



## DRILL STEM TEST REPORT

Prepared For: **American Warrior Inc**

PO Box 399  
Garden City, KS 67846

ATTN: Jason Alm

### **Elmer's #1-19**

#### **19-17s-21w Ness,KS**

Start Date: 2014.01.07 @ 22:46:00

End Date: 2014.01.08 @ 09:30:00

Job Ticket #: 56051                      DST #: 1

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

Printed: 2014.01.10 @ 08:44:00



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

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

**19-17s-21w Ness,KS**  
**Elmer's #1-19**  
Job Ticket: 56051 **DST#: 1**  
Test Start: 2014.01.07 @ 22:46:00

## GENERAL INFORMATION:

Formation: **Mississippi**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 04:16:45  
Time Test Ended: 09:30:00  
Interval: **4341.00 ft (KB) To 4348.00 ft (KB) (TVD)**  
Total Depth: 4348.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Cody Bloedorn  
Unit No: 73  
Reference Elevations: 2273.00 ft (KB)  
2265.00 ft (CF)  
KB to GR/CF: 8.00 ft

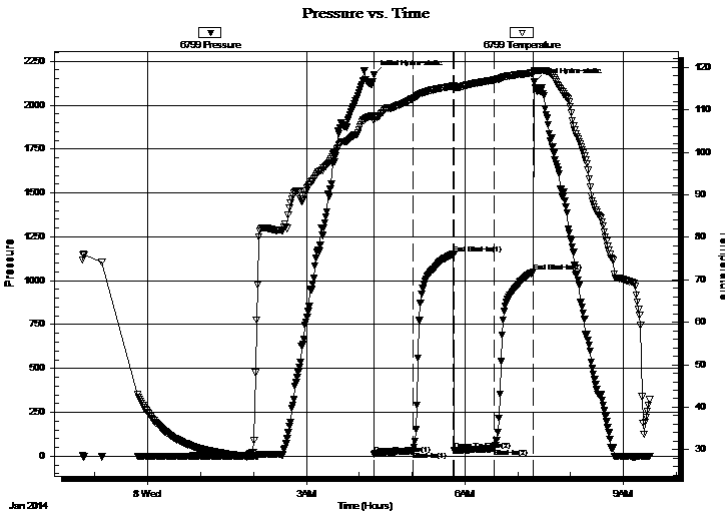
## Serial #: 6799

Inside

Press@RunDepth: 44.09 psig @ 4342.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.01.07 End Date: 2014.01.08 Last Calib.: 2014.01.08  
Start Time: 22:46:05 End Time: 09:30:00 Time On Btm: 2014.01.08 @ 04:16:30  
Time Off Btm: 2014.01.08 @ 07:18:15

TEST COMMENT: 45 - IF- 2 1/2" blow  
45 - IS- Surface return, died in 6 minutes  
45 - FF- 3" blow  
45 - FS- Surface return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2172.27	108.66	Initial Hydro-static
1	9.23	107.42	Open To Flow (1)
45	30.46	112.62	Shut-In(1)
91	1152.84	115.58	End Shut-In(1)
91	34.16	115.02	Open To Flow (2)
137	44.09	117.01	Shut-In(2)
181	1050.21	118.67	End Shut-In(2)
182	2130.46	119.10	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	OCMW, 20%O, 40%M, 40%W	0.60
30.00	GO, 5%G, 95%O	0.42

## Gas Rates

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



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 PO Box 399  
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 ATTN: Jason Alm

**19-17s-21w Ness, KS**  
**Elmer's #1-19**  
 Job Ticket: 56051 **DST#: 1**  
 Test Start: 2014.01.07 @ 22:46:00

## GENERAL INFORMATION:

Formation: **Mississippi**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 04:16:45  
 Time Test Ended: 09:30:00  
**Interval: 4341.00 ft (KB) To 4348.00 ft (KB) (TVD)**  
 Total Depth: 4348.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Cody Bloedorn  
 Unit No: 73  
 Reference Elevations: 2273.00 ft (KB)  
 2265.00 ft (CF)  
 KB to GR/CF: 8.00 ft

