



DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1610 Bison Road
Hays, KS 67601

ATTN: Herb Deines

Joy #1

24-12s-19w Ellis,KS

Start Date: 2012.06.06 @ 12:53:31

End Date: 2012.06.06 @ 17:52:01

Job Ticket #: 47807 DST #: 1

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

Printed: 2012.06.08 @ 14:07:45

TDI Inc.
24-12s-19w Ellis,KS
Joy #1
DST # 1
F
2012.06.06



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI Inc.
 1610 Bison Road
 Hays, KS 67601
 ATTN: Herb Deines

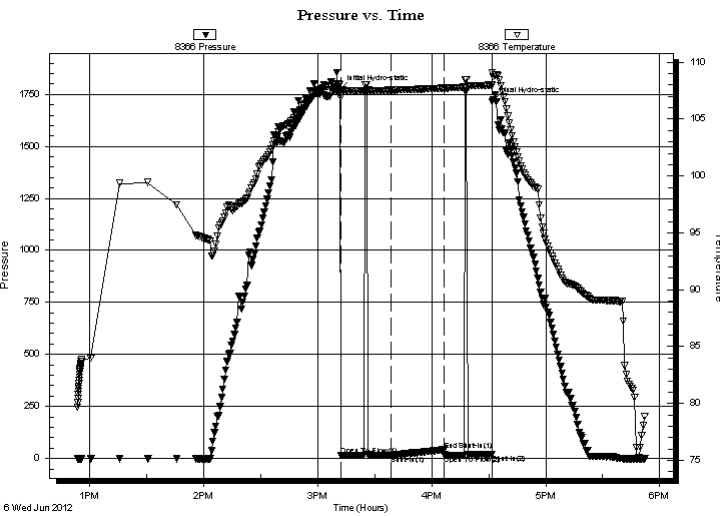
24-12s-19w Ellis, KS
Joy #1
 Job Ticket: 47807 **DST#: 1**
 Test Start: 2012.06.06 @ 12:53:31

GENERAL INFORMATION:

Formation: **F**
 Deviated: **No** Whipstock: **0.00 ft (KB)** Test Type: **Conventional Bottom Hole (Initial)**
 Time Tool Opened: **15:12:01** Tester: **Jason McLemore**
 Time Test Ended: **17:52:01** Unit No: **54**
Interval: 3600.00 ft (KB) To 3620.00 ft (KB) (TVD) Reference Elevations: **2230.00 ft (KB)**
 Total Depth: **3620.00 ft (KB) (TVD)** **2222.00 ft (CF)**
 Hole Diameter: **7.88 inches** Hole Condition: **Good** KB to GR/CF: **8.00 ft**

Serial #: 8366 **Inside**
 Press @ Run Depth: **16.24 psig @ 3601.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2012.06.06** End Date: **2012.06.06** Last Calib.: **2012.06.06**
 Start Time: **12:53:33** End Time: **17:52:01** Time On Btm: **2012.06.06 @ 15:11:46**
 Time Off Btm: **2012.06.06 @ 16:31:46**

TEST COMMENT: IFP-Dead, No Surge, Flush Tool, No Surge, Dead
 ISI-Dead
 FFP-Dead, Flush Tool, Two Bubbles, Dead, Pull Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1770.76	108.07	Initial Hydro-static
1	15.81	106.91	Open To Flow (1)
27	16.24	107.54	Shut-In(1)
55	41.44	107.73	End Shut-In(1)
55	17.21	107.72	Open To Flow (2)
80	20.52	107.99	Shut-In(2)
80	1714.49	109.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM-15%O-85%M	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc.
1610 Bison Road
Hays, KS 67601
ATTN: Herb Deines

24-12s-19w Ellis,KS
Joy #1
Job Ticket: 47807 **DST#: 1**
Test Start: 2012.06.06 @ 12:53:31

Tool Information

Drill Pipe:	Length: 3613.00 ft	Diameter: 3.80 inches	Volume: 50.68 bbl	Tool Weight:	2000.00 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:	35000.00 lb
			<u>Total Volume: 50.68 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3600.00 ft			Final	35000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	20.00 ft				
Tool Length:	41.00 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			3580.00	
Shut In Tool	5.00			3585.00	
Hydraulic tool	5.00			3590.00	
Packer	5.00			3595.00	21.00 Bottom Of Top Packer
Packer	5.00			3600.00	
Stubb	1.00			3601.00	
Recorder	0.00	8366	Inside	3601.00	
Recorder	0.00	8289	Outside	3601.00	
Perforations	17.00			3618.00	
Bullnose	2.00			3620.00	20.00 Bottom Packers & Anchor
Total Tool Length:	41.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc. **24-12s-19w Ellis,KS**
 1610 Bison Road **Joy #1**
 Hays, KS 67601 Job Ticket: 47807 **DST#: 1**
 ATTN: Herb Deines Test Start: 2012.06.06 @ 12:53:31

