



## DRILL STEM TEST REPORT

Prepared For: **American Warrior Inc**

PO Box 399  
Garden City KS 67846

ATTN: Jason Alm

### **LJ Unit#1**

### **21-18s-22w Ness,KS**

Start Date: 2013.11.22 @ 06:05:10

End Date: 2013.11.22 @ 12:41:19

Job Ticket #: 54375                      DST #: 1

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

Printed: 2013.11.26 @ 10:42:19



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

American Warrior Inc  
PO Box 399  
Garden City KS 67846  
ATTN: Jason Alm

**21-18s-22w Ness,KS**

**LJ Unit#1**

Job Ticket: 54375

**DST#: 1**

Test Start: 2013.11.22 @ 06:05:10

## GENERAL INFORMATION:

Formation: **Miss./ Warsaw**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 08:35:20  
 Time Test Ended: 12:41:19  
 Interval: **4218.00 ft (KB) To 4285.00 ft (KB) (TVD)**  
 Total Depth: 4285.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ray Schwager  
 Unit No: 70  
 Reference Elevations: 2182.00 ft (KB)  
 2174.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8369**

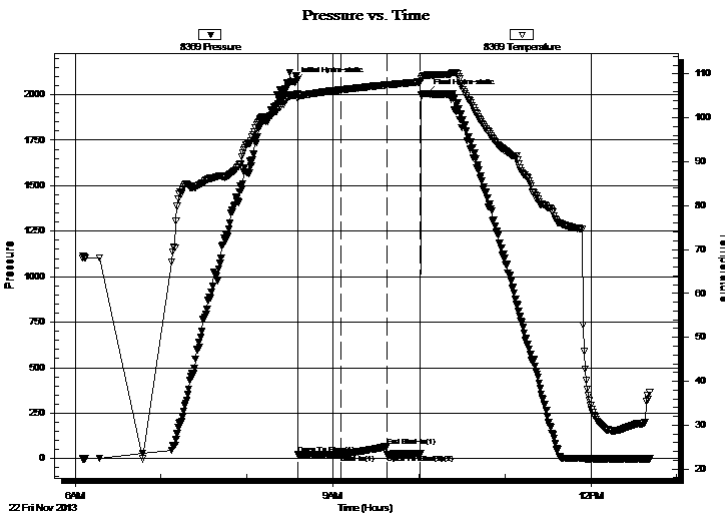
**Inside**

Press@RunDepth: 25.20 psig @ 4223.00 ft (KB)  
 Start Date: 2013.11.22 End Date: 2013.11.22  
 Start Time: 06:05:10 End Time: 12:41:19

Capacity: 8000.00 psig  
 Last Calib.: 2013.11.22  
 Time On Btm: 2013.11.22 @ 08:33:05  
 Time Off Btm: 2013.11.22 @ 10:05:50

TEST COMMENT: 30-IFP-w k bl thru-out 1/2" bl  
 30-ISIP-no bl  
 25-FFP-no bl ,pulled tool

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2070.70	105.16	Initial Hydro-static
3	23.56	104.38	Open To Flow (1)
33	25.20	106.39	Shut-In(1)
65	66.71	107.51	End Shut-In(1)
65	25.96	107.51	Open To Flow (2)
88	26.10	108.21	Shut-In(2)
93	2004.63	109.72	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 1%O99%M	0.02

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

American Warrior Inc  
PO Box 399  
Garden City KS 67846  
ATTN: Jason Alm

**21-18s-22w Ness, KS**  
**LJ Unit#1**  
Job Ticket: 54375      **DST#: 1**  
Test Start: 2013.11.22 @ 06:05:10

**Tool Information**

Drill Pipe:	Length: 4182.00 ft	Diameter: 3.80 inches	Volume: 58.66 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 58.81 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	61000.00 lb
Depth to Top Packer:	4218.00 ft			Final	61000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	67.00 ft				
Tool Length:	95.00 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			4191.00	
Shut In Tool	5.00			4196.00	
Hydraulic tool	5.00			4201.00	
Jars	5.00			4206.00	
Safety Joint	2.00			4208.00	
Packer	5.00			4213.00	28.00 Bottom Of Top Packer
Packer	5.00			4218.00	
Stubb	1.00			4219.00	
Perforations	4.00			4223.00	
Recorder	0.00	8369	Inside	4223.00	
Recorder	0.00	8700	Outside	4223.00	
Blank Spacing	33.00			4256.00	
Perforations	26.00			4282.00	
Bullnose	3.00			4285.00	67.00 Bottom Packers & Anchor