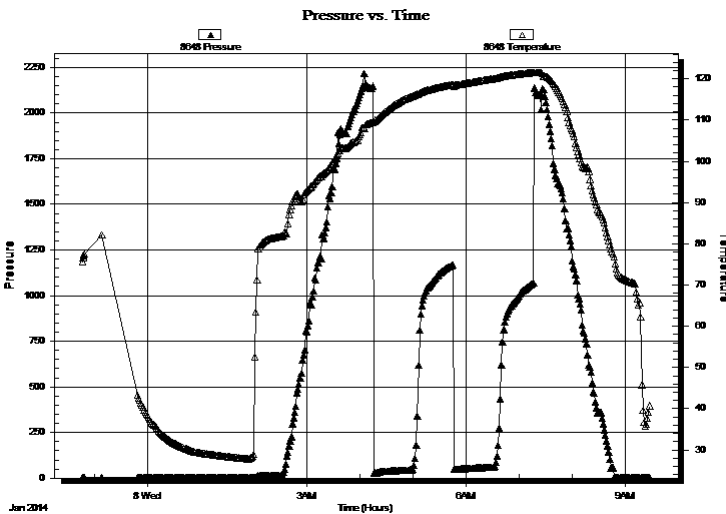
## Serial #: 8648

## Outside

Press@RunDepth: psig @ 4342.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.01.07 End Date: 2014.01.08 Last Calib.: 1899.12.30  
 Start Time: 22:46:05 End Time: 09:27:45 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 45 - IF- 2 1/2" blow  
 45 - IS- Surface return, died in 6 minutes  
 45 - FF- 3" blow  
 45 - FS- Surface return

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	OCMW, 20%O, 40%M, 40%W	0.60
30.00	GO, 5%G, 95%O	0.42

## 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

**19-17s-21w Ness, KS**  
**Elmer's #1-19**  
Job Ticket: 56051      **DST#: 1**  
Test Start: 2014.01.07 @ 22:46:00

**Tool Information**

Drill Pipe:	Length: 4309.00 ft	Diameter: 3.80 inches	Volume: 60.44 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: 300000.0 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 60.59 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4341.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	7.00 ft			
Tool Length:	36.00 ft			
Number of Packers:	2	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			4313.00	
Shut In Tool	5.00			4318.00	
Hydraulic tool	5.00			4323.00	
Jars	5.00			4328.00	
Safety Joint	3.00			4331.00	
Packer	5.00			4336.00	29.00      Bottom Of Top Packer
Packer	5.00			4341.00	
Stubb	1.00			4342.00	
Recorder	0.00	6799	Inside	4342.00	
Recorder	0.00	8648	Outside	4342.00	
Perforations	3.00			4345.00	
Bullnose	3.00			4348.00	7.00      Bottom Packers & Anchor

**Total Tool Length: 36.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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

**19-17s-21w Ness,KS**  
**Elmer's #1-19**  
Job Ticket: 56051      **DST#: 1**  
Test Start: 2014.01.07 @ 22:46:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 93.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 46.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4800.00 ppm			
Filter Cake: inches			

