19:55:05

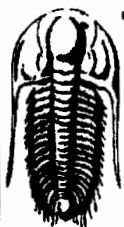
Tool Information

Drill Pipe:	Length: 2952.00 ft	Diameter: 3.80 inches	Volume: 41.41 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 547.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose: 65000.00 lb
		Total Volume: 44.10 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3506.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.00 ft			
Tool Length:	99.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3484.00	
Shut In Tool	5.00			3489.00	
Hydraulic tool	5.00			3494.00	
Safety Joint	3.00			3497.00	
Packer	5.00			3502.00	23.00 Bottom Of Top Packer
Packer	4.00			3506.00	
Stubb	1.00			3507.00	
Recorder	0.00	8353	Inside	3507.00	
Recorder	0.00	6741	Inside	3507.00	
Perforations	6.00			3513.00	
Change Over Sub	1.00			3514.00	
Drill Pipe	62.00			3576.00	
Change Over Sub	1.00			3577.00	
Bullnose	5.00			3582.00	76.00 Bottom Packers & Anchor

Total Tool Length: 99.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Dark Horse

Long Ranch #6-14

34861 Forest Park Dr.
Elizabeth CO 80107

14 2 27 Decatur KS

Job Ticket: 33507

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2008.09.19 @ 19:55:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	SO&GCM 20%g 15%o 65%m	0.305
182.00	G&OCM 25%g 25%o 50%m	0.895
306.00	CGO 25%g 75%o	1.532
0.00	GIP 124 FT	0.000
0.00	API = 35@60F=35	0.000

Total Length: 550.00 ft

Total Volume: 2.732 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

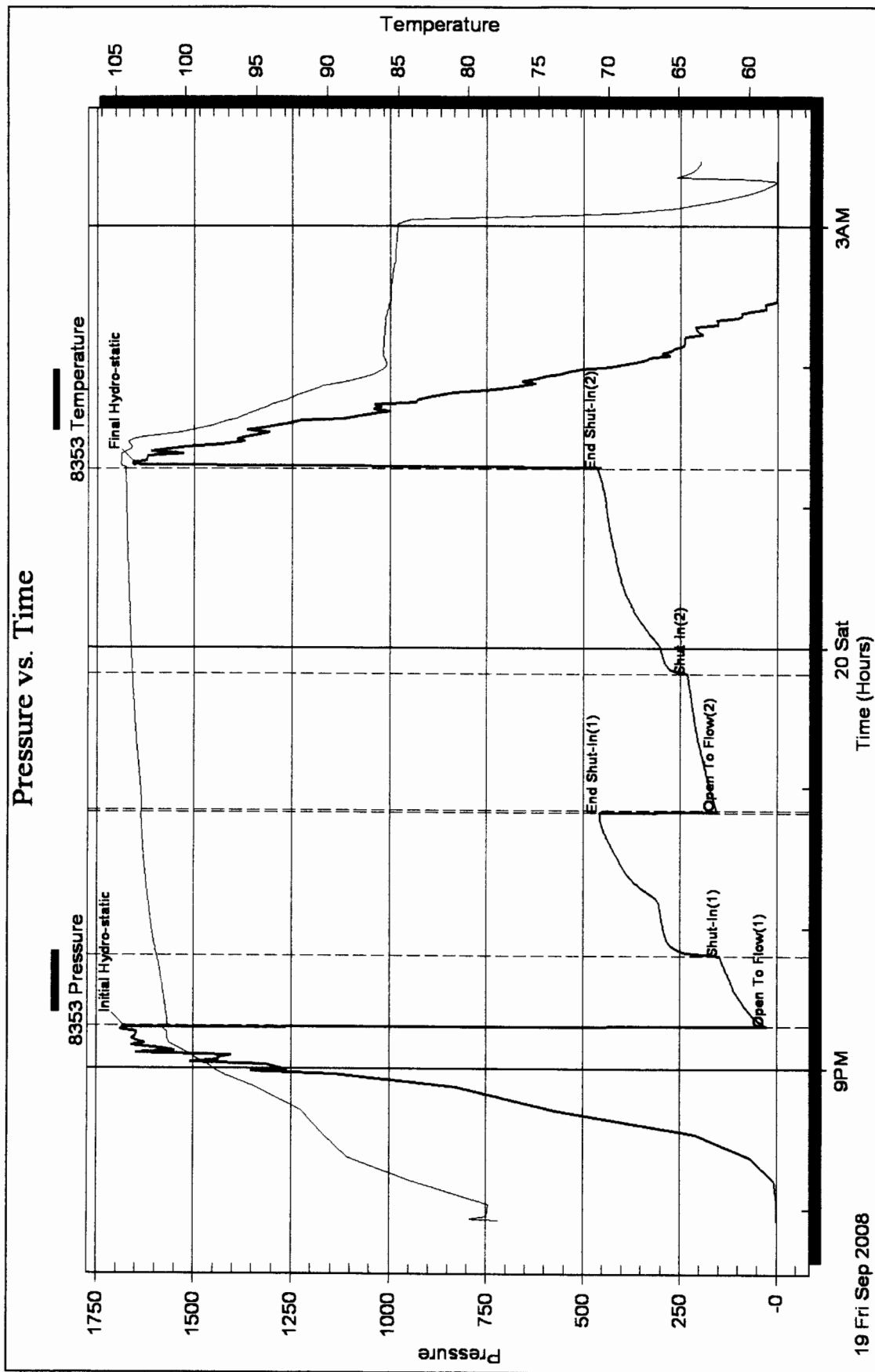
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





