

Confidentiality Requested:

Yes  No

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

**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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Recompletion Date \_\_\_\_\_ Date Reached TD \_\_\_\_\_ Completion Date or Recompletion Date \_\_\_\_\_

API No.: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	ZIMMERMAN-RUDZIK UNIT 1-19
Doc ID	1704410

Tops

Name	Top	Datum
Anhydrite	1683	744
Base	1713	714
Heebner	3996	-1569
Lansing	4051	-1624
BKC	4403	-1976
Marmaton	4447	-2020
Fort Scott	4596	-2169
Cherokee	4622	-2195
Cherokee Sand	4690	-2263
RTD	4715	2288





TICKET 35009

CHARGE TO: *American Warrior Inc*  
 ADDRESS  
 CITY, STATE, ZIP CODE

PAGE 1 OF 1

SERVICE LOCATIONS:  
 1. *Ness City*  
 2. *1-19*  
 3. *Discreet Drilling*  
 4. *Development*

WELL/PROJECT NO. *2100000-Nedzik*  
 LEASE *Bladon*  
 COUNTY/PARISH *Bladon*  
 RIG NAME/NO.  
 STATE *KS*  
 CITY *location*

TICKET TYPE  SERVICE  SALES  
 WELL TYPE *011*  
 WELL CATEGORY *Development*  
 JOB PURPOSE *Surface*  
 WELL PERMIT NO. *858"*

INVOICE INSTRUCTIONS  
 WELL LOCATION *50 more, 3-W*  
*E-logs*

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY. U/M			UNIT PRICE	AMOUNT
575					MILEAGE <i>Truck 112</i>	30	mi		8.00	240.00
5765					<i>pump charge (surface)</i>	1	job		1200.00	1200.00
325					<i>STD cement</i>	150	SK		16.00	2400.00
279					<i>Antacite cel</i>	30	SK		50.00	1500.00
278					<i>Coleman Chloride</i>	7	SK		55.00	385.00
290					<i>0-Air</i>	2	gal		42.00	84.00
581					<i>CMT Service Charge</i>	150	SK		2.00	300.00
582					<i>Min. Drayage</i>	14250	lbs		2.21	350.00

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.  
 X  
 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?

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?  YES  NO

CUSTOMER DID NOT WISH TO RESPOND

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

SWIFT OPERATOR *Forster* APPROVAL *[Signature]*

TOTAL 5109.00

5355 43

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE	PAGE NO.
2-13-23	1
TICKET NO.	
35009	

CUSTOMER	WELL NO.	LEASE	JOB TYPE
American Water Inc.	1-19	Zimmerman-Rudzik	Surface

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	12:45							ON location 8 5/8" Surface 221'
	13:05							circulate
	13:10		5		✓			1/20 spacer
	13:15	4	36		✓	100		mix 150 SK @ 14.7 ppg.
		4	0		✓	100		start displacement
		4	7		✓	180		cont to surface
	13:30		13		✓			shut valve & Release psi
	13:35							Wash pump truck
	14:00							Job Complete Thanks! Preston, Kirby, Tyler
								150 SKS STD, 2% gel, 3% CC used 20 SKS to pit





CHARGE TO: *Johnson Blair Inc*  
 ADDRESS  
 CITY, STATE, ZIP CODE

TICKET  
 35012

PAGE 1 OF 1

SERVICE LOCATIONS

1. *Ness City* WELL/PROJECT NO. *1-119* LEASE *2000001-11.15* COUNTY/PARISH *Hibouren* STATE *LA* CITY *155* DATE *02-20-03* OWNER

2. TICKET TYPE  SERVICE  SALES CONTRACTOR *Blair* RIG NAME/NO. *117A* SHIPPED VIA *at location* DELIVERED TO

3. WELL TYPE *oil* WELL CATEGORY *Production* JOB PURPOSE *117A* WELL PERMIT NO.

4. REFERRAL LOCATION INVOICE INSTRUCTIONS WELL LOCATION *5-400-24*

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
575												
576P					Track 112	30	mi.				8.00	240.00
324-4					ump charge (101)	1	hr.				1200.00	1200.00
276					60/hr gas (6000)	220	sk				13.00	2860.00
290					Flare	53	hr				4.00	212.00
581					D-4r	2	gal				43.00	84.00
582					1007 service charge	200	sk				2.00	400.00
					Min. Payage	16469	hrs				272.00	3500.00

**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 \_\_\_\_\_  
 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?  YES  NO

WE UNDERSTOOD AND MET YOUR NEEDS?  YES  NO

OUR SERVICE WAS PERFORMED WITHOUT DELAY?  YES  NO

WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?  YES  NO

ARE YOU SATISFIED WITH OUR SERVICE?  YES  NO

PAGE TOTAL *5399.00*

TAX \_\_\_\_\_

TOTAL \_\_\_\_\_

WIFT OPERATOR *P. Blair* CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket. APPROVAL \_\_\_\_\_

Thank You!



