

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

RECEIVED
OCT 18 2010
KCC WICHITA

ORIGINAL

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

10/16/12

OPERATOR: License # 4787
Name: TDI, Inc.
Address 1: 1310 Bison Road
Address 2: _____
City: Hays State: KS Zip: 67601 + 9696
Contact Person: Tom Denning
Phone: (785) 628-2593
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Herb Deines
Purchaser: Coffeyville Resources

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Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SLOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____
Well Name: _____
Original Comp. Date: _____ Original Total Depth: _____
 Deepening Re-perf. Conv. to ENHR Conv. to SWD
 Conv. to GSW
 Plug Back: 3711' Plug Back Total Depth _____
 Commingled Permit #: _____
 Dual Completion Permit #: _____
 SWD Permit #: _____
 ENHR Permit #: _____
 GSW Permit #: _____

09/09/2010	09/15/2010	10/07/2010
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 051-26025-00-00
Spot Description: _____
SW NE NE SE Sec. 9 Twp. 15 S. R. 18 East West
2,100 Feet from North / South Line of Section
560 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Ellis
Lease Name: Munsch Well #: 3
Field Name: Schoenchen
Producing Formation: Arbuckle
Elevation: Ground: 2026' Kelly Bushing: 2036'
Total Depth: 3738' Plug Back Total Depth: 3711'
Amount of Surface Pipe Set and Cemented at: 220 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set: 1223 Feet
If Alternate II completion, cement circulated from: 1223
feet depth to: surface w/ 130 sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 48,000 ppm Fluid volume: 1,000 bbls
Dewatering method used: evaporation
Location of fluid disposal if hauled offsite: _____
Operator Name: _____
Lease Name: _____ License #: _____
Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West
County: _____ Permit #: _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature: [Signature]
Title: Tom Denning, President Date: 10/16/2010

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: 10/16/10 - 10/16/12
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

Operator Name: TDI, Inc. Lease Name: Munsch Well #: 3
 Sec. 9 Twp. 15 S. R. 18 East West County: Ellis **OCT 16 2010**

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INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Anhydrite	1201'	+835'
Electric Log Run	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Topeka	2998'	-798'
Electric Log Submitted Electronically <i>(If no, Submit Copy)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Heebner	3276'	-1240'
List All E. Logs Run:		Lansing/KC	3323'	-1287'
Dual Induction		Base KC	3548'	-1512'
Compensated Porosity		Arbuckle	3624'	-1588'
Microresistivity		RTD	3737	-1701'

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
surface	12 1/4"	8 5/8"	23#	220'	common	150 sxs	3% gel 5% cc
production	7 7/8"	5 1/2"	14#	3739'	EA2	150 sxs	

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input checked="" type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone	1223'	SMD	130 sxs	DV tool @ 1223'. Cement from 1223' to surface w/ 130 sxs SMD. Cement did circulate.

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth
4 spf	3625'-28'	100 gals 15% mud acid	

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TUBING RECORD:	Size: <u>2 7/8"</u>	Set At: <u>3689'</u>	Packer At: <u>none</u>	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. <u>11/12/2010</u>	Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls. <u>15</u>	Gas Mcf	Water Bbls. <u>135</u>	Gas-Oil Ratio <u>30</u>

DISPOSITION OF GAS: <input checked="" type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: <u>3625'-28' (Arbuckle)</u>
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JOB LOG

SWIFT Services, Inc.