Mud and Cushion Information

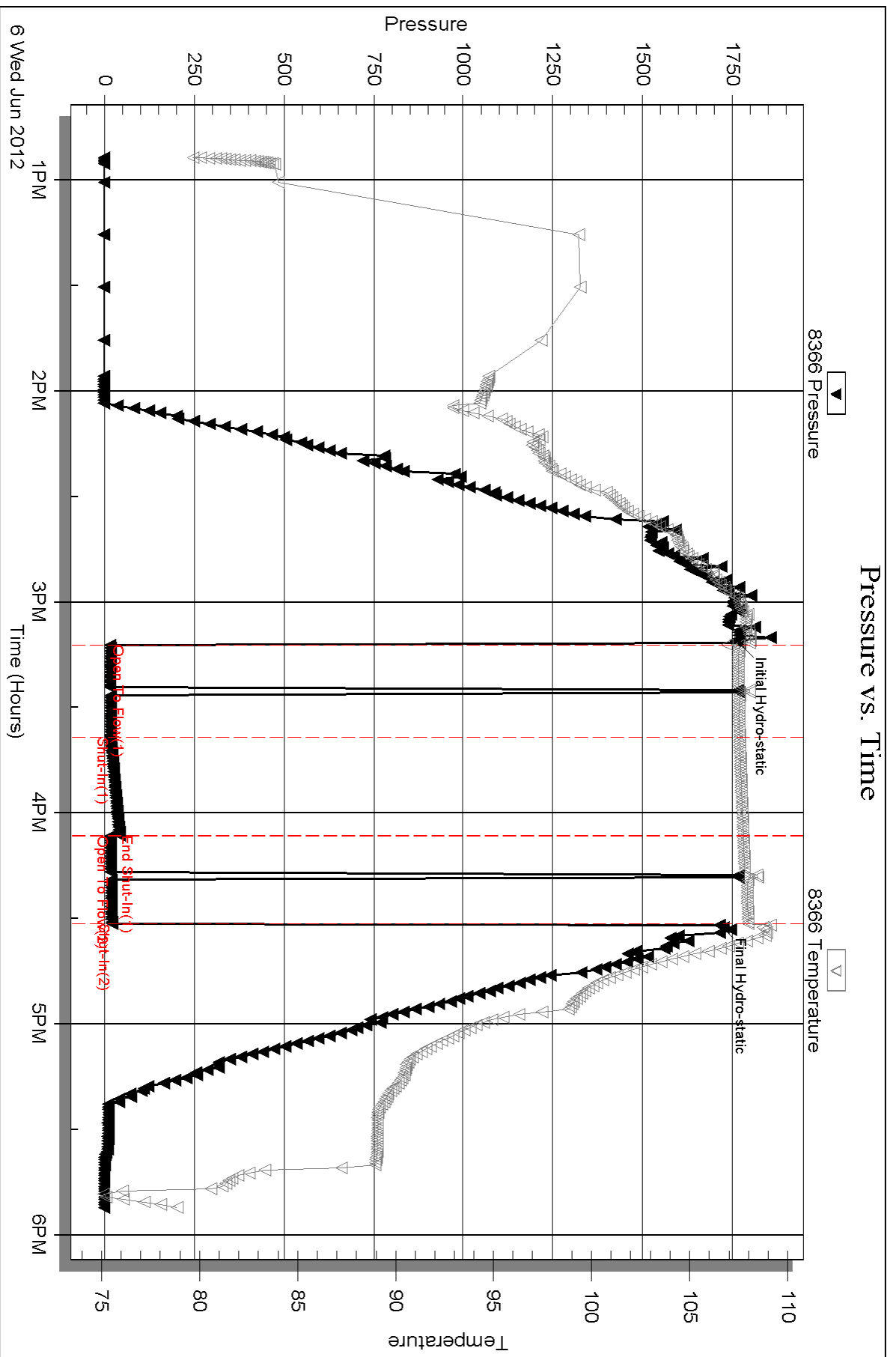
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2300.00 ppm			
Filter Cake: inches			

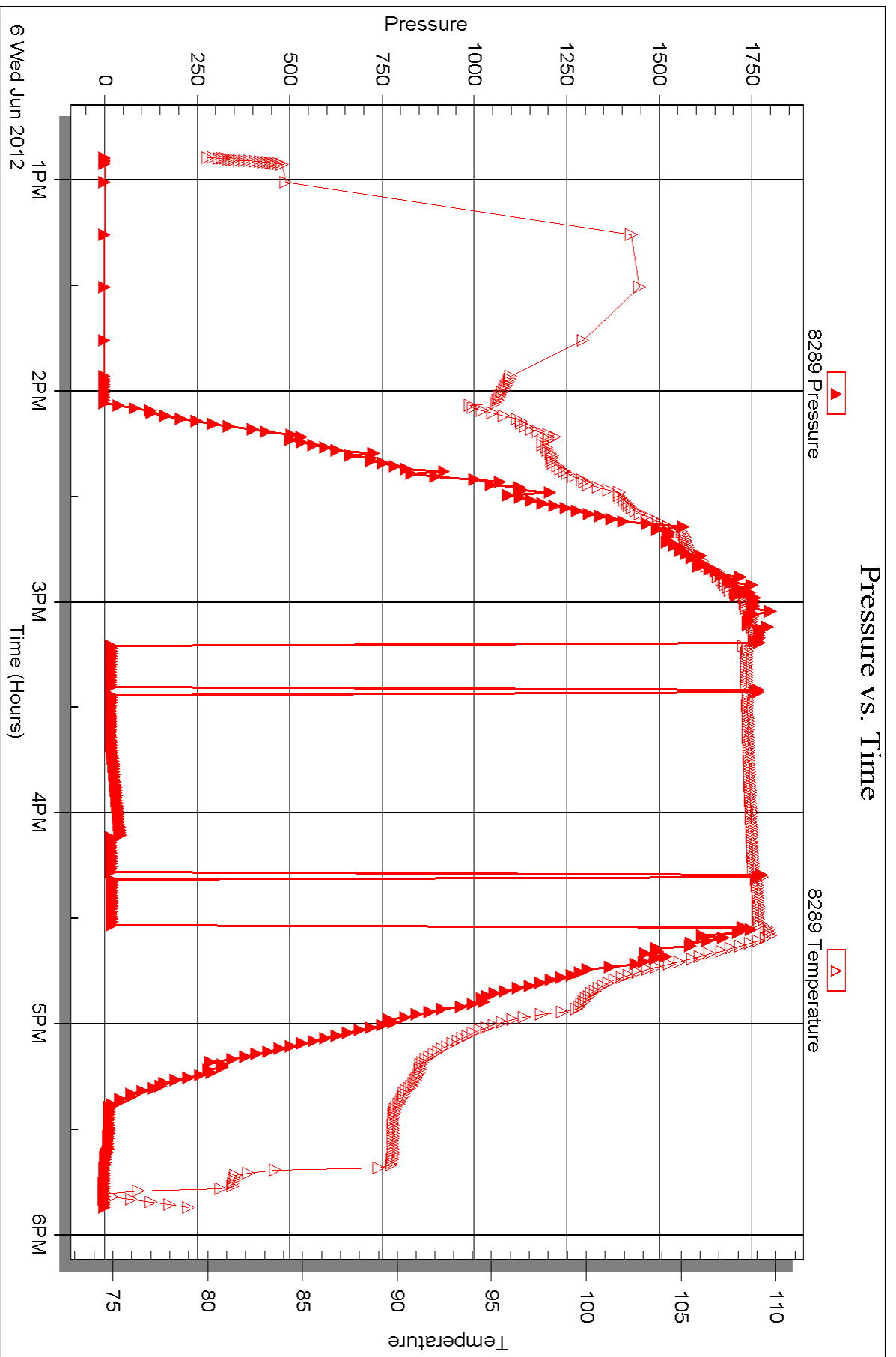
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OCM-15%O-85%M	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1610 Bison Road
Hays, KS 67601

