



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1251566  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1251566

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	Felder 3-13
Doc ID	1251566

Tops

Name	Top	Datum
Anhydrite	1424	800
Heebner	3742	-1518
Lansing	3795	-1571
Base Kansas City	4133	-1909
Pawnee	4264	-2040
Ft. Scott	4290	-2066
Cherokee	4308	-2084
Mississippian	4368	-2144
TD	4384	-2160



## DRILL STEM TEST REPORT

Prepared For: **American Warrior Inc**

PO Box 399  
Garden City, KS 67846

ATTN: Jason Alm

### **Felder #3-13**

### **13-20s-21w Ness,KS**

Start Date: 2015.02.21 @ 20:32:00

End Date: 2015.02.22 @ 03:53:00

Job Ticket #: 62046                      DST #: 1

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

Printed: 2015.02.23 @ 14:18:41



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

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

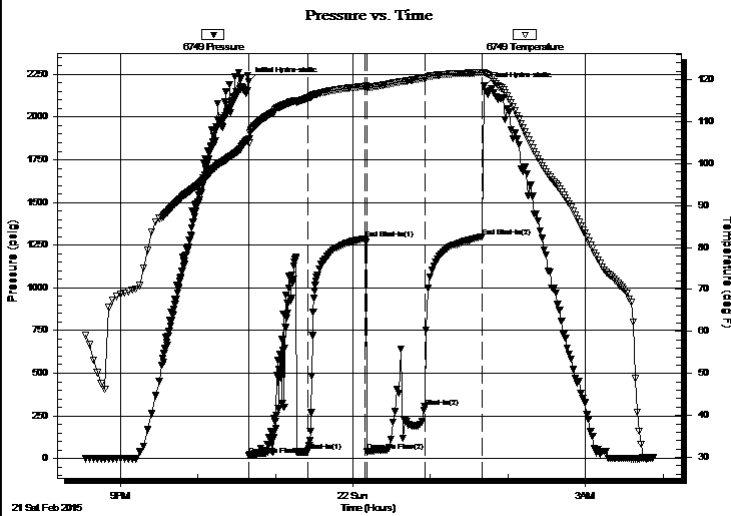
**13-20s-21w Ness, KS**  
**Felder #3-13**  
 Job Ticket: 62046 **DST#: 1**  
 Test Start: 2015.02.21 @ 20:32:00

## GENERAL INFORMATION:

Formation: **Mississippi**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:39:30  
 Time Test Ended: 03:53:00  
 Interval: **4370.00 ft (KB) To 4379.00 ft (KB) (TVD)**  
 Total Depth: 4379.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 58  
 Reference Elevations: 2224.00 ft (KB)  
 2216.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 6749 Inside**  
 Press@RunDepth: 302.87 psig @ 4375.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.02.21 End Date: 2015.02.22 Last Calib.: 2015.02.21  
 Start Time: 20:33:00 End Time: 03:53:00 Time On Btm: 2015.02.21 @ 22:39:10  
 Time Off Btm: 2015.02.22 @ 01:41:30

**TEST COMMENT:** IFP 45 Minutes Weak blow built to 5" with surging  
 ISI 45 Minutes No blow back  
 FFP 45 Minutes Weak blow with surging built to 1/2" - Flush tool good surge - Blow died to surging surface blow  
 FSI 45 Minutes No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2209.66	105.85	Initial Hydro-static
1	20.18	104.81	Open To Flow (1)
46	40.12	115.59	Shut-In(1)
91	1287.88	118.40	End Shut-In(1)
92	41.78	118.10	Open To Flow (2)
137	302.87	120.37	Shut-In(2)
181	1297.53	121.66	End Shut-In(2)
183	2181.14	121.72	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud cut Oil/Mud 10% Oil 90%	0.36
60.00	Oily Mud/Oil 20% Mud 80%	0.84

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

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

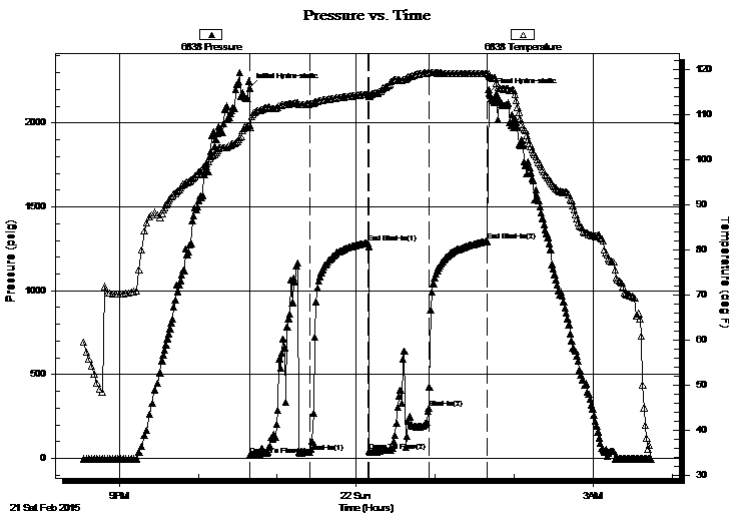
**13-20s-21w Ness, KS**  
**Felder #3-13**  
Job Ticket: 62046 **DST#: 1**  
Test Start: 2015.02.21 @ 20:32:00

