

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 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](mailto: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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## DRILL STEM TEST REPORT

Prepared For: **Thomas Garner**

305 E 7th Ave  
St. John, KS 67576

ATTN: Keith

**Carl #1**

**8-24s-13w Stafford,KS**

Start Date: 2021.09.25 @ 05:31:00

End Date: 2021.09.25 @ 14:19:02

Job Ticket #: 67628                      DST #: 1

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

Printed: 2021.09.29 @ 09:27:06

Thomas Garner 8-24s-13w Stafford,KS Carl #1 DST #1 LKC I-J 2021.09.25





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Thomas Garner  
305 E 7th Ave  
St. John, KS 67576  
ATTN: Keith

**8-24s-13w Stafford, KS**

**Carl #1**

Job Ticket: 67628

**DST#: 1**

Test Start: 2021.09.25 @ 05:31:00

## GENERAL INFORMATION:

Formation: **LKC I-J**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 09:07:02  
 Time Test Ended: 14:19:02  
 Interval: **3716.00 ft (KB) To 3752.00 ft (KB) (TVD)**  
 Total Depth: 3752.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Chris Hagman  
 Unit No: 69  
 Reference Elevations: 1932.00 ft (KB)  
 1921.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 6751**

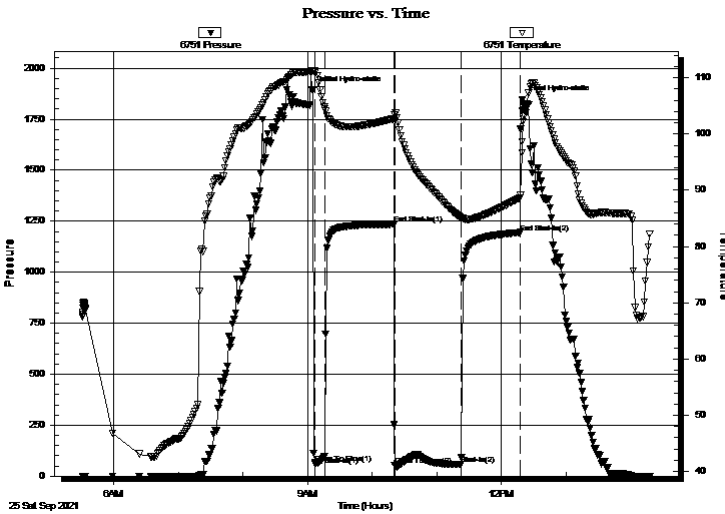
**Outside**

Press@RunDepth: 57.38 psig @ 3720.00 ft (KB)  
 Start Date: 2021.09.25 End Date: 2021.09.25  
 Start Time: 05:31:01 End Time: 14:19:02

Capacity: psig  
 Last Calib.: 2021.09.25  
 Time On Btm: 2021.09.25 @ 09:04:32  
 Time Off Btm: 2021.09.25 @ 12:19:32

TEST COMMENT: IF: BOB ASAO, strong building blow  
 IS: No blow back  
 FF: BOB GTS ASAO, strong blow  
 FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1890.40	111.19	Initial Hydro-static
3	64.12	111.29	Open To Flow (1)
12	98.46	104.46	Shut-In(1)
76	1235.07	102.75	End Shut-In(1)
77	51.62	103.48	Open To Flow (2)
139	57.38	85.14	Shut-In(2)
193	1194.91	88.67	End Shut-In(2)
195	1843.63	98.63	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	GM 10%G, 90%M	0.05
0.00	GTS	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)
First Gas Rate	0.25	57.61	0.11
Last Gas Rate	0.38	38.36	0.19
Max. Gas Rate	0.25	87.20	0.16





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67628

**DST#: 1**

ATTN: Keith

Test Start: 2021.09.25 @ 05:31:00

## Tool Information

Drill Pipe:	Length: 3505.00 ft	Diameter: 3.80 inches	Volume: 49.17 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 50.08 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	63000.00 lb
Depth to Top Packer:	3716.00 ft			Final	63000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	36.00 ft				
Tool Length:	65.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3692.00	
Hydraulic tool	5.00			3697.00	
EM tool	3.00			3700.00	
Jars	5.00			3705.00	
Safety Joint	2.00			3707.00	
Packer	5.00			3712.00	29.00 Bottom Of Top Packer
Packer	4.00			3716.00	
Stubb	1.00			3717.00	
Perforations	3.00			3720.00	
Recorder	0.00	8672	Inside	3720.00	
Recorder	0.00	6751	Outside	3720.00	
Perforations	29.00			3749.00	
Bullnose	3.00			3752.00	36.00 Bottom Packers & Anchor

**Total Tool Length: 65.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67628

**DST#: 1**

ATTN: Keith

Test Start: 2021.09.25 @ 05:31:00

## 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3900.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	GM 10%G, 90%M	0.049
0.00	GTS	0.000