ATTN: Herb Deines

Joy #1

24-12s-19w Ellis,KS

Start Date: 2012.06.07 @ 22:48:00

End Date: 2012.06.08 @ 05:16:15

Job Ticket #: 47808 DST #: 2

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

Printed: 2012.06.08 @ 14:05:02

TDI Inc.
24-12s-19w Ellis,KS
Joy #1
DST # 2
Toronto-F
2012.06.07



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI Inc.
1610 Bison Road
Hays, KS 67601
ATTN: Herb Deines

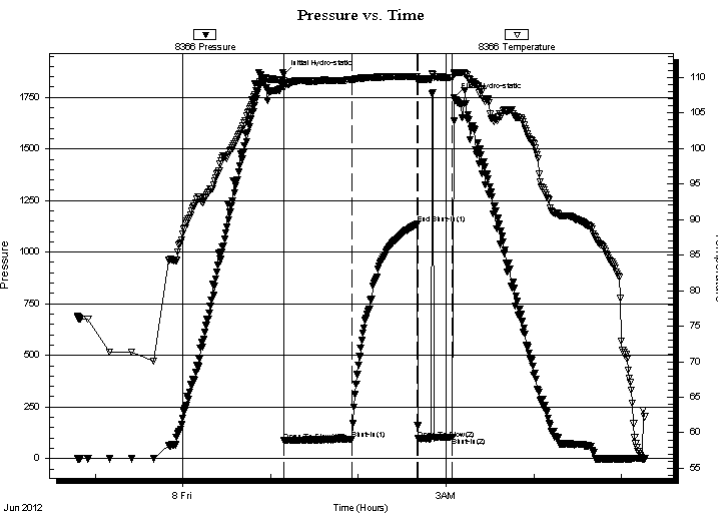
24-12s-19w Ellis,KS
Joy #1
Job Ticket: 47808 **DST#: 2**
Test Start: 2012.06.07 @ 22:48:00

GENERAL INFORMATION:

Formation: **Toronto-F**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 01:09:15
 Time Test Ended: 05:16:15
 Interval: **3483.00 ft (KB) To 3625.00 ft (KB) (TVD)**
 Total Depth: 3895.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Straddle (Reset)
 Tester: Jason McLemore
 Unit No: 54
 Reference Elevations: 2230.00 ft (KB)
 2222.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8366 Inside
 Press @ Run Depth: 92.55 psig @ 3613.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.07 End Date: 2012.06.08 Last Calib.: 2012.06.08
 Start Time: 22:48:02 End Time: 05:16:15 Time On Btm: 2012.06.08 @ 01:09:00
 Time Off Btm: 2012.06.08 @ 03:05:30

TEST COMMENT: IFP-Weak Blow , Built to 2"
 ISI-Dead
 FFP-Dead, Flush Tool, Surge, Then Dead, Pull Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1861.70	109.51	Initial Hydro-static
1	85.83	108.60	Open To Flow (1)
47	92.55	109.68	Shut-In(1)
92	1135.55	110.14	End Shut-In(1)
92	95.35	109.75	Open To Flow (2)
116	103.42	110.00	Shut-In(2)
117	1750.25	110.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
38.00	Drilling Mud	0.53

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc.
1610 Bison Road
Hays, KS 67601
ATTN: Herb Deines

24-12s-19w Ellis,KS
Joy #1
Job Ticket: 47808 **DST#: 2**
Test Start: 2012.06.07 @ 22:48:00

Tool Information

Drill Pipe:	Length: 3482.00 ft	Diameter: 3.80 inches	Volume: 48.84 bbl	Tool Weight: 2000.00 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: 44000.00 lb
			<u>Total Volume: 48.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3483.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	3625.00 ft			
Interval between Packers:	142.00 ft			
Tool Length:	434.00 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			3463.00	
Shut In Tool	5.00			3468.00	
Hydraulic tool	5.00			3473.00	
Packer	5.00			3478.00	21.00 Bottom Of Top Packer
Packer	5.00			3483.00	
Stubb	1.00			3484.00	
Change Over Sub	1.00			3485.00	
Blank Spacing	127.00			3612.00	
Change Over Sub	1.00			3613.00	
Recorder	0.00	8366	Inside	3613.00	
Recorder	0.00	8289	Outside	3613.00	
Perforations	8.00			3621.00	
Blank Off Sub	1.00			3622.00	
Blank Spacing	3.00			3625.00	142.00 Tool Interval
Packer	2.00			3627.00	
Stubb	1.00			3628.00	
Perforations	12.00			3640.00	
Change Over Sub	1.00			3641.00	
Recorder	0.00	8789	Below	3641.00	
Blank Spacing	252.00			3893.00	
Change Over Sub	1.00			3894.00	
Bullnose	2.00			3896.00	271.00 Bottom Packers & Anchor
Total Tool Length:	434.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc. **24-12s-19w Ellis,KS**
 1610 Bison Road **Joy #1**
 Hays, KS 67601 Job Ticket: 47808 **DST#: 2**
 ATTN: Herb Deines Test Start: 2012.06.07 @ 22:48:00

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: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2300.00 ppm			
Filter Cake: inches			