JOB LOG

SWIFT Services, Inc.

DATE 2-20-23	PAGE NO. 1
TICKET NO. 35012	

CUSTOMER American Water Jct	WELL NO. 1-19	LEASE Zion - R-118	JOB TYPE PTA
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CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	04:45							ON location Re laty plug through drill pipe
		4	10	✓		200		1120 spacer
	06:10	4	13	✓		200		1 <sup>st</sup> plug @ 1710' 50 SKS displace CMT
		4	8	✓		200		2 <sup>nd</sup> plug @ 810'
		4	13	✓		200		1120 spacer mix 50 SKS displace CMT
		4	5	✓		200		3 <sup>rd</sup> plug @ 270'
	07:25	4	13	✓		200		1120 spacer mix 50 SKS displace CMT
		4	2	✓		200		4 <sup>th</sup> plug @ 60'
	8:30							1120 spacer mix 20 SKS <del>displace</del>
	8:45		13					plug AH + mtl (30,00)
	9:00							Wash pump truck
	9:30							Job Complete Thanks! Dustin, Mike, Brent 220 SKS used





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

American Warrior, Inc.  
PO Box 399  
Garden City, Ks 67846  
ATTN: Jason T Alm

**19 22s 23w Hodgeman Ks**

**Zimmerman-Rudzik1-19**

Job Ticket: 69475 **DST#: 1**

Test Start: 2023.02.19 @ 00:34:00

## GENERAL INFORMATION:

Formation: **Cherokee Sand**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 03:20:15  
 Time Test Ended: 08:55:15  
 Interval: **4642.00 ft (KB) To 4705.00 ft (KB) (TVD)**  
 Total Depth: 4705.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Bradley Walter  
 Unit No: 78  
 Reference Elevations: 2427.00 ft (KB)  
 2419.00 ft (CF)  
 KB to GR/CF: 8.00 ft

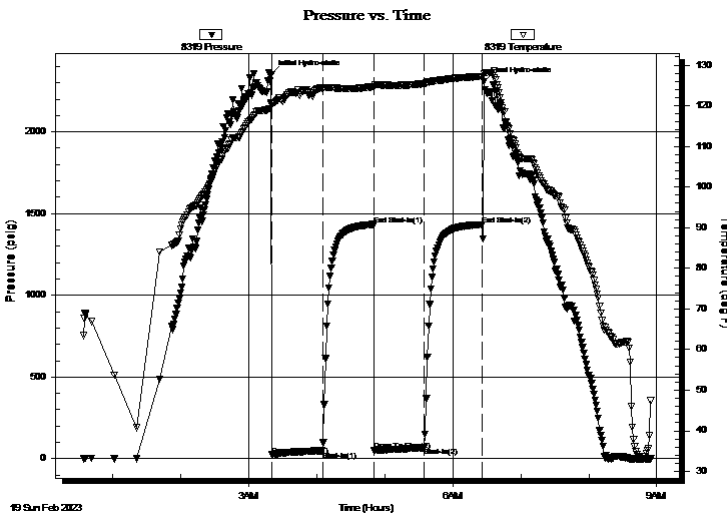
## Serial #: 8319

Inside

Press@RunDepth: 66.88 psig @ 4643.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2023.02.19 End Date: 2023.02.19 Last Calib.: 2023.02.19  
 Start Time: 00:34:05 End Time: 08:55:14 Time On Btm: 2023.02.19 @ 03:19:45  
 Time Off Btm: 2023.02.19 @ 06:27:30

TEST COMMENT: IF: 3.3" blow .  
 IS: No return.  
 FF: 2.5" blow .  
 FS: No return. 45-45-45-45

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2353.20	120.66	Initial Hydro-static
1	23.92	120.36	Open To Flow (1)
45	48.47	124.26	Shut-In(1)
91	1428.85	124.80	End Shut-In(1)
91	51.71	124.42	Open To Flow (2)
135	66.88	125.42	Shut-In(2)
186	1433.00	127.23	End Shut-In(2)
188	2309.66	127.83	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
100.00	Mud 100m	1.13

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Warrior, Inc.

