



## DRILL STEM TEST REPORT

Prepared For: **American Warrior, Inc.**

PO Box 399  
Garden City, KS 67846

ATTN: Jason T Alm

### **Cox #3-23**

#### **23-20s-22w Ness,KS**

Start Date: 2015.05.17 @ 21:29:25

End Date: 2015.05.18 @ 05:39:25

Job Ticket #: 61172                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.05.18 @ 08:38:43

American Warrior, Inc.  
23-20s-22w Ness,KS  
Cox #3-23  
DST # 1  
Miss  
2015.05.17



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

American Warrior, Inc.

**23-20s-22w Ness, KS**

PO Box 399  
Garden City, KS 67846

**Cox #3-23**

Job Ticket: 61172

**DST#: 1**

ATTN: Jason T Alm

Test Start: 2015.05.17 @ 21:29:25

## GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:25:55

Time Test Ended: 05:39:25

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 62

**Interval: 4310.00 ft (KB) To 4367.00 ft (KB) (TVD)**

Reference Elevations: 2214.00 ft (KB)

Total Depth: 4367.00 ft (KB) (TVD)

2206.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8655 Outside**

Press@RunDepth: 147.55 psig @ 4331.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.17 End Date: 2015.05.18

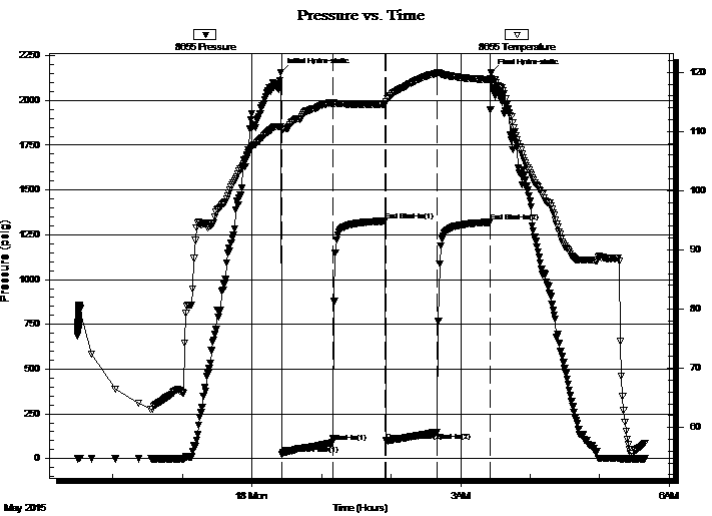
Last Calib.: 2015.05.18

Start Time: 21:29:26 End Time: 05:39:25

Time On Btm: 2015.05.18 @ 00:24:55

Time Off Btm: 2015.05.18 @ 03:26:25

TEST COMMENT: 45- IF- BOB 36 mins  
45- IS- No blow  
45- FF- Slow ly built to 9"  
45- FS- No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2156.89	110.81	Initial Hydro-static
1	24.35	110.20	Open To Flow (1)
45	89.58	114.89	Shut-In(1)
90	1326.57	114.61	End Shut-In(1)
91	99.16	115.07	Open To Flow (2)
135	147.55	119.87	Shut-In(2)
181	1320.11	118.73	End Shut-In(2)
182	2153.13	118.77	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
95.00	WM, 35%W 65%M	1.06
175.00	M	2.48
30.00	CO	0.43
0.00	15' GIP	0.00

## Gas Rates

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



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**23-20s-22w Ness, KS**

PO Box 399  
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**Cox #3-23**

Job Ticket: 61172

**DST#: 1**

ATTN: Jason T Alm

Test Start: 2015.05.17 @ 21:29:25

## GENERAL INFORMATION:

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Time Tool Opened: 00:25:55

Time Test Ended: 05:39:25

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 62

**Interval: 4310.00 ft (KB) To 4367.00 ft (KB) (TVD)**

Reference Elevations: 2214.00 ft (KB)

Total Depth: 4367.00 ft (KB) (TVD)

2206.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8651 Inside**

Press@RunDepth: psig @ 4331.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.17

End Date:

2015.05.18

Last Calib.:

2015.05.18

Start Time: 21:28:39

End Time:

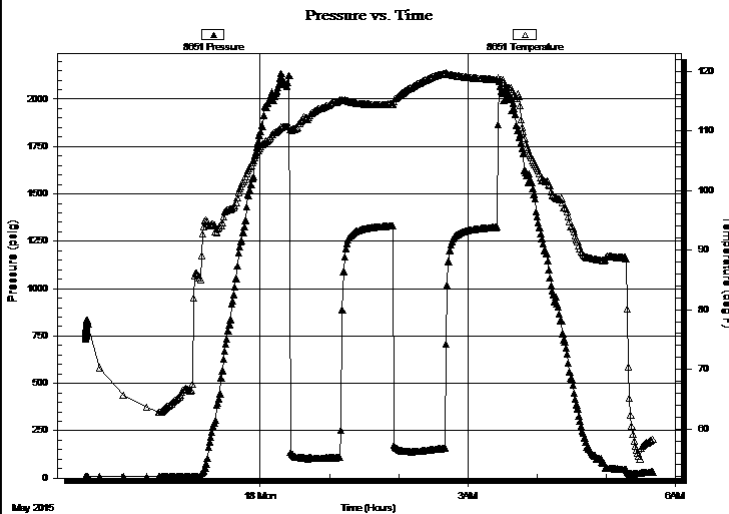
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Time On Btm:

Time Off Btm:

TEST COMMENT: 45- IF- BOB 36 mins  
45- IS- No blow  
45- FF- Slowly built to 9"  
45- FS- No blow

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
95.00	WM, 35%W 65%M	1.06
175.00	M	2.48
30.00	CO	0.43
0.00	15' GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

American Warrior, Inc.

**23-20s-22w Ness, KS**

PO Box 399  
Garden City, KS 67846

**Cox #3-23**

Job Ticket: 61172

**DST#: 1**

ATTN: Jason T Alm

Test Start: 2015.05.17 @ 21:29:25

## Tool Information

Drill Pipe:	Length: 4283.00 ft	Diameter: 3.82 inches	Volume: 60.71 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4310.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	84.00 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			4284.00	
Shut In Tool	5.00			4289.00	
Hydraulic tool	5.00			4294.00	
Jars	5.00			4299.00	
Safety Joint	2.00			4301.00	
Packer	5.00			4306.00	27.00 Bottom Of Top Packer
Packer	4.00			4310.00	
Stubb	1.00			4311.00	
Perforations	19.00			4330.00	
Change Over Sub	1.00			4331.00	
Recorder	0.00	8651	Inside	4331.00	
Recorder	0.00	8655	Outside	4331.00	
Drill Pipe	32.00			4363.00	
Change Over Sub	1.00			4364.00	
Bullnose	3.00			4367.00	57.00 Bottom Packers & Anchor

**Total Tool Length: 84.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Warrior, Inc.

**23-20s-22w Ness, KS**

PO Box 399  
Garden City, KS 67846

**Cox #3-23**

Job Ticket: 61172

**DST#: 1**

ATTN: Jason T Alm

Test Start: 2015.05.17 @ 21:29:25

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

16000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5300.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
95.00	WM, 35%W 65%M	1.060
175.00	M	2.481
30.00	CO	0.425
0.00	15' GIP	0.000