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67628

**DST#: 1**

ATTN: Keith

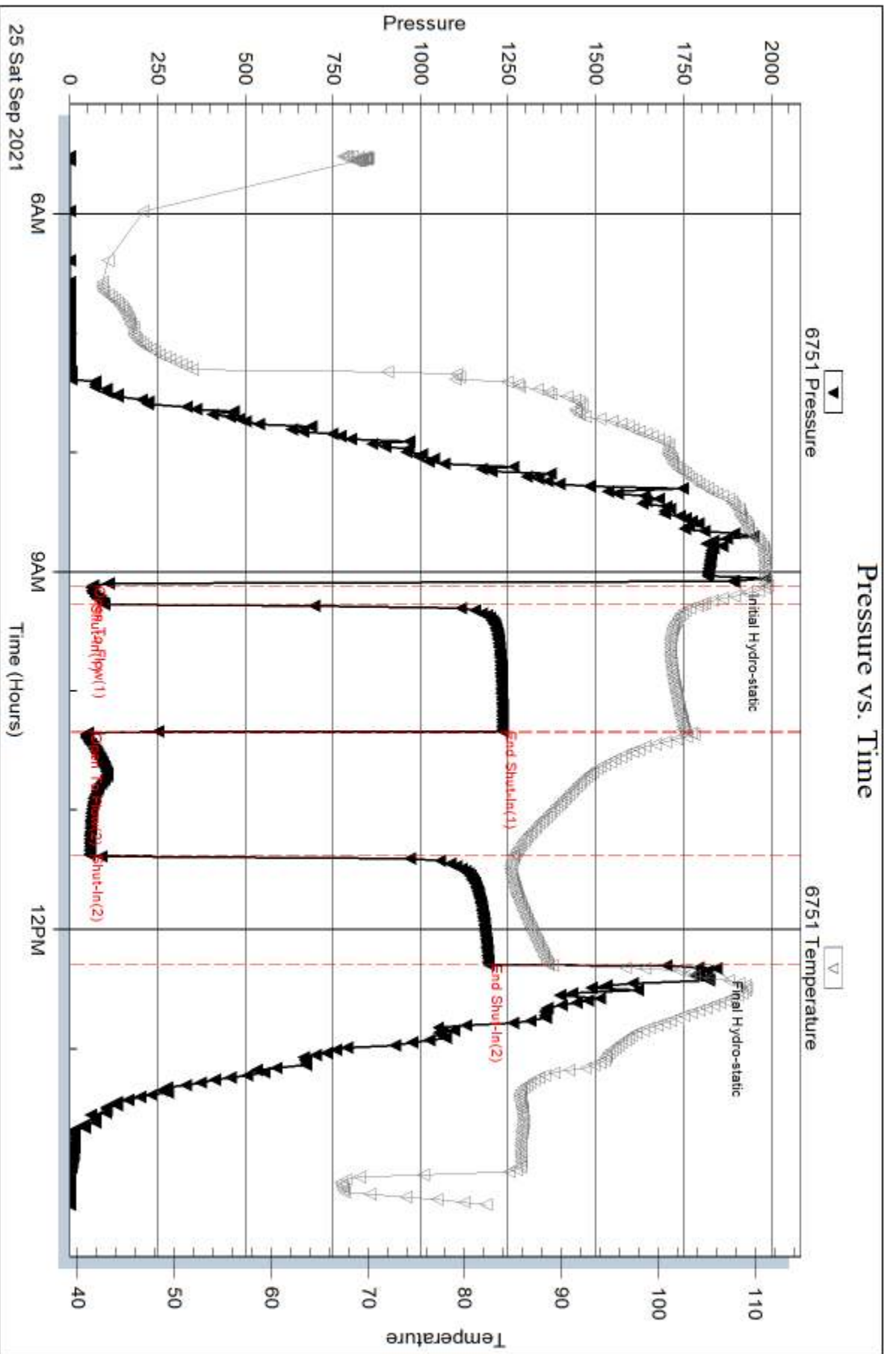
Test Start: 2021.09.25 @ 05:31:00

### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)
2	10	0.25	57.61	0.11
2	20	0.25	87.20	0.16
2	30	0.38	56.60	0.26
2	40	0.38	44.23	0.21
2	50	0.38	38.90	0.20
2	60	0.38	38.36	0.19



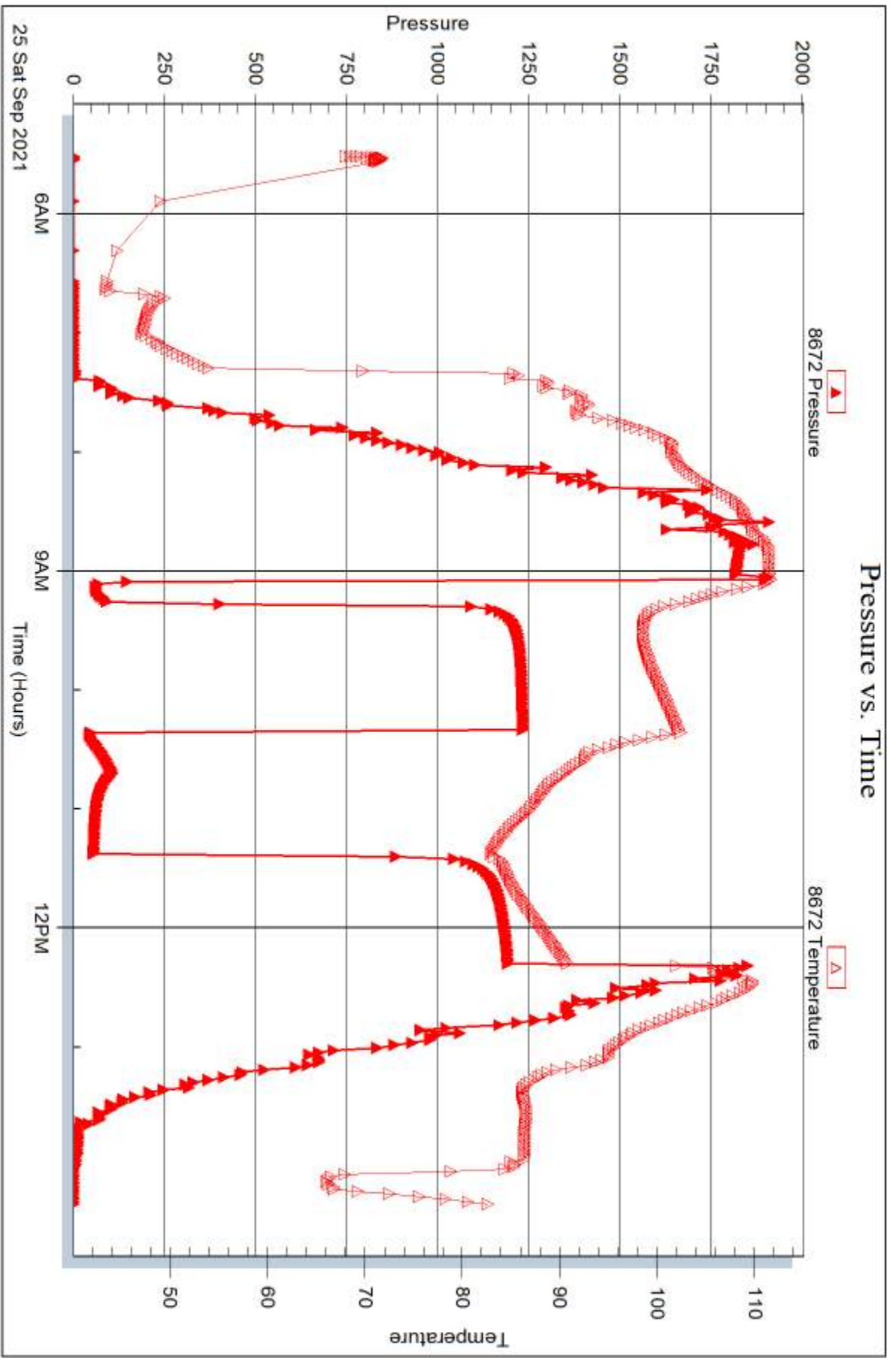
Serial #: 8672

Inside

Thomas Garner

Carl #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 67628

Printed: 2021.09.29 @ 09:27:06



## DRILL STEM TEST REPORT

Prepared For: **Thomas Garner**

305 E 7th Ave  
St. John, KS 67576

ATTN: Keith Reavis

**Carl #1**

**8-24s-13w Stafford,KS**

Start Date: 2021.09.26 @ 01:16:00

End Date: 2021.09.26 @ 07:48:02

Job Ticket #: 67629                      DST #: 2

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

Printed: 2021.09.29 @ 09:31:03

Thomas Garner  
8-24s-13w Stafford,KS  
Carl #1  
DST # 2  
LKC L - M  
2021.09.26





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67629

**DST#: 2**

ATTN: Keith Reavis

Test Start: 2021.09.26 @ 01:16:00

## GENERAL INFORMATION:

Formation: **LKC L - M**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 03:16:17

Time Test Ended: 07:48:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

**Interval: 3800.00 ft (KB) To 3830.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3838.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 6751**

**Outside**

Press@RunDepth: 49.17 psig @ 3804.00 ft (KB)

Capacity: psig

Start Date: 2021.09.26

End Date:

2021.09.26

Last Calib.:

1899.12.30

Start Time: 01:16:01

End Time:

07:48:02

Time On Btm:

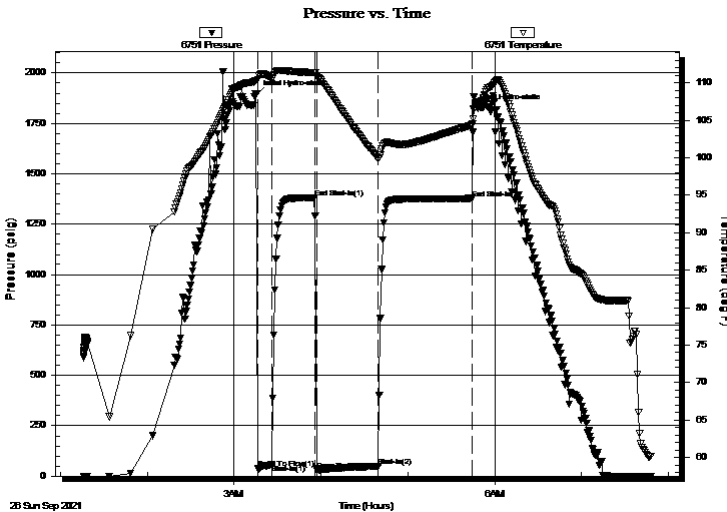
2021.09.26 @ 03:15:17

Time Off Btm:

2021.09.26 @ 05:45:02

**TEST COMMENT:** IF: BOB 5 sec., strong building blow , 536"  
IS: No blow back  
FF: BOB GTS ASAO, strong steady blow  
FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1893.52	110.34	Initial Hydro-static
1	39.13	110.40	Open To Flow (1)
11	58.57	110.51	Shut-In(1)
41	1380.32	111.37	End Shut-In(1)
42	28.99	110.80	Open To Flow (2)
85	49.17	99.87	Shut-In(2)
149	1377.83	104.36	End Shut-In(2)
150	1823.25	105.17	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	OSGM 5%G,95%M	0.15
0.00	GTS	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	10.74	92.00
Last Gas Rate	0.38	16.82	114.00
Max. Gas Rate	0.38	16.82	114.00



# DRILL STEM TEST REPORT

Thomas Garner

**8-24s-13w Stafford, KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67629

**DST#: 2**

ATTN: Keith Reavis

Test Start: 2021.09.26 @ 01:16:00

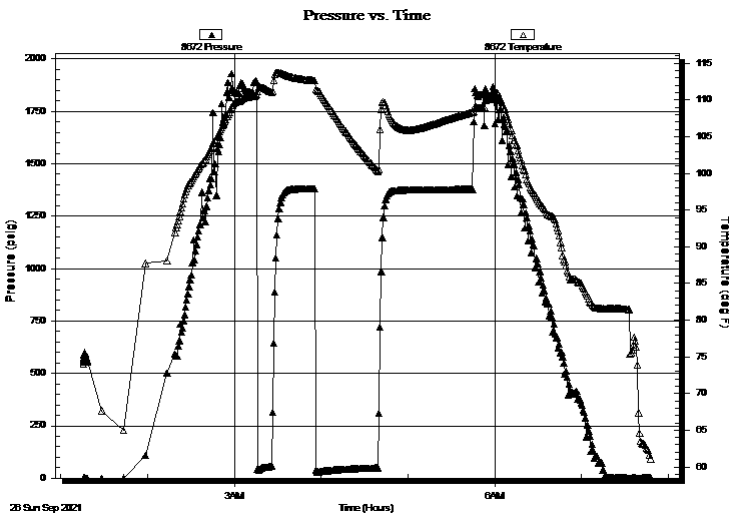
## GENERAL INFORMATION:

Formation: **LKC L - M**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 03:16:17  
 Time Test Ended: 07:48:02  
**Interval: 3800.00 ft (KB) To 3830.00 ft (KB) (TVD)**  
 Total Depth: 3838.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Chris Hagman  
 Unit No: 69  
 Reference Elevations: 1932.00 ft (KB)  
 1921.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8672**      **Inside**

Press@RunDepth:                      psig @      3804.00 ft (KB)      Capacity:                                      psig  
 Start Date:                      2021.09.26      End Date:                      2021.09.26      Last Calib.:                      1899.12.30  
 Start Time:                      01:16:01      End Time:                      07:48:02      Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF: BOB 5 sec., strong building blow , 536"  
 IS: No blow back  
 FF: BOB GTS ASAO, strong steady blow  
 FS: No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	OSGM 5%G,95%M	0.15
0.00	GTS	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	10.74	92.00
Last Gas Rate	0.38	16.82	114.00
Max. Gas Rate	0.38	16.82	114.00



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67629

**DST#: 2**

ATTN: Keith Reavis

Test Start: 2021.09.26 @ 01:16:00

## Tool Information

Drill Pipe:	Length: 3601.00 ft	Diameter: 3.80 inches	Volume: 50.51 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 51.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	3800.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	67.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3776.00	
Hydraulic tool	5.00			3781.00	
EM tool	3.00			3784.00	
Jars	5.00			3789.00	
Safety Joint	2.00			3791.00	
Packer	5.00			3796.00	29.00 Bottom Of Top Packer
Packer	4.00			3800.00	
Stubb	1.00			3801.00	
Perforations	3.00			3804.00	
Recorder	0.00	8672	Inside	3804.00	
Recorder	0.00	6751	Outside	3804.00	
Perforations	31.00			3835.00	
Bullnose	3.00			3838.00	38.00 Bottom Packers & Anchor

**Total Tool Length: 67.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67629

**DST#: 2**

ATTN: Keith Reavis

Test Start: 2021.09.26 @ 01:16:00

## 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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5700.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	OSGM 5%G,95%M	0.148
0.00	GTS	0.000