**Total Tool Length: 95.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Warrior Inc

**21-18s-22w Ness,KS**

PO Box 399  
Garden City KS 67846

**LJ Unit#1**

Job Ticket: 54375

**DST#: 1**

ATTN: Jason Alm

Test Start: 2013.11.22 @ 06:05:10

## 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:

bbf

Water Loss: 7.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4200.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	SOCM 1%O99%M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8369

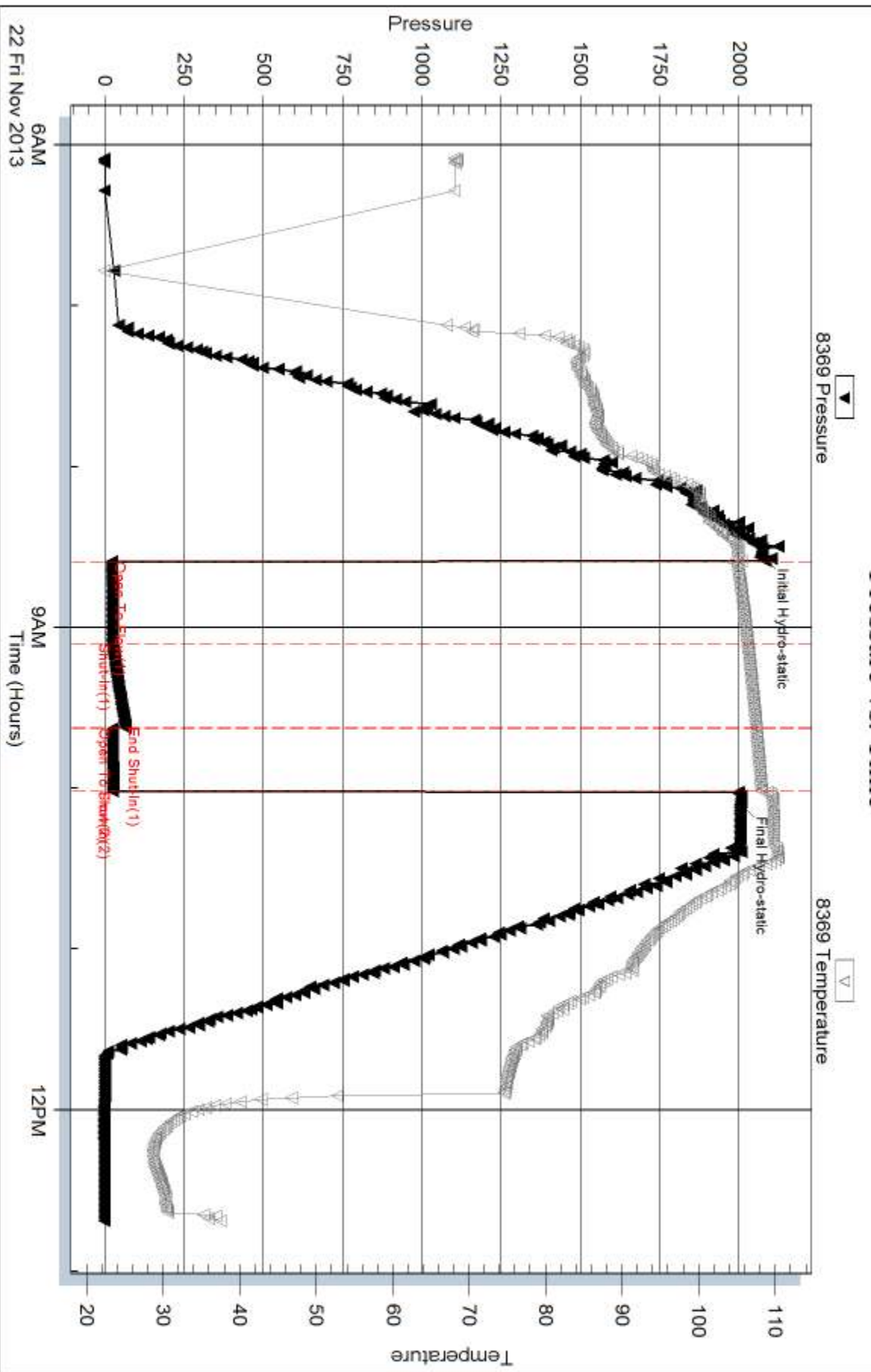
Inside

American Warrior Inc

LJ Unit#1

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 54375

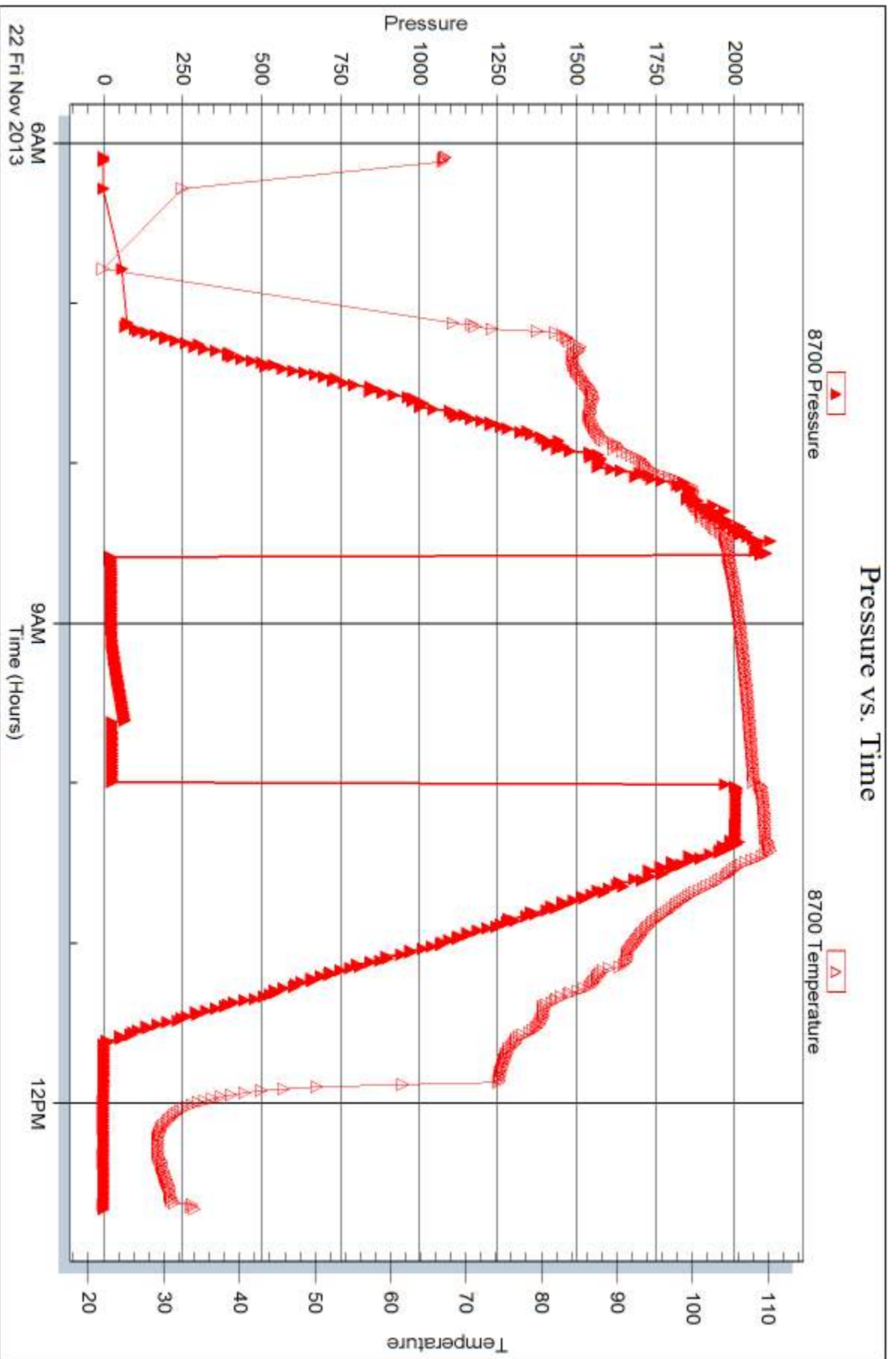
Printed: 2013.11.26 @ 10:42:21

Serial #: 8700

Outside American Warrior Inc

LJ Unit#1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 54375

Printed: 2013.11.26 @ 10:42:21



## DRILL STEM TEST REPORT

Prepared For: **American Warrior Inc**

PO Box 399  
Garden City KS 67846

ATTN: Jason Alm

### **LJ Unit#1**

### **21-18s-22w Ness,KS**

Start Date: 2013.11.23 @ 17:52:00

End Date: 2013.11.24 @ 02:24:00

Job Ticket #: 55792                      DST #: 2

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

Printed: 2013.11.26 @ 10:41:42