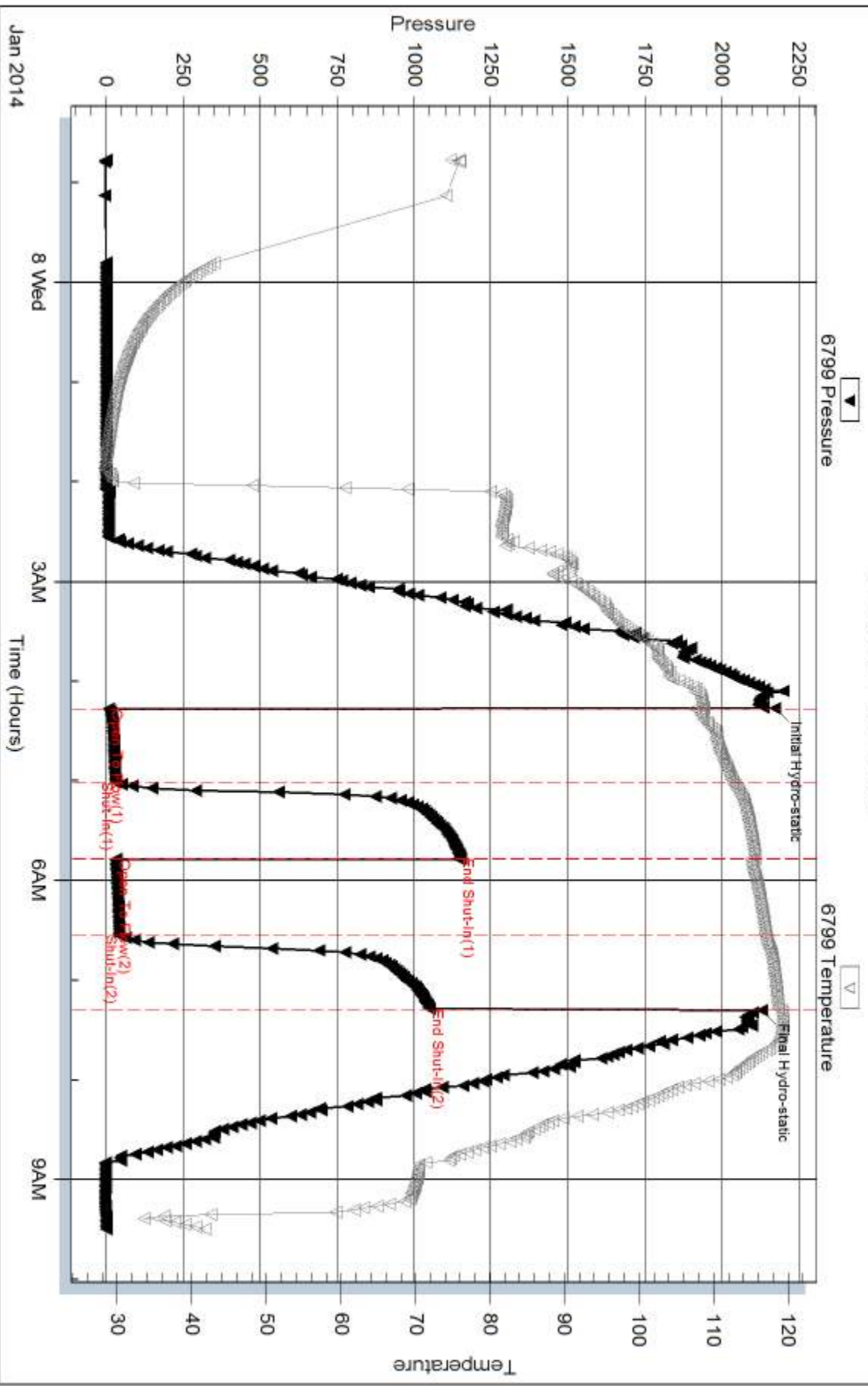
## Recovery Information

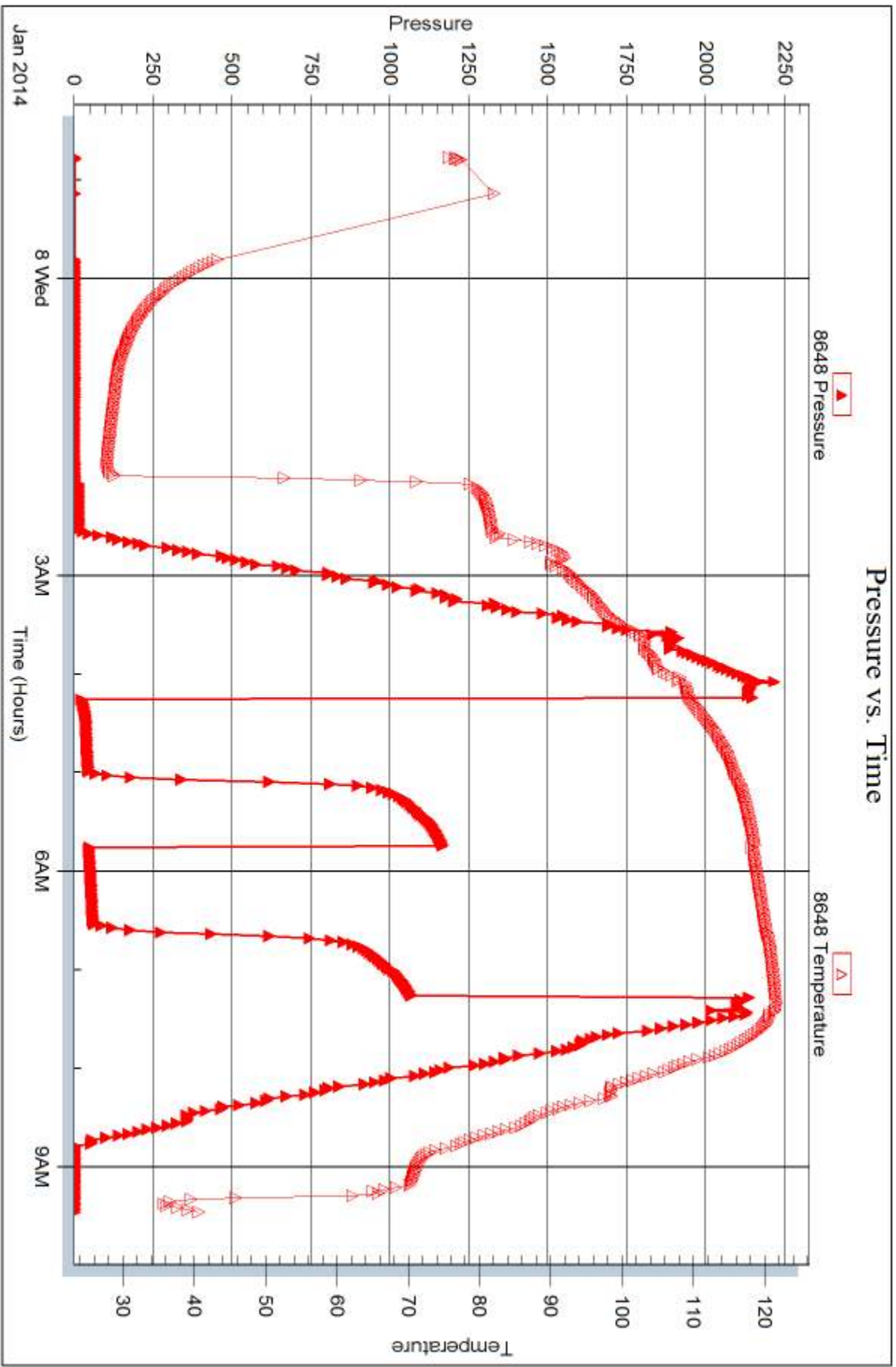
Recovery Table

Length ft	Description	Volume bbl
62.00	OCMW, 20%O, 40%M, 40%W	0.596
30.00	GO, 5%G, 95%O	0.421

Total Length: 92.00 ft      Total Volume: 1.017 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: **American Warrior Inc**

PO Box 399  
Garden City, KS 67846

ATTN: Jason Alm

### **Elmer's #1-19**

#### **19-17s-21w Ness,KS**

Start Date: 2014.01.08 @ 16:10:00

End Date: 2014.01.08 @ 23:51:15

Job Ticket #: 56052                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.01.10 @ 08:42:47