## GENERAL INFORMATION:

Formation: **Mississippi**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 22:39:30  
Time Test Ended: 03:53:00  
Interval: **4370.00 ft (KB) To 4379.00 ft (KB) (TVD)**  
Total Depth: 4379.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Ken Swinney  
Unit No: 58  
Reference Elevations: 2224.00 ft (KB)  
2216.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 6838 Outside**  
Press@RunDepth: 1295.18 psig @ 4376.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.02.21 End Date: 2015.02.22 Last Calib.: 1899.12.30  
Start Time: 20:33:00 End Time: 03:44:00 Time On Btm: 2015.02.21 @ 22:39:00  
Time Off Btm: 2015.02.22 @ 01:41:00

**TEST COMMENT:** IFP 45 Minutes Weak blow built to 5" with surging  
ISI 45 Minutes No blow back  
FFP 45 Minutes Weak blow with surging built to 1/2" - Flush tool good surge - Blow died to surging surface blow  
FSI 45 Minutes No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2208.61	107.69	Initial Hydro-static
1	18.69	107.12	Open To Flow (1)
46	37.10	112.33	Shut-In(1)
90	1285.35	114.50	End Shut-In(1)
91	43.99	114.04	Open To Flow (2)
136	300.47	119.23	Shut-In(2)
181	1295.18	119.04	End Shut-In(2)
182	2178.91	118.45	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud cut Oil/Mud 10% Oil 90%	0.36
60.00	Oily Mud/Oil 20% Mud 80%	0.84

## 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

**13-20s-21w Ness, KS**  
**Felder #3-13**  
Job Ticket: 62046 **DST#: 1**  
Test Start: 2015.02.21 @ 20:32:00

**Tool Information**

Drill Pipe:	Length: 4344.00 ft	Diameter: 3.80 inches	Volume: 60.93 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 62000.00 lb
		Total Volume: 61.08 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4370.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	9.00 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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Shut-In Tool	5.00			4348.00	
Hydraulic tool	5.00			4353.00	
Jars	5.00			4358.00	
Safety Joint	2.00			4360.00	
Top Packer	5.00			4365.00	
Packer	5.00			4370.00	27.00 Bottom Of Top Packer
Anchor	4.00			4374.00	
Recorder	1.00	6749	Inside	4375.00	
Recorder	1.00	6838	Outside	4376.00	
Bullnose	3.00			4379.00	9.00 Anchor Tool
<b>Total Tool Length:</b>	<b>36.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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

**13-20s-21w Ness,KS**  
**Felder #3-13**  
Job Ticket: 62046      **DST#: 1**  
Test Start: 2015.02.21 @ 20:32:00

## 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: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5200.00 ppm			
Filter Cake: 1.00 inches			

