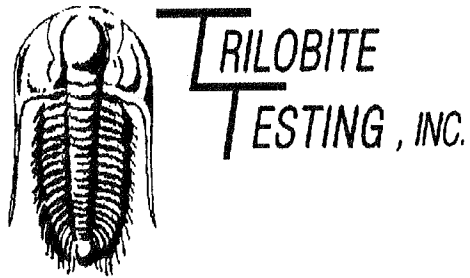


22-145-16w

22-145-16w
NE NW SW



DRILL STEM TEST REPORT

Prepared For: **TDI Oil Operations**

1310 Bison Rd
Hays KS 67601

ATTN: Tom Denning

22 14 16 Ellis KS

Dreiling C # 6

Start Date: 2007.05.03 @ 16:10:49

End Date: 2007.05.03 @ 22:21:19

Job Ticket #: 28108 DST #: 1

15-051-25638-00-00

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

TDI Oil Operations

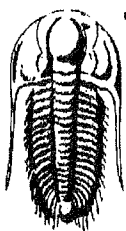
Dreiling C # 6

22 14 16 Ellis KS

DST # 1

Arbuckle

2007.05.03



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TDI Oil Operations

1310 Bison Rd
Hays KS 67601

ATTN: Tom Denning

Dreiling C # 6

22 14 16 Ellis KS

Job Ticket: 28108

DST#: 1

Test Start: 2007.05.03 @ 16:10:49

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:59:49

Time Test Ended: 22:21:19

Test Type: Conventional Straddle

Tester: Dan Bangle

Unit No: 38

Interval: 3386.00 ft (KB) To 3406.00 ft (KB) (TVD)

Total Depth: 3500.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1877.00 ft (KB)

1872.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6741

Inside

Press@RunDepth: 278.12 psig @ 3387.00 ft (KB)

Start Date: 2007.05.03

End Date:

2007.05.03

Start Time: 16:10:51

End Time:

22:21:19

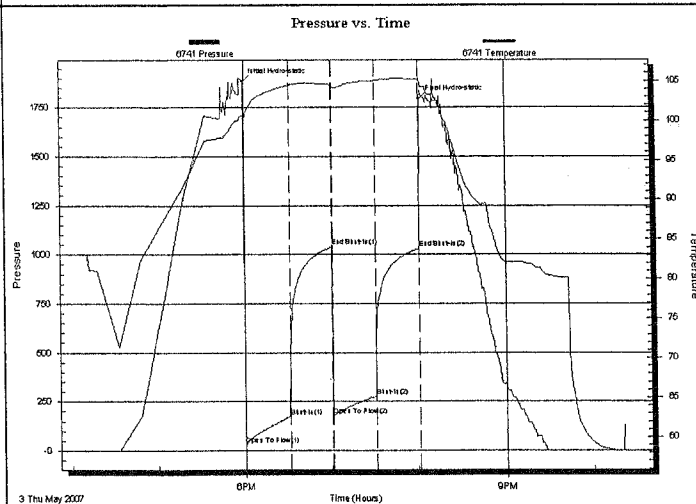
Capacity: 7000.00 psig

Last Calib.: 2007.05.03

Time On Btm: 2007.05.03 @ 17:59:29

Time Off Btm: 2007.05.03 @ 20:01:34

TEST COMMENT: IF Strong B-B in 5 min
FF Strong B-B in 12 min



PRESSURE SUMMARY

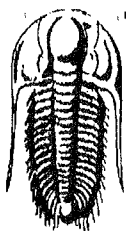
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1881.61	100.63	Initial Hydro-static
1	30.77	100.27	Open To Flow (1)
32	174.10	104.37	Shut-In (1)
62	1039.19	104.53	End Shut-In (1)
63	179.05	104.28	Open To Flow (2)
92	278.12	105.03	Shut-In (2)
122	1029.76	105.17	End Shut-In (2)
123	1791.69	105.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
620.00	Wtr w/scum of Oil	8.70

