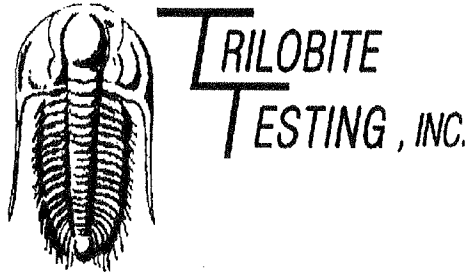


15-051-25855

5-15s-19w CONFIDENTIAL

JUN 22 2009

KCC



DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays Ks 67601-9696

ATTN: Tom Denning

5-15s-19w Ellis KS

Howard #1

Start Date: 2009.03.09 @ 10:57:40

End Date: 2009.03.09 @ 17:34:04

Job Ticket #: 36287

DST #: 1

KANSAS CORPORATION COMMISSION

JUN 24 2009

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Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

TDI Inc

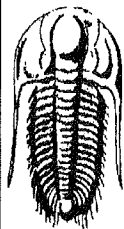
Howard #1

5-15s-19w Ellis KS

DST # 1

LKC C-D

2009.03.09



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI Inc

1310 Bison Rd
Hays Ks 67601-9696

ATTN: Tom Denning

Howard #1

5-15s-19w Ellis KS

Job Ticket: 36287

DST#: 1

Test Start: 2009.03.09 @ 10:57:40

GENERAL INFORMATION:

Formation: **LKC C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:47:05

Time Test Ended: 17:34:04

Interval: **3378.00 ft (KB) To 3422.00 ft (KB) (TVD)**

Total Depth: 3422.00 ft (KB) (TVD)

Hole Diameter: 7.85 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 42

Reference Elevations: 2052.00 ft (KB)

2047.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8365

Inside

Press@RunDepth: 266.99 psig @ 3388.01 ft (KB)

Start Date: 2009.03.09

End Date:

2009.03.09

Start Time: 10:57:40

End Time:

17:34:04

Capacity: 7000.00 psig

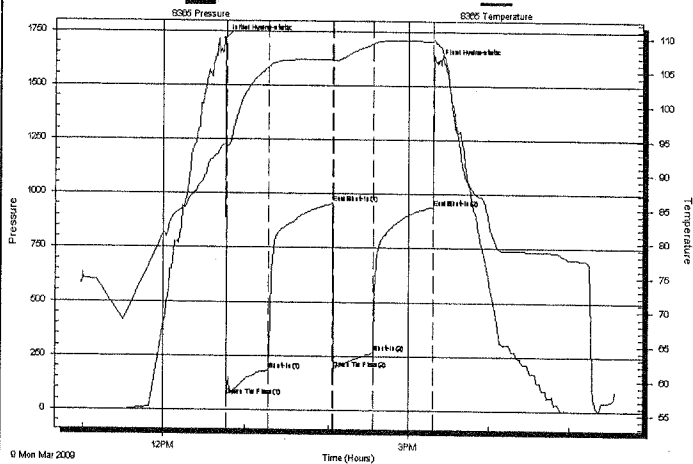
Last Calib.: 2009.03.09

Time On Btm: 2009.03.09 @ 12:45:35

Time Off Btm: 2009.03.09 @ 15:21:34

TEST COMMENT: IFP-strg bl in 3 min
FFP-strg bl thru-out
Times 30-45-30-45
ISIP-strg bl bk in 9min, FSIP-strg bl bk in 7 1/2min

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1713.31	94.36	Initial Hydro-static
2	62.84	93.95	Open To Flow (1)
32	184.06	105.57	Shut-In (1)
78	954.45	106.79	End Shut-In (1)
79	191.95	106.55	Open To Flow (2)
108	266.99	108.99	Shut-In (2)
153	940.96	109.45	End Shut-In (2)
156	1606.09	109.07	Final Hydro-static

Recovery

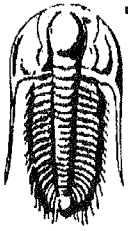
Length (ft)	Description	Volume (bbl)
102.00	SO&GCW 5%G3%O92%W	0.72
372.00	CO	3.43
145.00	MGO 30%G10%M60%O	2.03
62.00	HO&GCM 10%G30%O60%M	0.87
0.00	1610' GIP	0.00