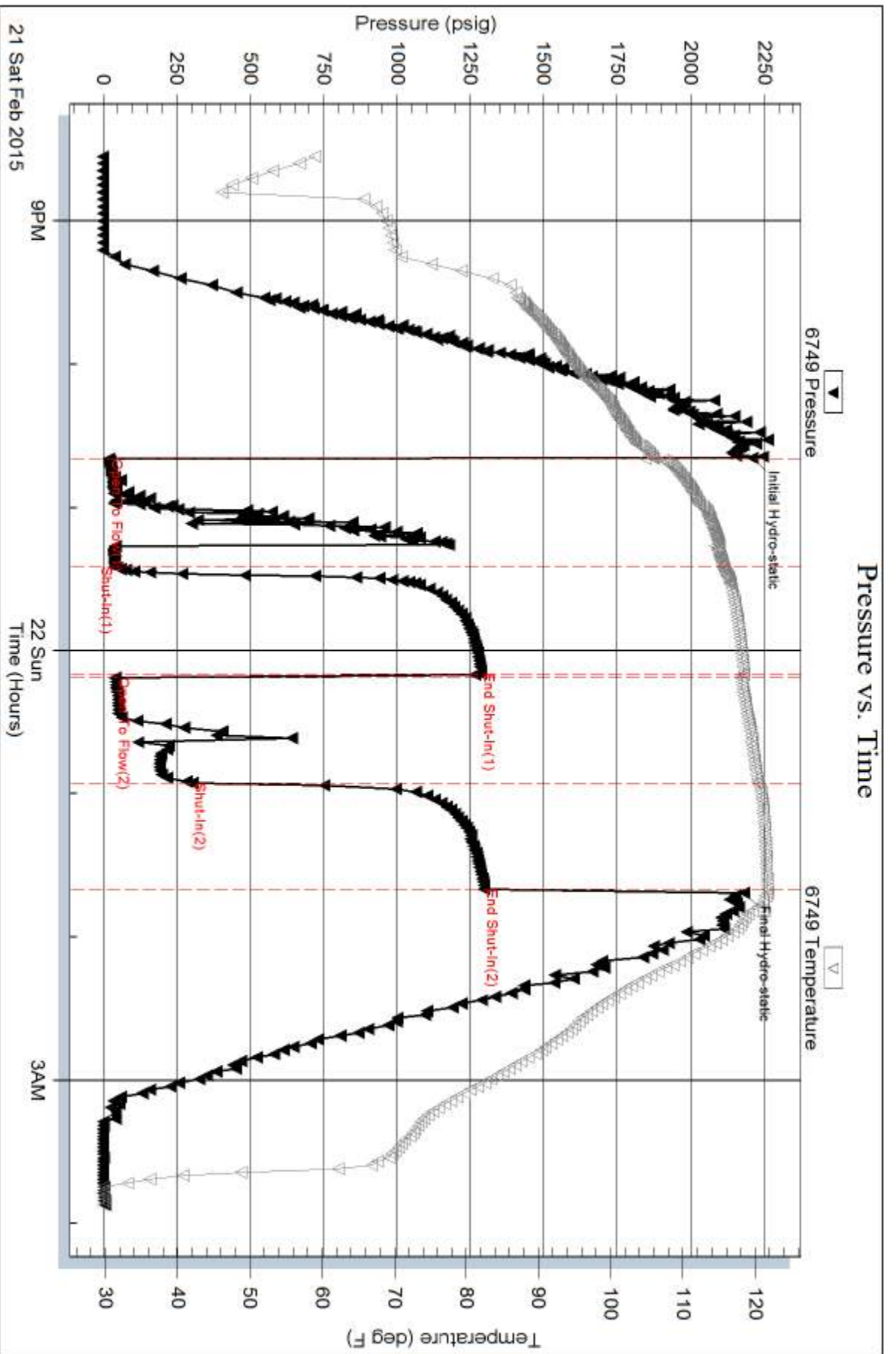
## Recovery Information

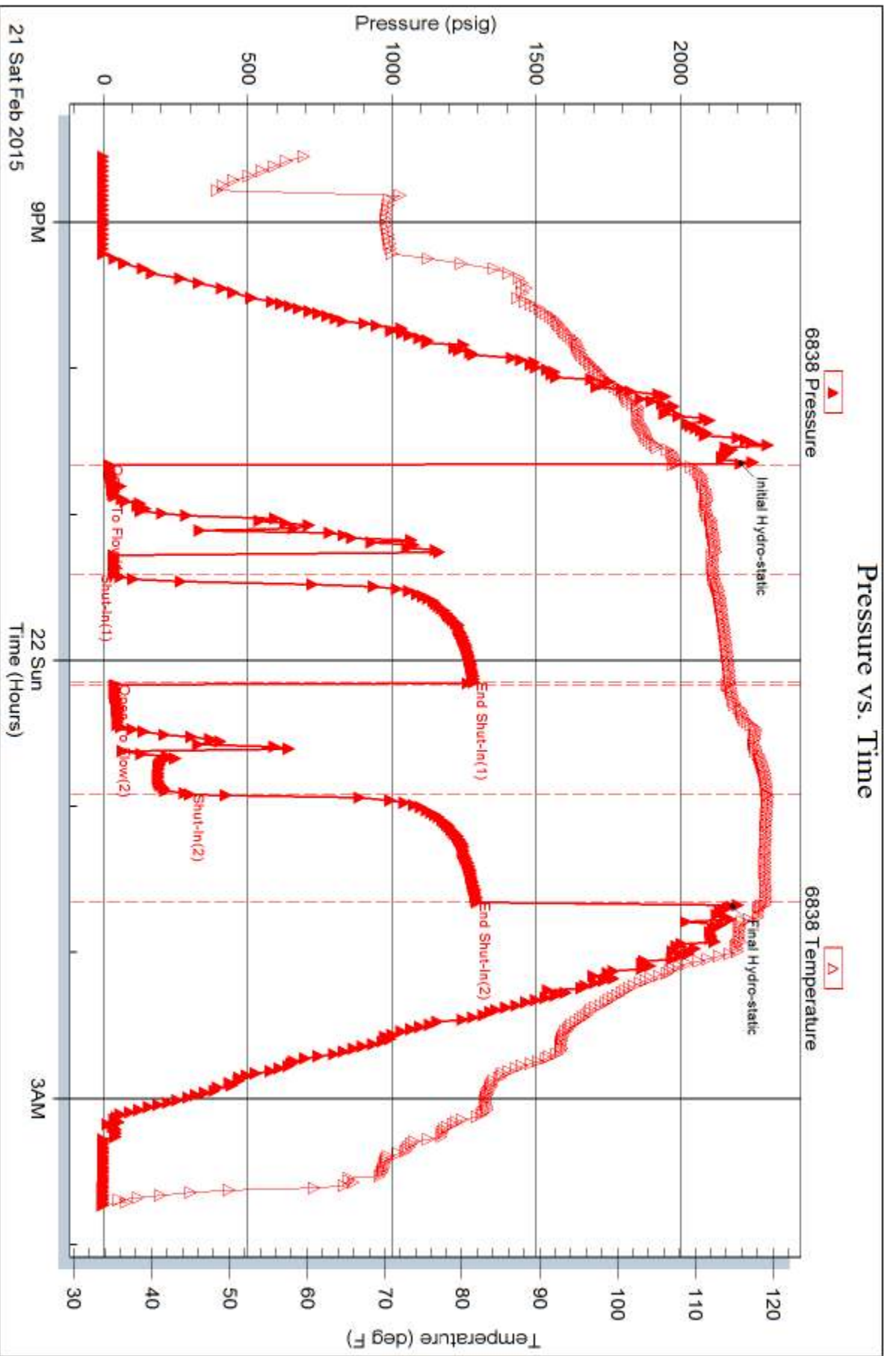
Recovery Table

Length ft	Description	Volume bbl
45.00	Mud cut Oil/Mud 10% Oil 90%	0.358
60.00	Oily Mud/Oil 20% Mud 80%	0.842

Total Length: 105.00 ft      Total Volume: 1.200 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:









# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62046

Well Name & No. Felder #3-13 Test No. 1 Date 21 Feb 15  
 Company American Warrior Incorporated Elevation 2724 KB 2216 GL  
 Address 3118 Cummings Road Garden City Kansas 67846  
 Co. Rep / Geo. Jason Alm Rig Discovery Rig #3  
 Location: Sec. 13 Twp. 20S Rge. 21W Co. Ness State KS

Interval Tested 4370-4379 Zone Tested Mississippi  
 Anchor Length 9 Drill Pipe Run 4345 Mud Wt. 9.25  
 Top Packer Depth 4365 Drill Collars Run 30 Vis 51  
 Bottom Packer Depth 4370 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4379 Chlorides 5200 ppm System LCM 1#

Blow Description Weak blow/ blow built to 5 inches with surging  
No blow back  
Weak blow with light surging/ Flush tool/ strong surge with flush/ Did not increase blow  
Blow died to light surging, surface blow throughout

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>Mud only</u>	<u>90</u>	<u>10</u>	<u>0</u>	<u>0</u>
<u>60</u>	<u>only mud</u>	<u>20</u>	<u>80</u>	<u>0</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 105 BHT 121 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2209  Test 1150 T-On Location 7:35 pm  