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Oil Operations

1310 Bison Rd
Hays KS 67601

ATTN: Tom Denning

Dreiling C # 6

22 14 16 Ellis KS

Job Ticket: 28108

DST#: 1

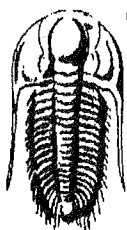
Test Start: 2007.05.03 @ 16:10:49

Tool Information

Drill Pipe:	Length: 3383.00 ft	Diameter: 3.80 inches	Volume: 47.45 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:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 lb
			Total Volume: 47.45 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3386.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	3406.00 ft				
Interval between Packers:	20.00 ft				
Tool Length:	135.00 ft				
Number of Packers:	3	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3366.00	
Shut In Tool	5.00			3371.00	
Hydraulic tool	5.00			3376.00	
Packer	5.00			3381.00	21.00 Bottom Of Top Packer
Packer	5.00			3386.00	
Stubb	1.00			3387.00	
Recorder	0.00	6741	Inside	3387.00	
Perforations	15.00			3402.00	
Blank Off Sub	1.00			3403.00	
Blank Spacing	3.00			3406.00	20.00 Tool Interval
Packer	2.00			3408.00	
Stubb	1.00			3409.00	
Perforations	1.00			3410.00	
Change Over Sub	1.00			3411.00	
Recorder	0.00	13254	Outside	3411.00	
Drill Pipe	89.00			3500.00	94.00 Bottom Packers & Anchor
Total Tool Length:		135.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Oil Operations

Dreiling C # 6

1310 Bison Rd
Hays KS 67601

22 14 16 Ellis KS

Job Ticket: 28108

DST#: 1

ATTN: Tom Denning

Test Start: 2007.05.03 @ 16:10:49

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

20000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 51000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
620.00	Wtr w/scum of Oil	8.697

Total Length: 620.00 ft Total Volume: 8.697 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .33 @ 80 = 20000ppm