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DRILL STEM TEST REPORT

Prepared For: **Dark Horse**

34861 Forest Park Dr.
Elizabeth CO 80107

ATTN: Paul Gunzelman

14 2 27 Decatur KS

Long Ranch #6-14

Start Date: 2008.09.20 @ 14:52:05

End Date: 2008.09.20 @ 22:15:59

Job Ticket #: 33508 DST #: 2

Trilobite Testing, Inc

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



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DRILL STEM TEST REPORT

Dark Horse

34861 Forest Park Dr.
Elizabeth CO 80107

ATTN: Paul Gunzelman

Long Ranch #6-14

14 2 27 Decatur KS

Job Ticket: 33508

DST#: 2

Test Start: 2008.09.20 @ 14:52:05

GENERAL INFORMATION:

Formation: **Lans D&G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:21:00

Time Test Ended: 22:15:59

Interval: **3586.00 ft (KB) To 3636.00 ft (KB) (TVD)**

Total Depth: 3636.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 25

Reference Elevations: 2673.00 ft (KB)

2668.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **8353**

Inside

Press@RunDepth: 293.42 psig @ 3587.00 ft (KB)

Start Date: 2008.09.20

End Date:

2008.09.20

Capacity: 7000.00 psig

Last Calib.: 2008.09.20

Start Time: 14:52:05

End Time:

22:15:59

Time On Btm: 2008.09.20 @ 16:20:30

Time Off Btm: 2008.09.20 @ 20:19:29

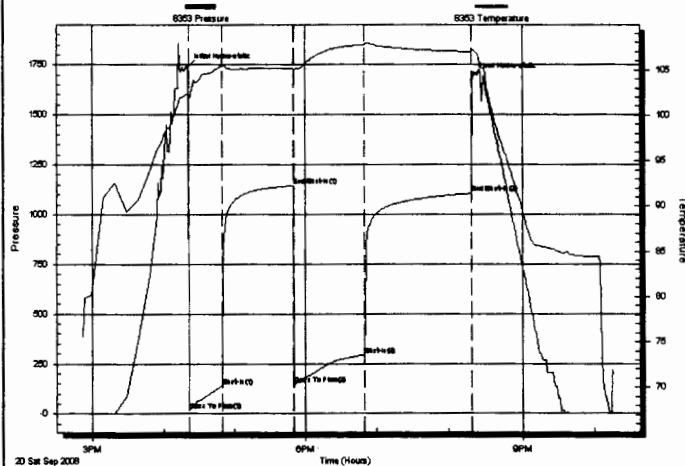
TEST COMMENT: IF: BOB in 25 mins.