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

American Warrior Inc  
PO Box 399  
Garden City KS 67846  
ATTN: Jason Alm

**21-18s-22w Ness,KS**

**LJ Unit#1**

Job Ticket: 55792

**DST#: 2**

Test Start: 2013.11.23 @ 17:52:00

## GENERAL INFORMATION:

Formation: **Miss-Warsaw**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:05:30

Time Test Ended: 02:24:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 54

**Interval: 4217.00 ft (KB) To 4304.00 ft (KB) (TVD)**

Reference Elevations: 2182.00 ft (KB)

Total Depth: 4304.00 ft (KB) (TVD)

2174.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8289 Outside**

Press@RunDepth: 45.22 psig @ 4218.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.11.23

End Date:

2013.11.24

Last Calib.: 2013.11.24

Start Time: 17:52:02

End Time:

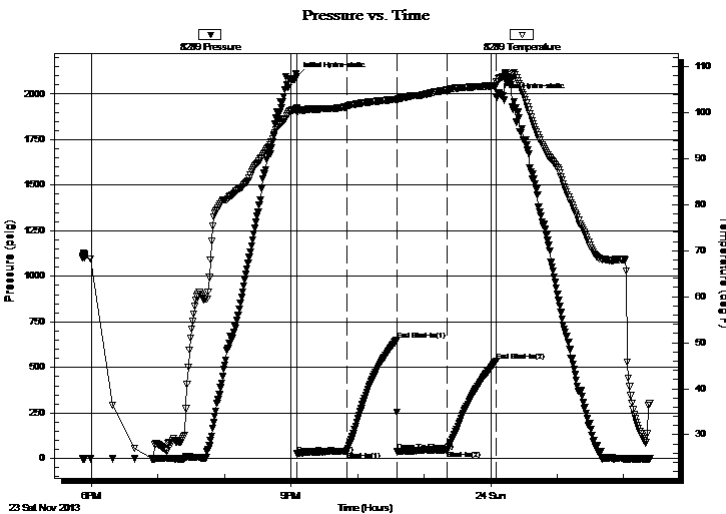
02:24:00

Time On Btm: 2013.11.23 @ 21:05:15

Time Off Btm: 2013.11.24 @ 00:05:15

**TEST COMMENT:** 45-IFP- Surface Blow Building to 4 1/2"  
45-ISIP- No Blow  
45-FFP- Surface Blow Building to 1 1/2"  
45-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2097.85	100.98	Initial Hydro-static
1	26.03	100.13	Open To Flow (1)
45	39.79	101.33	Shut-In(1)
90	650.72	102.89	End Shut-In(1)
91	41.45	102.69	Open To Flow (2)