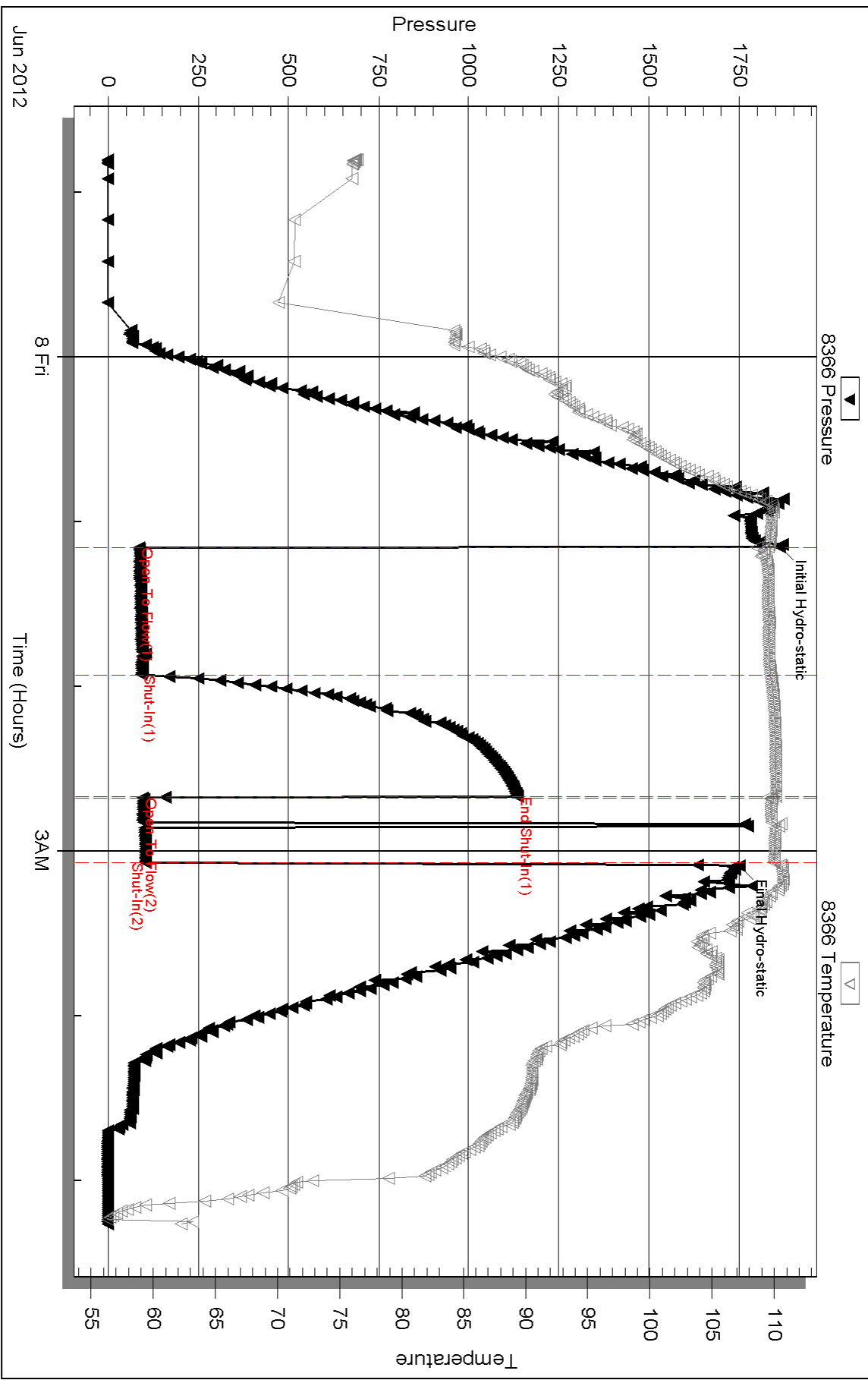
Recovery Information

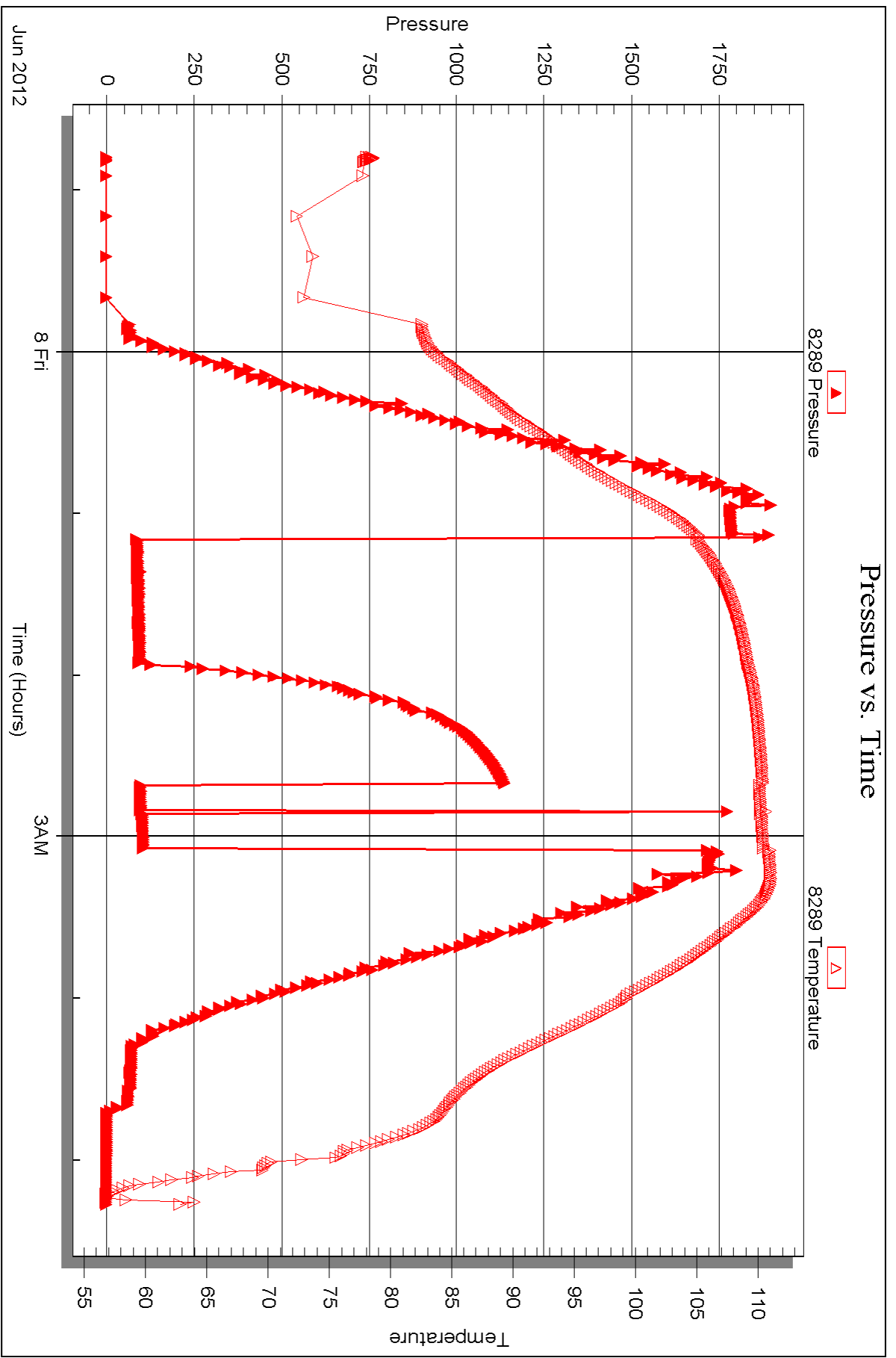
Recovery Table

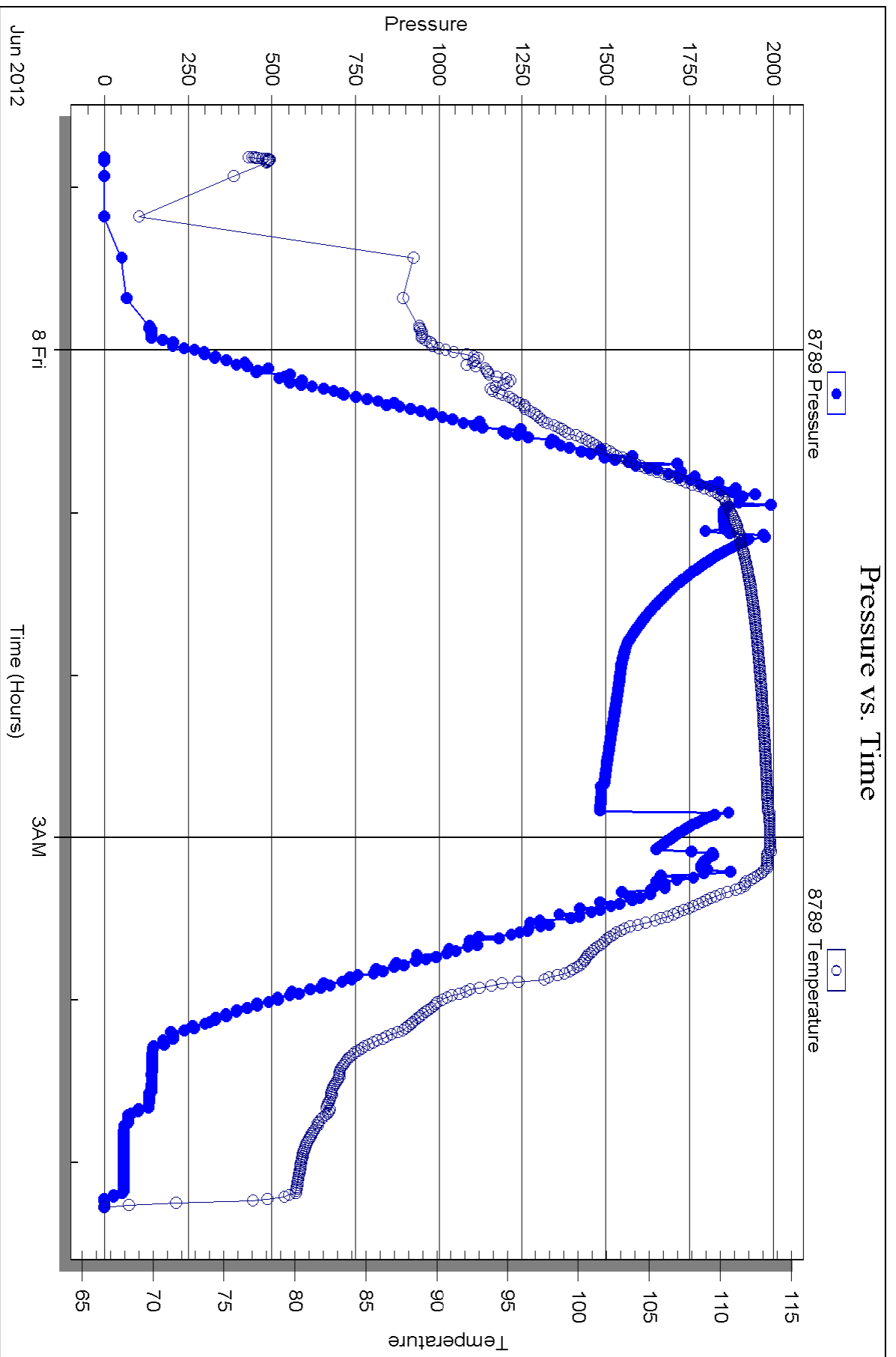
Length ft	Description	Volume bbl
38.00	Drilling Mud	0.533

Total Length: 38.00 ft Total Volume: 0.533 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time









DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1610 Bison Road
Hays, KS 67601

ATTN: Herb Deines

Joy #1

24-12s-19w Ellis,KS

Start Date: 2012.06.08 @ 05:44:56

End Date: 2012.06.08 @ 12:35:11

Job Ticket #: 47809 DST #: 3

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

Printed: 2012.06.08 @ 14:04:06

TDI Inc.
24-12s-19w Ellis,KS
Joy #1
DST # 3
H-1-J-K
2012.06.08



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI Inc.
1610 Bison Road
Hays, KS 67601
ATTN: Herb Deines