 (B) First Initial Flow 20  Jars 250 T-Started 8:32 pm  
 (C) First Final Flow 40  Safety Joint 75 T-Open 10:40 pm  
 (D) Initial Shut-In 1287  Circ Sub \_\_\_\_\_ T-Pulled 1:40 am  
 (E) Second Initial Flow 41  Hourly Standby \_\_\_\_\_ T-Out 3:45 am  
 (F) Second Final Flow 302  Mileage 112 112 Comments \_\_\_\_\_  
 (G) Final Shut-In 1297  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2181  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1587  
 Final Flow 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 45 Sub Total 1587

Approved By Jason T Alm 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.



# Geologic Report

Drilling Time and Sample Log

Operator <b>American Warrior, Inc.</b>		Elevation 2224'	
Lease <b>Felder</b> No. <b>3-13</b>		DF 2216'	
API # <b>15-135-25846-0000</b>		Casing Record Surface	
Field <b>Bernice</b>		8 5/8" @ 220'	
Location <b>1685' FSL &amp; 1465' FEL</b>		Production 5 1/2" @ 4383'	
Sec. <b>13</b> Twp. <b>20s</b> Rge. <b>21w</b>		Electrical Surveys None	
County <b>Ness</b>	State <b>Kansas</b>		

Formation	Log Tops	Sample Tops	Struct Comp
Anhydrite		1424' +800	FL
Base		1453' +771	-1
Heebner		3742' -1518	+5
Lansing		3795' -1571	+4
BKc		4133' -1909	+4
Pawnee		4264' -2040	+3
Fort Scott		4290' -2066	+3
Cherokee		4308' -2084	+4
Mississippian		4368' -2144	+2
<b>Total Depth</b>		<b>4384' -2160</b>	