136	45.22	104.94	Shut-In(2)
180	534.71	105.84	End Shut-In(2)
180	1981.54	106.65	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	SOCM 1%o 99%m	0.57

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

American Warrior Inc  
PO Box 399  
Garden City KS 67846  
ATTN: Jason Alm

**21-18s-22w Ness,KS**  
**LJ Unit#1**  
Job Ticket: 55792      **DST#: 2**  
Test Start: 2013.11.23 @ 17:52:00

**Tool Information**

Drill Pipe:	Length: 4180.00 ft	Diameter: 3.80 inches	Volume: 58.63 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 58.78 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	61000.00 lb
Depth to Top Packer:	4217.00 ft			Final	61000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	87.00 ft				
Tool Length:	115.00 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			4190.00	
Shut In Tool	5.00			4195.00	
Hydraulic tool	5.00			4200.00	
Jars	5.00			4205.00	
Safety Joint	2.00			4207.00	
Packer	5.00			4212.00	28.00 Bottom Of Top Packer
Packer	5.00			4217.00	
Stubb	1.00			4218.00	
Recorder	0.00	8789	Inside	4218.00	
Recorder	0.00	8289	Outside	4218.00	
Perforations	18.00			4236.00	
Change Over Sub	1.00			4237.00	
Blank Spacing	63.00			4300.00	
Change Over Sub	1.00			4301.00	
Bullnose	3.00			4304.00	87.00 Bottom Packers & Anchor