DATE 09-15-10 PAGE NO. 1

CUSTOMER TDZ WELL NO. 3 LEASE MUNSH JOB TYPE 2-STAGE TICKET NO. 18081

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1500							DN LOCATION CMT: BOTTOM 150 STD EA-2 TOP 175 SMD RD370 Set Pipe 378 SJ2828 INJECT 3700 5 1/2 14 1/4 D.U. on top * 61, 1223 FT CENT 1.3, 5.7, 9.1, 61, 75 BAYS 2, 13, 61, 74
	1620							START C/S LIFE
	1745							TAG BOTTOM - DROP BALL
	1750							BREAK CIRC & ROTATE PIPE
	1820	5.0	12		✓		250	MUD FLUSH 500 GALS
		5	20		✓		5	WCL FLUSH
			36.5		✓			CMT 150 STD EA-2 DROP LD PLUG, WASH OUT PL
	1835	6.2	0		✓		250	START DISP 1/4 H ₂ O
			61.0		✓		300	" " 1/4 RIG MUD
			75.0		✓		500	" " 1/4 WCL FLUSH
			80.0		✓		600	
			85.0		✓		700	
	1850	4.5	90.5		✓		1400	LAND PLUG RELEASE DRY
	1855							DROP D.U. OPENING DART PLUG RH 30, MH 15
	1855		8.5					
	1903	4.0	30		✓		900	OPEN D.U. INJECT 3 BBL WCL
	1805	5.5	0		✓		250	START SMD CMT 130 S/S
		5	40.0		✓		5	
	1923		75.0		✓			END CMT DROP D.U. CLOSING PLUG
	1925	6.0	0		✓		200	START DISP
		5	250		✓		500	
	1930		29.8		✓		1400	LAND PLUG. CLOSE D.U. CIRC 15 S/S
								Steve Adams Frank Bone
								JOB COMPLETE THANK YOU! DAVE, JOE AB,

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OCT 29 2010
KCC WICHITA

QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 4199

Date <u>9-9-10</u>	Sec.	Twp.	Range	County <u>Ellis</u>	State <u>Kansas</u>	On Location	Finish <u>10:30PM</u>
Lease <u>Munich</u>	Well No. <u>3</u>			Location <u>Hays Co KS</u>			
Contractor <u>Southwind Drilling RS 1</u>				Owner			
Type Job <u>Surface</u>				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size <u>12 1/4</u>		T.D. <u>270</u>		Charge To <u>TDI</u>			
Csg. <u>8 3/8 2 3/4</u>		Depth <u>230</u>		Street			
Tbg. Size		Depth		City			
Tool		Depth		State			
Cement Left in Csg. <u>10-15'</u>		Shoe Joint		The above was done to satisfaction and supervision of owner agent or contractor.			
Meas Line		Displace <u>13 Bbl</u>		Cement Amount Ordered <u>150 Com 30CC 28lb</u>			

EQUIPMENT

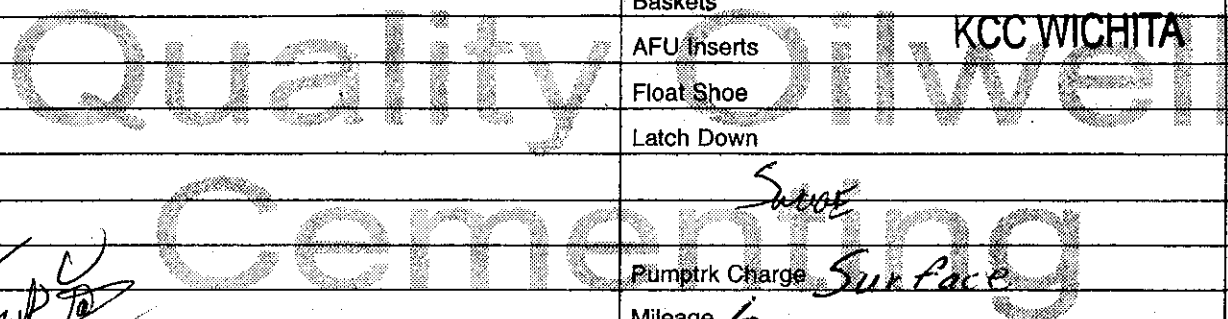
Pumptrk <u>9</u>	No.	Cementer <u>Chris</u>	Common <u>150</u>
		Helper <u>3</u>	
Bulktrk <u>12</u>	No.	Driver <u>Paul</u>	Poz. Mix
		Driver <u>3</u>	
Bulktrk	No.	Driver	Gel. <u>3</u>
		Driver	Calcium <u>5</u>

