



## DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1310 Bison Rd  
Hays KS 67601

ATTN: Herb Deines

### **Wiesner Unit #1**

### **5-13s-20w Ellis,KS**

Start Date: 2012.04.01 @ 17:05:39

End Date: 2012.04.02 @ 00:01:39

Job Ticket #: 47701                      DST #: 1

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

Printed: 2012.04.04 @ 11:12:52

TDI Inc. 5-13s-20w Ellis,KS Wiesner Unit #1 DST # 1 Arbuckle 2012.04.01



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

TDI Inc.  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

**5-13s-20w Ellis, KS**  
**Wiesner Unit #1**  
Job Ticket: 47701      **DST#: 1**  
Test Start: 2012.04.01 @ 17:05:39

## GENERAL INFORMATION:

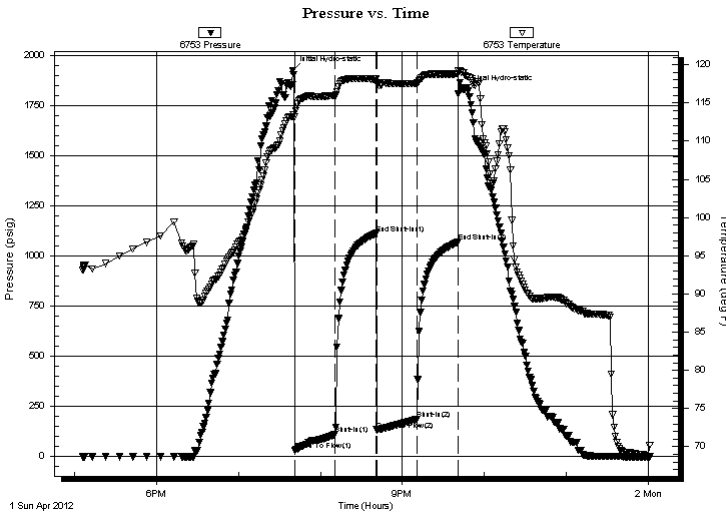
Formation: **Arbuckle**  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened: 19:41:09  
Time Test Ended: 00:01:39  
Interval: **3780.00 ft (KB) To 3844.00 ft (KB) (TVD)**  
Total Depth: 3950.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches      Hole Condition: Fair  
Test Type: Conventional Straddle (Initial)  
Tester: Brett Dickinson  
Unit No: 59  
Reference Elevations: 2165.00 ft (KB)  
2156.00 ft (CF)  
KB to GR/CF: 9.00 ft

## Serial #: 6753      Outside

Press @ Run Depth: 186.10 psig @ 3840.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.04.01      End Date: 2012.04.02      Last Calib.: 2012.04.02  
Start Time: 17:05:44      End Time: 00:01:38      Time On Btm: 2012.04.01 @ 19:39:39  
Time Off Btm: 2012.04.01 @ 21:46:09

**TEST COMMENT:** IF-BOB in 9.5 min  
ISI-3/4" blow died back to weak surface blow  
FF-BOB in 10 min  
FSI-1 1/4" blow died back to 1" blow

## PRESSURE SUMMARY



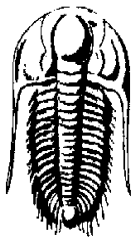
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1927.88	113.21	Initial Hydro-static
2	29.77	113.17	Open To Flow (1)
31	110.14	115.98	Shut-In(1)
61	1114.19	118.10	End Shut-In(1)
62	132.51	117.65	Open To Flow (2)
91	186.10	117.57	Shut-In(2)
121	1070.85	118.81	End Shut-In(2)
127	1832.02	118.63	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	GSMCO 25%G 10%M 65%O	1.05
185.00	GMCO 20%G 10%M 70%O	2.60
185.00	SGO 10%G 90%O	2.60
0.00	120ft GIP	0.00

## Gas Rates

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



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**5-13s-20w Ellis,KS**  
**Wiesner Unit #1**  
Job Ticket: 47701      **DST#: 1**  
Test Start: 2012.04.01 @ 17:05:39