**Total Tool Length: 115.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Warrior Inc

**21-18s-22w Ness,KS**

PO Box 399  
Garden City KS 67846

**LJ Unit#1**

Job Ticket: 55792

**DST#: 2**

ATTN: Jason Alm

Test Start: 2013.11.23 @ 17:52:00

## 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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.56 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	SOCM 1%o 99%m	0.568

Total Length: 60.00 ft      Total Volume: 0.568 bbl

Num Fluid Samples: 0

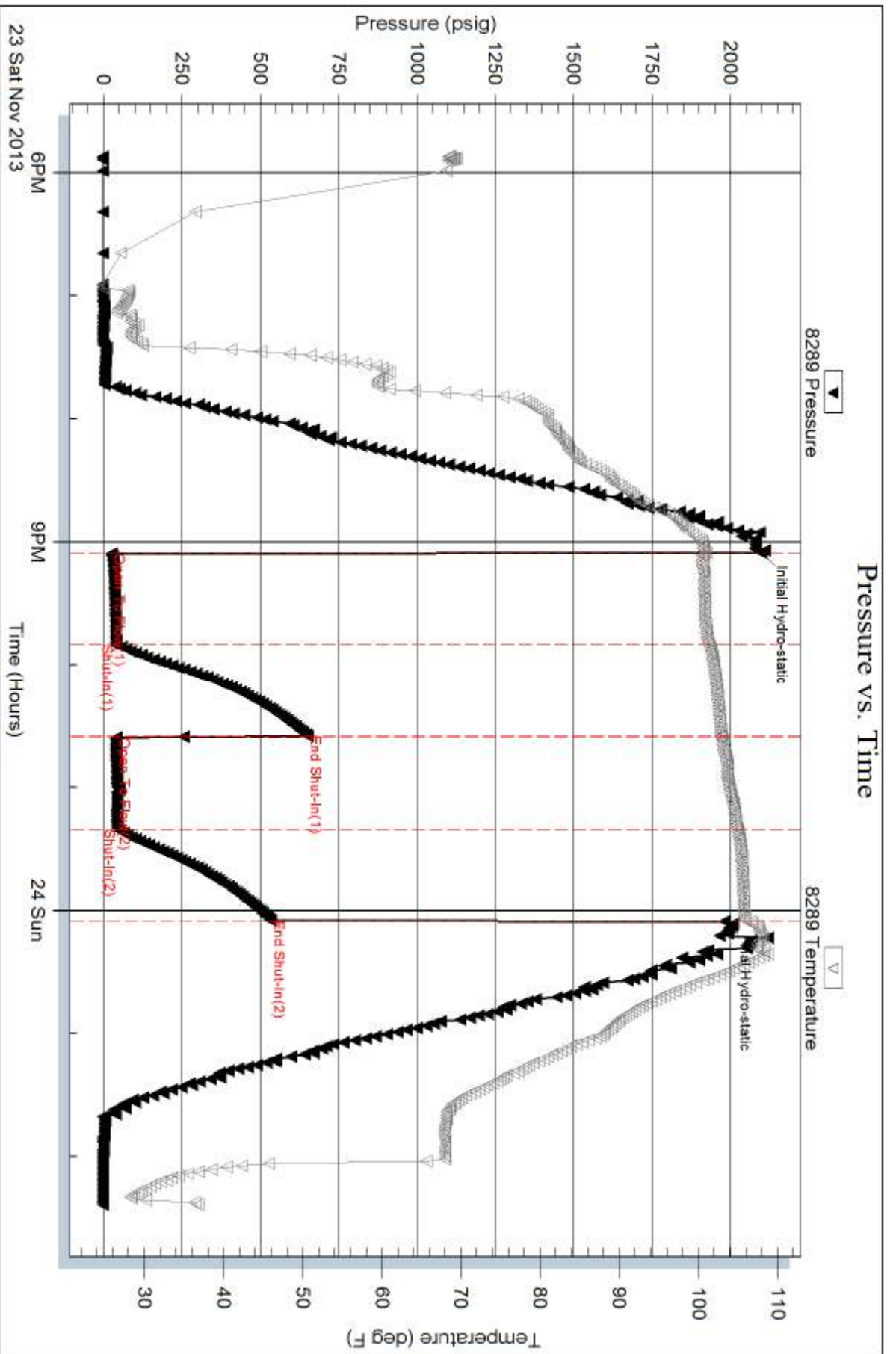
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