Gas Rates

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

JUN 23 2009

TOOL DIAGRAM


TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TDI Inc

 1310 Bison Rd
 Hays Ks 67601-9696

ATTN: Tom Denning

Howard #1

5-15s-19w Ellis KS

Job Ticket: 36287

DST#: 1

Test Start: 2009.03.09 @ 10:57:40

Tool Information

Drill Pipe:	Length: 3011.00 ft	Diameter: 3.80 inches	Volume: 42.24 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 360.00 ft	Diameter: 2.70 inches	Volume: 2.55 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			Total Volume: 44.79 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	3378.00 ft			Final 37000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.02 ft			
Tool Length:	65.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

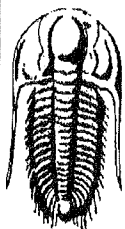
Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3358.00	
Shut In Tool	5.00			3363.00	
Hydraulic tool	5.00			3368.00	
Packer	5.00			3373.00	21.00 Bottom Of Top Packer
Packer	5.00			3378.00	
Stubb	1.00			3379.00	
Perforations	9.00			3388.00	
Recorder	0.01	8365	Inside	3388.01	
Recorder	0.01	6625	Outside	3388.02	
Blank Spacing	31.00			3419.02	
Bullnose	3.00			3422.02	44.02 Bottom Packers & Anchor

Total Tool Length: 65.02

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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc

Howard #1

1310 Bison Rd
Hays Ks 67601-9696

5-15s-19w Ellis KS

Job Ticket: 36287

DST#: 1

ATTN: Tom Denning

Test Start: 2009.03.09 @ 10:57:40

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 9.52 in³

Resistivity: ohm.m

Salinity: 7500.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

37 deg API

Water Salinity:

75000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
102.00	SO&GCW 5%G3%O92%W	0.722
372.00	CO	3.426
145.00	MGO 30%G10%M60%O	2.034
62.00	HO&GCM 10%G30%O60%M	0.870
0.00	1610 ' GIP	0.000

Total Length:

681.00 ft

Total Volume:

7.052 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW.13 @ 54F

JUN 22 2009

DST Test Number: 1

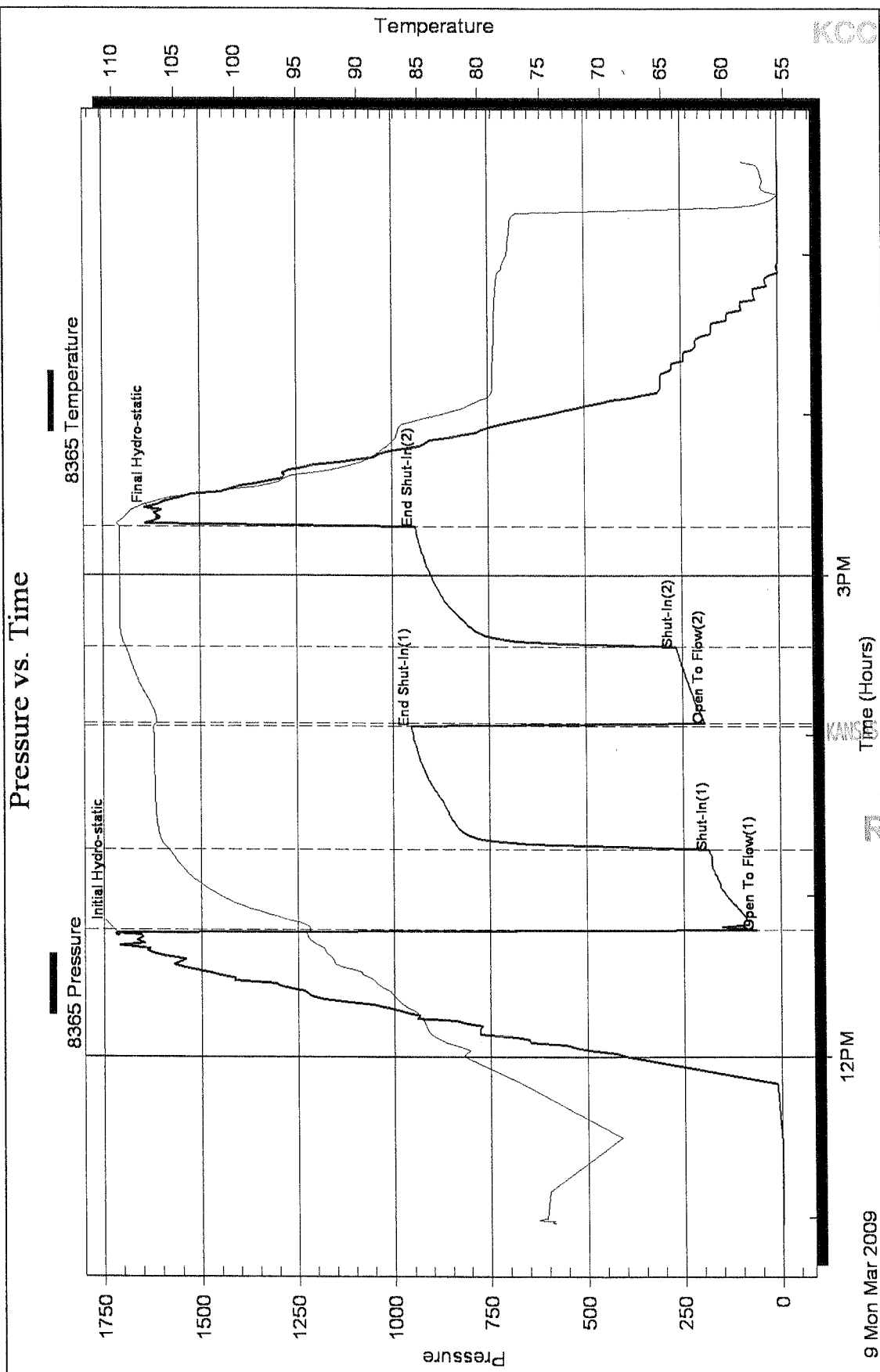
5-15s-19w Ellis KS

TDI Inc

Inside

Serial #: 8365

Pressure vs. Time



KCC

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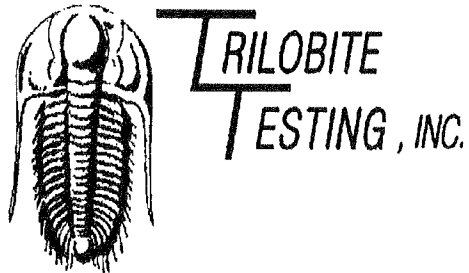
Ref. No: 36287

Trilobite Testing, Inc

CONFIDENTIAL

JUN 22 2009

KCC



DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd

Hays Ks 67601-9696

CONFIDENTIAL

JUN 22 2009

ATTN: Tom Denning

5-15s-19w Ellis KS

Howard #1

Start Date: 2009.03.10 @ 00:53:32

End Date: 2009.03.10 @ 06:55:56

Job Ticket #: 36288

DST #: 2

KANSAS CORPORATION COMMISSION

JUN 24 2009

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Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

TDI Inc

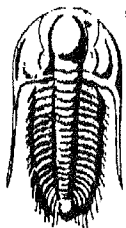
Howard #1

5-15s-19w Ellis KS

DST # 2

LKC E-G

2009.03.10



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI Inc

Howard #1

1310 Bison Rd
Hays Ks 67601-9696

5-15s-19w Ellis KS

ATTN: Tom Denning

Job Ticket: 36288

DST#: 2

Test Start: 2009.03.10 @ 00:53:32

GENERAL INFORMATION:

Formation: LKC E-G

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:37:57

Time Test Ended: 06:55:56

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 42

Interval: 3422.00 ft (KB) To 3460.00 ft (KB) (TVD)

Total Depth: 3460.00 ft (KB) (TVD)

Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2052.00 ft (KB)

2047.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8365

Inside

Press@RunDepth: 390.40 psig @ 3427.01 ft (KB)

Start Date: 2009.03.10

End Date:

2009.03.10

Start Time: 00:53:32

End Time:

06:55:56

Capacity: 7000.00 psig

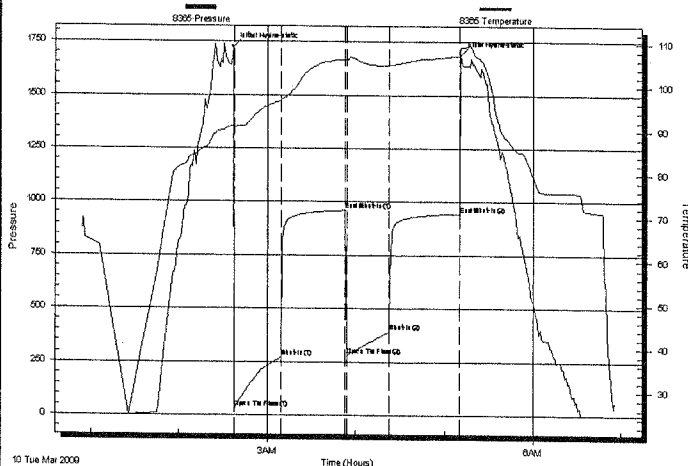
Last Calib.: 2009.03.10

Time On Btm: 2009.03.10 @ 02:36:57

Time Off Btm: 2009.03.10 @ 05:10:56

TEST COMMENT: IFP-w k to a gd bl 1/2" to 8" bl
FFP-w kbl thru-out 1/4" to 2" bl
Times 30-45-30-45
no bl on shut-in

Pressure vs. Time



PRESSURE SUMMARY

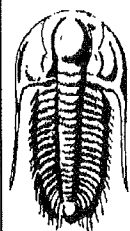
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1725.07	91.11	Initial Hydro-static
1	29.92	90.76	Open To Flow (1)
32	271.25	96.84	Shut-In (1)
76	959.40	106.34	End Shut-In (1)
77	277.47	106.16	Open To Flow (2)
106	390.40	104.92	Shut-In (2)
153	944.01	107.25	End Shut-In (2)
154	1689.01	109.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	MW 15% M85% W w/show of oil	0.88
636.00	Water	7.28

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc

1310 Bison Rd
Hays Ks 67601-9696

ATTN: Tom Denning

Howard #1

5-15s-19w Ellis KS

Job Ticket: 36288

DST#: 2

Test Start: 2009.03.10 @ 00:53:32

Tool Information

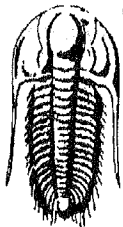
Drill Pipe:	Length: 3071.00 ft	Diameter: 3.80 inches	Volume: 43.08 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 360.00 ft	Diameter: 2.70 inches	Volume: 2.55 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			Total Volume: 45.63 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3422.00 ft			Final 37000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.02 ft			
Tool Length:	59.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3402.00	
Shut In Tool	5.00			3407.00	
Hydraulic tool	5.00			3412.00	
Packer	5.00			3417.00	21.00 Bottom Of Top Packer
Packer	5.00			3422.00	
Stubb	1.00			3423.00	
Perforations	4.00			3427.00	
Recorder	0.01	8365	Inside	3427.01	
Recorder	0.01	6625	Outside	3427.02	
Blank Spacing	30.00			3457.02	
Bullnose	3.00			3460.02	38.02 Bottom Packers & Anchor

Total Tool Length: 59.02

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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc

Howard #1

1310 Bison Rd
Hays Ks 67601-9696

5-15s-19w Ellis KS

Job Ticket: 36288

DST#: 2

ATTN: Tom Denning

Test Start: 2009.03.10 @ 00:53:32

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: 63000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.50 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	MW 15% M85% W w/show of oil	0.878
636.00	Water	7.282