DST Test Number: 1

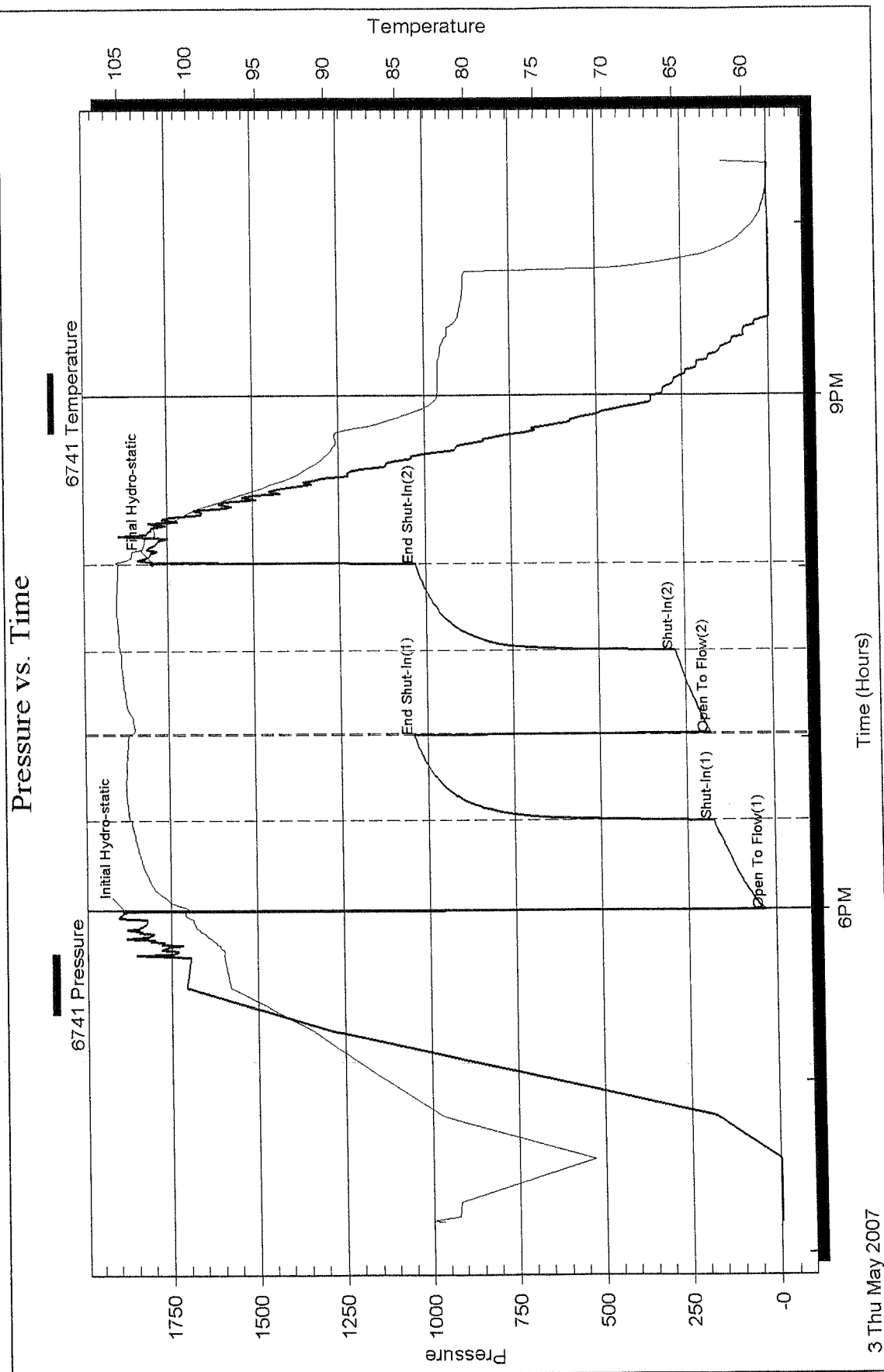
22 14 16 Ellis KS

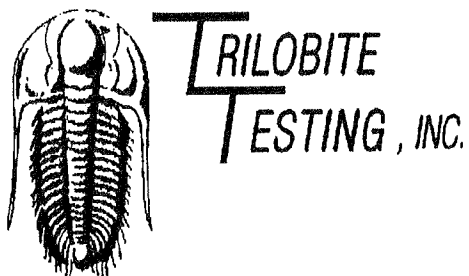
TDI Oil Operations

Inside

Serial #: 6741

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **TDI Oil Operations**

1310 Bison Rd
Hays KS 67601

ATTN: Tom Denning

22 14 16 Ellis KS

Dreiling C # 6

Start Date: 2007.05.03 @ 22:27:32

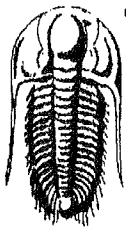
End Date: 2007.05.04 @ 04:38:17

Job Ticket #: 28109 DST #: 2

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 Oil Operations

1310 Bison Rd
Hays KS 67601

ATTN: Tom Denning

Dreiling C # 6

22 14 16 Ellis KS

Job Ticket: 28109

DST#: 2

Test Start: 2007.05.03 @ 22:27:32

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:07:02

Time Test Ended: 04:38:17

Test Type: Conventional Straddle

Tester: Dan Bangle

Unit No: 38

Interval: **3368.00 ft (KB) To 3382.00 ft (KB) (TVD)**

Total Depth: 3500.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1877.00 ft (KB)

1872.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6741

Inside

Press@RunDepth: 208.24 psig @ 3369.00 ft (KB)

Start Date: 2007.05.03

End Date:

2007.05.04

Start Time: 22:27:34

End Time:

04:38:17

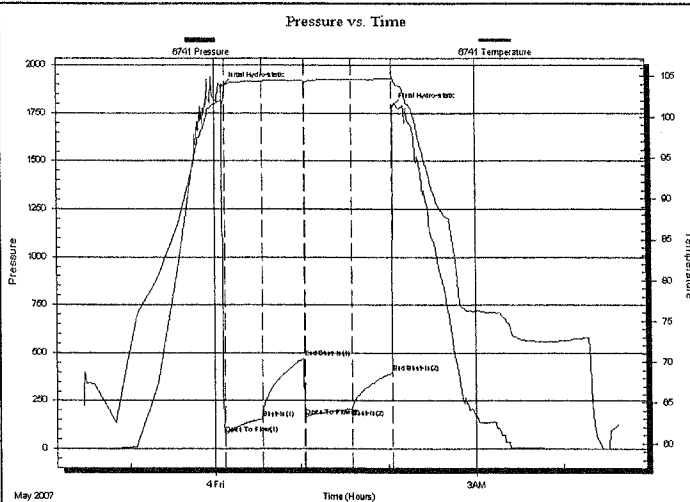
Capacity: 7000.00 psig

Last Calib.: 2007.05.04

Time On Btm: 2007.05.04 @ 00:05:32

Time Off Btm: 2007.05.04 @ 02:03:32

TEST COMMENT: IF Strong B-B in 1 1/2 min
FF Weak building to 8 "