JOB SERVICES & REMARKS

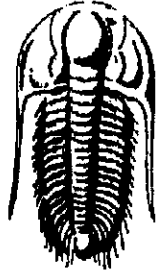
Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling <u>158</u>
	Mileage

FLOAT EQUIPMENT

Guide Shoe	RECEIVED
Centralizer	OCT 29 2010
Baskets	KCC WICHITA
AFU Inserts	
Float Shoe	
Latch Down	



<p><i>Thank You</i></p> <p>Signature</p>	<p style="text-align: center;"><u>Surface</u></p> <p>Pumptrk Charge <u>Surface</u></p> <p>Mileage <u>6</u></p> <p style="text-align: right;">Tax</p> <p style="text-align: right;">Discount</p> <p style="text-align: right;">Total Charge</p>
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**TRILOBITE
TESTING, INC.**

**KCC
OCT 16 2010
CONFIDENTIAL**

DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1310 Bison Road
Hays KS 67601

ATTN: Tom Denning

9 15s 18w Ellis KS

Munsch #3

Start Date: 2010.09.13 @ 16:10:11

End Date: 2010.09.13 @ 21:15:35

Job Ticket #: 40143 DST #: 1

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

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OCT 18 2010
KCC WICHITA**

TDI Inc.

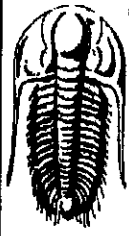
Munsch #3

9 15s 18w Ellis KS

DST # 1

A-C

2010.09.13



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TDI Inc.
1310 Bison Road
Hays KS 67601
ATTN: Tom Denning

Munsch #3
9 15s 18w Ellis KS
Job Ticket: 40143 DST#: 1
Test Start: 2010.09.13 @ 16:10:11

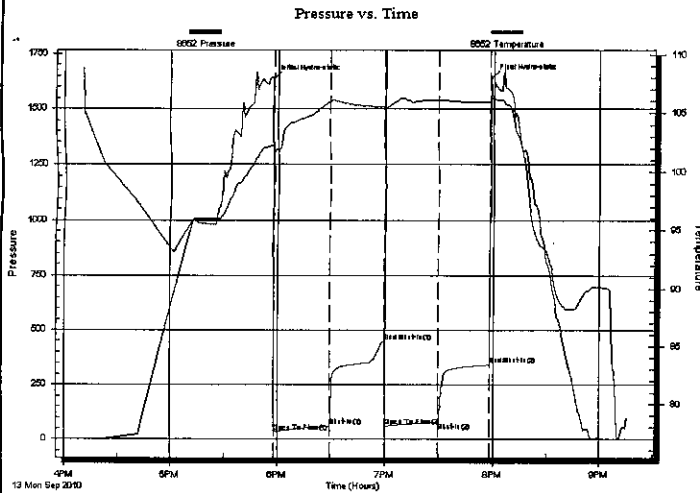
GENERAL INFORMATION:

Formation: **A-C**
 Deviated: **No** Whipstock: ft (KB)
 Time Tool Opened: 17:58:06
 Time Test Ended: 21:15:35
 Interval: **3308.00 ft (KB) To 3374.00 ft (KB) (TVD)**
 Total Depth: **3374.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Good**

Test Type: **Conventional Bottom Hole**
 Tester: **Paul Simpson**
 Unit No: **42**
 Reference Elevations: **2036.00 ft (KB)**
2030.00 ft (CF)
 KB to GR/CF: **6.00 ft**

Serial #: 8652 **Outside**
 Press@RunDepth: **78.46 psig @ 3346.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2010.09.13** End Date: **2010.09.13** Last Calib.: **2010.09.13**
 Start Time: **16:10:11** End Time: **21:15:35** Time On Btm: **2010.09.13 @ 17:57:36**
 Time Off Btm: **2010.09.13 @ 19:58:36**