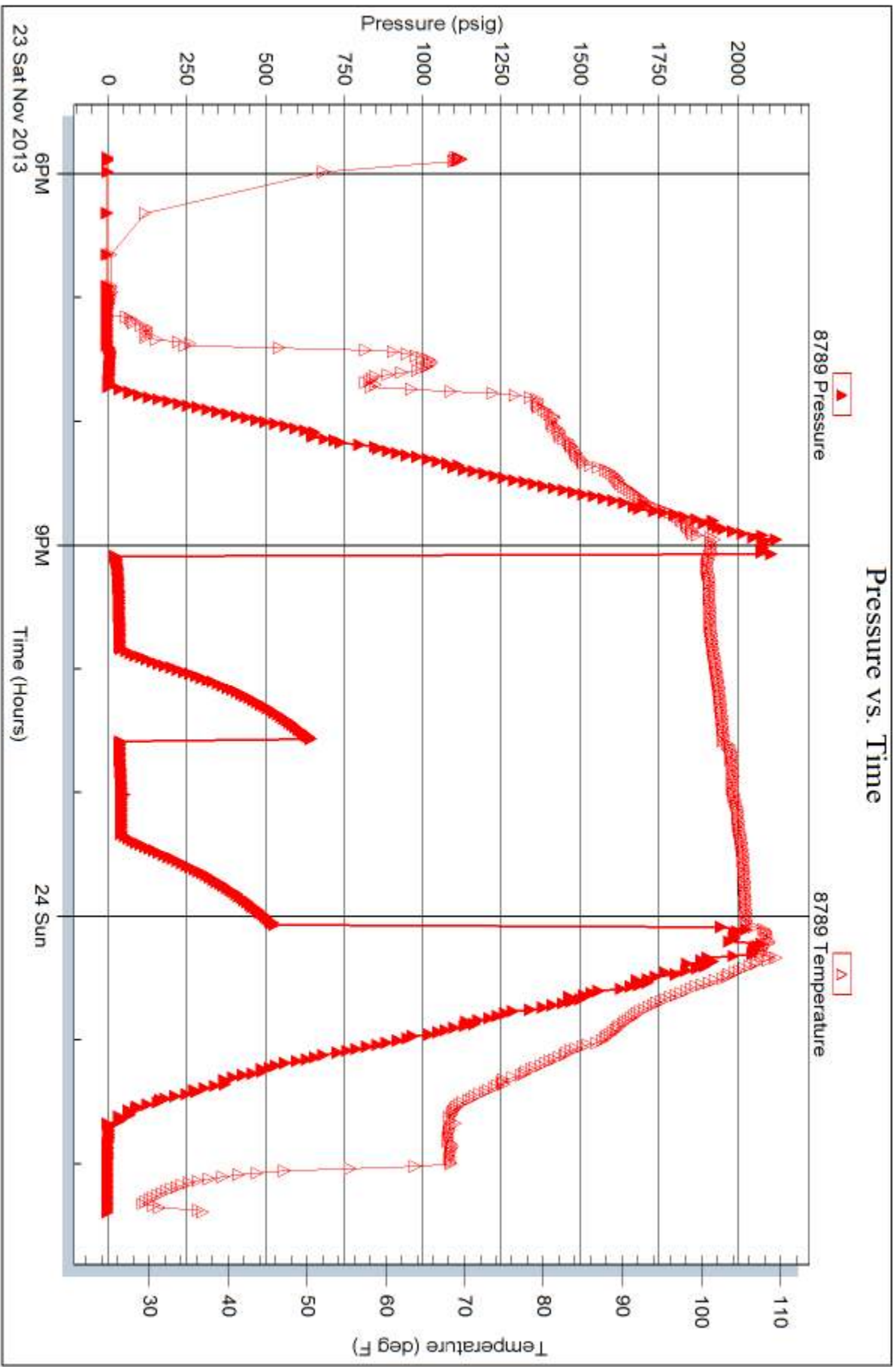
Serial #: 8789

Inside

American Warrior Inc

LJ Unit#1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 55792

Printed: 2013.11.26 @ 10:41:44



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54375

Well Name & No. L.J. UNIT #1 Test No. 1 Date 11-22-13  
 Company AMERICAN WARRIOR INC Elevation 2182 KB 2174 GL  
 Address 3118 Cummings Rd, PO Box 399 Garden City, Ks 67846  
 Co. Rep / Geo. JASON ALM Rig DISCOVERY RIG 3  
 Location: Sec. 21 Twp. 18<sup>s</sup> Rge. 22<sup>w</sup> Co. NOSS State Ks

Interval Tested 4218-4285 Zone Tested MISS  
 Anchor Length 67 Drill Pipe Run 4282 Mud Wt. 9.1  
 Top Packer Depth 4213 Drill Collars Run 30 Vis 56  
 Bottom Packer Depth 4218 Wt. Pipe Run - WL 7.2  
 Total Depth 4285 Chlorides 4200 ppm System LCM TR  
 Blow Description IFP-WEAK Blow thru-out 1/2" Blow  
ISIP- NO Blow  
FFP- NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>50CM</u>	<u>1</u>		<u>99</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 108 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>2070</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0240</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0605</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0835</u>
(D) Initial Shut-In <u>66</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1000</u>
(E) Second Initial Flow <u>25</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1241</u>
(F) Second Final Flow <u>26</u>	<input checked="" type="checkbox"/> Mileage <u>115RT</u> <u>178.25</u>	Comments
(G) Final Shut-In	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2004</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>25</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>pulled to 30</u>	<input type="checkbox"/> Day Standby	Total <u>1753.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1753.25</u>	