Total Length: 760.00 ft

Total Volume: 8.160 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

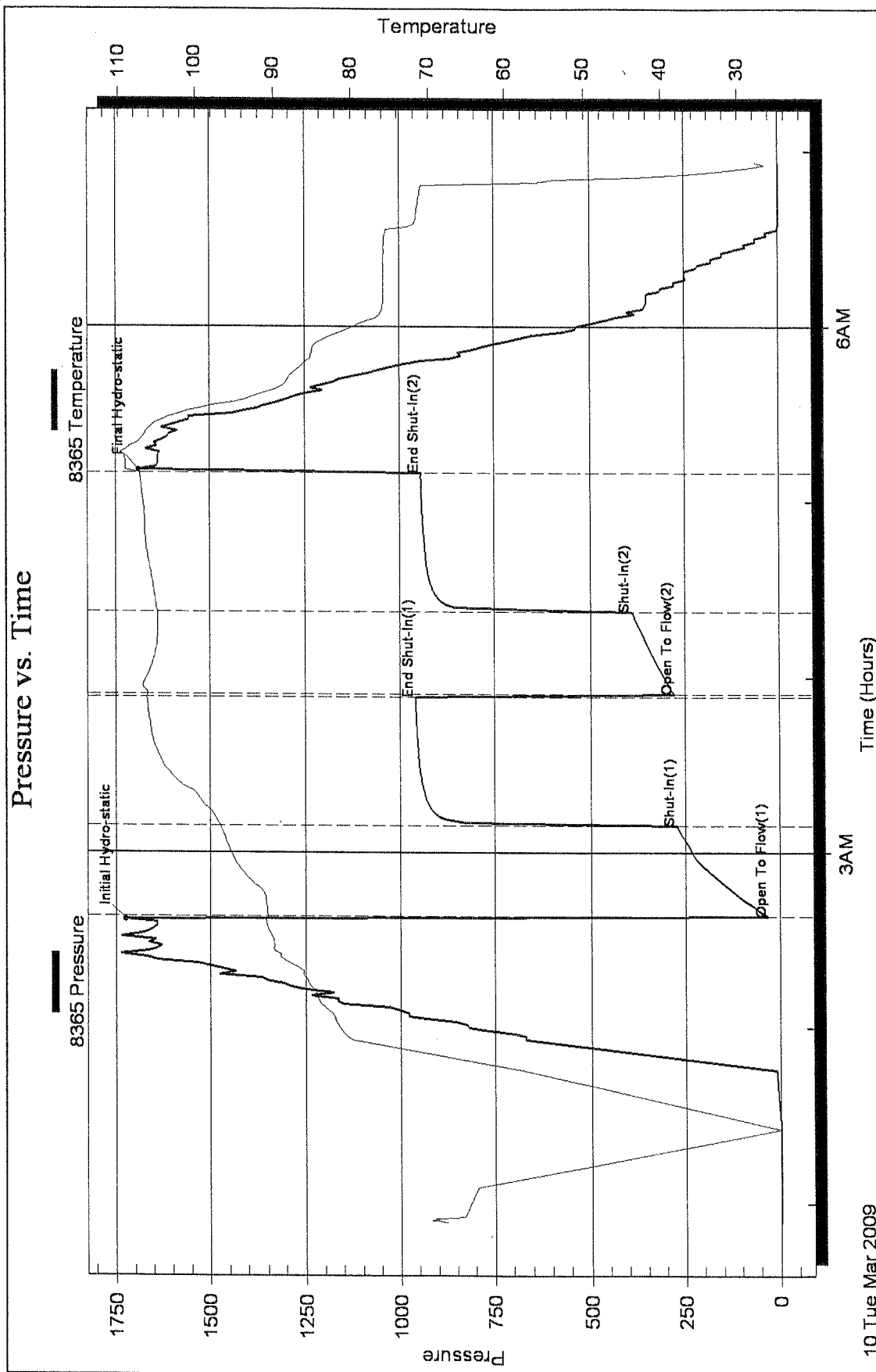
Recovery Comments: RW .13 @ 65F

DST Test Number: 2

5-15s-19w Ellis KS

Inside TDI Inc

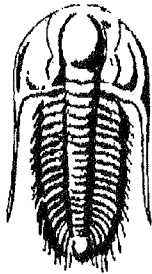
Serial #: 8365



Ref. No: 36288

Trilobite Testing, Inc

KANSAS CORPORATION COMMISSION
JUN 24 2009
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays Ks 67601-9696

ATTN: Tom Denning

5-15s-19w Ellis KS

Howard #1

Start Date: 2009.03.10 @ 16:14:23

End Date: 2009.03.10 @ 22:34:53

Job Ticket #: 36289

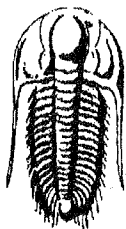
DST #: 3

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Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI Inc

Howard #1

1310 Bison Rd
Hays Ks 67601-9696

5-15s-19w Ellis KS

Job Ticket: 36289

DST#: 3

ATTN: Tom Denning

Test Start: 2009.03.10 @ 16:14:23

GENERAL INFORMATION:

Formation: **LKC H-I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:03:53

Time Test Ended: 22:34:53

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 42

Interval: **3488.00 ft (KB) To 3524.00 ft (KB) (TVD)**

Total Depth: 3524.00 ft (KB) (TVD)

Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2052.00 ft (KB)

2047.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **8365**

Inside

Press@RunDepth: 192.78 psig @ 3496.01 ft (KB)

Start Date: 2009.03.10

End Date:

2009.03.10

Start Time: 16:14:28

End Time:

22:34:52

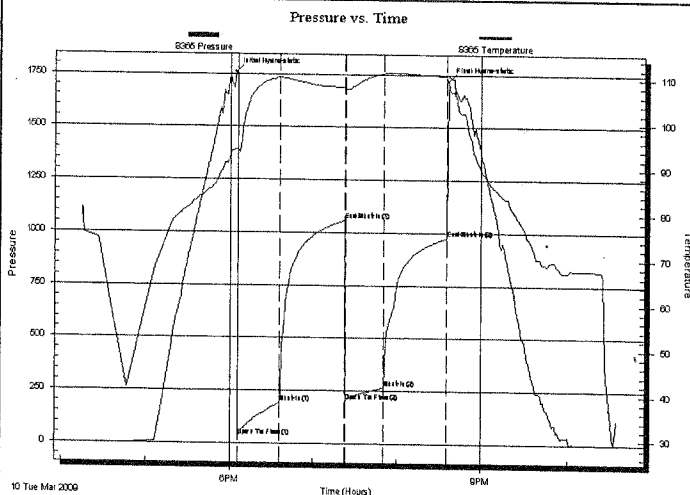
Capacity: 7000.00 psig

Last Calib.: 2009.03.10

Time On Btm: 2009.03.10 @ 18:03:53

Time Off Btm: 2009.03.10 @ 20:36:52

TEST COMMENT: IFP-wk to strg in 8 min
FFP-wk to a gd bl 1/4" to 6 1/2" bl
Times 30-45-30-45
no bl on shut-in



PRESSURE SUMMARY

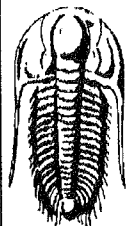
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1757.73	94.24	Initial Hydro-static
2	32.21	93.79	Open To Flow (1)
32	192.78	110.18	Shut-In (1)
79	1057.49	108.18	End Shut-In (1)
80	202.38	107.80	Open To Flow (2)
107	265.92	111.14	Shut-In (2)
152	975.59	110.66	End Shut-In (2)
153	1720.13	110.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	MW 20% M80% W w/show of oil	0.64
435.00	Water	4.23

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc

1310 Bison Rd
Hays Ks 67601-9696

ATTN: Tom Denning

Howard #1

5-15s-19w Ellis KS

Job Ticket: 36289

DST#: 3

Test Start: 2009.03.10 @ 16:14:23

Tool Information

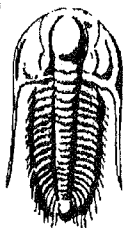
Drill Pipe:	Length: 3135.00 ft	Diameter: 3.80 inches	Volume: 43.98 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 360.00 ft	Diameter: 2.70 inches	Volume: 2.55 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	45000.00 lb
			<u>Total Volume: 46.53 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	36000.00 lb
Depth to Top Packer:	3488.00 ft			Final	37000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	36.02 ft				
Tool Length:	57.02 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			3468.00	
Shut In Tool	5.00			3473.00	
Hydraulic tool	5.00			3478.00	
Packer	5.00			3483.00	21.00 Bottom Of Top Packer
Packer	5.00			3488.00	
Stubb	1.00			3489.00	
Perforations	7.00			3496.00	
Recorder	0.01	8365	Inside	3496.01	
Recorder	0.01	6625	Outside	3496.02	
Perforations	25.00			3521.02	
Bullnose	3.00			3524.02	36.02 Bottom Packers & Anchor

Total Tool Length: 57.02

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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc

Howard #1

1310 Bison Rd
Hays Ks 67601-9696

5-15s-19w Ellis KS

Job Ticket: 36289

DST#: 3

ATTN: Tom Denning

Test Start: 2009.03.10 @ 16:14:23

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 8.74 in³

Resistivity: ohm.m

Salinity: 7600.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

deg API

Water Salinity:

55000 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	MV 20%MB0%W w/show of oil	0.637
435.00	Water	4.227

Total Length: 525.00 ft Total Volume: 4.864 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