IS: Very weak surface blow for 6 mins.

FF: BOB in 33 mins.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1736.73	102.25	Initial Hydro-static
1	17.27	101.92	Open To Flow (1)
29	139.52	105.44	Shut-In (1)
89	1144.37	105.21	End Shut-In (1)
90	144.28	105.02	Open To Flow (2)
150	293.42	107.78	Shut-In (2)
239	1104.81	106.99	End Shut-In (2)
239	1687.32	107.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	M 100% _m	0.15
456.00	SMCW 95% _w 5% _m	2.24
124.00	SWCM 20% _w 80% _m	1.18
0.00	GIP 0	0.00
0.00	RW = .083@72F=100000	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Dark Horse

Long Ranch #6-14

34861 Forest Park Dr.
Elizabeth CO 80107

14 2 27 Decatur KS

Job Ticket: 33508

DST#: 2

ATTN: Paul Gunzelman

Test Start: 2008.09.20 @ 14:52:05

Tool Information

Drill Pipe:	Length: 3040.00 ft	Diameter: 3.80 inches	Volume: 42.64 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 547.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose:	65000.00 lb
		Total Volume:	45.33 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	61000.00 lb
Depth to Top Packer:	3586.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	73.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3564.00	
Shut In Tool	5.00			3569.00	
Hydraulic tool	5.00			3574.00	
Safety Joint	3.00			3577.00	
Packer	5.00			3582.00	23.00 Bottom Of Top Packer
Packer	4.00			3586.00	
Stubb	1.00			3587.00	
Recorder	0.00	8353	Inside	3587.00	
Recorder	0.00	6741	Inside	3587.00	
Perforations	11.00			3598.00	
Change Over Sub	1.00			3599.00	
Drill Pipe	31.00			3630.00	
Change Over Sub	1.00			3631.00	
Bullnose	5.00			3636.00	50.00 Bottom Packers & Anchor

Total Tool Length: 73.00



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FLUID SUMMARY

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14 2 27 Decatur KS

Job Ticket: 33508

DST#: 2

ATTN: Paul Gunzelman

Test Start: 2008.09.20 @ 14:52:05

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: 100000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	M 100%m	0.148
456.00	SMCW 95%w 5%m	2.243
124.00	SWCM 20%w 80%m	1.184
0.00	GIP 0	0.000
0.00	RW = .083@72F=100000	0.000