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TESTING, INC**

# DRILL STEM TEST REPORT

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

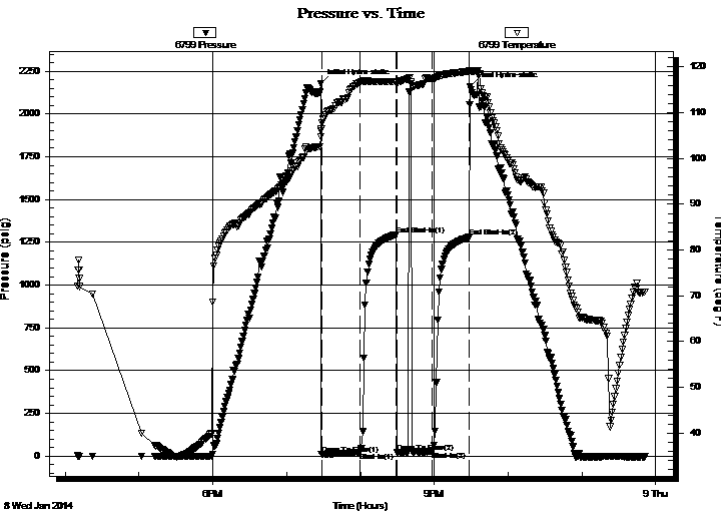
**19-17s-21w Ness,KS**  
**Elmer's #1-19**  
Job Ticket: 56052      **DST#: 2**  
Test Start: 2014.01.08 @ 16:10:00

## GENERAL INFORMATION:

Formation: **Mississippi**  
Deviated: No Whipstock:      ft (KB)  
Time Tool Opened: 19:28:15  
Time Test Ended: 23:51:15  
Interval: **4347.00 ft (KB) To 4353.00 ft (KB) (TVD)**  
Total Depth: 4353.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Cody Bloedorn  
Unit No: 73  
Reference Elevations: 2273.00 ft (KB)  
2265.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 6799      Inside**  
Press@RunDepth: 27.11 psig @ 4348.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.01.08      End Date: 2014.01.08      Last Calib.: 2014.01.08  
Start Time: 16:10:05      End Time: 23:51:14      Time On Btm: 2014.01.08 @ 19:28:00  
Time Off Btm: 2014.01.08 @ 21:29:00

**TEST COMMENT:** 30 - IF- 1" blow  
30 - IS- No return  
30 - FF- 1/4" in 9 min. flushed tool, built to 1/2"  
30 - FS- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2179.52	106.11	Initial Hydro-static
1	10.00	106.42	Open To Flow (1)
32	21.20	116.62	Shut-In(1)
61	1294.29	116.83	End Shut-In(1)
62	22.09	116.47	Open To Flow (2)
91	27.11	117.42	Shut-In(2)
121	1279.86	119.01	End Shut-In(2)
121	2160.97	119.19	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	WM - Show of oil, 2%W, 98%M	0.36

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
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# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

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

**19-17s-21w Ness, KS**  
**Elmer's #1-19**  
Job Ticket: 56052      **DST#: 2**  
Test Start: 2014.01.08 @ 16:10:00

**Tool Information**

Drill Pipe:	Length: 4309.00 ft	Diameter: 3.80 inches	Volume: 60.44 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:	30000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 60.59 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4347.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	6.00 ft				
Tool Length:	35.00 ft				
Number of Packers:	2	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			4319.00	
Shut In Tool	5.00			4324.00	
Hydraulic tool	5.00			4329.00	
Jars	5.00			4334.00	
Safety Joint	3.00			4337.00	
Packer	5.00			4342.00	29.00      Bottom Of Top Packer
Packer	5.00			4347.00	
Stubb	1.00			4348.00	
Recorder	0.00	6799	Inside	4348.00	
Recorder	0.00	8648	Outside	4348.00	
Perforations	2.00			4350.00	
Bullnose	3.00			4353.00	6.00      Bottom Packers & Anchor

**Total Tool Length: 35.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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