TEST COMMENT: IF- weak blow bulding to 1 3/4"
 ISI no blow
 FF- weak 1/4" blow



PRESSURE SUMMARY

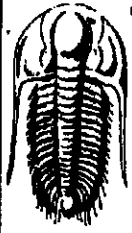
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1636.75	102.22	Initial Hydro-static
1	34.68	101.55	Open To Flow (1)
32	61.12	106.02	Shut-In(1)
62	448.89	105.50	End Shut-In(1)
63	60.13	105.30	Open To Flow (2)
92	78.46	106.09	Shut-In(2)
120	341.19	105.90	End Shut-In(2)
121	1640.18	106.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	heavy w atery mud	0.84
15.00	muddy w ater 80% w ater 20% mud	0.21
0.00	Rw .25 @ 85 = 23,000	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc.
1310 Bison Road
Hays KS 67601
ATTN: Tom Denning

Munsch #3
9 15s 18w Ellis KS
Job Ticket: 40143 **DST#: 1**
Test Start: 2010.09.13 @ 16:10:11

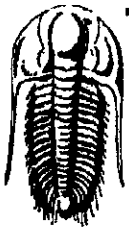
Tool Information

Drill Pipe:	Length: 3374.00 ft	Diameter: 3.80 inches	Volume: 47.33 bbl	Tool Weight: 2400.00 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: 45000.00 lb
			Total Volume: 47.33 bbl	Tool Chased: ft
Drill Pipe Above KB:	87.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	3308.00 ft			Final 36000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	87.00 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			3288.00	
Shut In Tool	5.00			3293.00	
Hydraulic tool	5.00			3298.00	
Packer	5.00			3303.00	21.00 Bottom Of Top Packer
Packer	5.00			3308.00	
Stubb	1.00			3309.00	
Perforations	4.00			3313.00	
Change Over Sub	1.00			3314.00	
Blank Spacing	31.00			3345.00	
Change Over Sub	1.00			3346.00	
Recorder	0.00	6625	Inside	3346.00	
Recorder	0.00	8652	Outside	3346.00	
Perforations	25.00			3371.00	
Bullnose	3.00			3374.00	66.00 Bottom Packers & Anchor

Total Tool Length: 87.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc.
1310 Bison Road
Hays KS 67601
ATTN: Tom Denning

Munsch #3
9 15s 18w Ellis KS
Job Ticket: 40143 **DST#: 1**
Test Start: 2010.09.13 @ 16:10:11

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:	23000 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