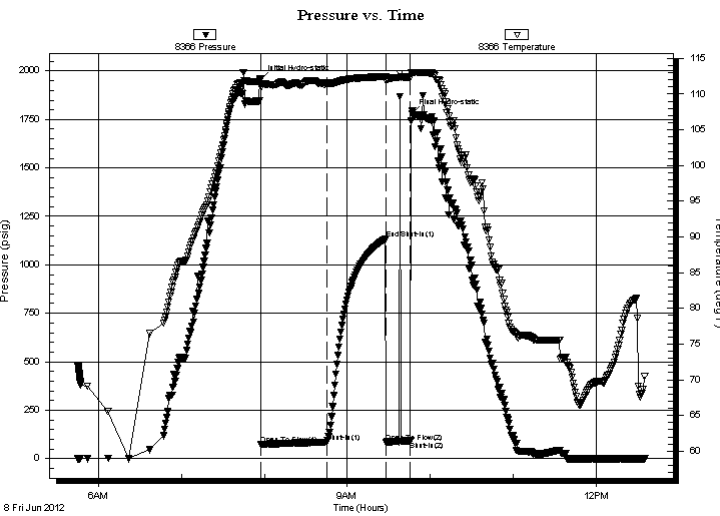
24-12s-19w Ellis, KS
Joy #1
Job Ticket: 47809 **DST#: 3**
Test Start: 2012.06.08 @ 05:44:56

GENERAL INFORMATION:

Formation: **H-I-J-K**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 07:57:41
 Time Test Ended: 12:35:11
 Interval: **3644.00 ft (KB) To 3764.00 ft (KB) (TVD)**
 Total Depth: 3895.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Straddle (Reset)
 Tester: Jason McLemore
 Unit No: 54
 Reference Elevations: 2230.00 ft (KB)
 2222.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8366 Inside
 Press @ Run Depth: 84.33 psig @ 3741.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.08 End Date: 2012.06.08 Last Calib.: 2012.06.08
 Start Time: 05:44:58 End Time: 12:35:11 Time On Btm: 2012.06.08 @ 07:57:26
 Time Off Btm: 2012.06.08 @ 09:46:41

