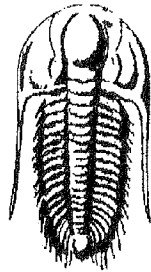


22-14s-16w



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **TDI**

1310 Bison RD
Hays KS 67601

ATTN: Jerry Green

22-14s-16w Ellis

Tholen #5

Start Date: 2006.01.26 @ 07:50:45

End Date: 2006.01.26 @ 16:42:15

Job Ticket #: 23614 DST #: 1

15-051-25471-00-00

TDI

Tholen #5

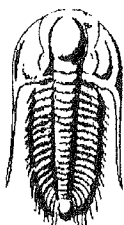
22-14s-16w Ellis

DST # 1

Arb

2006.01.26

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TDI

1310 Bison RD
Hays KS 67601

ATTN: Jerry Green

Tholen #5

22-14s-16w Ellis

Job Ticket: 23614

DST#: 1

Test Start: 2006.01.26 @ 07:50:45

GENERAL INFORMATION:

Formation: Arb

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:56:15

Time Test Ended: 16:42:15

Test Type: Conventional Bottom Hole

Tester: Michael Armbrister

Unit No: 1 B

Interval: 3396.00 ft (KB) To 3410.00 ft (KB) (TVD)

Total Depth: 3535.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1873.00 ft (KB)

1865.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6625

Inside

Press@RunDepth: psig @ 3405.01 ft (KB)

Start Date: 2006.01.26

End Date:

2006.01.26

Capacity: 7000.00 psig

Last Calib.: 2006.01.26

Start Time: 07:50:46

End Time:

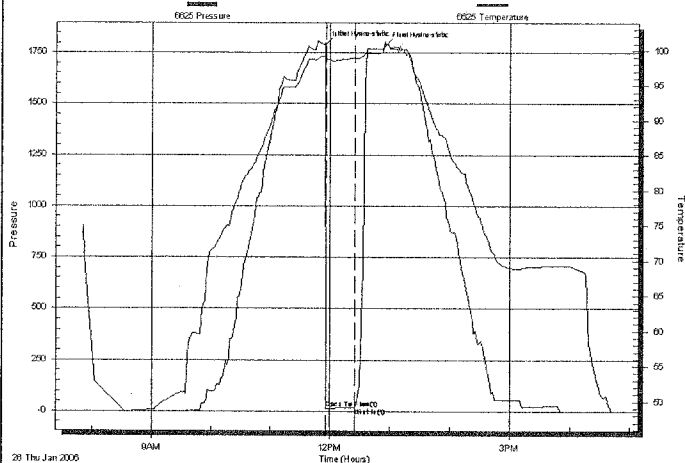
16:42:15

Time On Btm: 2006.01.26 @ 11:55:45

Time Off Btm: 2006.01.26 @ 12:55:45

TEST COMMENT: IF- Weak blow built to 1/2" in 10m Died 25m
IS- No blow
FF- PACKER FAILURE

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.88	99.12	Initial Hydro-static
1	14.01	98.76	Open To Flow (1)
30	16.76	98.89	Shut-In(1)
60	1783.13	101.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
185.00	Drilling	0.91

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI

Tholen #5

1310 Bison RD
Hays KS 67601

22-14s-16w Ellis

Job Ticket: 23614

DST#: 1

ATTN: Jerry Green

Test Start: 2006.01.26 @ 07:50:45

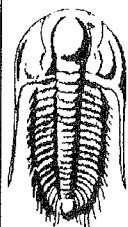
Tool Information

Drill Pipe:	Length: 3153.00 ft	Diameter: 1.80 inches	Volume: 9.92 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose:	41000.00 lb
			Total Volume: 11.10 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3396.00 ft			Final	41000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	140.02 ft				
Tool Length:	160.02 ft				
Number of Packers:	3	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3381.00	
Hydraulic tool	5.00			3386.00	
Packer	5.00			3391.00	20.00 Bottom Of Top Packer
Packer	5.00			3396.00	
Stubb	1.00			3397.00	
Perforations	8.00			3405.00	
Recorder	0.01	6625	Inside	3405.01	
Recorder	0.01	135648	Outside	3405.02	
Blank Off Sub	1.00			3406.02	140.02 Tool Interval
Packer	5.00			3411.02	
C.O. Sub	1.00			3412.02	
Blank Spacing	124.00			3536.02	1000159.02 Bottom Packers & Anchor