## GENERAL INFORMATION:

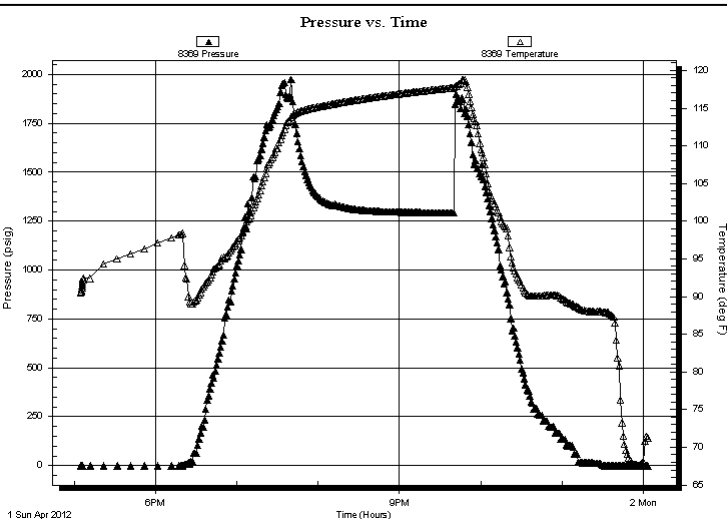
Formation: **Arbuckle**  
Deviated: No Whipstock:                              ft (KB)  
Time Tool Opened: 19:41:09  
Time Test Ended: 00:01:39

Test Type: Conventional Straddle (Initial)  
Tester: Brett Dickinson  
Unit No: 59

**Interval: 3780.00 ft (KB) To 3844.00 ft (KB) (TVD)**  
Reference Elevations: 2165.00 ft (KB)  
Total Depth: 3950.00 ft (KB) (TVD)                              2156.00 ft (CF)  
Hole Diameter: 7.88 inchesHole Condition: Fair                              KB to GR/CF: 9.00 ft

**Serial #: 8369      Below (Straddle)**  
Press@RunDepth:                              psig @ 3849.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.04.01      End Date: 2012.04.02      Last Calib.: 2012.04.02  
Start Time: 17:04:43      End Time: 00:03:07      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF-BOB in 9.5 min  
ISI-3/4" blow died back to weak surface blow  
FF-BOB in 10 min  
FSI-1 1/4" blow died back to 1" blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	GSMCO 25%G 10%M 65%O	1.05
185.00	GMCO 20%G 10%M 70%O	2.60
185.00	SGO 10%G 90%O	2.60
0.00	120ft GIP	0.00

## Gas Rates

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



# TRILOBITE TESTING, INC

## DRILL STEM TEST REPORT

TDI Inc.  
 1310 Bison Rd  
 Hays KS 67601  
 ATTN: Herb Deines

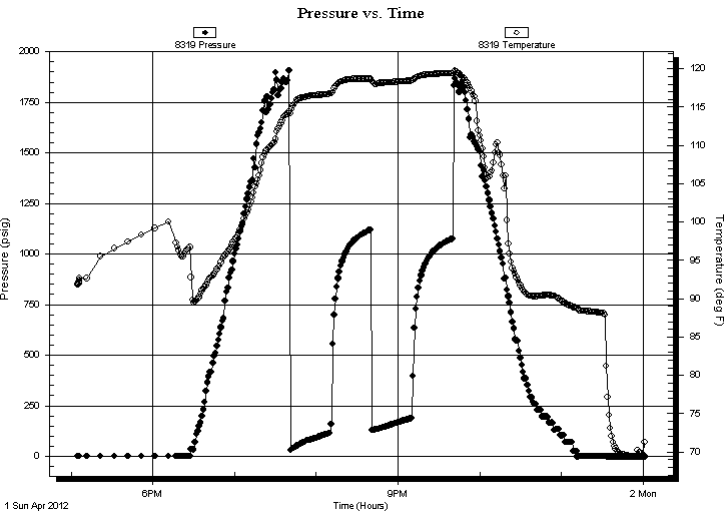
**5-13s-20w Ellis, KS**  
**Wiesner Unit #1**  
 Job Ticket: 47701 **DST#: 1**  
 Test Start: 2012.04.01 @ 17:05:39

### GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Straddle (Initial)  
 Time Tool Opened: 19:41:09 Tester: Brett Dickinson  
 Time Test Ended: 00:01:39 Unit No: 59  
 Interval: **3780.00 ft (KB) To 3844.00 ft (KB) (TVD)** Reference Elevations: 2165.00 ft (KB)  
 Total Depth: 3950.00 ft (KB) (TVD) 2156.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