TEST COMMENT: IFP-Weak Blow , Built to 1-3/4"
 ISI-Dead
 FFP-Dead, Flush Tool, Surge Then Died Off to Weak Plugging Action, Pull Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1956.15	112.06	Initial Hydro-static
1	71.50	110.99	Open To Flow (1)
48	84.33	111.53	Shut-In(1)
91	1133.23	112.48	End Shut-In(1)
91	84.85	111.86	Open To Flow (2)
109	91.98	112.38	Shut-In(2)
110	1782.02	112.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	Drilling Mud	0.49

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc.
1610 Bison Road
Hays, KS 67601
ATTN: Herb Deines

24-12s-19w Ellis,KS
Joy #1
Job Ticket: 47809 **DST#: 3**
Test Start: 2012.06.08 @ 05:44:56

Tool Information

Drill Pipe:	Length: 3647.00 ft	Diameter: 3.80 inches	Volume: 51.16 bbl	Tool Weight:	2000.00 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:	42000.00 lb
			<u>Total Volume: 51.16 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3644.00 ft			Final	38000.00 lb
Depth to Bottom Packer:	3764.00 ft				
Interval between Packers:	120.00 ft				
Tool Length:	270.00 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			3624.00	
Shut In Tool	5.00			3629.00	
Hydraulic tool	5.00			3634.00	
Packer	5.00			3639.00	21.00 Bottom Of Top Packer
Packer	5.00			3644.00	
Stubb	1.00			3645.00	
Change Over Sub	1.00			3646.00	
Blank Spacing	94.00			3740.00	
Change Over Sub	1.00			3741.00	
Recorder	0.00	8366	Inside	3741.00	
Recorder	0.00	8289	Outside	3741.00	
Perforations	19.00			3760.00	
Blank Off Sub	1.00			3761.00	
Blank Spacing	3.00			3764.00	120.00 Tool Interval
Packer	2.00			3766.00	
Stubb	1.00			3767.00	
Change Over Sub	1.00			3768.00	
Recorder	0.00	8789	Below	3768.00	
Blank Spacing	122.00			3890.00	
Change Over Sub	1.00			3891.00	
Bullnose	2.00			3893.00	129.00 Bottom Packers & Anchor

Total Tool Length: 270.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc. **24-12s-19w Ellis,KS**
 1610 Bison Road **Joy #1**
 Hays, KS 67601 Job Ticket: 47809 **DST#: 3**
 ATTN: Herb Deines Test Start: 2012.06.08 @ 05:44:56

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: 6.79 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2200.00 ppm			
Filter Cake: inches			

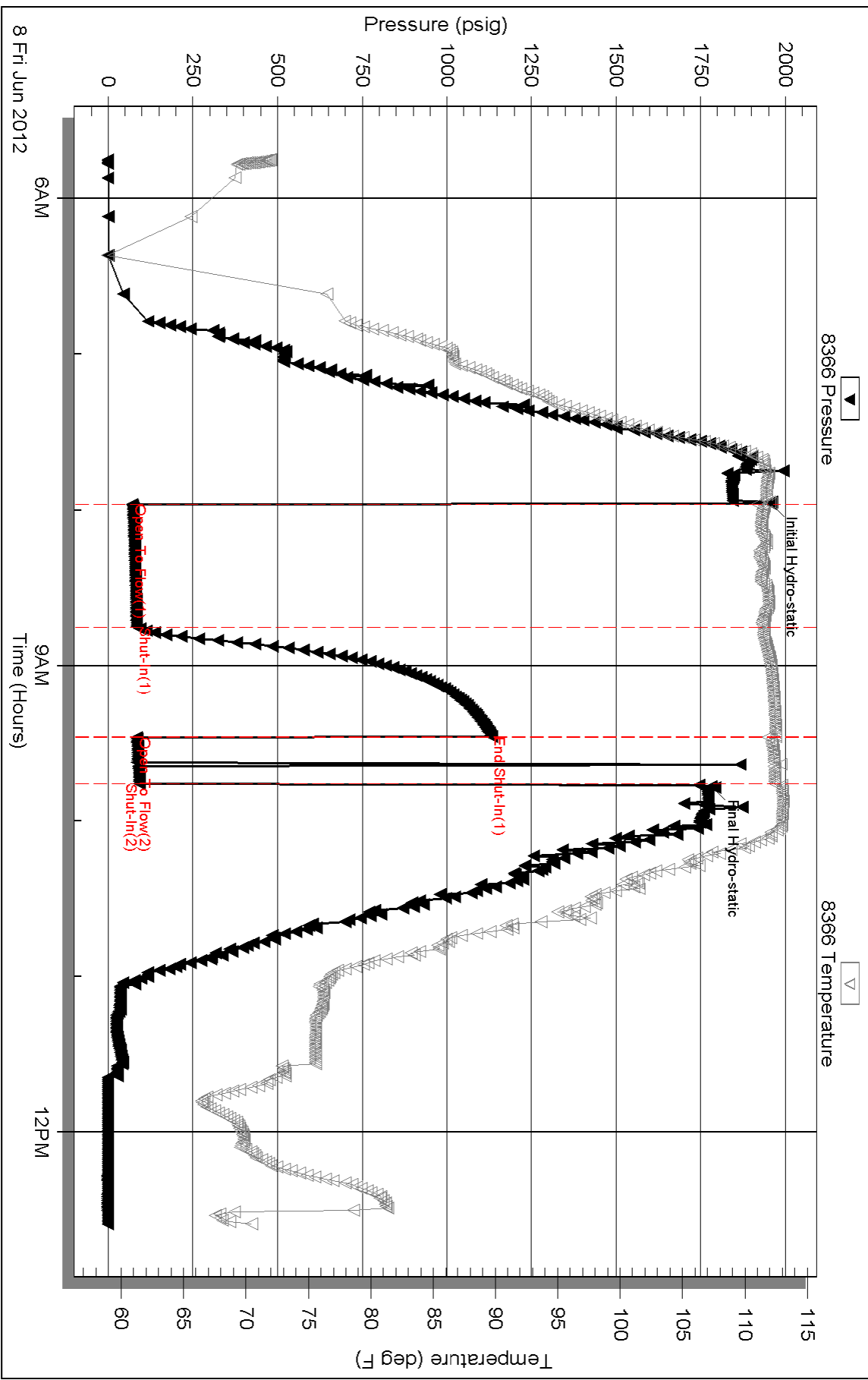
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	Drilling Mud	0.491