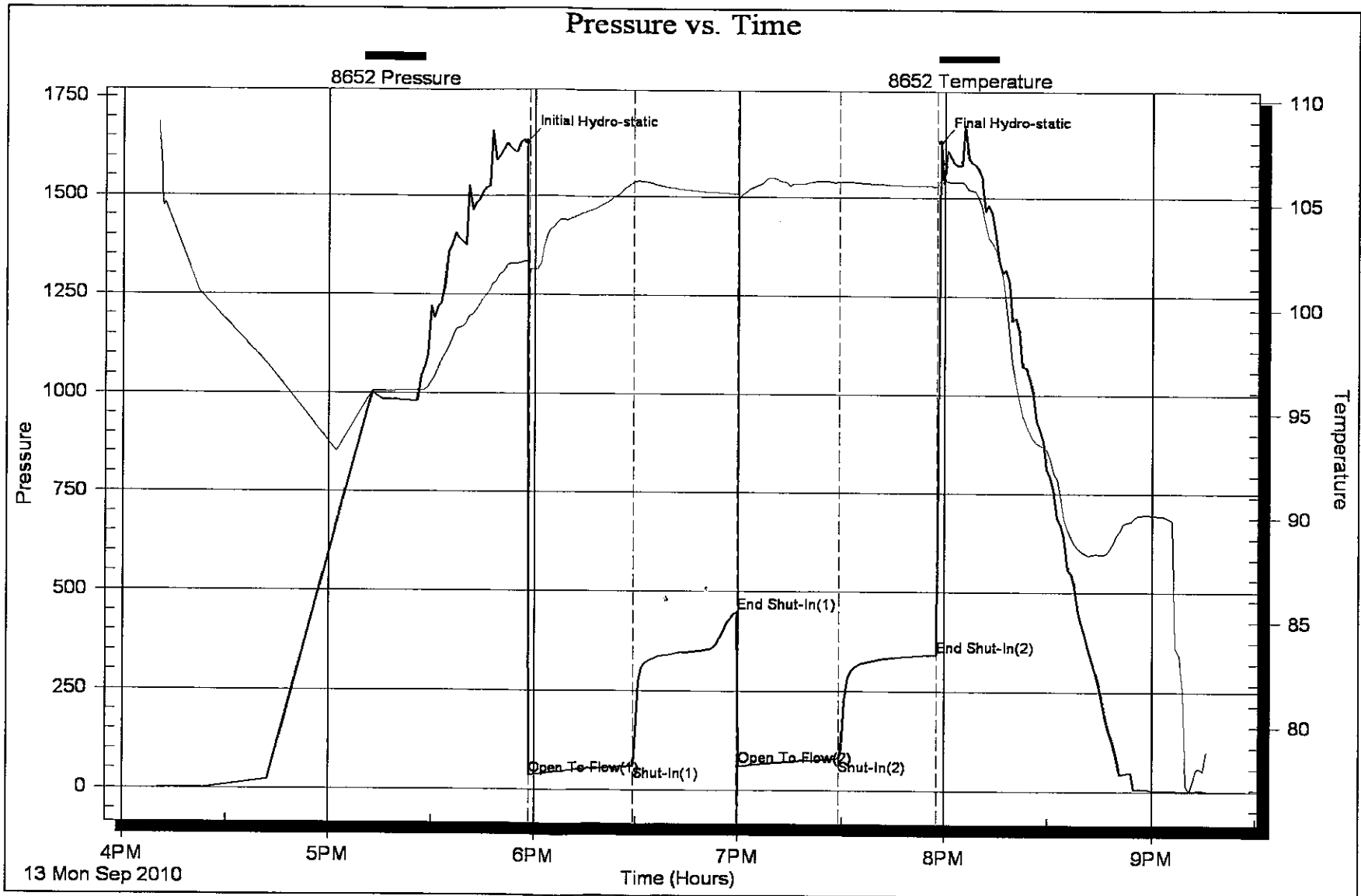
Length ft	Description	Volume bbl
60.00	heavy watery mud	0.842
15.00	muddy w ater 80% w ater 20% mud	0.210
0.00	Rw .25 @ 85 = 23,000	0.000

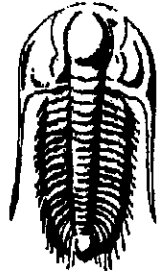
Total Length: 75.00 ft Total Volume: 1.052 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1310 Bison Road
Hays KS 67601

ATTN: Tom Denning

9 15s 18w Ellis KS

Munsch #3

Start Date: 2010.09.15 @ 02:52:37

End Date: 2010.09.15 @ 09:32:07

Job Ticket #: 39569 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

TDI Inc.