**Serial #: 8319 Inside**  
 Press @ Run Depth: psig @ 3840.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.04.01 End Date: 2012.04.02 Last Calib.: 2012.04.02  
 Start Time: 17:04:44 End Time: 00:01:38 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IF-BOB in 9.5 min  
 ISI-3/4" blow died back to weak surface blow  
 FF-BOB in 10 min  
 FSI-1 1/4" blow died back to 1" blow



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
75.00	GSMCO 25%G 10%M 65%O	1.05
185.00	GMCO 20%G 10%M 70%O	2.60
185.00	SGO 10%G 90%O	2.60
0.00	120ft GIP	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 Rd  
Hays KS 67601  
ATTN: Herb Deines

**5-13s-20w Ellis,KS**  
**Wiesner Unit #1**  
Job Ticket: 47701      **DST#: 1**  
Test Start: 2012.04.01 @ 17:05:39

**Tool Information**

Drill Pipe:	Length: 3775.00 ft	Diameter: 3.80 inches	Volume: 52.95 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	45000.00 lb
			<u>Total Volume: 52.95 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	41000.00 lb
Depth to Top Packer:	3780.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	3844.00 ft				
Interval between Packers:	64.00 ft				
Tool Length:	193.00 ft				
Number of Packers:	3	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3761.00	
Shut In Tool	5.00			3766.00	
Hydraulic tool	5.00			3771.00	
Packer	4.00			3775.00	20.00      Bottom Of Top Packer
Packer	5.00			3780.00	
Stubb	1.00			3781.00	
Perforations	4.00			3785.00	
change Over Sub	1.00			3786.00	
Blank Spacing	31.00			3817.00	
change Over Sub	1.00			3818.00	
Perforations	22.00			3840.00	
Recorder	0.00	8319	Inside	3840.00	
Recorder	0.00	6753	Outside	3840.00	
Blank Off Sub	4.00			3844.00	64.00      Tool Interval
Packer	4.00			3848.00	
Stubb	1.00			3849.00	
Recorder	0.00	8369	Below	3849.00	
perforations	5.00			3854.00	
Change Over Sub	1.00			3855.00	
Blank Spacing	94.00			3949.00	
Change Over Sub	1.00			3950.00	
Bullnose	3.00			3953.00	109.00      Bottom Packers & Anchor

**Total Tool Length: 193.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

TDI Inc.

**5-13s-20w Ellis,KS**

1310 Bison Rd  
Hays KS 67601

**Wiesner Unit #1**

Job Ticket: 47701

**DST#: 1**

ATTN: Herb Deines

Test Start: 2012.04.01 @ 17:05:39

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
75.00	GSMCO 25%G 10%M 65%O	1.052
185.00	GMCO 20%G 10%M 70%O	2.595
185.00	SGO 10%G 90%O	2.595
0.00	120ft GIP	0.000