**19-17s-21w Ness,KS**  
**Elmer's #1-19**  
Job Ticket: 56052      **DST#: 2**  
Test Start: 2014.01.08 @ 16:10:00

## Mud and Cushion Information

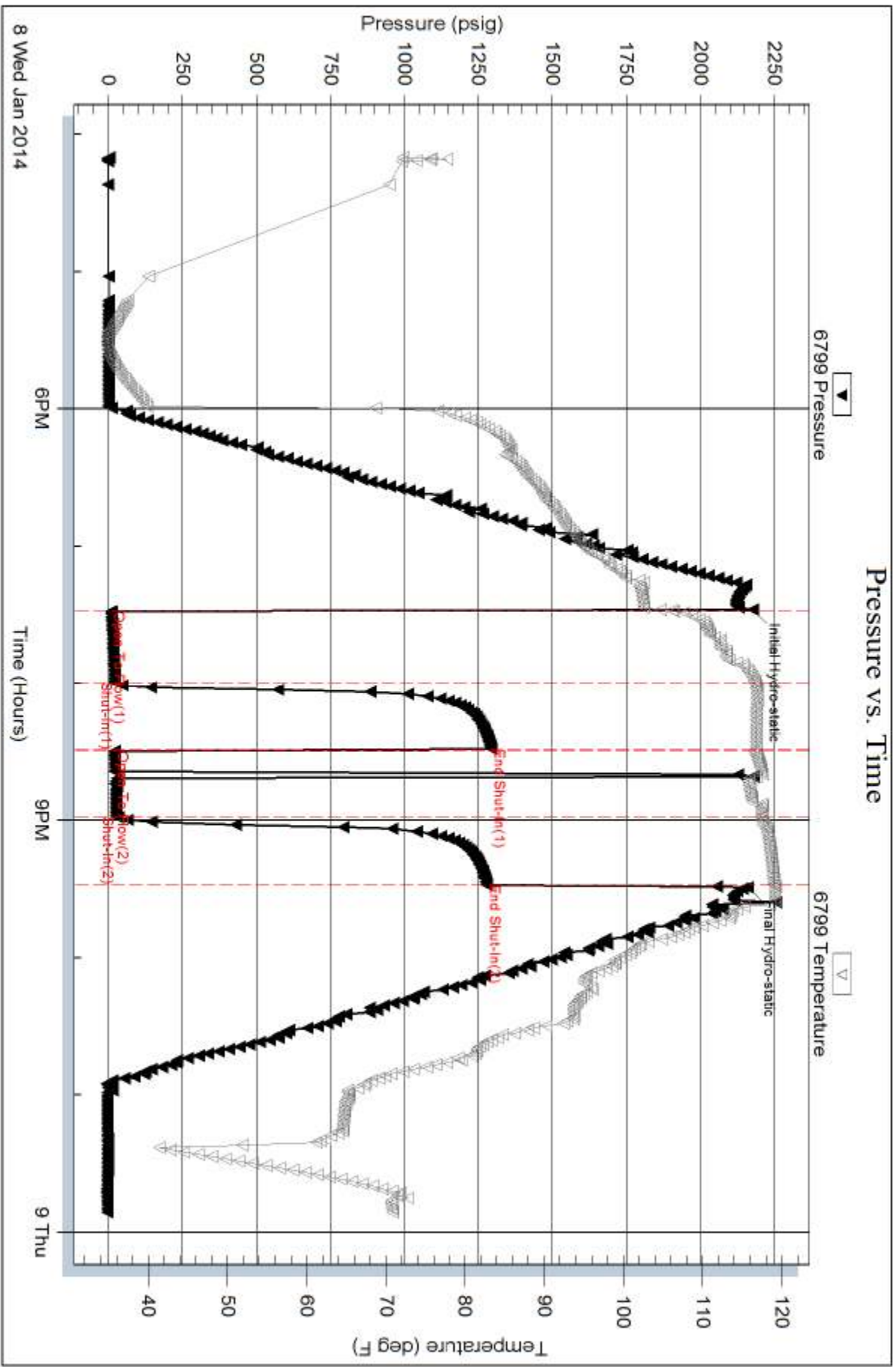
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 66.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4500.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	WM - Show of oil, 2%W, 98%M	0.358