Total Tool Length: 160.02



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI

1310 Bison RD
Hays KS 67601

ATTN: Jerry Green

Tholen #5

22-14s-16w Ellis

Job Ticket: 23614

DST#: 1

Test Start: 2006.01.26 @ 07:50:45

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 8.39 in³

Resistivity: ohm.m

Salinity: ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	Drilling	0.910

Total Length: 185.00 ft

Total Volume: 0.910 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

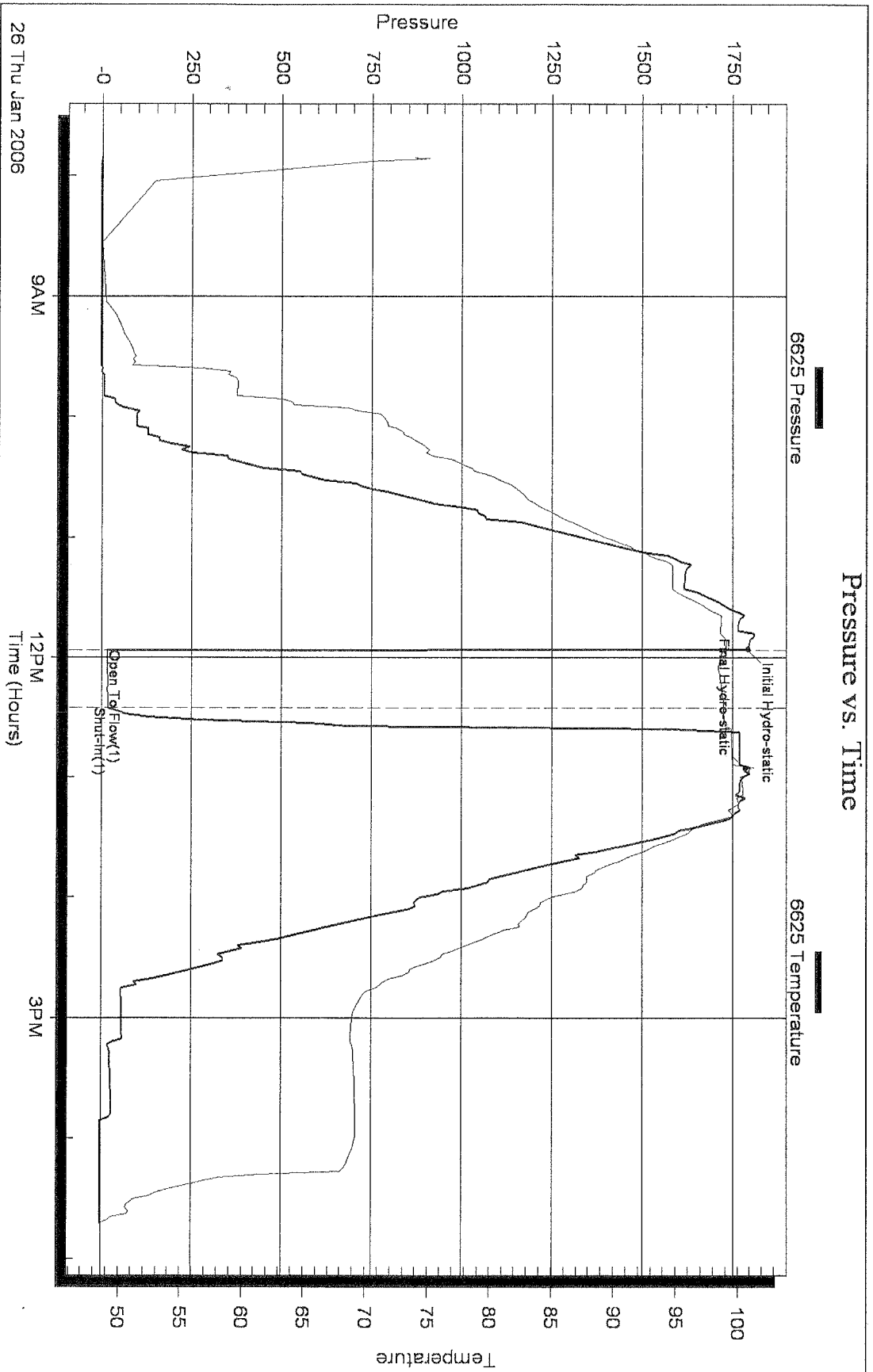
Serial #: 6625

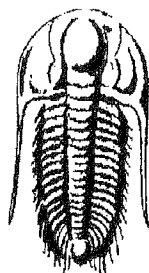
Inside TD

22-14s-16w Ellis

DST Test Number: 1

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **TDI**

1310 Bison RD
Hays KS 67601

ATTN: Jerry Green

22-14s-16w Ellis

Tholen #5

Start Date: 2006.01.26 @ 17:11:32

End Date: 2006.01.27 @ 01:44:02

Job Ticket #: 23615

DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

TDI

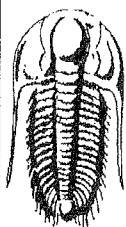
Tholen #5

22-14s-16w Ellis

DST # 2

LKC

2006.01.26



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TDI

1310 Bison RD
Hays KS 67601

ATTN: Jerry Green

Tholen #5

22-14s-16w Ellis

Job Ticket: 23615

DST#: 2

Test Start: 2006.01.26 @ 17:11:32

GENERAL INFORMATION:

Formation: LKC

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:09:02

Time Test Ended: 01:44:02

Test Type: Conventional Bottom Hole

Tester: Michael Armbrister

Unit No: 1 B

Interval: 3142.00 ft (KB) To 3160.00 ft (KB) (TVD)

Total Depth: 3535.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1873.00 ft (KB)

1865.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6625

Inside

Press@RunDepth: 90.02 psig @ 3156.01 ft (KB)

Start Date: 2006.01.26

End Date: 2006.01.27

Capacity: 7000.00 psig

Last Calib.: 2006.01.27

Start Time: 17:11:33

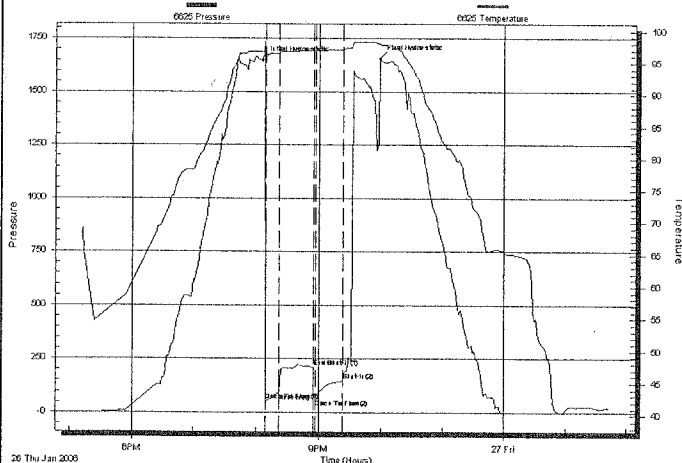
End Time: 01:44:02

Time On Btm: 2006.01.26 @ 20:06:32

Time Off Btm: 2006.01.26 @ 21:58:02

TEST COMMENT: IF- B of B 30s
IS- Gas to surface on bleed off Weak surface blow back
FF- B of B 5s
FSI- 2 1/2 " blow back

Pressure vs. Time



PRESSURE SUMMARY

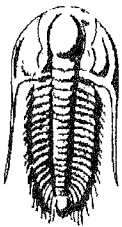
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1648.01	96.75	Initial Hydro-static
3	51.55	96.33	Open To Flow (1)
16	90.02	96.54	Shut-In(1)
48	211.42	97.03	End Shut-In(1)
50	64.15	96.94	Open To Flow (2)
76	145.93	97.20	Shut-In(2)
112	1654.83	98.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	Oil spotted drilling mud	0.61
85.00	Drilling mud	0.42
0.00	Gas to surface on bleed Off	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI

1310 Bison RD
Hays KS 67601

ATTN: Jerry Green

Tholen #5

22-14s-16w Ellis

Job Ticket: 23615

DST#: 2

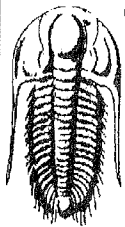
Test Start: 2006.01.26 @ 17:11:32

Tool Information

Drill Pipe:	Length: 2902.00 ft	Diameter: 1.80 inches	Volume: 9.13 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 10.31 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3142.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	392.03 ft			
Tool Length:	412.03 ft			
Number of Packers:	3	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3127.00		
Hydraulic tool	5.00			3132.00		
Packer	5.00			3137.00	20.00	Bottom Of Top Packer
Packer	5.00			3142.00		
Stubb	1.00			3143.00		
Perforations	13.00			3156.00		
Recorder	0.01	6625	Inside	3156.01		
Recorder	0.01	135648	Outside	3156.02		
Blank Off Sub	1.00			3157.02	392.03	Tool Interval
Packer	5.00			3162.02		
Perforations	17.00			3179.02		
C.O. Sub	1.00			3180.02		
Blank Spacing	346.00			3526.02		
C.O. Sub	1.00			3527.02		
Perforations	4.00			3531.02		
Recorder	0.01	13760	Below	3531.03		
Bullnose	3.00			3534.03	1000411.03	Bottom Packers & Anchor
Total Tool Length:	412.03					



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI

1310 Bison RD
Hays KS 67601

ATTN: Jerry Green

Tholen #5

22-14s-16w Ellis

Job Ticket: 23615

DST#: 2

Test Start: 2006.01.26 @ 17:11:32

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 8.38 in³

Resistivity: ohm.m

Salinity: ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

deg API

Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	Oil spotted drilling mud	0.615
85.00	Drilling mud	0.418
0.00	Gas to surface on bleed Off	0.000

Total Length: 210.00 ft

Total Volume: 1.033 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6625

Inside TDI

22-14s-16w Ellis

DST Test Number: 2