Total Length: 445.00 ft

Total Volume: 6.242 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

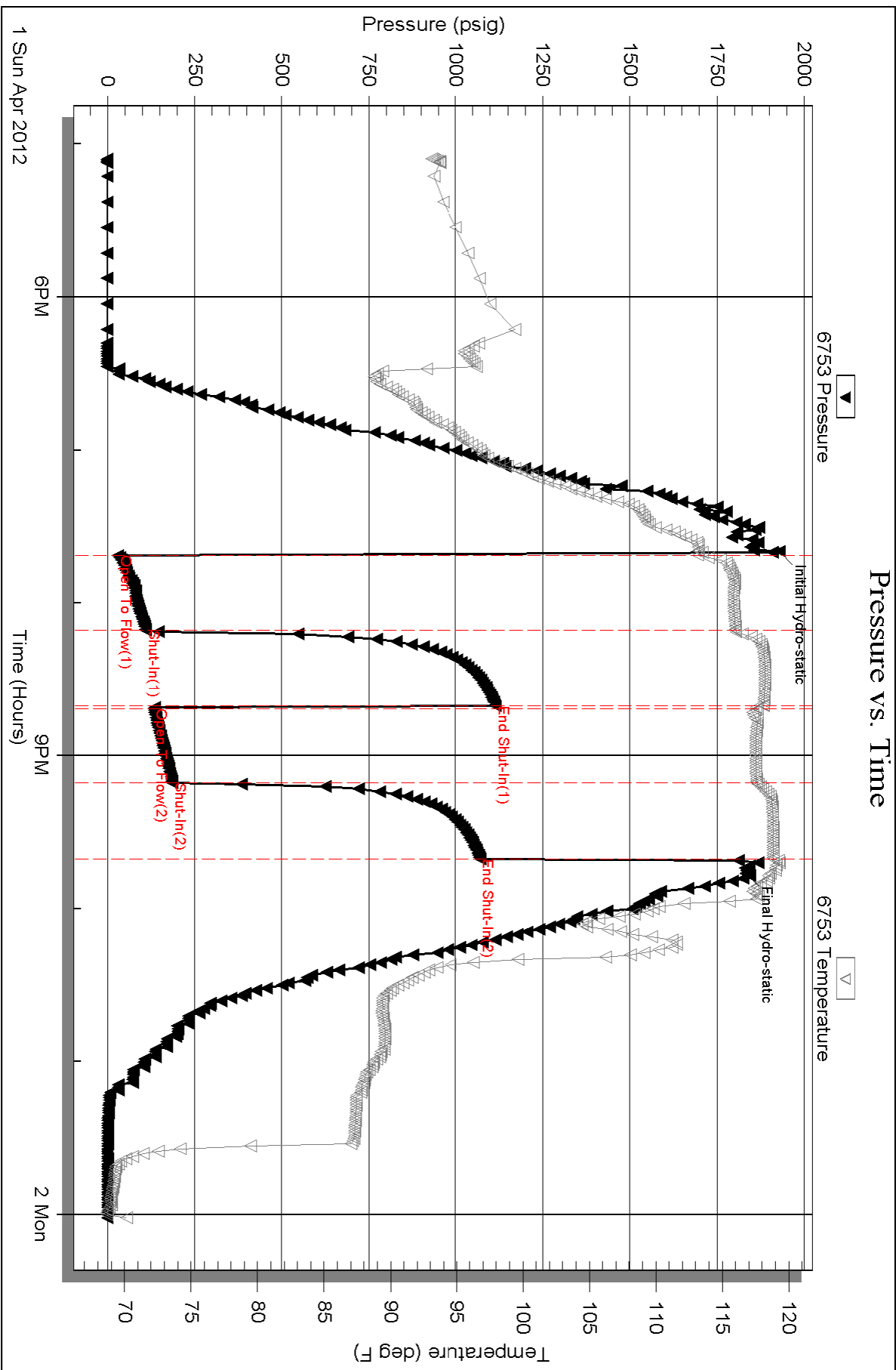
Recovery Comments:

Serial #: 6753

Outside TDI Inc.