Total Length: 35.00 ft Total Volume: 0.491 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time

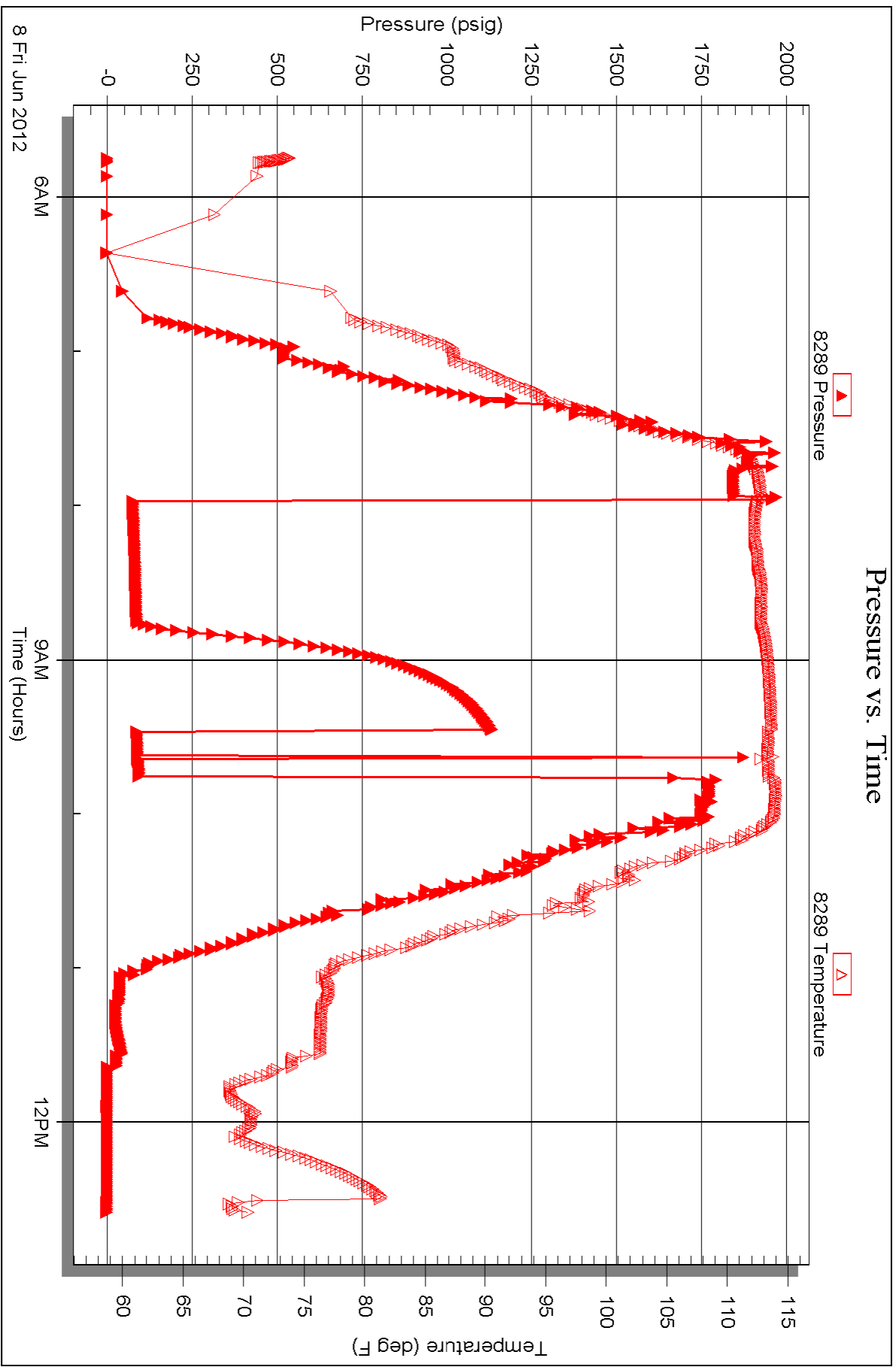


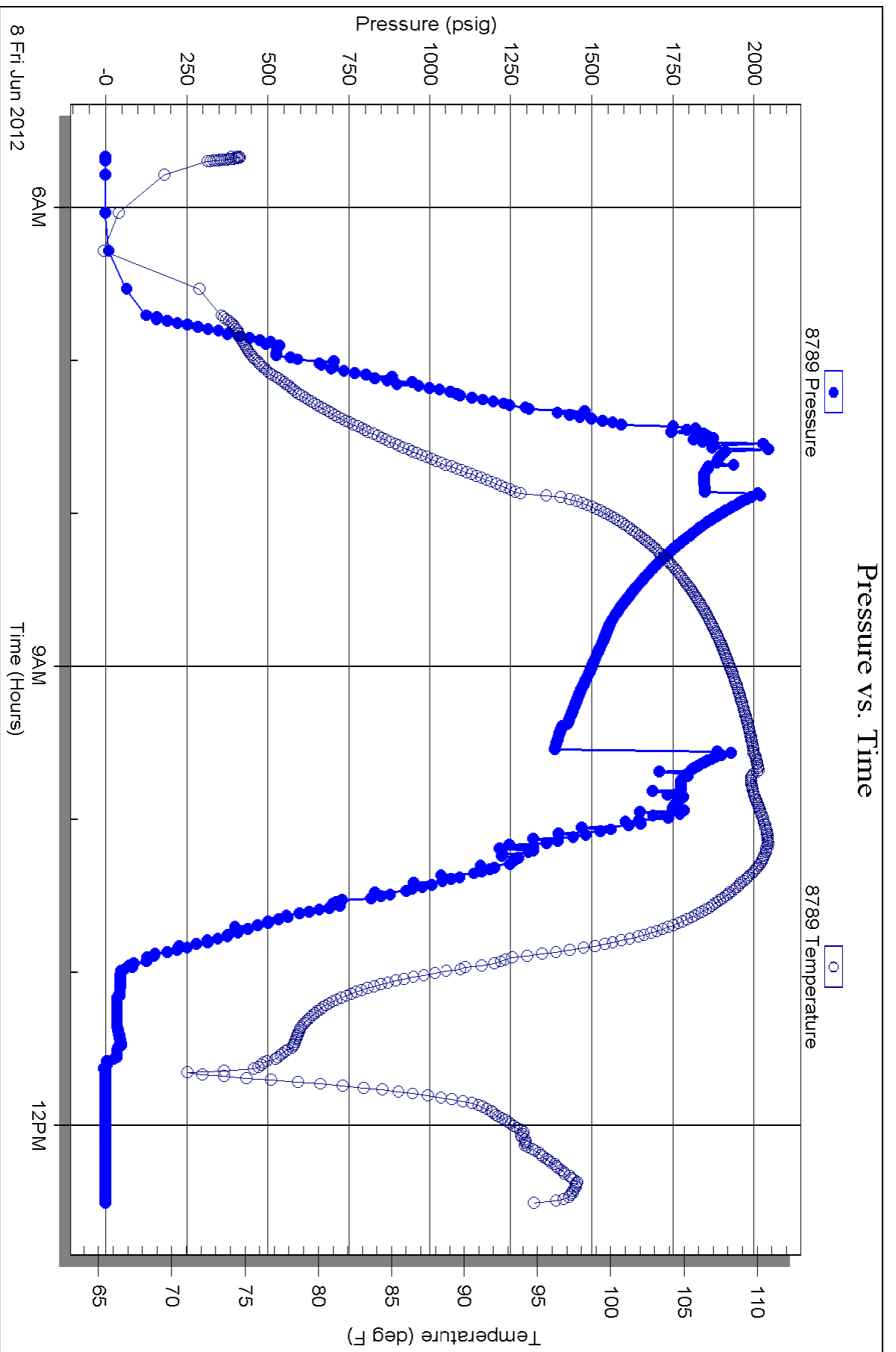
Serial #: 8289

Outside TDI Inc.

Joy #1

DST Test Number: 3







TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47807

Well Name & No. Joy #1 Test No. 1 Date 6-6-12
 Company TDI, Inc. Elevation 2230 KB 2222 GL
 Address 1310 Bison Road, Hays, Ks. 67601
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 24 Twp. 12s Rge. 19w Co. Ellis State Ks

Interval Tested 3600-3620 Zone Tested "F"
 Anchor Length 20' Drill Pipe Run 3613 Mud Wt. 9.2
 Top Packer Depth 3595 Drill Collars Run 0 Vis 56
 Bottom Packer Depth 3600 Wt. Pipe Run 0 WL 6.8
 Total Depth 3620 Chlorides 2300 ppm System LCM 2th
 Blow Description IFP-Dead, No Surge, Flush Tool, no surge, Dead
ISS-Dead
FFP-Dead, Flush Tool, 2 bubbles, Dead, Pull Tool

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>OCM</u>		<u>15</u>		<u>85</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1771</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>12:42</u>
(B) First Initial Flow <u>16</u>	<input type="checkbox"/> Jars _____	T-Started <u>12:51</u>
(C) First Final Flow <u>16</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>15:06</u>
(D) Initial Shut-In <u>41</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>16:26</u>
(E) Second Initial Flow <u>17</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>17:50</u>
(F) Second Final Flow <u>21</u>	<input checked="" type="checkbox"/> Mileage <u>210RT</u> 40.30	Comments _____
(G) Final Shut-In _____	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1714</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>20</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1190.30</u>
Final Shut-In _____	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1190.30</u>	

Approved By _____ Our Representative Jason McJannet *Thank You*

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss/suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47808

Well Name & No. Joy #1 Test No. 2 Date 6-7-12
 Company TDI, Inc. Elevation 2230 KB 2222 GL
 Address 1310 Bison Road, Hays, KS 67601
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 24 Twp. 12s Rge. 19w Co. Ellis State Ks

Interval Tested 3483-3625 Zone Tested "Toronto - F"
 Anchor Length 142' Drill Pipe Run 3482 Mud Wt. 93
 Top Packer Depth 3478 Drill Collars Run 0 Vis 55