Total Length: 300.00 ft

Total Volume: 3.966 bbl

Num Fluid Samples: 0

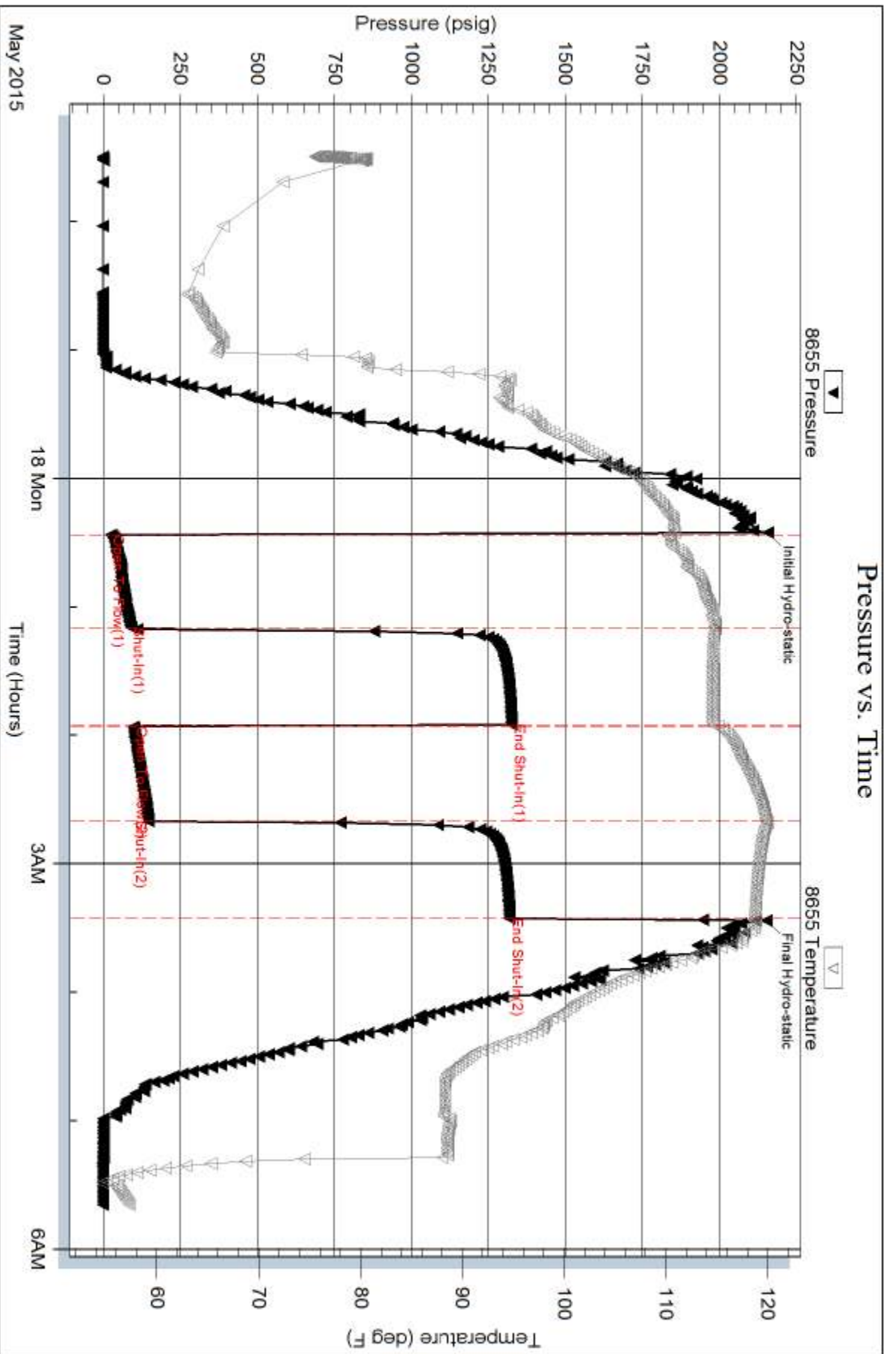
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