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1889.75	101.98	Initial Hydro-static
2	77.85	103.66	Open To Flow (1)
28	156.12	104.38	Shut-In(1)
57	472.16	104.42	End Shut-In(1)
58	165.98	104.28	Open To Flow (2)
90	208.24	104.60	Shut-In(2)
118	400.24	104.66	End Shut-In(2)
118	1782.00	104.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	Silly OCW 5%O 95%W	2.61
124.00	W&MCO 60%O 20%W 20%M	1.74
248.00	CGsyO 10%G 90%O	3.48
0.00	124 GIP	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 Oil Operations

1310 Bison Rd
Hays KS 67601

ATTN: Tom Denning

Dreilling C # 6

22 14 16 Ellis KS

Job Ticket: 28109

DST#: 2

Test Start: 2007.05.03 @ 22:27:32

Tool Information

Drill Pipe:	Length: 3348.00 ft	Diameter: 3.80 inches	Volume: 46.96 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:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
		Total Volume:	46.96 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	1.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3368.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	3382.00 ft				
Interval between Packers:	14.00 ft				
Tool Length:	153.00 ft				
Number of Packers:	3	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3348.00	
Shut In Tool	5.00			3353.00	
Hydraulic tool	5.00			3358.00	
Packer	5.00			3363.00	21.00 Bottom Of Top Packer
Packer	5.00			3368.00	
Stubb	1.00			3369.00	
Recorder	0.00	6741	Inside	3369.00	
Perforations	9.00			3378.00	
Blank Off Sub	1.00			3379.00	
Blank Spacing	3.00			3382.00	14.00 Tool Interval
Packer	2.00			3384.00	
Stubb	1.00			3385.00	
Perforations	25.00			3410.00	
Change Over Sub	1.00			3411.00	
Recorder	0.00	13254	Outside	3411.00	
Drill Pipe	89.00			3500.00	118.00 Bottom Packers & Anchor
Total Tool Length:		153.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Oil Operations

Dreilling C # 6

1310 Bison Rd
Hays KS 67601

22 14 16 Ellis KS

Job Ticket: 28109

DST#: 2

ATTN: Tom Denning

Test Start: 2007.05.03 @ 22:27:32

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

25000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 51000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	Sltiy OCW 5%O 95%W	2.609
124.00	W&MCO 60%O 20%W 20%M	1.739
248.00	CGsyO 10%G 90%O	3.479
0.00	124 GIP	0.000