Total Length: 30.00 ft      Total Volume: 0.148 bbl

Num Fluid Samples: 1

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 3757" GIP



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67629

**DST#: 2**

ATTN: Keith Reavis

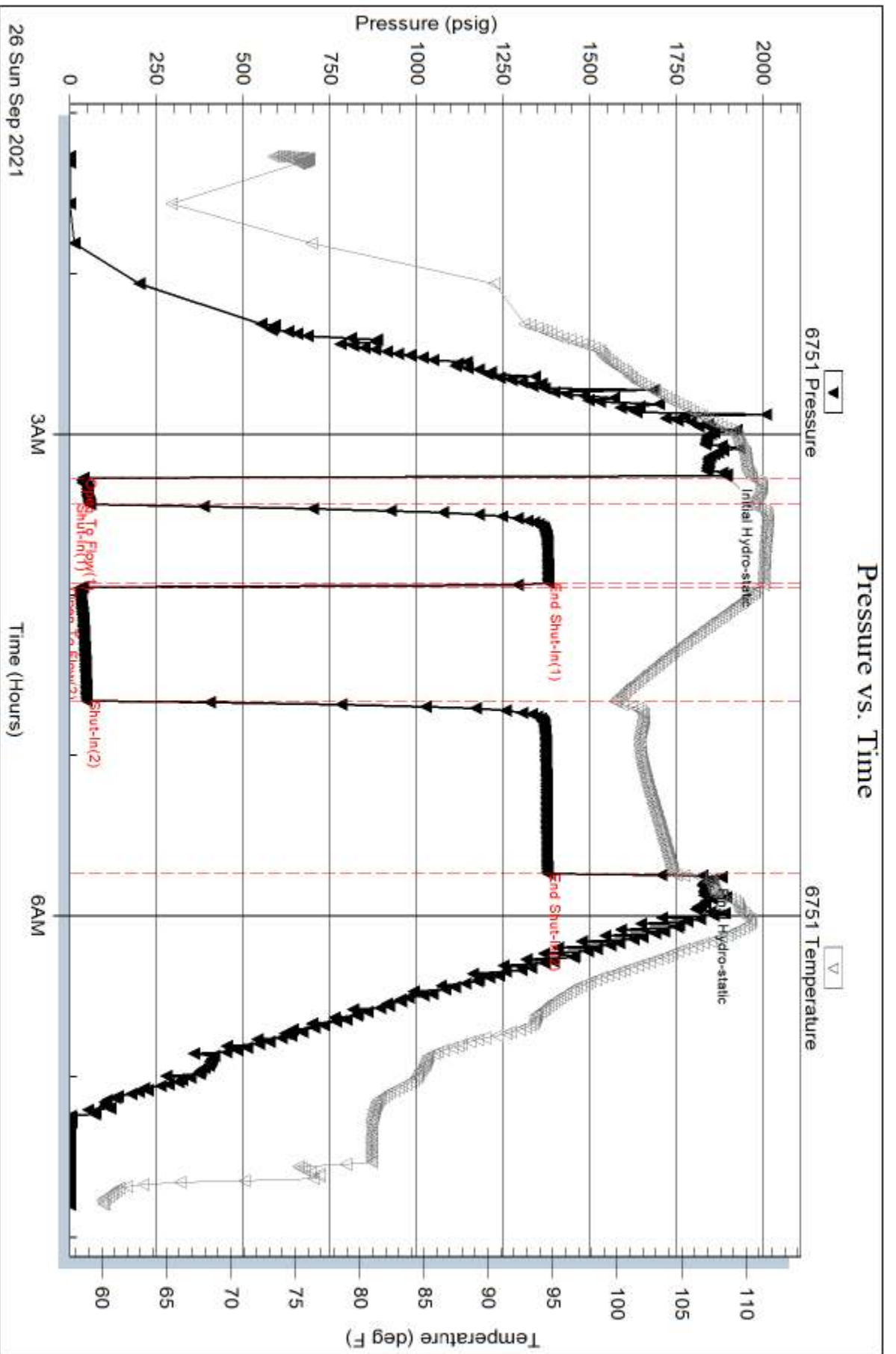
Test Start: 2021.09.26 @ 01:16:00

### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.38	10.74	92.00
2	20	0.38	12.57	99.00
2	30	0.38	14.85	107.00
2	40	0.38	16.82	114.00



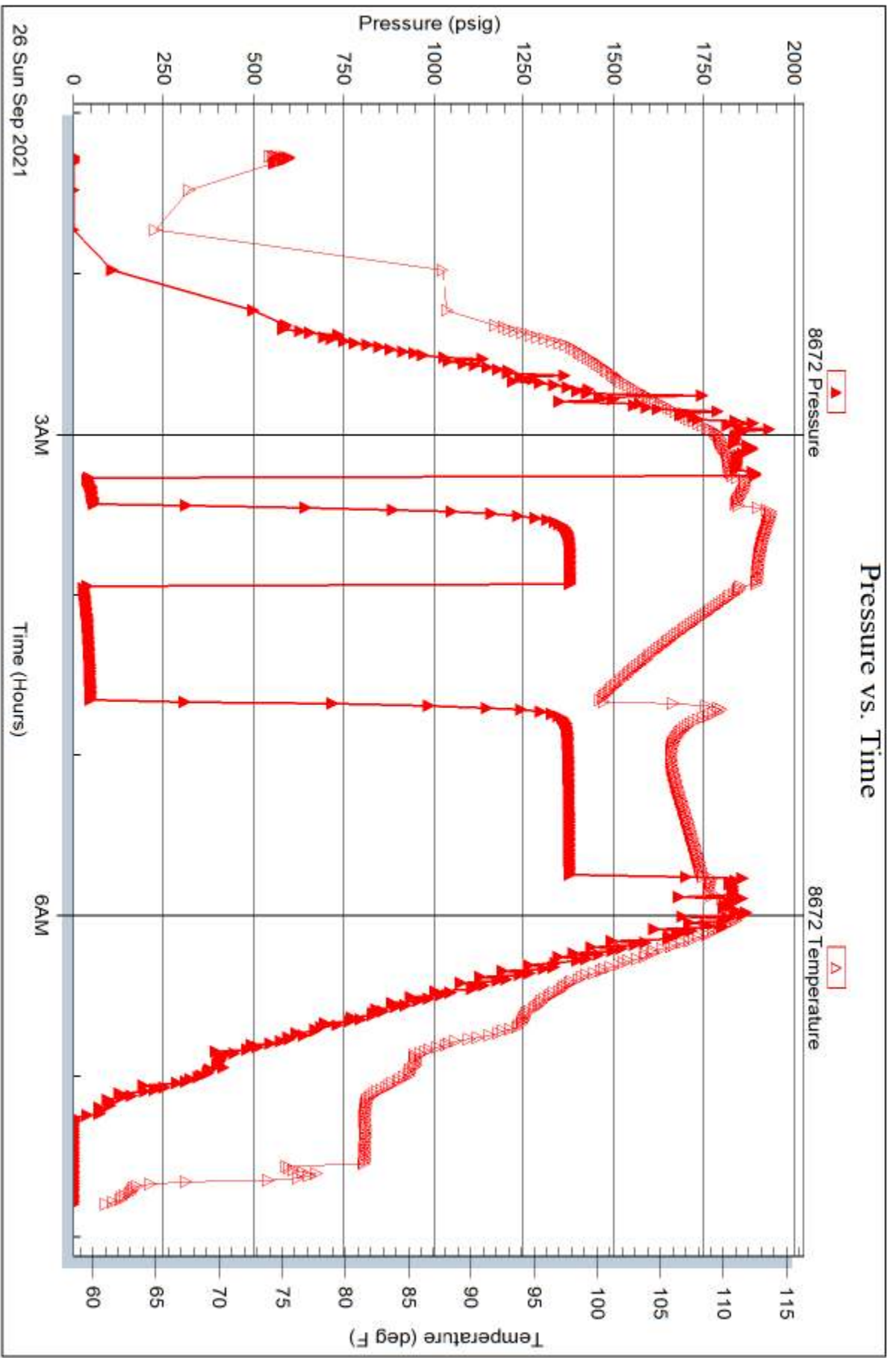
Serial #: 8672

Inside

Thomas Garner

Carl #1

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Thomas Garner**

305 E 7th Ave  
St. John, KS 67576

ATTN: Keith Reavis

**Carl #1**

**8-24s-13w Stafford,KS**

Start Date: 2021.09.26 @ 00:00:00

End Date:

Job Ticket #: 67630

DST #: 3

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

Printed: 2021.09.29 @ 09:49:02





**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

Thomas Garner  
305 E 7th Ave  
St. John, KS 67576  
ATTN: Keith Reavis

**8-24s-13w Stafford, KS**  
**Carl #1**  
Job Ticket: 67630 **DST#: 3**  
Test Start: 2021.09.26 @ 00:00:00

**GENERAL INFORMATION:**

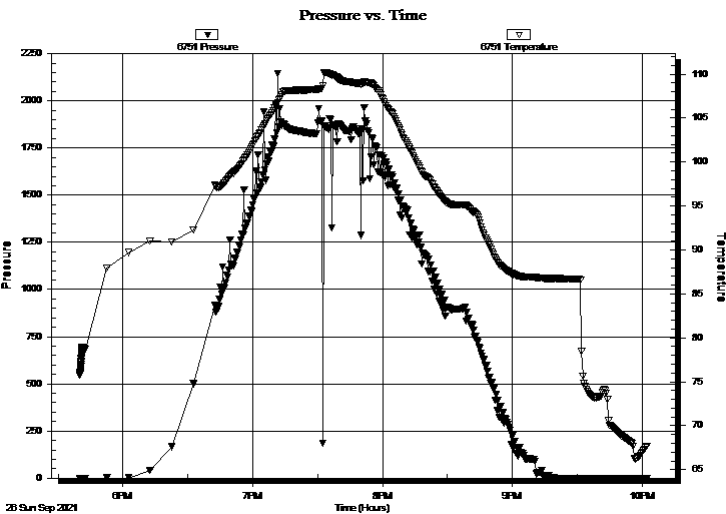
Formation: **Miss**  
Deviated: No Whipstock: 0.00 ft (KB)  
Time Tool Opened:  
Time Test Ended:  
Interval: **3836.00 ft (KB) To 3902.00 ft (KB) (TVD)**  
Total Depth: 3902.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Initial)  
Tester: Chris Hagman  
Unit No: 69  
Reference Elevations: 1932.00 ft (KB)  
1921.00 ft (CF)  
KB to GR/CF: 11.00 ft