Total Length: 610.00 ft

Total Volume: 3.575 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

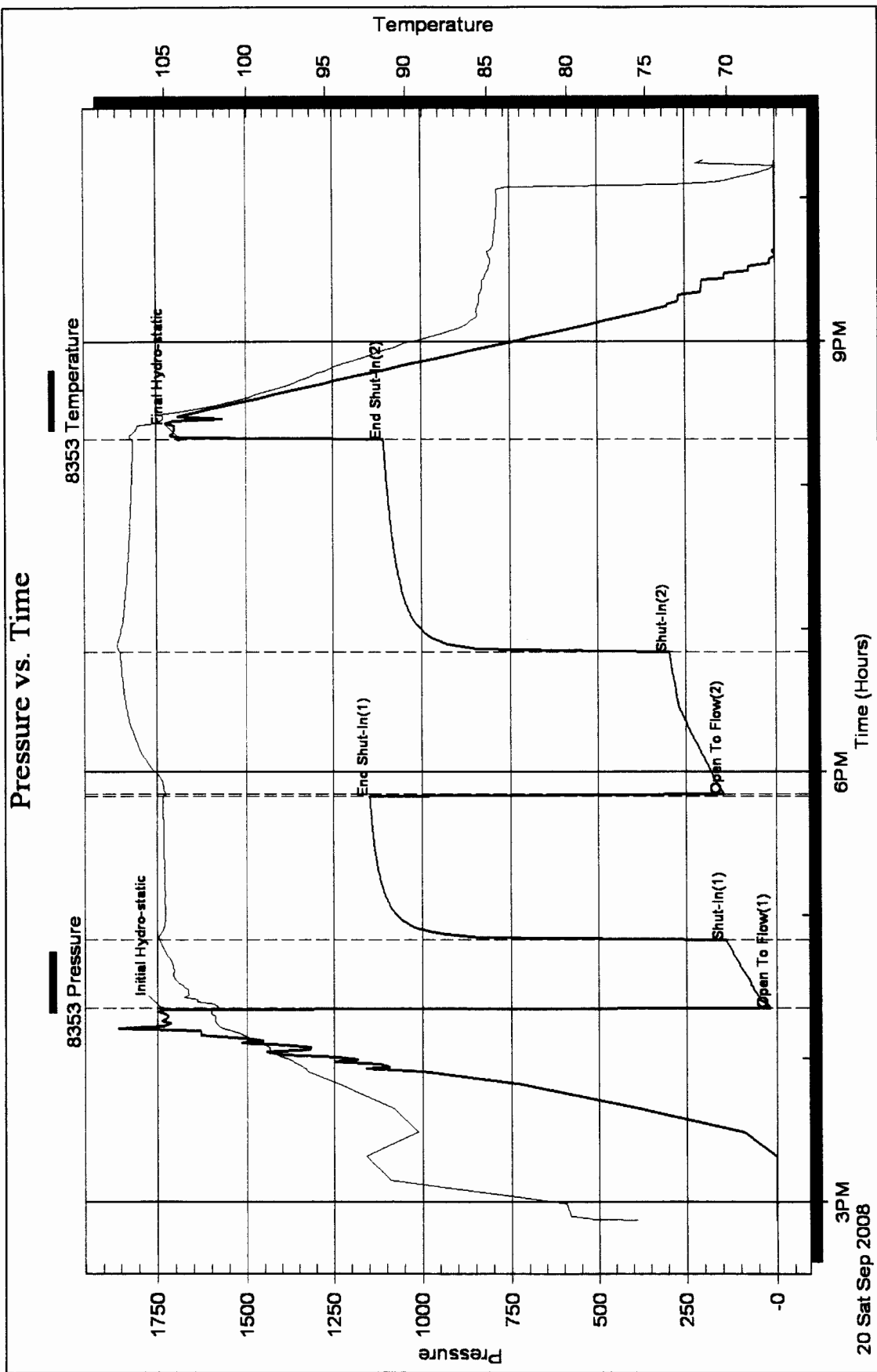
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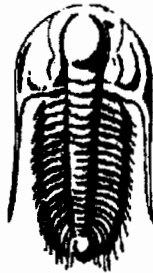
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





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DRILL STEM TEST REPORT

Prepared For: **Dark Horse**

34861 Forest Park Dr.
Elizabeth CO 80107

ATTN: Paul Gunzelman

14 2 27 Decatur KS

Long Ranch #6-14

Start Date: 2008.09.21 @ 08:36:45

End Date: 2008.09.21 @ 16:09:45

Job Ticket #: 32248 DST #: 3

Trilobite Testing, Inc

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



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DRILL STEM TEST REPORT

Dark Horse
34861 Forest Park Dr.
Elizabeth CO 80107
ATTN: Paul Gunzelman

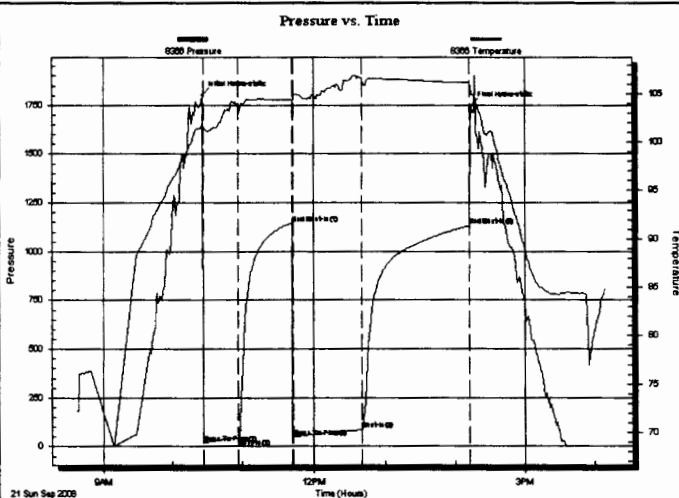
Long Ranch #6-14
14 2 27 Decatur KS
Job Ticket: 32248 DST#: 3
Test Start: 2008.09.21 @ 08:36:45

GENERAL INFORMATION:

Formation: LKC "H - K"
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:26:45
Time Test Ended: 16:09:45
Interval: 3636.00 ft (KB) To 3728.00 ft (KB) (TVD)
Total Depth: 3728.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: James Winder
Unit No: 36
Reference Elevations: 2673.00 ft (KB)
2668.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8366 Inside
Press@RunDepth: 86.93 psig @ 3637.00 ft (KB)
Start Date: 2008.09.21 End Date: 2008.09.21
Start Time: 08:36:50 End Time: 16:09:44
Capacity: 7000.00 psig
Last Calib.: 2008.09.21
Time On Btm: 2008.09.21 @ 10:26:15
Time Off Btm: 2008.09.21 @ 14:13:45

TEST COMMENT: IF: Weak blow, built to 2 1/2"
IS: Bled off, No blow back
FF: Weak blow starting @ 4 1/2 min., built to 2 3/4"
FS: Bled off, No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1802.87	101.69	Initial Hydro-static
1	17.28	101.23	Open To Flow (1)
31	43.98	103.17	Shut-In (1)
76	1143.98	104.33	End Shut-In (1)
77	48.71	104.58	Open To Flow (2)
135	86.93	106.33	Shut-In (2)
226	1130.14	106.13	End Shut-In (2)
228	1747.93	105.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	SOCMW 58%w, 41%m, 1%o	0.10
40.00	MCW w/trace oil 85%w, 15%m	0.20
60.00	Watery Mud w/trace oil 65%w, 35%w	0.30
20.00	OCWM 57%w, 36%w, 7%o	0.10

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dark Horse

Long Ranch #6-14

34861 Forest Park Dr.
Elizabeth CO 80107

14 2 27 Decatur KS

Job Ticket: 32248

DST#: 3

ATTN: Paul Gunzelman

Test Start: 2008.09.21 @ 08:36:45

Tool Information

Drill Pipe:	Length: 3075.00 ft	Diameter: 3.80 inches	Volume: 43.13 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 547.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose:	68000.00 lb
		Total Volume:	45.82 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3636.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	92.00 ft				
Tool Length:	115.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3614.00	
Shut In Tool	5.00			3619.00	
Hydraulic tool	5.00			3624.00	
Safety Joint	3.00			3627.00	
Packer	5.00			3632.00	23.00 Bottom Of Top Packer
Packer	4.00			3636.00	
Stubb	1.00			3637.00	
Recorder	0.00	8366	Inside	3637.00	
Recorder	0.00	8320	Inside	3637.00	
Perforations	20.00			3657.00	
Change Over Sub	1.00			3658.00	
Drill Pipe	62.00			3720.00	
Change Over Sub	1.00			3721.00	
Perforations	4.00			3725.00	
Bullnose	3.00			3728.00	92.00 Bottom Packers & Anchor

Total Tool Length: 115.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Dark Horse

Long Ranch #6-14

34861 Forest Park Dr.
Elizabeth CO 80107

14 2 27 Decatur KS

Job Ticket: 32248

DST#: 3

ATTN: Paul Gunzelman

Test Start: 2008.09.21 @ 08:36:45

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: 64.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	SOCMW 58%w, 41%m, 1%o	0.098
40.00	MCW w/trace oil 85%w, 15%m	0.197
60.00	Watery Mud w/trace oil 65%w, 35%w	0.295
20.00	OCWM 57%w, 36%w, 7%o	0.098