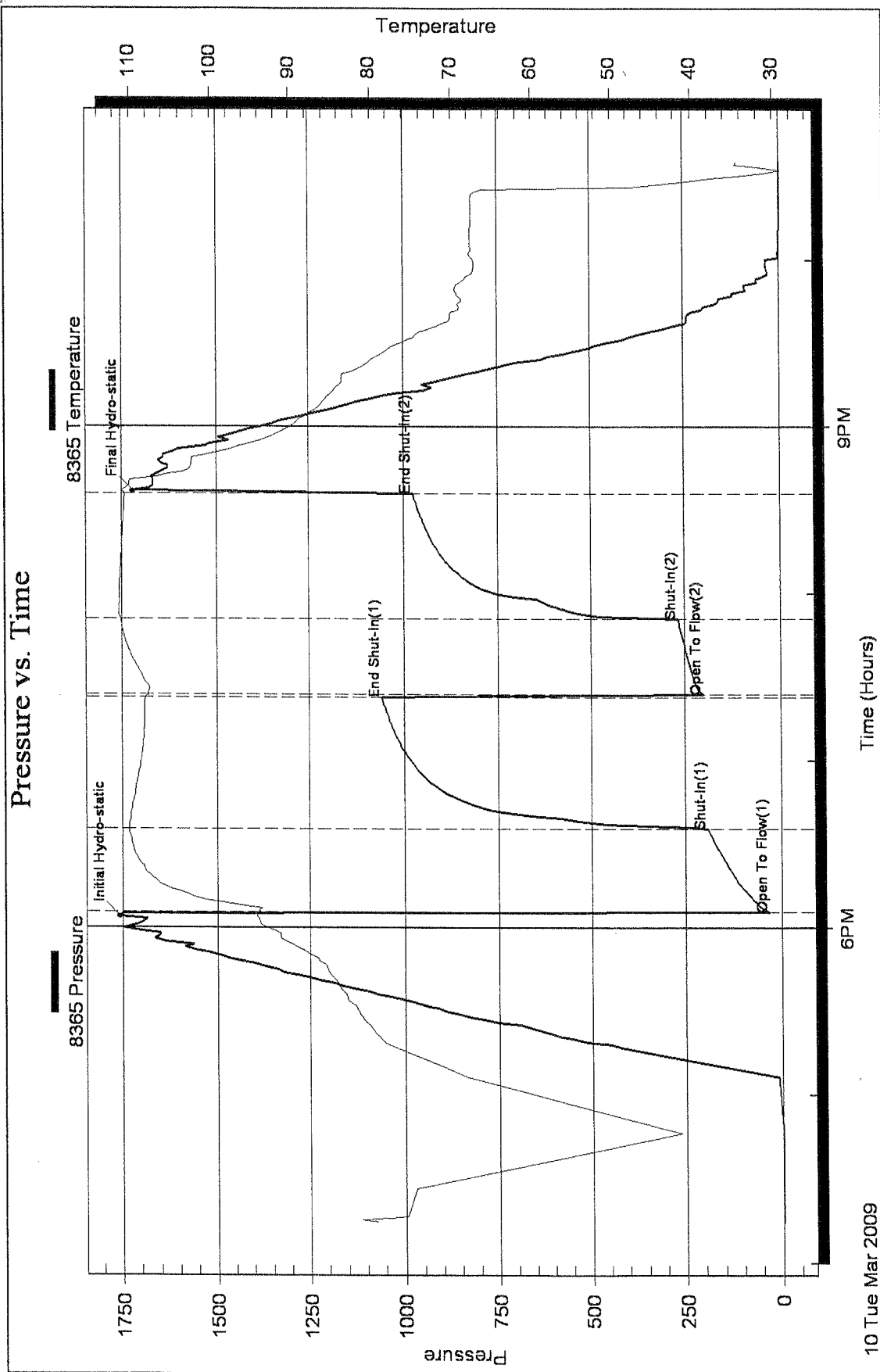
Serial #:

Laboratory Name:

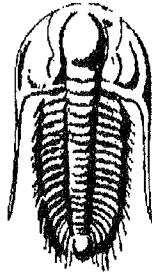
Laboratory Location:

Recovery Comments: RW .15 @ 63F

Pressure vs. Time



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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays Ks 67601-9696

ATTN: Tom Denning

5-15s-19w Ellis KS

Howard #1

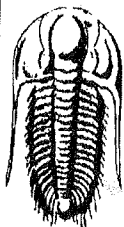
Start Date: 2009.03.11 @ 15:46:46

End Date: 2009.03.11 @ 22:26:40

Job Ticket #: 36290 DST #: 4

KANSAS CORPORATION COMMISSION
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RECEIVED

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TDI Inc

1310 Bison Rd
Hays Ks 67601-9696

ATTN: Tom Denning

Howard #1

5-15s-19w Ellis KS

Job Ticket: 36290

DST#: 4

Test Start: 2009.03.11 @ 15:46:46

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:36:11

Time Test Ended: 22:26:40

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 42

Interval: **3654.00 ft (KB) To 3690.00 ft (KB) (TVD)**

Total Depth: 3690.00 ft (KB) (TVD)

Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2052.00 ft (KB)

2047.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8365

Inside

Press@RunDepth: 112.23 psig @ 3662.01 ft (KB)

Start Date: 2009.03.11

End Date:

2009.03.11

Start Time: 15:46:46

End Time:

22:26:40

Capacity: 7000.00 psig

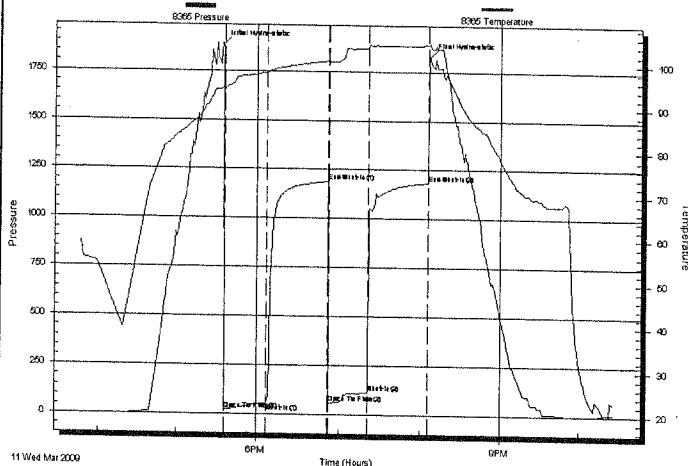
Last Calib.: 2009.03.11

Time On Btm: 2009.03.11 @ 17:34:41

Time Off Btm: 2009.03.11 @ 20:06:40

TEST COMMENT: IFP-wk to a fr bl 1/2" to 4" bl
FFP-wk to a fr bl 1/8" to 5" bl
Times 30-45-30-45
ISIP-no bl, FSIP-surface bl bk

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1882.25	94.52	Initial Hydro-static
2	18.84	94.21	Open To Flow (1)
33	56.15	98.12	Shut-In(1)
77	1187.78	100.78	End Shut-In(1)
78	59.89	100.40	Open To Flow (2)
107	112.23	103.81	Shut-In(2)
151	1183.02	104.47	End Shut-In(2)
152	1825.26	104.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	HO&GCM 5%G35%O60%M	0.50
120.00	MGO 5%G55%O40%F	0.85

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc

1310 Bison Rd
Hays Ks 67601-9696

ATTN: Tom Denning

Howard #1

5-15s-19w Ellis KS

Job Ticket: 36290

DST#: 4

Test Start: 2009.03.11 @ 15:46:46

Tool Information

Drill Pipe:	Length: 3287.00 ft	Diameter: 3.80 inches	Volume: 46.11 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 360.00 ft	Diameter: 2.70 inches	Volume: 2.55 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	45000.00 lb
			Total Volume: 48.66 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	36000.00 lb
Depth to Top Packer:	3654.00 ft			Final	36000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	36.02 ft				
Tool Length:	57.02 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

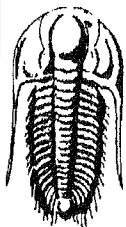
Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3634.00	
Shut In Tool	5.00			3639.00	
Hydraulic tool	5.00			3644.00	
Packer	5.00			3649.00	21.00 Bottom Of Top Packer
Packer	5.00			3654.00	
Stubb	1.00			3655.00	
Perforations	7.00			3662.00	
Recorder	0.01	8365	Inside	3662.01	
Recorder	0.01	6625	Outside	3662.02	
Perforations	25.00			3687.02	
Bullnose	3.00			3690.02	36.02 Bottom Packers & Anchor

Total Tool Length: 57.02

KANSAS CORPORATION COMMISSION

JUN 24 2009

RECEIVED



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc

Howard #1

1310 Bison Rd
Hays Ks 67601-9696

5-15s-19w Ellis KS

Job Ticket: 36290

DST#: 4

ATTN: Tom Denning

Test Start: 2009.03.11 @ 15:46:46

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 7.96 in³

Resistivity: ohm.m

Salinity: 7400.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	HO&GCM 5%G35%O60%M	0.496
120.00	MGO 5%G55%O40%F	0.850

Total Length: 190.00 ft

Total Volume: 1.346 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 4

5-15s-19w Ellis KS

TDI Inc

Inside

Serial #: 8365

Pressure vs. Time