**Serial #: 6751**

Press@RunDepth:                  psig @                  ft (KB)                  Capacity:                  psig  
Start Date:                  2021.09.26                  End Date:                  2021.09.26                  Last Calib.:                  1899.12.30  
Start Time:                  17:40:01                  End Time:                  22:02:17                  Time On Btm:  
Time Off Btm:

TEST COMMENT: IF: Packer failure, pulled tool



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

**Recovery**

Length (ft)	Description	Volume (bbl)

**Gas Rates**

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Thomas Garner  
305 E 7th Ave  
St. John, KS 67576  
  
ATTN: Keith Reavis

**8-24s-13w Stafford, KS**

**Carl #1**

Job Ticket: 67630

**DST#: 3**

Test Start: 2021.09.26 @ 00:00:00

## GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened:

Time Test Ended:

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

**Interval: 3836.00 ft (KB) To 3902.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3902.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

## Serial #: 8672

Press@RunDepth: psig @ ft (KB)

Capacity: psig

Start Date: 2021.09.26

End Date: 2021.09.26

Last Calib.: 2021.09.26

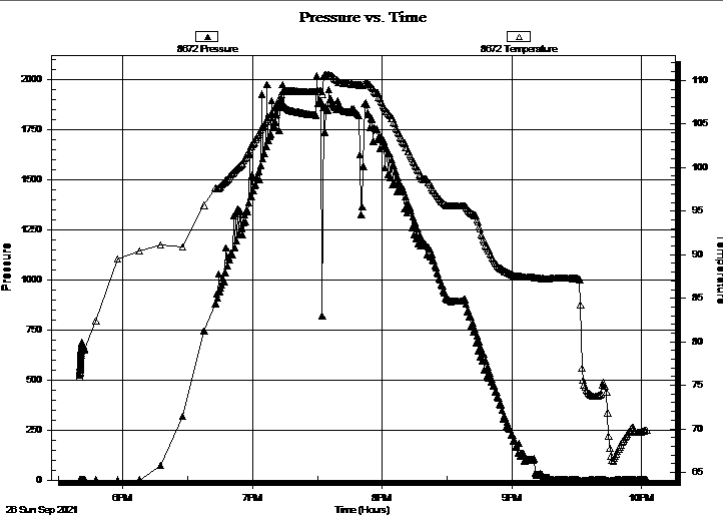
Start Time: 17:40:01

End Time: 22:02:17

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Packer failure, pulled tool



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67630

**DST#: 3**

ATTN: Keith Reavis

Test Start: 2021.09.26 @ 00:00:00

## Tool Information

Drill Pipe:	Length: 3631.00 ft	Diameter: 3.80 inches	Volume: 50.93 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 51.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	3836.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	95.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3812.00	
Hydraulic tool	5.00			3817.00	
EM Isolator	3.00			3820.00	
Jars	5.00			3825.00	
Safety Joint	2.00			3827.00	
Packer	5.00			3832.00	29.00 Bottom Of Top Packer
Packer	4.00			3836.00	
Stubb	1.00			3837.00	
Perforations	3.00			3840.00	
Recorder	0.00	8672	Inside	3840.00	
Recorder	0.00	6751	Outside	3840.00	
Perforations	25.00			3865.00	
Change Over Sub	1.00			3866.00	
Drill Pipe	32.00			3898.00	
Change Over Sub	1.00			3899.00	
Bullnose	3.00			3902.00	66.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>95.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67630

**DST#: 3**

ATTN: Keith Reavis

Test Start: 2021.09.26 @ 00:00:00

### 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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

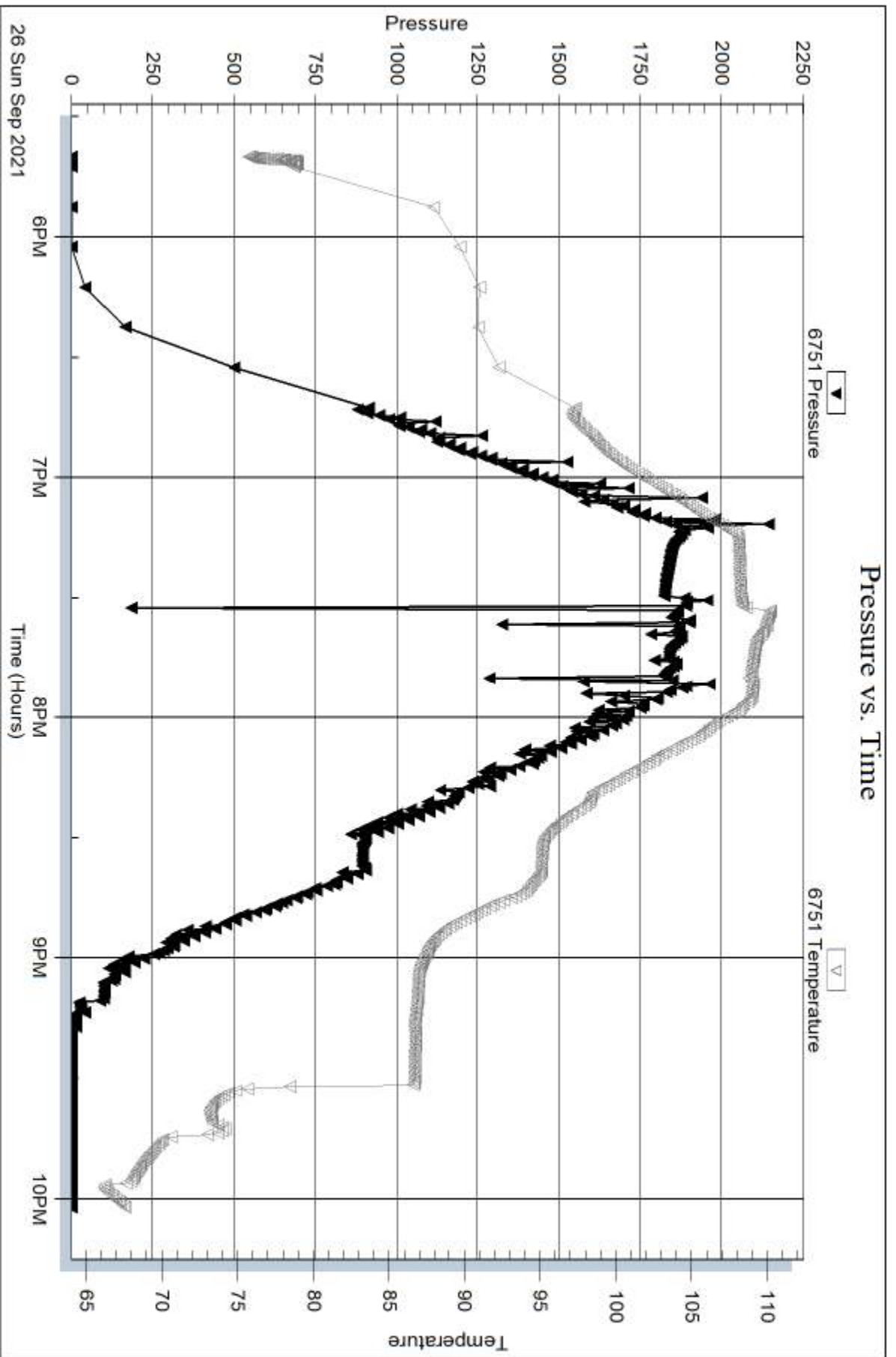
Length ft	Description	Volume bbbl

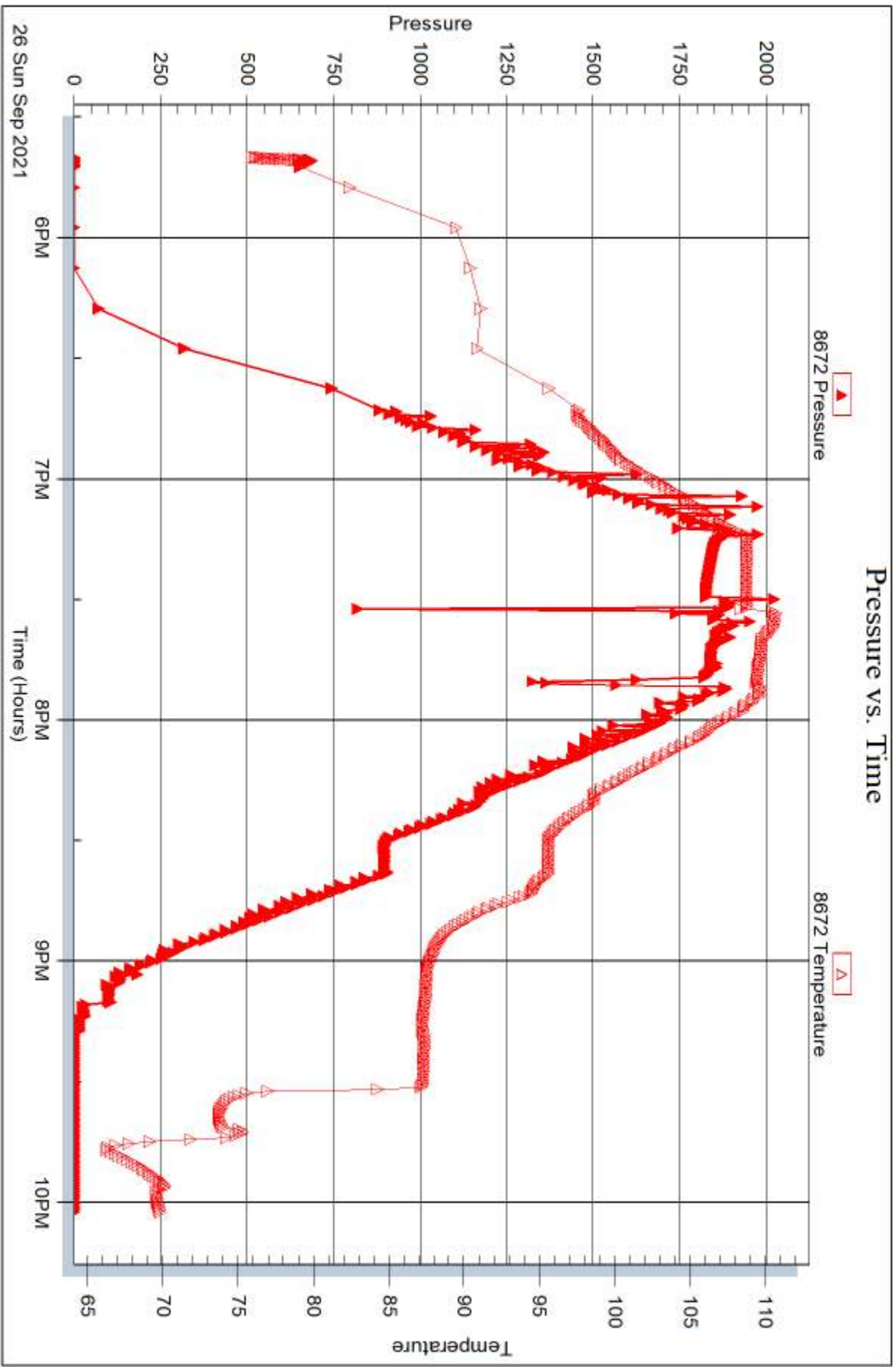
Total Length: ft Total Volume: bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Thomas Garner**

305 E 7th Ave  
St. John, KS 67576

ATTN: Keith Reavis

**Carl #1**

**8-24s-13w Stafford,KS**

Start Date: 2021.09.27 @ 22:16:00

End Date: 2021.09.28 @ 04:02:02

Job Ticket #: 67631                      DST #: 4

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

Printed: 2021.09.29 @ 09:39:13

Thomas Garner 8-24s-13w Stafford,KS Carl #1 DST # 4 Miss 2021.09.27



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67631

**DST#: 4**

ATTN: Keith Reavis

Test Start: 2021.09.27 @ 22:16:00

## GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 00:01:02

Time Test Ended: 04:02:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

**Interval: 3853.00 ft (KB) To 3902.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3902.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 6751 Outside**

Press@RunDepth: 26.59 psig @ 3855.00 ft (KB)

Capacity: psig

Start Date: 2021.09.27

End Date:

2021.09.28

Last Calib.:

2021.09.27

Start Time: 22:16:01

End Time:

04:02:02

Time On Btm:

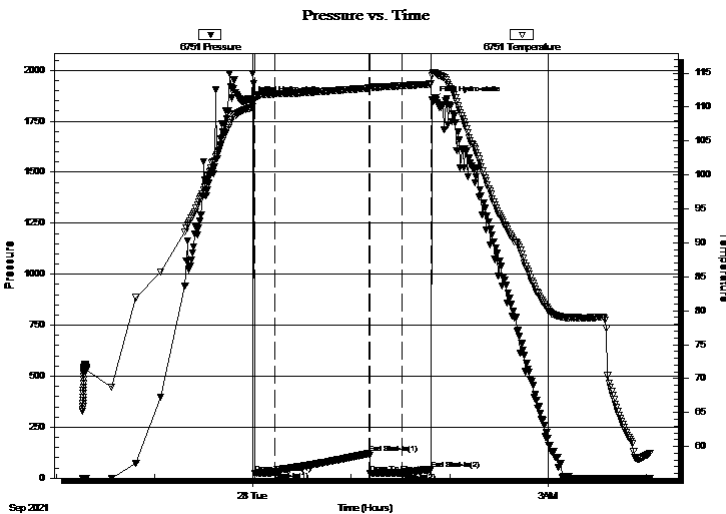
2021.09.27 @ 23:59:17

Time Off Btm:

2021.09.28 @ 01:49:32

**TEST COMMENT:** IF: Weak surface blow , .5"  
IS: No blow back  
FF: Weak surface blow , 2.5"  
FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1849.75	109.94	Initial Hydro-static
2	22.08	111.07	Open To Flow (1)
14	32.03	111.93	Shut-In(1)
72	121.19	112.78	End Shut-In(1)
73	23.26	112.83	Open To Flow (2)
92	26.59	113.14	Shut-In(2)
110	42.08	113.40	End Shut-In(2)
111	1848.68	114.93	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	100%M	0.10

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67631

**DST#: 4**

ATTN: Keith Reavis

Test Start: 2021.09.27 @ 22:16:00

## Tool Information

Drill Pipe:	Length: 3665.00 ft	Diameter: 3.80 inches	Volume: 51.41 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 52.32 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	3853.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	78.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3829.00	
Hydraulic tool	5.00			3834.00	
EM Isolator	3.00			3837.00	
Jars	5.00			3842.00	
Safety Joint	2.00			3844.00	
Packer	5.00			3849.00	29.00 Bottom Of Top Packer
Packer	4.00			3853.00	
Stubb	1.00			3854.00	
Perforations	1.00			3855.00	
Recorder	0.00	8672	Inside	3855.00	
Recorder	0.00	6751	Outside	3855.00	
Perforations	10.00			3865.00	
Change Over Sub	1.00			3866.00	
Drill Pipe	32.00			3898.00	
Change Over Sub	1.00			3899.00	
Bullnose	3.00			3902.00	49.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>78.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67631

**DST#: 4**

ATTN: Keith Reavis

Test Start: 2021.09.27 @ 22:16:00

## 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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	100%M	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