**19 22s 23w Hodgeman Ks**

PO Box 399  
Garden City, Ks 67846

**Zimmerman-Rudzik1-19**

Job Ticket: 69475      **DST#: 1**

ATTN: Jason T Alm

Test Start: 2023.02.19 @ 00:34:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 7500.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

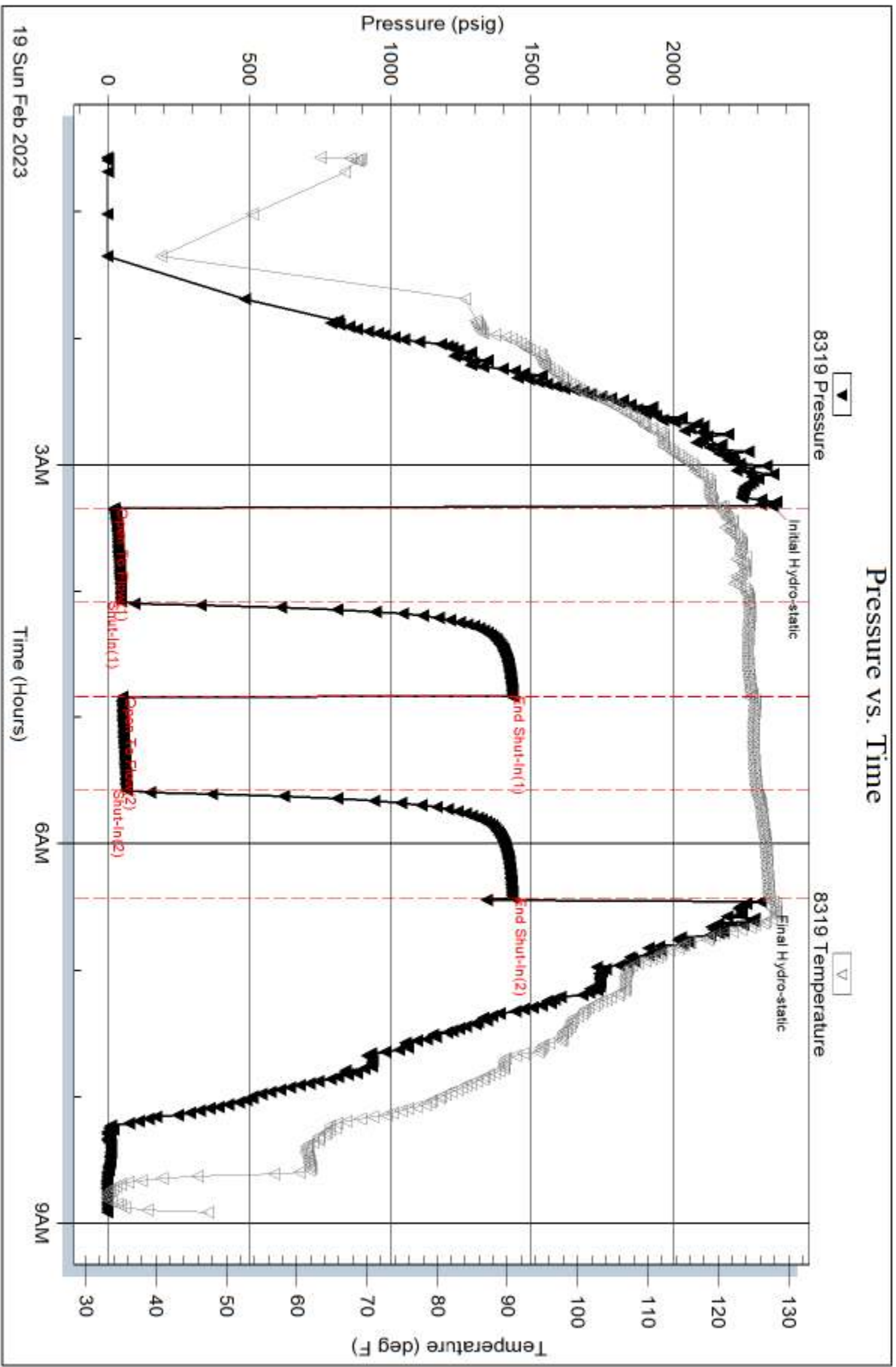
Length ft	Description	Volume bbl
100.00	Mud 100m	1.129