Total Length: 45.00 ft      Total Volume: 0.358 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

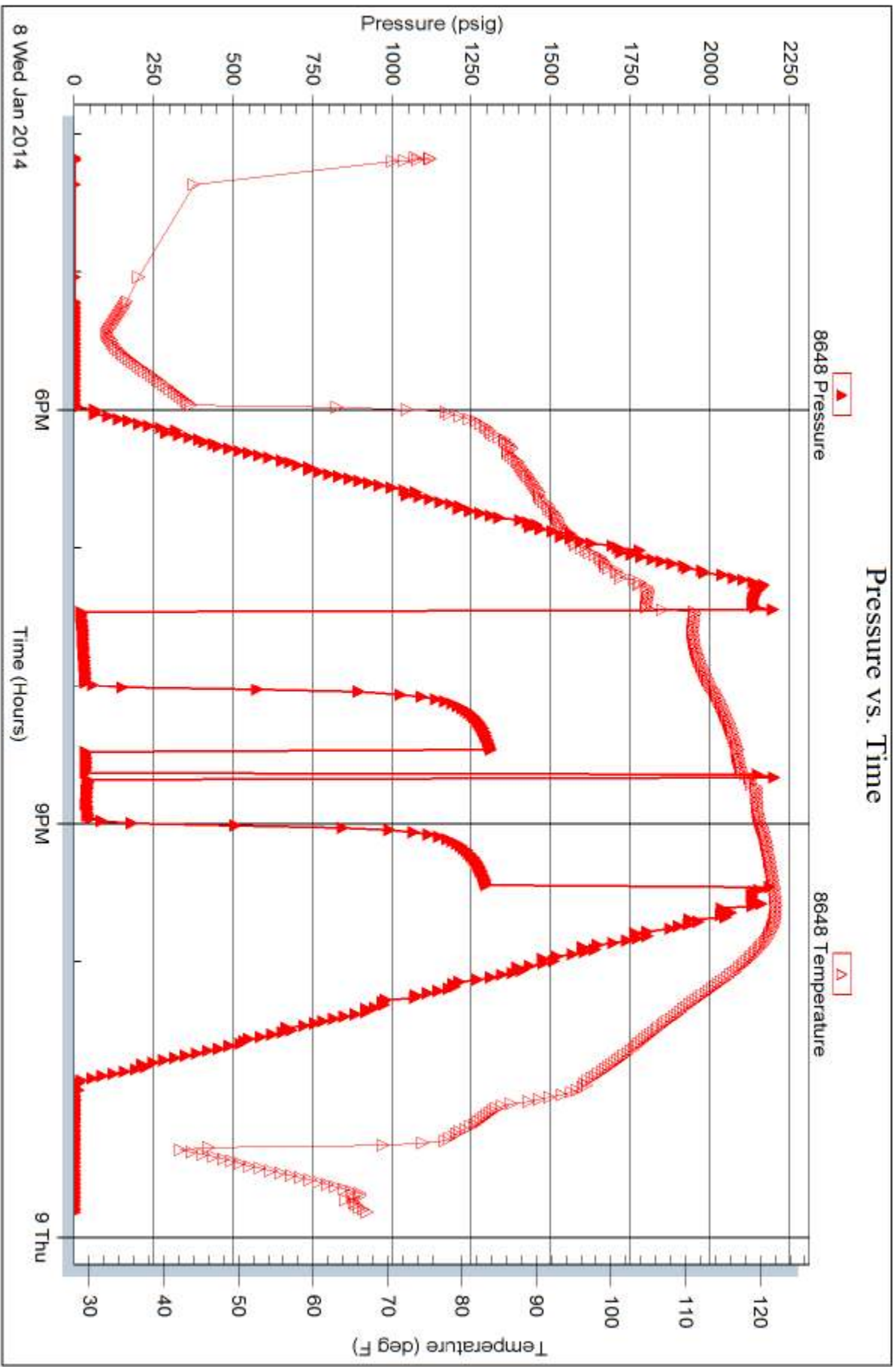


Serial #: 8648

Outside American Warrior Inc

Emer's #1-19

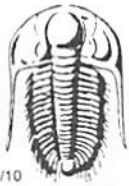
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56052