Mesner Unit #1

DST Test Number: 1

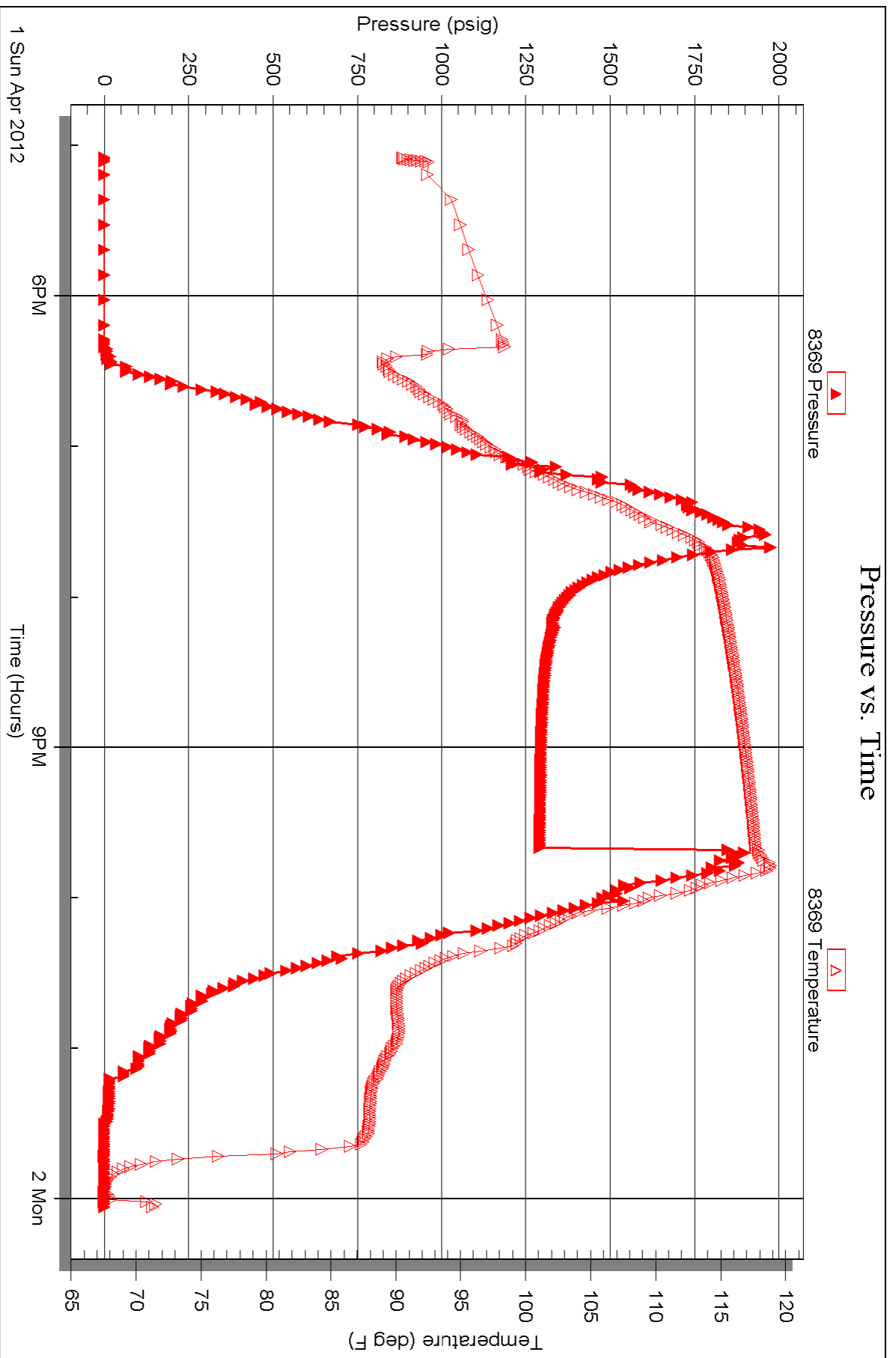


Serial #: 8369

Below (Straddling)