 Bottom Packer Depth 3483 straddle @ 3625 Wt. Pipe Run 0 WL 6.8
 Total Depth 3895 LTO Chlorides 2200 ppm System LCM 1#
 Blow Description IFP - Weak Blow, Built to 2"
IST - Dead
FFP - Dead, Flush Tool, Still Dead, Pull Tool
FSI - //

Rec	Feet of	%gas	%oil	%water	%mud
<u>38</u>	<u>Drilling Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 38 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1862 Test 1150 T-On Location 22:10
 (B) First Initial Flow 86 Jars _____ T-Started 22:49
 (C) First Final Flow 93 Safety Joint _____ T-Open 1:08
 (D) Initial Shut-In 1136 Circ Sub _____ T-Pulled 3:03
 (E) Second Initial Flow 95 Hourly Standby _____ T-Out 5:15
 (F) Second Final Flow 103 Mileage 26RT 40.30 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 1750 Straddle 600 Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1790.30
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1790.30

Approved By _____ Our Representative Jason McJannet *Thank You*

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47809

Well Name & No. Joy #1 Test No. 3 Date 6-8-12
 Company TDI-Inc Elevation 2230 KB 2222 GL
 Address 1310 Bison Road, Hays, KS. 67601
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 24 Twp. 12s Rge. 19w Co. Ellis State KS

Interval Tested 3644-3764 Zone Tested H-I-J-K
 Anchor Length 120' Drill Pipe Run 3647 Mud Wt. 9.3
 Top Packer Depth 3639 Drill Collars Run 0 Vis 55
 Bottom Packer Depth 3644 straddle @ 3764 Wt. Pipe Run 0 WL 6.8
 Total Depth 3895 Chlorides 2200 ppm System LCM 1^{FF}
 Blow Description IFP- Weak Blow, Built to 1 3/4"
ISI- Dead
FFP- Dead, Flush Tool, Surge then Died off to plugging action, Pull

Rec	Feet of	%gas	%oil	%water	%mud
<u>35</u>	<u>Drilling Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 35 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1956 Test 1150 T-On Location 5:15
 (B) First Initial Flow 72 Jars _____ T-Started 5:40
 (C) First Final Flow 84 Safety Joint _____ T-Open 7:54
 (D) Initial Shut-In 1133 Circ Sub _____ T-Pulled 9:39
 (E) Second Initial Flow 85 Hourly Standby _____ T-Out 12:30
 (F) Second Final Flow 92 Mileage 26RT Comments _____
 (G) Final Shut-In / Sampler _____
 (H) Final Hydrostatic 1782 Straddle 600 Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1750
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1750

Approved By _____ Our Representative Jason Mc Lemmon *Thank you*

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.