Printed: 2014.01.10 @ 08:42:49



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56051

Well Name & No. Elmer's #1-19 Test No. 4 Date 1-7-14  
 Company American Warrior INC Elevation 2273 KB 2265 GL  
 Address Po Box 399, Garden City KS, 67846  
 Co. Rep / Geo. Jason Alm Rig Discovery #3  
 Location: Sec. 19 Twp. 17s Rge. 21W Co. Ness State KS

Interval Tested 4341 - 4348 Zone Tested Mississippi  
 Anchor Length 7' Drill Pipe Run 4309' Mud Wt. 9.3  
 Top Packer Depth 4336 Drill Collars Run 30' Vis 48  
 Bottom Packer Depth 4341 Wt. Pipe Run — WL 8.0  
 Total Depth 4348 Chlorides 4,800 ppm System LCM —  
 Blow Description IF-2 1/2" blow  
ISI-Surface blow, died in 6 minutes  
FF-3" blow  
FSI-Surface return

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>OCMW</u>	<u>20</u>	<u>40</u>	<u>40</u>	
<u>30</u>	<u>60</u>	<u>5</u>	<u>95</u>		

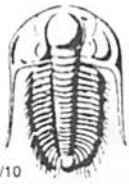
Rec Total 93' BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2172</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>2146</u>
(B) First Initial Flow <u>9</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2246</u>
(C) First Final Flow <u>30</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0416</u>
(D) Initial Shut-In <u>1152</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>0716</u>
(E) Second Initial Flow <u>34</u>	<input checked="" type="checkbox"/> Hourly Standby <u>.75h 75</u>	T-Out <u>0923</u>
(F) Second Final Flow <u>44</u>	<input checked="" type="checkbox"/> Mileage <u>89RT 137.95</u>	Comments _____
(G) Final Shut-In <u>1050</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2130</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>45</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	Total <u>1787.95</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1787.95</u>	

Approved By \_\_\_\_\_ Our Representative Cody Black

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. **56052**

Well Name & No. Elmer's #1-19 Test No. 2 Date 1-8-14  
 Company American Warrior INC Elevation 2273 KB 2265 GL  
 Address Po Box 399, Garden City KS, 67846  
 Co. Rep / Geo. Jason Alm Rig Discovery #3  
 Location: Sec. 19 Twp. 17s Rge. 21w Co. Ness State KS

Interval Tested 4347 - 4353 Zone Tested Mississippi  
 Anchor Length 6' Drill Pipe Run 4309' Mud Wt. 9.0  
 Top Packer Depth 4342 Drill Collars Run 30' Vis 66  
 Bottom Packer Depth 4347 Wt. Pipe Run - WL 7.6  
 Total Depth 4353 Chlorides 4.500 ppm System LCM -

Blow Description IF- 1" blow  
ISI- No return  
FF- 1/4" in 9min. Pushed tool, built to 1/2"  
FSI- No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>WM-show of oil</u>			<u>2</u>	<u>98</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 45' BHT 119° Gravity - API RW -@ - °F Chlorides - ppm

(A) Initial Hydrostatic 2179  Test 1250 T-On Location 1545  
 (B) First Initial Flow 10  Jars 250 T-Started 1610  
 (C) First Final Flow 21  Safety Joint 75 T-Open 1927  
 (D) Initial Shut-In 1294  Circ Sub \_\_\_\_\_ T-Pulled 2127  
 (E) Second Initial Flow 22  Hourly Standby \_\_\_\_\_ T-Out 2350  
 (F) Second Final Flow 27  Mileage 89RT 137.95 Comments \_\_\_\_\_  
 (G) Final Shut-In 1279  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2160  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1712.95  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Sub Total 1712.95

Approved By \_\_\_\_\_ Our Representative Cody Bledorn 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.