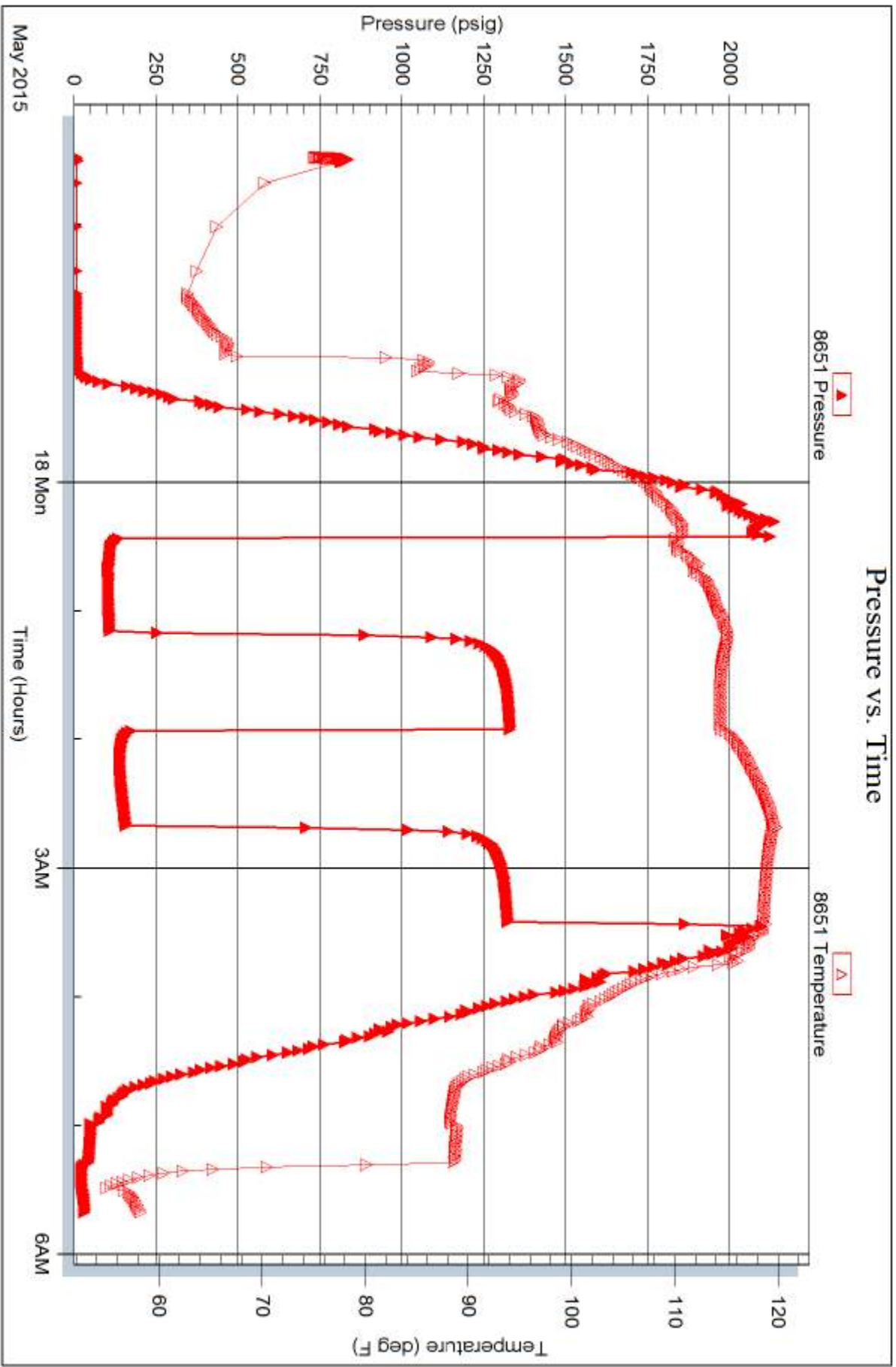
Serial #: 8651

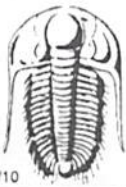
Inside

American Warrior, Inc.

Cox #3-23

DST Test Number: 1





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 61172

4/10

Well Name & No. Cox #3-23 Test No. 1 Date 5/17/15  
 Company American Warrior, Inc. Elevation 2214 KB 2206 GL  
 Address 3118 Cummings Rd. PO Box 399 Garden City, KS 67846  
 Co. Rep / Geo. Jason T Alm Rig Discovery #3  
 Location: Sec. 23 Twp. 20 S Rge. 22 W Co. Ness State KS

Interval Tested 4310 - 4367 Zone Tested Mass  
 Anchor Length 57' Drill Pipe Run 4283 Mud Wt. 9.1  
 Top Packer Depth 4305 Drill Collars Run 31 Vis 54  
 Bottom Packer Depth 4310 Wt. Pipe Run          WL 8.0  
 Total Depth 4367 Chlorides 5,300 ppm System LCM 1#

Blow Description IF - BOB 36 mins  
ISI - No blow  
FF - 5buly built to 9"  
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>95</u>	<u>WM</u>			<u>35</u>	<u>65</u>
<u>175</u>	<u>M</u>				
<u>30</u>	<u>CO</u>				
<u>1</u>	<u>15' QIP</u>				
<u>300</u>					

Rec Total 300' BHT 119° Gravity 36 API RW .55 @ 54° F Chlorides 16,000 ppm  
 (A) Initial Hydrostatic 2157  Test 1150 T-On Location 2115  
 (B) First Initial Flow 24  Jars 250 T-Started 2129  
 (C) First Final Flow 90  Safety Joint 75 T-Open 0026 5/18  
 (D) Initial Shut-In 1327  Circ Sub          T-Pulled 0326  
 (E) Second Initial Flow 99  Hourly Standby          T-Out 0541  
 (F) Second Final Flow 148  Mileage 136 RT 136 Comments           
 (G) Final Shut-In 1320  Sampler           
 (H) Final Hydrostatic 2153  Straddle           Ruined Shale Packer           
 Shale Packer           Ruined Packer           
 Extra Packer           Extra Copies           
 Extra Recorder          Sub Total 0  
 Day Standby          Total 1611  
 Accessibility          MP/DST Disc't           
 Sub Total 1611

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

Approved By \_\_\_\_\_ Our Representative Brannon Lonsdale

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