Total Length: 558.00 ft

Total Volume: 7.827 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

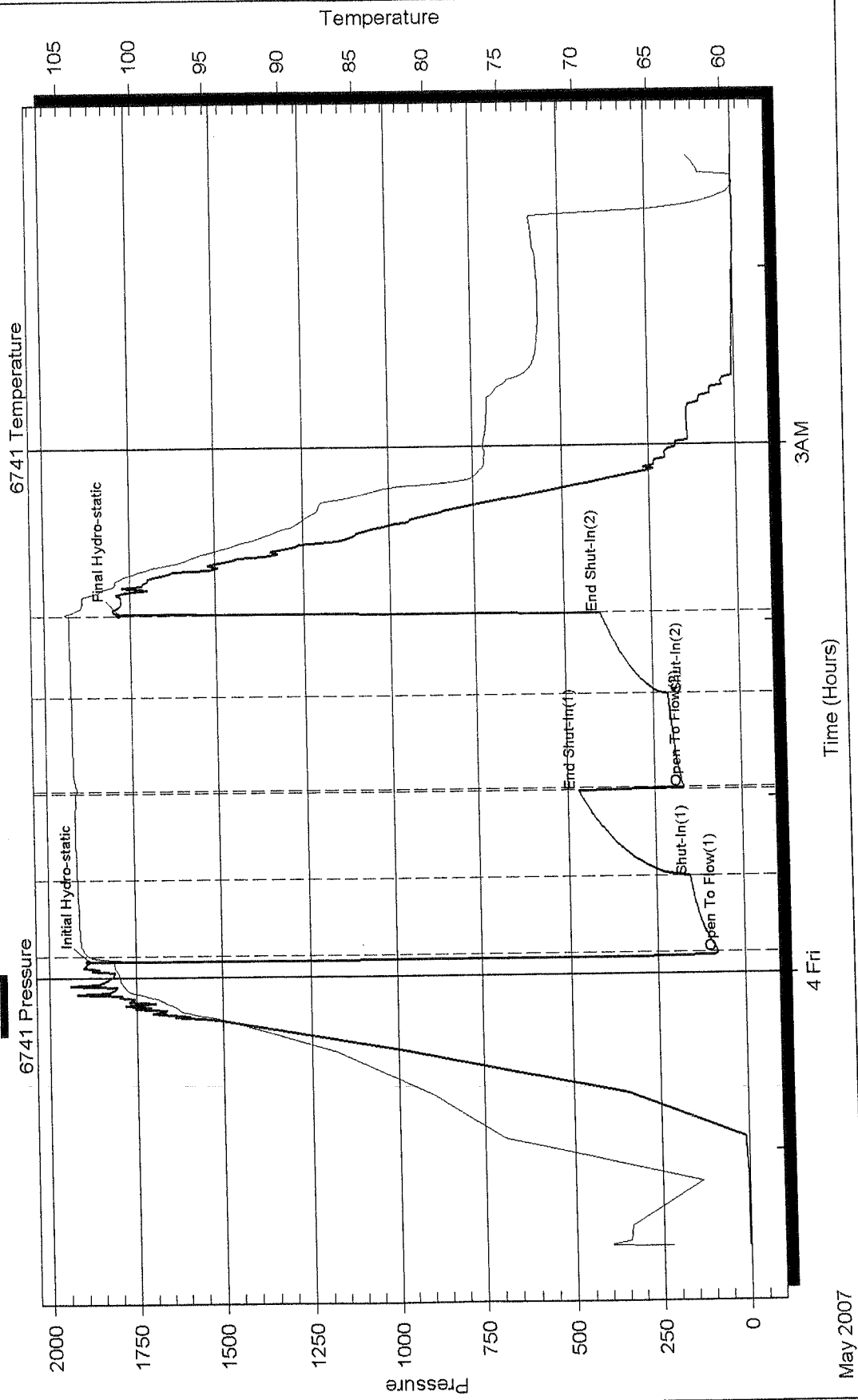
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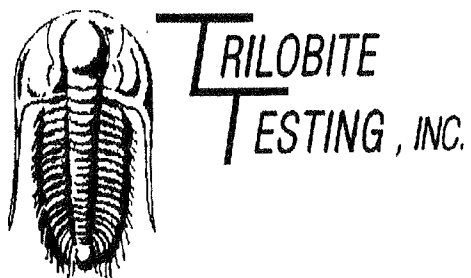
Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .31 @ 80 = 25000

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **TDI Oil Operations**

1310 Bison Rd
Hays KS 67601

ATTN: Tom Denning

22 14 16 Ellis KS

Dreiling C # 6

Start Date: 2007.05.04 @ 08:50:19

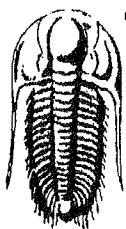
End Date: 2007.05.04 @ 13:22:04

Job Ticket #: 28110 DST #: 3

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 Oil Operations

1310 Bison Rd
Hays KS 67601

ATTN: Tom Denning

Dreiling C # 6

22 14 16 Ellis KS

Job Ticket: 28110

DST#: 3

Test Start: 2007.05.04 @ 08:50:19

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:26:19

Time Test Ended: 13:22:04

Test Type: Conventional Straddle

Tester: Dan Bangle

Unit No: 38

Interval: **3360.00 ft (KB) To 3368.00 ft (KB) (TVD)**

Total Depth: 3500.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1877.00 ft (KB)