Total Length: 100.00 ft      Total Volume: 1.129 bbl

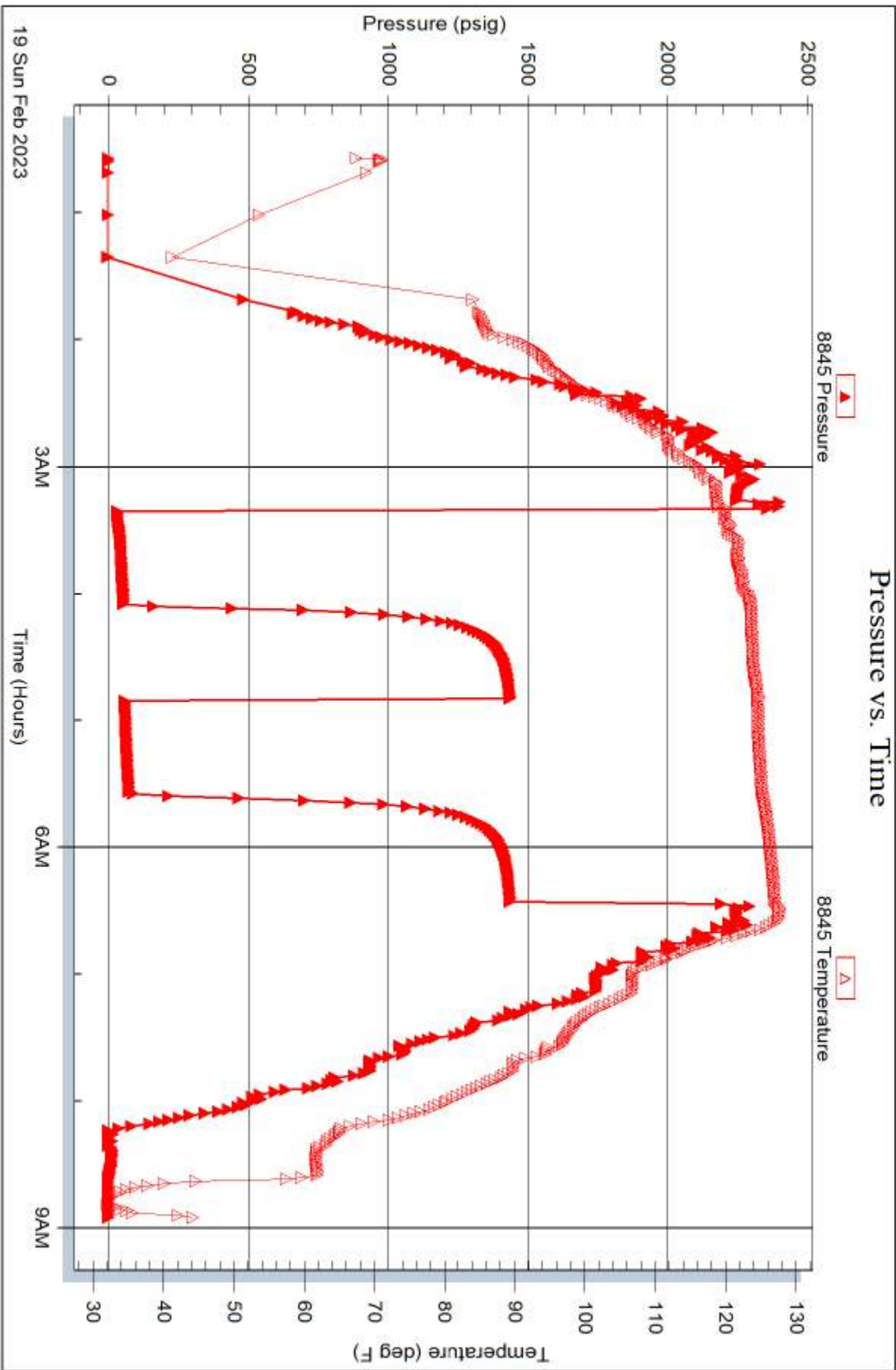
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:









**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

American Warrior, Inc.  
PO Box 399  
Garden City, Ks 67846  
ATTN: Jason T Alm

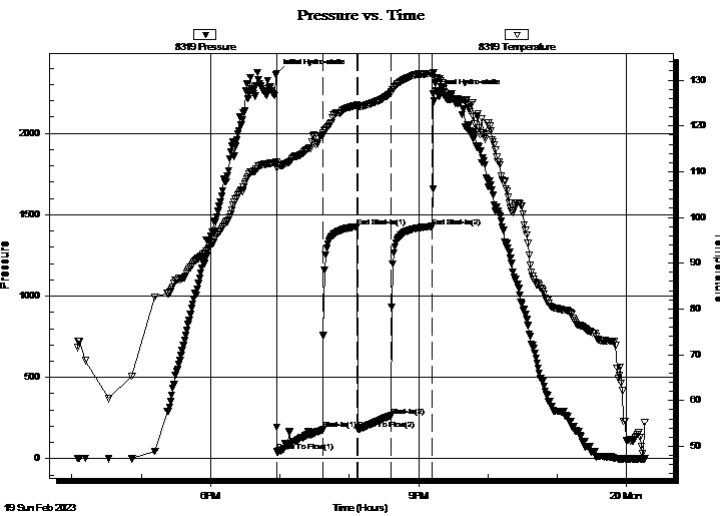
**19 22s 23w Hodgeman Ks**  
**Zimmerman-Rudzik1-19**  
Job Ticket: 70251 **DST#: 2**  
Test Start: 2023.02.19 @ 16:05:00

## GENERAL INFORMATION:

Formation: **Cherokee Sand**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 18:57:45  
Time Test Ended: 00:15:30  
Interval: **4641.00 ft (KB) To 4715.00 ft (KB) (TVD)**  
Total Depth: 4715.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 78  
Reference Elevations: 2427.00 ft (KB)  
2419.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8319 Inside**  
Press@RunDepth: 264.52 psig @ 4642.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2023.02.19 End Date: 2023.02.20 Last Calib.: 2023.02.20  
Start Time: 16:05:05 End Time: 00:15:29 Time On Btm: 2023.02.19 @ 18:57:15  
Time Off Btm: 2023.02.19 @ 21:12:45

TEST COMMENT: IF: 19 1/2" blow .  
IS: No return.  
FF: 15" blow .  
FS: No return. 30-30-30-30



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2369.18	112.08	Initial Hydro-static
1	43.83	111.51	Open To Flow (1)
40	178.78	117.99	Shut-In(1)
70	1426.35	124.51	End Shut-In(1)
70	179.47	124.21	Open To Flow (2)
99	264.52	127.16	Shut-In(2)
135	1428.37	131.46	End Shut-In(2)
136	2243.57	131.68	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
530.00	mcw 20m 80w	7.16

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Warrior, Inc.

**19 22s 23w Hodgeman Ks**

PO Box 399  
Garden City, Ks 67846

**Zimmerman-Rudzik1-19**

Job Ticket: 70251

**DST#: 2**

ATTN: Jason T Alm

Test Start: 2023.02.19 @ 16:05:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

41000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 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
530.00	mchw 20m 80w	7.161

Total Length: 530.00 ft      Total Volume: 7.161 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