Reference Well For Structural Comparison American Warrior, Inc. Felder #1-13  
1800' FSL & 560' FEL Sec. 13 T20s R21w Ness Co. Kansas

Drilling Contractor	Discovery Drilling Co. Inc. Rig #3	
Commenced	2-16-2015	Completed 2-22-2015
Samples Saved From	4000'	To RTD
Drilling Time Kept From	3700'	To RTD
Samples Examined From	4000'	To RTD
Geological Supervision From	4000'	To RTD

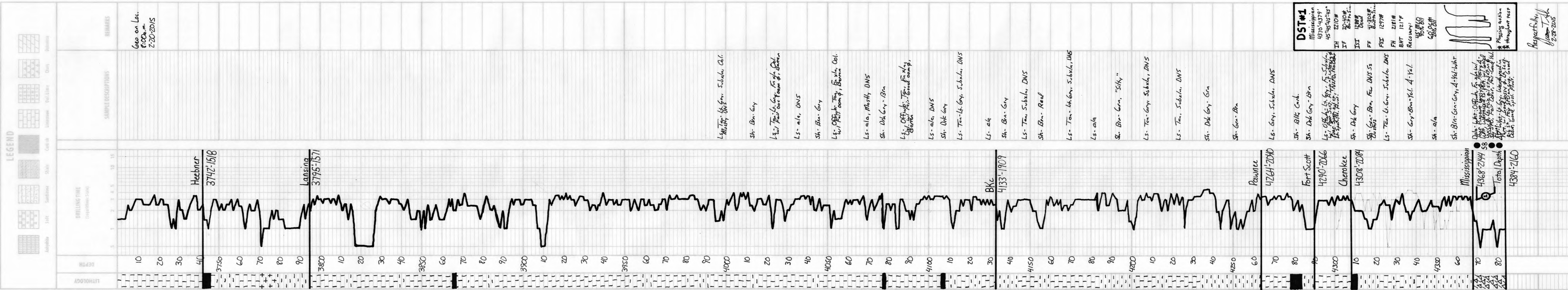
Displacement 3600' Mud Type Chemical

### Summary and Recommendations

The location for the Felder #3-13 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. One Drill Stem Test was conducted which recovered commercial amounts of oil from the Mississippian Osage Formation. After all gathered data had been examined the decision was made to run 5 1/2 inch production casing to further evaluate the Felder #3-13 well.

Respectfully Submitted,

Jason T Alm  
Hard Rock Consulting, Inc.



**DST #1**

Mississippian 4370'-4379'  
45'-45'-45'-45'-45'-45'  
TH 2210 #  
IF 20-40 #  
IS 1288 #  
FF 4-302 #  
FSI 1277 #  
FH 2181 #  
BHT 121 #  
Recovery: 48' M69  
40% BHT  
68% OFI

Plugging action throughout test

Respectfully,  
Jason T Alm  
2-28-2015

# **Geological Report**

American Warrior, Inc.

**Felder #3-13**

1685' FSL & 1465' FEL

Sec. 13 T20s R21w

Ness County, Kansas



**American Warrior, Inc.**

## General Data

Well Data: American Warrior, Inc.  
Felder #3-13  
1685' FSL & 1465' FEL  
Sec. 13 T20s R21w  
Ness County, Kansas  
API # 15-135-25846-0000

Drilling Contractor: Discovery Drilling Rig #3

Geologist: Jason T Alm

Spud Date: February 16, 2015

Completion Date: February 22, 2015

Elevation: 2216' Ground Level  
2224' Kelly Bushing

Directions: Bazine KS, 4 mi East on Hwy 96 to the HH Rd. 8  
mi South to 50 Rd. East 2 mi. to county line, South  
1 ½ mi. West into location.

Casing: 220' 8 5/8" surface casing  
4383' 5 1/2" production casing

Samples: 10' wet and dry, 4000' to RTD

Drilling Time: 3700' to RTD

Electric Logs: None

Drillstem Tests: One, Trilobite Testing, Inc. "Ken Swinney"

Problems: DST #1 had plugging action throughout test.