1872.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6741

Inside

Press@RunDepth: 22.07 psig @ 3361.00 ft (KB)

Start Date: 2007.05.04

End Date:

2007.05.04

Start Time: 08:50:21

End Time:

13:22:04

Capacity: 7000.00 psig

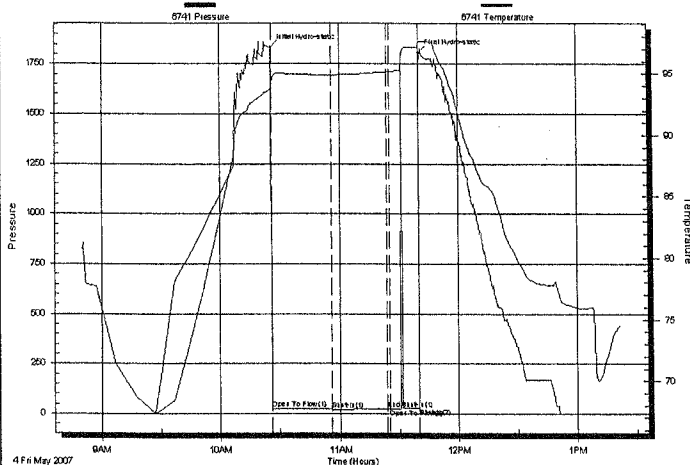
Last Calib.: 2007.05.04

Time On Btm: 2007.05.04 @ 10:25:49

Time Off Btm: 2007.05.04 @ 11:40:04

TEST COMMENT: IF Lost 5-10' of Mud when tool opened - Weak blow died in 10 min
FF No blow - flushed tool

Pressure vs. Time



PRESSURE SUMMARY

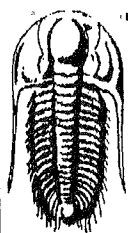
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1831.04	93.69	Initial Hydro-static
1	22.63	94.14	Open To Flow (1)
30	22.07	94.89	Shut-In(1)
58	26.00	95.16	End Shut-In(1)
60	23.19	95.18	Open To Flow (2)
74	29.84	97.15	Shut-In(2)
75	1804.59	97.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	DM	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Oil Operations

1310 Bison Rd
Hays KS 67601

ATTN: Tom Denning

Dreiling C # 6

22 14 16 Ellis KS

Job Ticket: 28110

DST#: 3

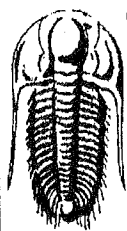
Test Start: 2007.05.04 @ 08:50:19

Tool Information

Drill Pipe:	Length: 3350.00 ft	Diameter: 3.80 inches	Volume: 46.99 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:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
		Total Volume:	46.99 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3360.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	3368.00 ft				
Interval between Packers:	8.00 ft				
Tool Length:	161.00 ft				
Number of Packers:	3	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3340.00		
Shut In Tool	5.00			3345.00		
Hydraulic tool	5.00			3350.00		
Packer	5.00			3355.00	21.00	Bottom Of Top Packer
Packer	5.00			3360.00		
Stubb	1.00			3361.00		
Recorder	0.00	6741	Inside	3361.00		
Perforations	3.00			3364.00		
Blank Off Sub	1.00			3365.00		
Blank Spacing	3.00			3368.00	8.00	Tool Interval
Packer	2.00			3370.00		
Stubb	1.00			3371.00		
Perforations	2.00			3373.00		
Change Over Sub	1.00			3374.00		
Recorder	0.00	13254	Outside	3374.00		
Drill Pipe	126.00			3500.00	132.00	Bottom Packers & Anchor
Total Tool Length:		161.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Oil Operations

Dreiling C # 6

1310 Bison Rd
Hays KS 67601

22 14 16 Ellis KS

Job Ticket: 28110

DST#: 3

ATTN: Tom Denning

Test Start: 2007.05.04 @ 08:50:19

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 51000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	DM	0.210

Total Length: 15.00 ft

Total Volume: 0.210 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