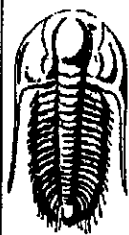
Munsch #3

9 15s 18w Ellis KS

DST # 2

Arbuckle

2010.09.15



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TDI Inc.
1310 Bison Road
Hays KS 67601
ATTN: Tom Denning

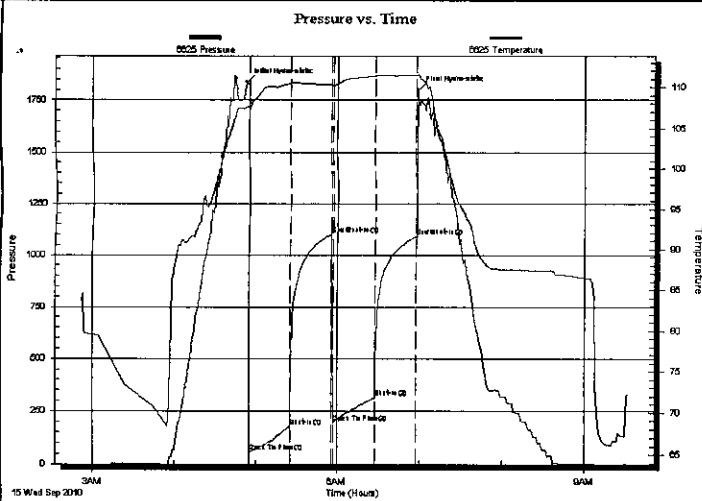
Munsch #3
9 15s 18w Ellis KS
Job Ticket: 39569 DST#: 2
Test Start: 2010.09.15 @ 02:52:37

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:55:37
 Time Test Ended: 09:32:07
 Interval: **3608.00 ft (KB) To 3644.00 ft (KB) (TVD)**
 Total Depth: 3738.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole
 Tester: Dustin Rash
 Unit No: 42
 Reference Elevations: 2036.00 ft (KB)
 2030.00 ft (CF)
 KB to GR/CF: 6.00 ft

Serial #: 6625 Inside
 Press@RunDepth: 312.73 psig @ 3609.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2010.09.15 End Date: 2010.09.15 Last Calib.: 2010.09.15
 Start Time: 02:52:42 End Time: 09:32:06 Time On Btm: 2010.09.15 @ 04:53:07
 Time Off Btm: 2010.09.15 @ 06:58:37

TEST COMMENT: IF-Strong building blow . BOB in 5 minutes.
 ISI-No Return.
 FF-Strong building blow . BOB in 6 minutes.
 FSI-No Return.



PRESSURE SUMMARY

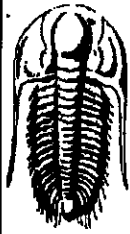
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1837.17	107.56	Initial Hydro-static
3	59.32	107.34	Open To Flow (1)
33	174.69	110.57	Shut-In(1)
63	1098.64	110.36	End Shut-In(1)
64	194.62	110.11	Open To Flow (2)
95	312.73	111.32	Shut-In(2)
125	1088.67	111.39	End Shut-In(2)
126	1798.91	111.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	90%Water/10%Mud	1.68
180.00	70%Water/10%Mud/10%Oil/10%Gas	2.52
180.00	40%Water/20%Mud/20%Oil/20%Gas	2.52
180.00	35%Water/35%Mud/20%Oil/10%Gas	2.52
20.00	100%Oil	0.28
0.00	RW- .31@71 22000	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI Inc.
1310 Bison Road
Hays KS 67601
ATTN: Tom Denning

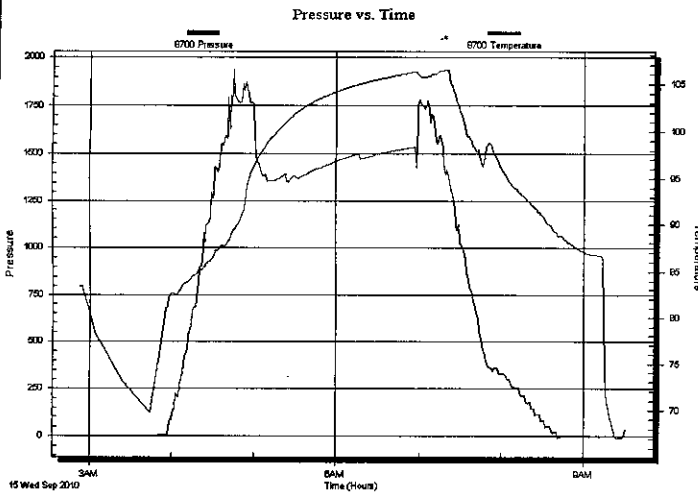
Munsch #3
9 15s 18w Ellis KS
Job Ticket: 39569 **DST#: 2**
Test Start: 2010.09.15 @ 02:52:37