Mesner Unit #1

DST Test Number: 1





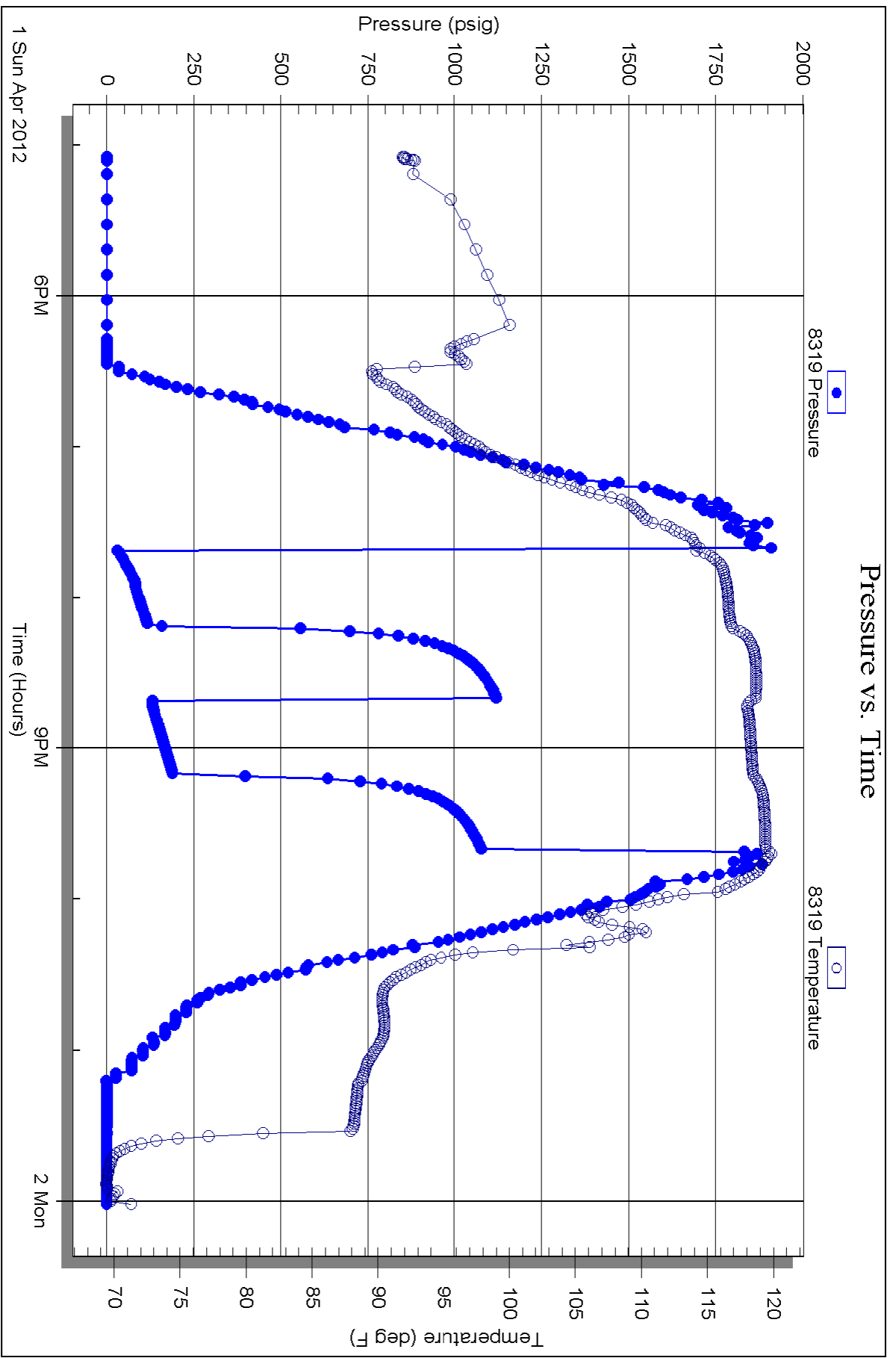
Serial #: 8319

Inside

TDI Inc.

Miesner Unit #1

DST Test Number: 1





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
APR 02 2012

## Test Ticket

NO. 47701

BY: \_\_\_\_\_

Well Name & No. Wiesner Unit #1 Test No. 1 Date 4/1/12  
 Company TPI Inc. Elevation 2165 KB 2156 GL  
 Address 1310 Bison Rd Hays KS 67601  
 Co. Rep / Geo. Herb Deines Rig Southwind #2  
 Location: Sec. 5 Twp. 13s Rge. 20w Co. Ellis State KS

Interval Tested 3780-3844 Zone Tested Arb.  
 Anchor Length 64 Drill Pipe Run 3775 Mud Wt. 9.4  
 Top Packer Depth 3775, 3780 Drill Collars Run \_\_\_\_\_ Vis 49  
 Bottom Packer Depth 3844 Wt. Pipe Run \_\_\_\_\_ WL 8.0  
 Total Depth 3950 Chlorides 3,200 ppm System LCM 2  
 Blow Description JF-BOB in 9 1/2 min  
JSL-3/4 in blow died back to weak surface  
FF-BOB in 10 min  
FSL-1 1/4 in blow died back to lin blow

Rec	Feet of	%gas	%oil	%water	%muc
<u>75</u>	<u>GSNCO</u>	<u>25</u>	<u>65</u>	<u>10</u>	
<u>185</u>	<u>GMCO</u>	<u>20</u>	<u>70</u>	<u>10</u>	
<u>185</u>	<u>SGO</u>	<u>10</u>	<u>90</u>		
<u>    </u>	<u>120ft GSP</u>				
<u>    </u>	<u>    </u>				

Rec Total 445 BHT \_\_\_\_\_ Gravity 34 API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1928  Test 1125 T-On Location 16:20  
 (B) First Initial Flow 30  Jars \_\_\_\_\_ T-Started 17:05  
 (C) First Final Flow 110  Safety Joint \_\_\_\_\_ T-Open 19:35  
 (D) Initial Shut-In 1114  Circ Sub \_\_\_\_\_ T-Pulled 21:35  
 (E) Second Initial Flow 133  Hourly Standby \_\_\_\_\_ T-Out 00:00  
 (F) Second Final Flow 186  Mileage 18x2 30RT 50.40 Comments \_\_\_\_\_  
 (G) Final Shut-In 1,071  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 4,832  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1775.40  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1775.40

Approved By \_\_\_\_\_ Our Representative Brian D.

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