Total Length: 140.00 ft

Total Volume: 0.688 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

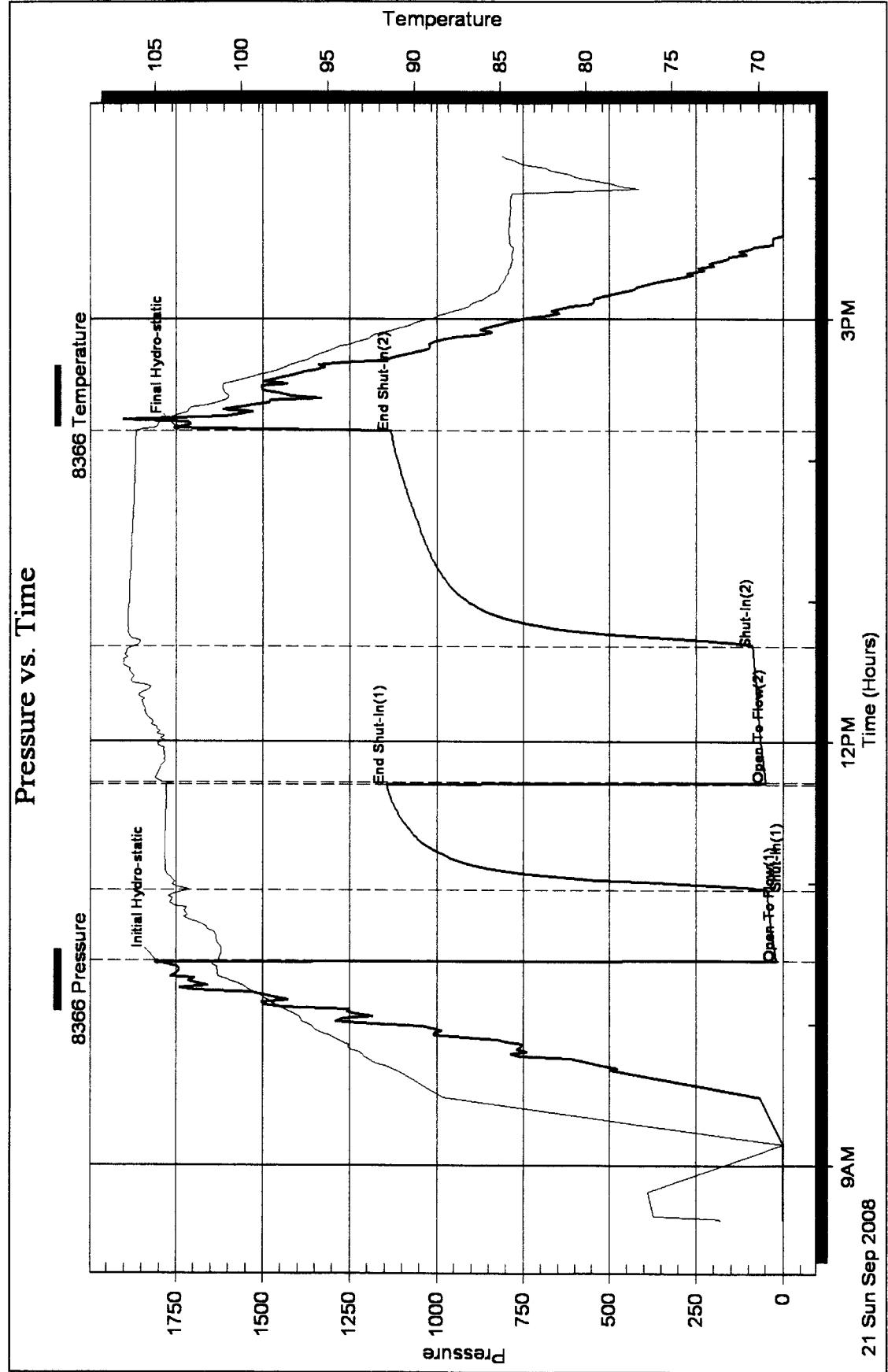
Recovery Comments:

Serial #: 8366

Inside Dark Horse

14 2 27 Decatur KS

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 32248

Printed: 2008.09.30 @ 12:44:34 Page 5