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:55:37
 Time Test Ended: 09:32:07
 Test Type: Conventional Bottom Hole
 Tester: Dustin Rash
 Unit No: 42
 Interval: **3608.00 ft (KB) To 3644.00 ft (KB) (TVD)**
 Reference Elevations: 2036.00 ft (KB)
 Total Depth: 3738.00 ft (KB) (TVD) 2030.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 6.00 ft

Serial #: 8700 Below (Straddle)
 Press@RunDepth: psig @ 3646.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2010.09.15 End Date: 2010.09.15 Last Calib.: 2010.09.15
 Start Time: 02:52:42 End Time: 09:31:41 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF-Strong building blow . BOB in 5 minutes.
 IS-No Return.
 FF-Strong building blow . BOB in 6 minutes.
 FS-No Return.



PRESSURE SUMMARY

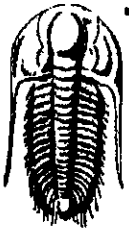
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
120.00	90%Water/10%Mud	1.68
180.00	70%Water/10%Mud/10%Oil/10%Gas	2.52
180.00	40%Water/20%Mud/20%Oil/20%Gas	2.52
180.00	35%Water/35%Mud/20%Oil/10%Gas	2.52
20.00	100%Oil	0.28
0.00	RW- .31@71 22000	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc.
1310 Bison Road
Hays KS 67601
ATTN: Tom Denning

Munsch #3
9 15s 18w Ellis KS
Job Ticket: 39569 **DST#: 2**
Test Start: 2010.09.15 @ 02:52:37

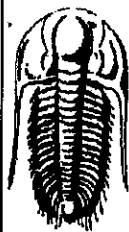
Tool Information

Drill Pipe:	Length: 3595.00 ft	Diameter: 3.80 inches	Volume: 50.43 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 23000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 8000.00 lb
			<u>Total Volume: 50.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3608.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	131.00 ft			
Tool Length:	152.00 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			3588.00	
Shut In Tool	5.00			3593.00	
Hydraulic tool	5.00			3598.00	
Packer	5.00			3603.00	21.00 Bottom Of Top Packer
Packer	5.00			3608.00	
Stubb	1.00			3609.00	
Recorder	0.00	6625	Inside	3609.00	
Recorder	0.00	8652	Outside	3609.00	
Perforations	29.00			3638.00	
Blank Off Sub	1.00			3639.00	131.00 Tool Interval
Packer	5.00			3644.00	
Stubb	1.00			3645.00	
Change Over Sub	1.00			3646.00	
Recorder	0.00	8700	Below	3646.00	
Drill Pipe	93.00			3739.00	100151.00 Bottom Packers & Anchor

Total Tool Length: 152.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc.
1310 Bison Road
Hays KS 67601

Munsch #3

9 15s 18w Ellis KS

Job Ticket: 39569

DST#: 2

ATTN: Tom Denning

Test Start: 2010.09.15 @ 02:52:37

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: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4900.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	90%Water/10%Mud	1.683
180.00	70%Water/10%Mud/10%Oil/10%Gas	2.525
180.00	40%Water/20%Mud/20%Oil/20%Gas	2.525
180.00	35%Water/35%Mud/20%Oil/10%Gas	2.525
20.00	100%Oil	0.281
0.00	RW- .31@71 22000	0.000

Total Length: 680.00 ft Total Volume: 9.539 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: *

Laboratory Name:

Laboratory Location:

Recovery Comments:

