

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **TDI Oil Operations**

1310 Bison Rd.
Hays KS 67601

ATTN: Tom Denning

22 14S 16W Ellis KS

Tholen # 6

Start Date: 2006.11.09 @ 03:10:28

End Date: 2006.11.09 @ 10:53:58

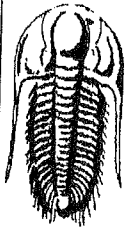
Job Ticket #: 26124 DST #: 1

15-051-25574-00-00

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



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DRILL STEM TEST REPORT

TDI Oil Operations

1310 Bison Rd.
Hays KS 67601

ATTN: Tom Denning

Tholen # 6

22 14S 16W Ellis KS

Job Ticket: 26124

DST#: 1

Test Start: 2006.11.09 @ 03:10:28

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:39:58

Time Test Ended: 10:53:58

Interval: **3320.00 ft (KB) To 3400.00 ft (KB) (TVD)**

Total Depth: 3457.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Straddle

Tester: John Schmidt

Unit No: 31

Reference Elevations: 1870.00 ft (KB)

1865.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8018

Inside

Press@RunDepth: 410.98 psig @ 3325.00 ft (KB)

Start Date: 2006.11.09

End Date:

2006.11.09

Capacity:

7000.00 psig

Start Time: 03:10:33

End Time:

10:53:57

Last Calib.:

2006.11.09

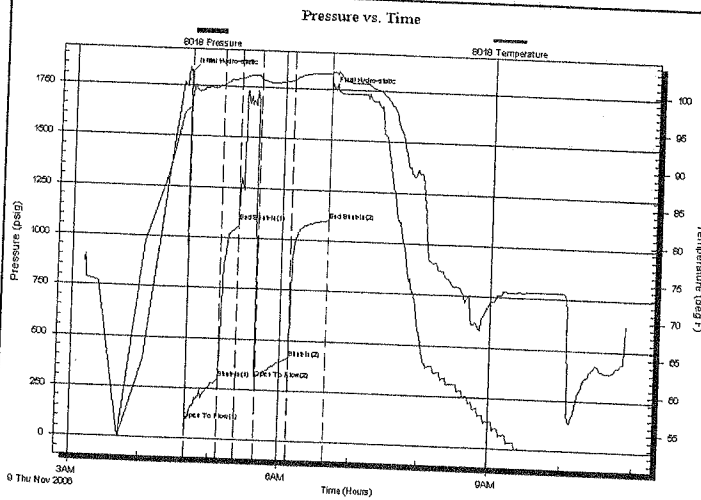
Time On Btm:

2006.11.09 @ 04:38:58

Time Off Btm:

2006.11.09 @ 06:39:28

TEST COMMENT: IF Strong BOB 1 min.
ISI Dead
FF Strong BOB 4 min.
FSI Dead



PRESSURE SUMMARY

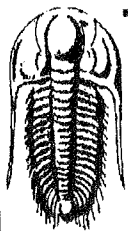
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1819.48	96.88	Initial Hydro-static
1	91.89	97.89	Open To Flow (1)
29	303.11	99.92	Shut-In(1)
44	1082.88	100.80	End Shut-In(1)
61	306.71	100.81	Open To Flow (2)
88	410.98	100.78	Shut-In(2)
120	1099.07	101.83	End Shut-In(2)
121	1747.51	101.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
913.00	HMCO 40%M 60%Oil	12.81

Gas Rates

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



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TOOL DIAGRAM

TDI Oil Operations

Tholen # 6

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Job Ticket: 26124

DST#: 1

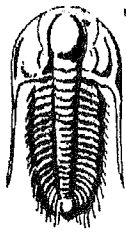
ATTN: Tom Denning

Test Start: 2006.11.09 @ 03:10:28

Tool Information

Drill Pipe:	Length: 3304.00 ft	Diameter: 3.80 inches	Volume: 46.35 bbl	Tool Weight:	2600.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	40000.00 lb
			<u>Total Volume: 46.35 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	32000.00 lb
Depth to Top Packer:	3320.00 ft			Final	36000.00 lb
Depth to Bottom Packer:	3400.00 ft				
Interval between Packers:	80.00 ft				
Tool Length:	157.00 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			3301.00	
Shut In Tool	5.00			3306.00	
Hydraulic tool	5.00			3311.00	
Packer	4.00			3315.00	20.00 Bottom Of Top Packer
Packer	5.00			3320.00	
Stubb	1.00			3321.00	
Perforations	3.00			3324.00	
Change Over Sub	1.00			3325.00	
Recorder	0.00	8018	Inside	3325.00	
Blank Spacing	63.00			3388.00	
Change Over Sub	1.00			3389.00	
Perforations	10.00			3399.00	
Recorder	0.00	13308	Outside	3399.00	
Blank Off Sub	1.00			3400.00	80.00 Tool Interval
Packer	0.00			3400.00	
Stubb	1.00			3401.00	
Perforations	15.00			3416.00	
Change Over Sub	1.00			3417.00	
Recorder	0.00	11084		3417.00	
Blank Spacing	31.00			3448.00	
Change Over Sub	1.00			3449.00	
Perforations	5.00			3454.00	
Bullnose	3.00			3457.00	57.00 Bottom Packers & Anchor
Total Tool Length:	157.00				



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FLUID SUMMARY

TDI Oil Operations

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Job Ticket: 26124

DST#: 1

ATTN: Tom Denning

Test Start: 2006.11.09 @ 03:10:28

Mud and Cushion Information

Mud Type: Starch

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:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Gas Cushion Pressure:

psig

Resistivity: ohm.m

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
913.00	HMCO 40%M 60%Oil	12.807

Total Length: 913.00 ft

Total Volume: 12.807 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 1

22 14S 16W Ellis KS

TDI Oil Operations

Inside

Serial #: 8018

Pressure vs. Time