Remarks: None

## Formation Tops

<b>Formation</b>	<b>American Warrior, Inc.</b>
	<b>Felder #3-13</b>
	<b>Sec. 13 T20s R21w</b>
	<b>1685' FSL &amp; 1465' FEL</b>
Anhydrite	<b>1424', +800</b>
Base	<b>1453', +771</b>
Heebner	<b>3742', -1518</b>
Lansing	<b>3795', -1571</b>
BKc	<b>4133', -1909</b>
Pawnee	<b>4264', -2040</b>
Fort Scott	<b>4290', -2066</b>
Cherokee	<b>4308', -2084</b>
Mississippian	<b>4368', -2144</b>
RTD	<b>4384', -2160</b>

## Sample Zone Descriptions

**Mississippian Osage (4368', -2144):**      **Covered in DST #1**

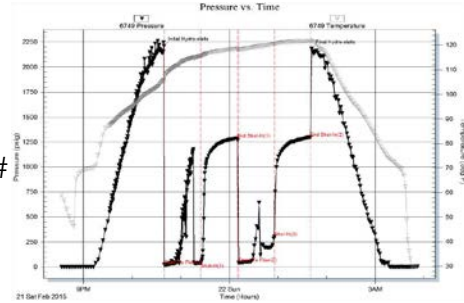
Δ – Dolo – Fine crystalline with poor pinpoint vuggy porosity, heavy white chert, weathered in part. with good vuggy porosity, light to fair oil stain and saturation in porosity, slight to fair show of free oil on cup, fair odor, fair to good yellow fluorescents, 58 units hotwire.

**Drill Stem Tests**  
Trilobite Testing, Inc.  
"Ken Swinney"

**DST #1      Mississippian Osage**

Interval (4370' – 4379') Anchor Length 9'

IHP	– 2210 #	
IFP	– 45" – Built to 5 in.	20-40 #
ISI	– 45" – Dead	1288 #
FFP	– 45" – Built to ½ in.	41-302 #
FSI	– 45" – Dead	1297 #
FHP	– 2181 #	
BHT	– 121°F	



Recovery:	45' MCO	90% Oil
	60' OCM	20% Oil

**Structural Comparison**

	American Warrior, Inc. Felder #3-13 Sec. 13 T20s R21w 1685' FSL & 1465' FEL	American Warrior, Inc. Felder #1-13 Sec. 13 T20s R21w 1800' FSL & 560' FEL		American Warrior, Inc. Felder #2-13 Sec. 13 T20s R21w 335' FSL & 2310' FEL	
<b>Formation</b>					
Anhydrite	<b>1424', +800</b>	1407', +800	<b>FL</b>	1440', +795	<b>(+5)</b>
Base	<b>1453', +771</b>	1435', +772	<b>(-1)</b>	1468', +767	<b>(+4)</b>
Heebner	<b>3742', -1518</b>	3730', -1523	<b>(+5)</b>	3761', -1526	<b>(+8)</b>
Lansing	<b>3795', -1571</b>	3782', -1575	<b>(+4)</b>	3811', -1576	<b>(+5)</b>
BKc	<b>4133', -1909</b>	4112', -1905	<b>(+4)</b>	4155', -1920	<b>(+11)</b>
Pawnee	<b>4264', -2040</b>	4250', -2043	<b>(+3)</b>	4284', -2049	<b>(+9)</b>
Fort Scott	<b>4290', -2066</b>	4276', -2069	<b>(+3)</b>	4312', -2077	<b>(+11)</b>
Cherokee	<b>4308', -2084</b>	4295', -2088	<b>(+4)</b>	4330', -2095	<b>(+11)</b>
Mississippian	<b>4368', -2144</b>	4353', -2146	<b>(+2)</b>	4384', -2149	<b>(+5)</b>



## **Summary**

The location for the Felder #3-13 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. One Drill Stem Test was conducted which recovered commercial amounts of oil from the Mississippian Osage Formation. After all gathered data had been examined the decision was made to run 5 ½ inch production casing to further evaluate the Felder #3-13 well.

## **Recommended Perforations**

**Mississippian Osage**

**(4370' – 4380')**

**DST #1**

Respectfully Submitted,

Jason T Alm  
Hard Rock Consulting, Inc.



Services, Inc.

CHARGE TO: From owner's account  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP CODE: \_\_\_\_\_

TICKET 20116  
 PAGE 1 OF 1

1. SERVICE LOCATIONS <u>Ward, KS</u>	WELL/PROJECT NO. <u>3-13</u>	LEASE <u>FELER</u>	COUNTY/PARISH <u>Neosho</u>	STATE <u>KS</u>	CITY <u>Garfield</u>	DATE <u>11/16/15</u>	OWNER
2. TICKET TYPE <input type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>3</u>	RIG NAME/NO. <u>3</u>	SHIPPED <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	DELIVERED TO <u>Ward, KS</u>	ORDER NO.	WELL PERMIT NO.	WELL LOCATION
3. WELL TYPE <u>2.1</u>	WELL CATEGORY <u>Development</u>	JOB PURPOSE <u>about surface pipe</u>	WELL PERMIT NO.		WELL LOCATION		
4. REFERRAL LOCATION							
INVOICE INSTRUCTIONS							

PRICE SERVICE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE	25	mi			5.00	125.00
576.5					Pump Charge	1	ea			800.00	800.00
325					Standard Cement	150	sk			12.50	1875.00
279					Bentonite gel	3	ea			25.00	75.00
278					calcium chloride	4	ea			20.00	80.00
290					D-Air	2	ea			42.00	84.00
281					Service charge	1	ea			185.00	185.00
582					Drillage (mins)	1	ea			250.00	250.00

**LEGAL TERMS:** Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED: \_\_\_\_\_ TIME SIGNED:  AM  PM

SWIFT OPERATOR: \_\_\_\_\_ APPROVAL: \_\_\_\_\_

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

**REMIT PAYMENT TO:**  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

SURVEY	OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	WE UNDERSTOOD AND MET YOUR NEEDS?	OUR SERVICE WAS PERFORMED WITHOUT DELAY?	WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?	ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND
AGREE	UNDECIDED	DISAGREE	PAGE TOTAL	TAX	TOTAL		
			3556.00				

Thank You!

JOB NOG

SWIFT Services, Inc.

DATE 6-6-15 PAGE NO. 1

CUSTOMER American Warrior

WELL NO. 3-13

LEASE Feldee

JOB TYPE cement port collar

TICKET NO. 28173

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								150 sk STD cement 2" x 1 3/8 CC 8 5/8" x 23" casing 5 joints 220' TD = 221'
	2100							on loc TRK 114
	2130							start 8 5/8" x 23" casing in well
	2150							circulate well
	2200	3 3/4	36				200	mix STD 2 1/2" x 3/8" @ 14.7 ppg
	2215	3 3/4					200	Displace w/ H <sub>2</sub> O
								— cement to surface —
	2221	4	13					Kickout 150 sk mixed cement 20 sk to 7" +
								shot in 8 5/8"
	2230							wash truck
								Rack up
	2250							job complete
								Thanks Flat, Blaine, & Jace



Services, Inc.

CHARGE TO: AMERICAN WORKER INC  
ADDRESS  
CITY, STATE, ZIP CODE

TICKET 27136

PAGE 1 OF

1. SERVICE LOCATIONS HAYS KS	WELL/PROJECT NO. # 3-13	LEASE FELDERZ	COUNTY/PARISH NESS	STATE KS	CITY	DATE 2-22-15	OWNER
2. NESS CITY KS	TICKET TYPE <input type="checkbox"/> SERVICE <input checked="" type="checkbox"/> SALES	CONTRACTOR DISCOVERY Drilling	RIG NAME NO. RIG 3	SHIPPED VIA	DELIVERED TO LOCATION	ORDER NO.	
	WELL TYPE D11	WELL CATEGORY DEVELOPMENT	JOB PURPOSE CUT LONG STRINGS		WELL PERMIT NO.	WELL LOCATION	
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DE							
575					MILEAGE 111	25	mi			5.00	125.00
578					PUMP CHARGE - LONG STRING	1	EA			1280.00	1280.00
290					D-AIR	2	GM			42.00	84.00
281					KCL	2	GM			25.00	50.00
402					MUDFLUSH	500	GM			1.25	625.00
403					CENTRALICE	5	EA		5 1/2 in	60.00	300.00
404					CMT BASKET	2	EA		5 1/2 in	250.00	500.00
406					PORET COLLAR	1	EA		5 1/2 in	2500.00	2500.00
407					LATCH DOWN BUSH & BRACELE	1	EA		5 1/2 in	225.00	225.00
					INSERT FLOAT SHOE	1	EA		5 1/2 in	300.00	300.00

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MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED: 2-22-15  
TIME SIGNED: 4:15  
P.M.

**REMIT PAYMENT TO:**  
SWIFT SERVICES, INC.  
P.O. BOX 466  
NESS CITY, KS 67560  
785-798-2300

<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND	<input type="checkbox"/> YES	<input type="checkbox"/> NO	PAGE TOTAL	5958.00
SURVEY OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? WE UNDERSTOOD AND MET YOUR NEEDS? OUR SERVICE WAS PERFORMED WITHOUT DELAY? WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? ARE YOU SATISFIED WITH OUR SERVICE?			TAX	4152.00
			TOTAL	10162.00



PO Box 466  
Ness City, KS 67560  
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 2713L

CUSTOMER  
American Warrior Inc

WHEEL  
Felder # 3-13

DATE  
8-22-15

PAGE 9 OF 25

PRICE REFERENCE	SECONDARY REFERENCE/PART NUMBER	LOC	ACCT	DEB	TIME	DESCRIPTION	QTY		U/M		UNIT PRICE	AMOUNT
							QTY	U/M	QTY	U/M		

325						Standard Cart	125	sks			12	95	2143	75
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276						Flucle	50	lbs	1/4	SK	2	25	112	50
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283						SMIT	950	lbs	10	P/O		80	190	00
-----	--	--	--	--	--	------	-----	-----	----	-----	--	----	-----	----

284						Calscan	9	sks	5	P/O	30	60	270	00
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292						Hold 322	135	lbs	3/4	%	8	00	1000	00
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581						SERVICE CHARGE	125	sks			1	80	262	80
583						WILGAGE CHARGE	184	75			25	75	173	25

CONTINUATION TOTAL **4152.00**

JOB LOG

SWIFT Services, Inc.

CUSTOMER AMERICAN MANHOOD INC	WELL NO. 3-13	LEASE Felder	JOB TYPE LONG STRING	TICKET NO. 27136
----------------------------------	------------------	-----------------	-------------------------	---------------------

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1130							On location - <del>at well</del> w/ FE RTD - 4354 Pipe tally - 4371 5 1/2 x 15.5 Shoe Joint - 38' Centralizers 1, 2, 3, 4, 75 Baskets - 5, 76 PC - 76 @ 1358
	1215							START FLOAT Equip
	1215							Break circulation
	1455	2	7/5				0	Aug Lat + Mouse hole - 34/20 EA2
	1505		0				200	START 500 GAL MUD FLUSH
			12				200	START 80 BBL KCl FLUSH
	1510		32/0				200	START 135 SKS EA-2
	1517		30				200	End CMT
	<del>1525</del>							use pumping line / Drop plug
	1525	6	0				0	START Disp
		5	75				0/200	Catch CMT
	1555	5	103				700/1500	land plug release psi Float held
<p>THANKS DAVID, NICK, AUSTIN, CRAIG</p>								



CHARGE TO: American Warrior  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP CODE: \_\_\_\_\_

TICKET 28234  
 PAGE 1 OF 1

SERVICE LOCATIONS: 110th & KS WELL PROJECT NO.: 3-13 LEASE: Felder COUNTY/PARISH: Nue STATE: KS CITY: Bazine DATE: 07 Feb 15 OWNER: \_\_\_\_\_  
 2. TICKET TYPE:  SERVICE  SALES CONTRACTOR: \_\_\_\_\_ RIG NAME/NO.: \_\_\_\_\_ SHIPPED VIA: \_\_\_\_\_ DELIVERED TO: \_\_\_\_\_ ORDER NO.: \_\_\_\_\_  
 3. WELL TYPE: H-D WELL CATEGORY: Development JOB PURPOSE: count prod roller WELL PERMIT NO.: \_\_\_\_\_ WELL LOCATION: \_\_\_\_\_  
 4. REFERRAL LOCATION: \_\_\_\_\_ INVOICE INSTRUCTIONS: \_\_\_\_\_

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		DESCRIPTION	MILEAGE	QTY.	UN- DECIDED	DIS- AGREE	UNIT PRICE	AMOUNT
		LOC	ACCT							
575					TRK 114	25 mi			5.00	125.00
576D					Pump Charge	100			1250.00	1250.00
330					SM Cement	110 SK			15.75	1732.50
076					Fluore	25 lb			2.25	56.25
290					D-air	2 gal			42.00	84.00
104					Ret collar opening tool	100			200.00	200.00
581					Service charge	175 SK			1.50	262.50
582					Drayage (min)	12			20.00	240.00

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 MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS  
 X Scott  
 DATE SIGNED: \_\_\_\_\_ TIME SIGNED: \_\_\_\_\_  
 A.M.  P.M.

REMIT PAYMENT TO:  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UN-DECIDED	DIS-AGREE
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	

CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL: 3960.25  
 TAX: 6.15%  
 TOTAL: 4087.72

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES: \_\_\_\_\_ APPROVAL: NSM  
 SWIFT OPERATOR: \_\_\_\_\_  
 Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 27 Feb 15 PAGE NO.

CUSTOMER American Warrior WELL NO. 3-13 LEASE Farker JOB TYPE cement port collar TICKET NO. 28234

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								175 sk SMD cement w/ 1/2" # floccule 2 3/4" port collar @ 1388'
	0930							on bc TRK 114
	1008					1000	1000	test to 1000psi - held open port collar
		3 1/2	2			500		inj rate 3bpm @ 500psi
		3 1/2				400		mix SMD cement @ 11.2 ppg
	1030	3 1/2	59			450		— cement to surface — { 110 sk mixed 15 ppg }
		3 1/2	5			450		Displace w/ 5661 H <sub>2</sub> O close port collar — test - rubber sealing - no blows on hoses cementaire confident that — tool has closed —
	1043							Run 5 joints
	1053		25					Reverse hole clean - - 2 cement plugs - pull tool wash truck
	1125							Pick up job complete Flt. Plin. 200