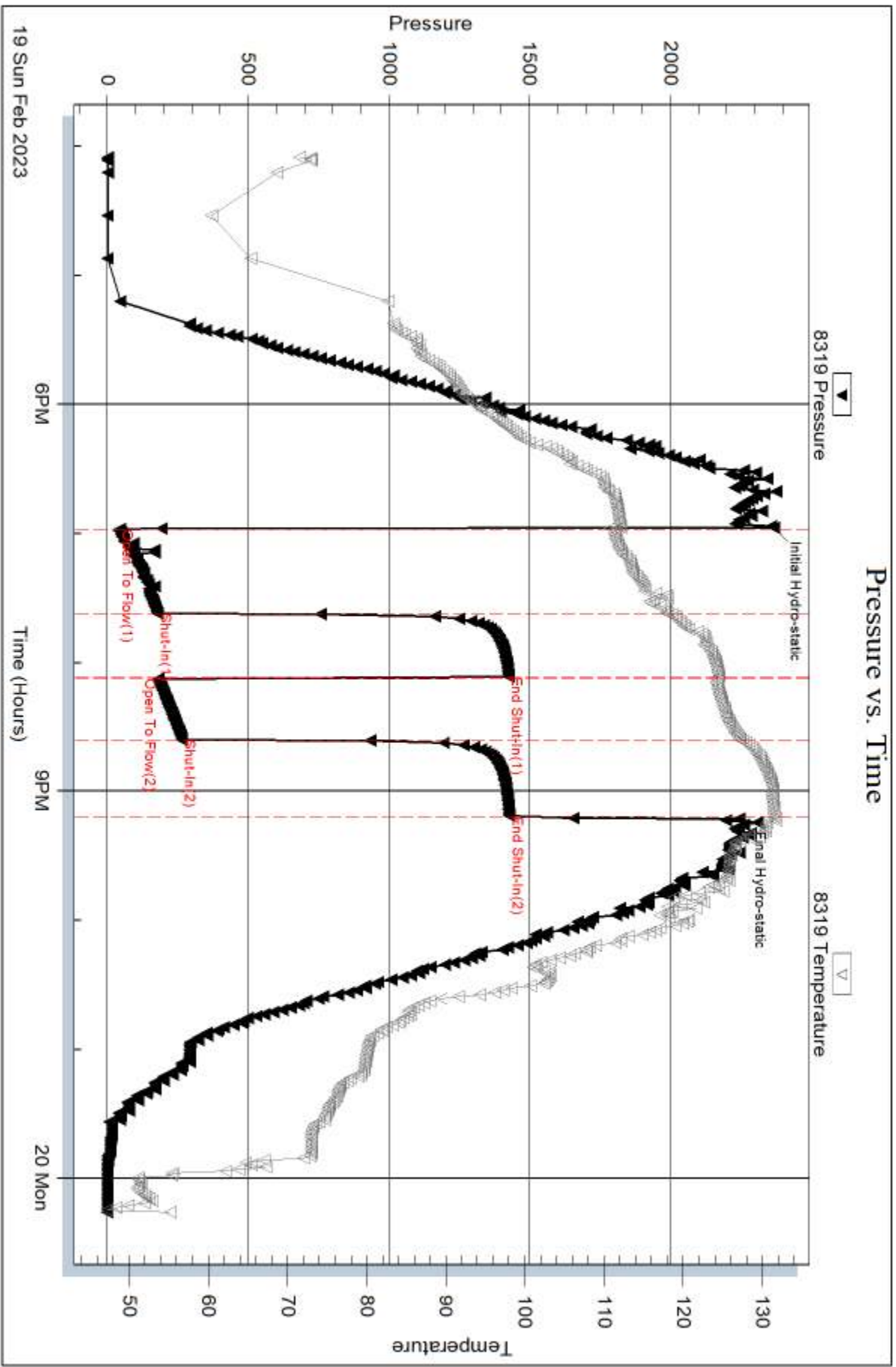
Serial #:

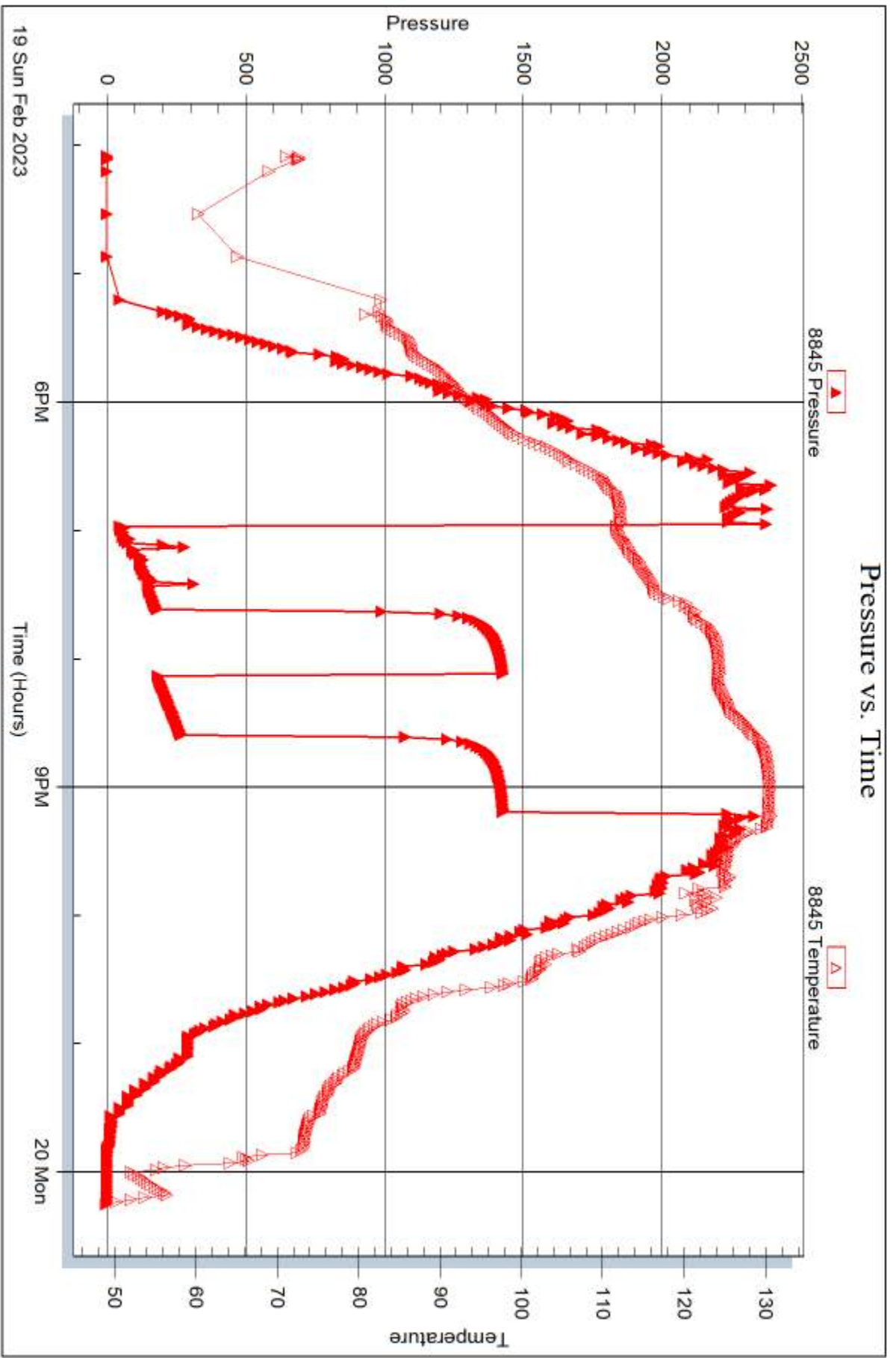
Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .22 @ 58f = 41,000ppm







# **Geological Report**

## **Zimmerman-Rudzik Unit #1-19**

2403' FNL & 1486' FWL

Sec. 19 T22s R23w

Hodgeman County, Kansas



**American Warrior, Inc.**

## General Data

Well Data: American Warrior, Inc.  
Zimmerman-Rudzik Unit #1-19  
2403' FNL & 1486' FWL  
Sec. 19 T22s R23w  
Hodgeman County, Kansas  
API # 15-083-22024-0000

Drilling Contractor: Discovery Drilling Co. Inc. Rig #2

Geologist: Jason T Alm

Spud Date: February 13, 2023

Completion Date: February 20, 2023

Elevation: 2419' Ground Level  
2427' Kelly Bushing

Directions: Jetmore KS, 3 mi north, East and south into location

Casing: 221' 8 5/8" surface casing

Samples: Kelly down wet and dry 3900' to 4400'  
10' wet and dry 4400' to RTD

Drilling Time: 3800' to RTD

Electric Logs: None

Drillstem Tests: Two, Trilobite Testing, Inc. "Bradley Walter"

Problems: Twisted off drill collar @ 3128'

Remarks: None



## Formation Tops

	<b>American Warrior, Inc.</b> <b>Zimmerman-Rudzik Unit #1-19</b> Sec. 19 T22s R23w 2403' FNL & 1486' FWL
<b>Formation</b>	
Anhydrite	<b>1683' +744</b>
Base	<b>1713' +714</b>
Heebner	<b>3996' -1569</b>
Lansing	<b>4051' -1624</b>
BKC	<b>4403' -1976</b>
Marmaton	<b>4447' -2020</b>
Fort Scott	<b>4596' -2169</b>
Cherokee	<b>4622' -2195</b>
Cherokee Sand	<b>4690' -2263</b>
RTD	<b>4715' -2288</b>

## Sample Zone Descriptions

**Cherokee Sand (4690', -2263):**      **Covered in DST #1, 2**  
 Ss – Quartz, clear, fine to coarse grained, sub-angular, fairly sorted, fair to poor cement with fair to good inter-granular porosity, light oil stain in cluster, slight show of free oil, light odor, many random grains, fair yellow fluorescents, much glauconite, chert – white to clear, 25-30 Gas Units.