Approved By \_\_\_\_\_ Our Representative RAY SCHWAGER *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.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 55792

Well Name & No. LJ Unit #1 Test No. 2 Date 11-23-13  
 Company American Warrior Inc Elevation 2182 KB 2174 GL  
 Address 3118 Cummings Rd. Box 399 Garden City KS 67846  
 Co. Rep / Geo. Jason Alm Rig Discovery #3  
 Location: Sec. 21 Twp. 18<sup>s</sup> Rge. 22<sup>w</sup> Co. Ness State KS

Interval Tested 4217-4304 Zone Tested Miss - Warsaw  
 Anchor Length 87 Drill Pipe Run 4180 Mud Wt. 9.2  
 Top Packer Depth 4212 Drill Collars Run 30 Vis 61  
 Bottom Packer Depth 4217 Wt. Pipe Run 0 WL 9.6  
 Total Depth 4304 Chlorides 8000 ppm System LCM 1

Blow Description IFP - Surface Blow Building to 4 1/2 in.  
ISIP - No Blow  
FFP - Surface Blow Building to 1 1/2 in.  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>50cm</u>	<u>1</u>		<u>99</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 60 BHT 106 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2097  
 (B) First Initial Flow 26  
 (C) First Final Flow 39  
 (D) Initial Shut-In 650  
 (E) Second Initial Flow 41  
 (F) Second Final Flow 45  
 (G) Final Shut-In 534  
 (H) Final Hydrostatic 1981

Test 1250  
 Jars 250  
 Safety Joint 75  
 Circ Sub \_\_\_\_\_  
 Hourly Standby \_\_\_\_\_  
 Mileage X 2 356.50  
 Sampler \_\_\_\_\_  
 Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1931.50

T-On Location 17:49  
 T-Started 17:52  
 T-Open 21:06  
 T-Pulled 00:06  
 T-Out 02:24

Comments loaded tools 16:30 11/24  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1931.50  
 MP/DST Disc't \_\_\_\_\_

Initial Open 45  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 45

Approved By \_\_\_\_\_ Our Representative [Signature]

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.