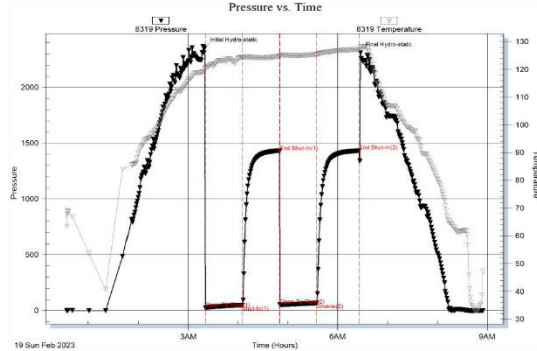
## Drill Stem Tests

Trilobite Testing, Inc.  
"Bradley Walter"

### DST #1 Cherokee Sand

Interval (4642' – 4705') Anchor Length 63'

IHP – 2353 #  
IFP – 45" – Built to 3.3 in. 23-48 #  
ISI – 45" – Dead 1428 #  
FFP – 45" – Built to 2.5 in. 51-66 #  
FSI – 45" – Dead 1433 #  
FHP – 2309 #  
BHT – 126°F

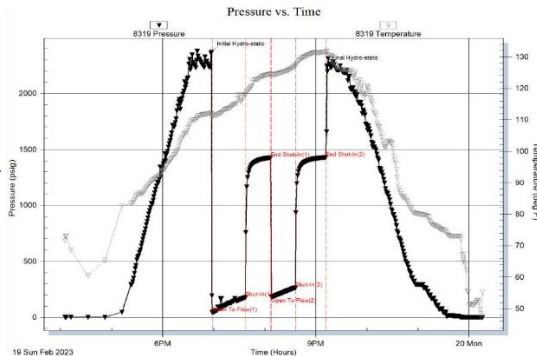


Recovery: 100' Mud

### DST #2 Cherokee Sand

Interval (4641' – 4715') Anchor Length 74'

IHP – 2369 #  
IFP – 30" – B.O.B. 12 min. 43-179 #  
ISI – 30" – Dead 1426 #  
FFP – 30" – B.O.B. 20 min. 179-265 #  
FSI – 30" – Dead 1428 #  
FHP – 2244 #  
BHT – 131°F



Recovery: 530' Muddy Water

## Structural Comparison

	American Warrior, Inc. Zimmerman-Rudzik Unit #1-19 Sec. 19 T22s R23w 2403' FNL & 1486' FWL	Edminston Oil Co. Craighead #3 Sec. 19 T22s R23w SE SW NW		American Warrior, Inc. W. Bradshaw #1-24 Sec. 24 T22s R24w 1600' FNL & 650' FEL	
<b>Formation</b>					
Anhydrite	1683' +744	NA	NA	(+740)	-4
Base	1713' +714	NA	NA	(+709)	(+5)
Heebner	3996' -1569	-1569	FL	-1576	(+7)
Lansing	4051' -1624	-1625	(+1)	-1630	(+6)
BKC	4403' -1976	-1987	(+11)	NA	NA
Marmaton	4447' -2020	-2033	(+13)	-2034	(+14)
Fort Scott	4596' -2169	-2183	(+14)	-2182	(+13)
Cherokee	4622' -2195	-2207	(+12)	-2207	(+12)
Cherokee Sand	4690' -2263	-2267	(+4)	-2271	(+8)

## **Summary**

The location for the Zimmerman-Rudzik Unit #1-19 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. Two Drill Stem Tests were conducted, both were negative. After all gathered data had been examined the decision was made to plug and abandon the Zimmerman-Rudzik Unit #1-19 well.

Respectfully Submitted,

Jason T Alm  
Hard Rock Consulting, Inc.  
AAPG #10134582