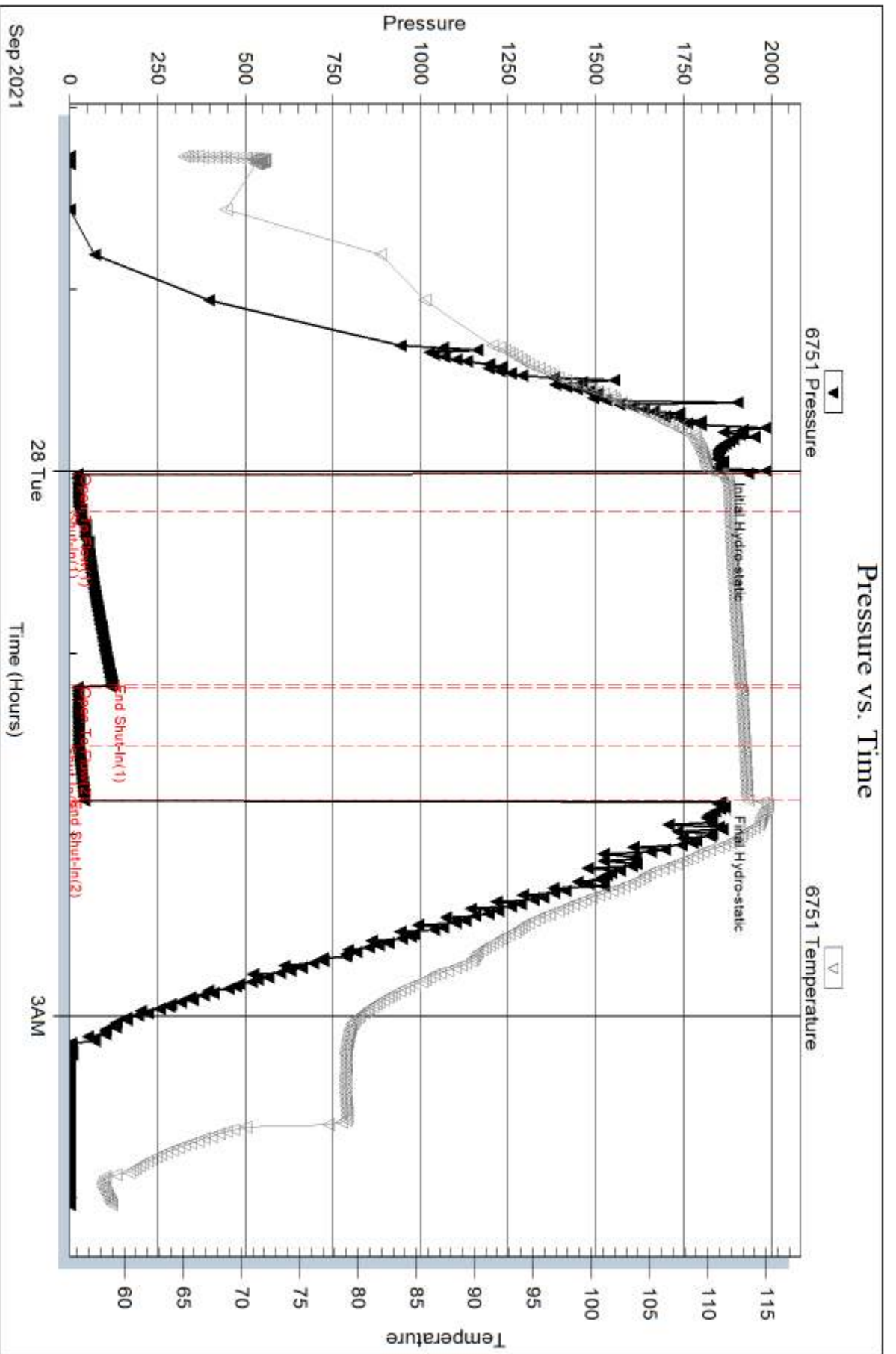
Num Gas Bombs: 0

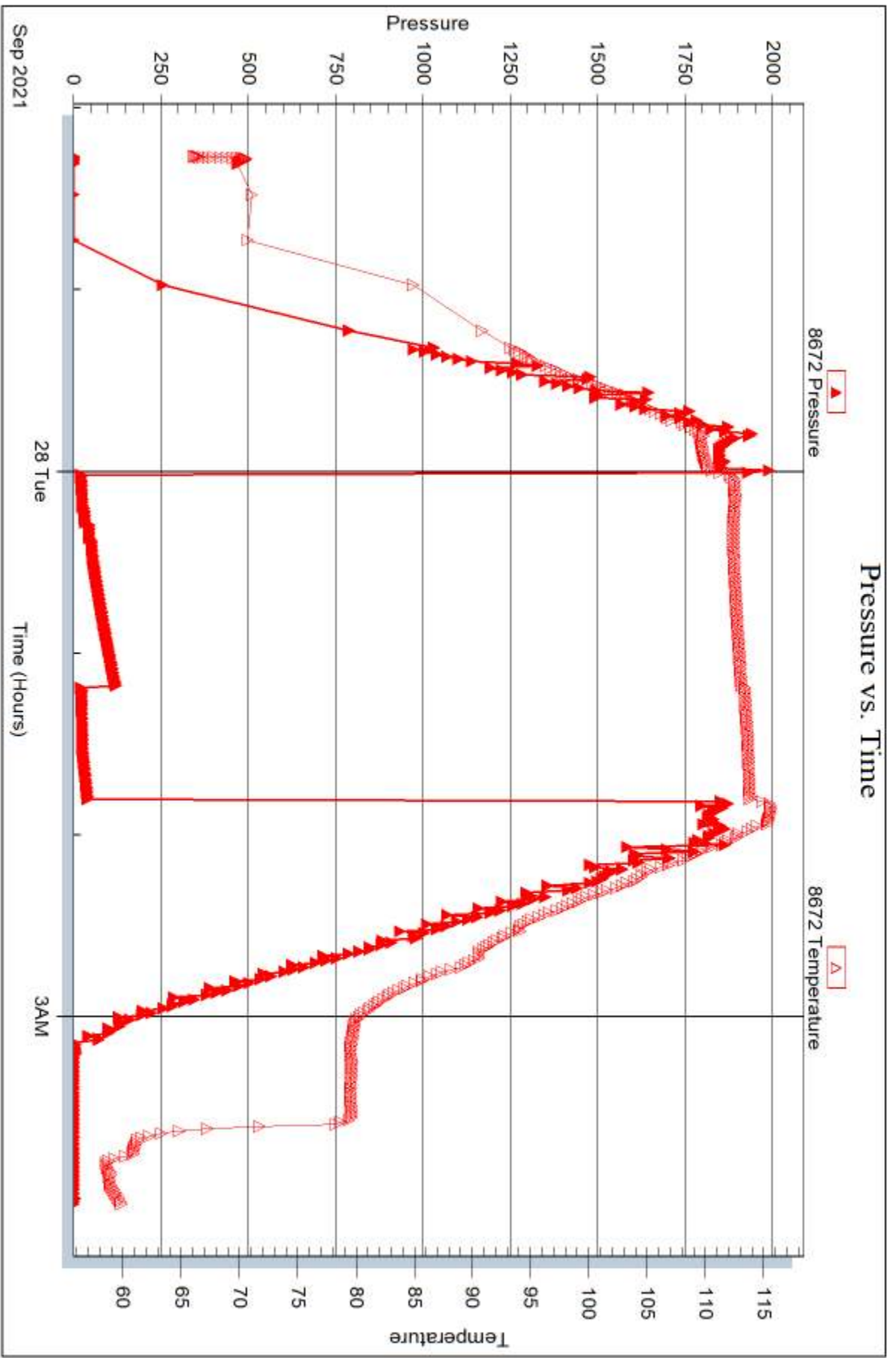
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Thomas Garner**

305 E 7th Ave  
St. John, KS 67576

ATTN: Keith Reavis

**Carl #1**

**8-24s-13w Stafford,KS**

Start Date: 2021.09.28 @ 21:55:00

End Date: 2021.09.29 @ 05:25:02

Job Ticket #: 67632                      DST #: 5

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

Printed: 2021.09.29 @ 09:38:37



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67632

**DST#: 5**

ATTN: Keith Reavis

Test Start: 2021.09.28 @ 21:55:00

## GENERAL INFORMATION:

Formation: **Simp Sand**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 00:08:47

Time Test Ended: 05:25:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

**Interval: 4068.00 ft (KB) To 4112.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 4112.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 6751 Outside**

Press@RunDepth: 80.80 psig @ 4070.00 ft (KB)

Capacity: psig

Start Date: 2021.09.28

End Date:

2021.09.29

Last Calib.:

2021.09.28

Start Time: 21:55:01

End Time:

05:25:02

Time On Btm:

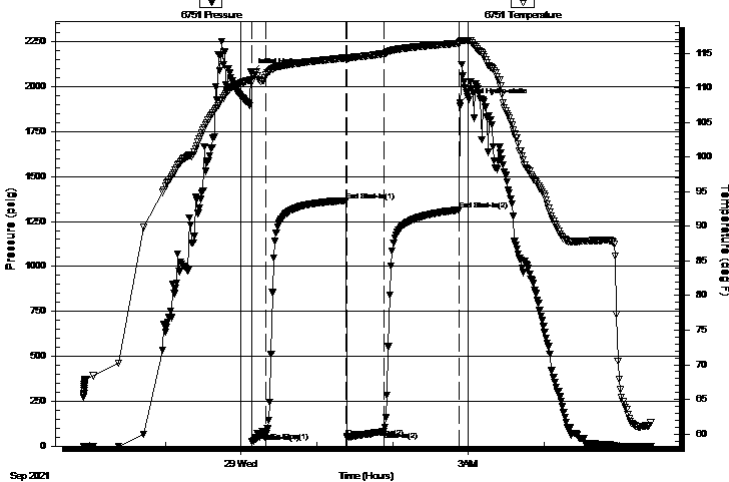
2021.09.29 @ 00:08:02

Time Off Btm:

2021.09.29 @ 02:53:32

**TEST COMMENT:** IF: Weak surface blow , died 1 min.  
IS: No blow back  
FF: Weak surface blow , .5 inches  
FS: No blow back

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2079.60	111.21	Initial Hydro-static
1	25.52	110.99	Open To Flow (1)
12	70.99	111.95	Shut-In(1)
75	1366.21	114.30	End Shut-In(1)
76	48.10	114.22	Open To Flow (2)
105	80.80	114.96	Shut-In(2)
165	1315.12	116.47	End Shut-In(2)
166	1909.81	116.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
150.00	GMCO 15%G, 25%M, 60%O	0.74

## Gas Rates

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



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

ATTN: Keith Reavis

Job Ticket: 67632

**DST#: 5**

Test Start: 2021.09.28 @ 21:55:00

### GENERAL INFORMATION:

Formation: **Simp Sand**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 00:08:47

Time Test Ended: 05:25:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

**Interval: 4068.00 ft (KB) To 4112.00 ft (KB) (TVD)**

Total Depth: 4112.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1932.00 ft (KB)

1921.00 ft (CF)

KB to GR/CF: 11.00 ft

**Serial #: 8672 Inside**

Press@RunDepth: psig @ 4070.00 ft (KB)

Start Date: 2021.09.28

End Date:

2021.09.29

Start Time: 21:55:01

End Time:

05:25:02

Capacity: psig

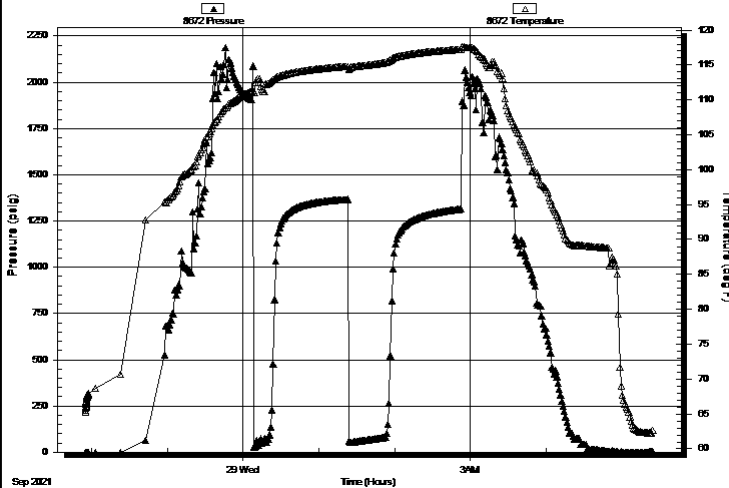
Last Calib.: 1899.12.30

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak surface blow , died 1 min.  
IS: No blow back  
FF: Weak surface blow , .5 inches  
FS: No blow back

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
150.00	GMCO 15%G, 25%M, 60%O	0.74

### Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67632

**DST#: 5**

ATTN: Keith Reavis

Test Start: 2021.09.28 @ 21:55:00

## Tool Information

Drill Pipe:	Length: 3887.00 ft	Diameter: 3.80 inches	Volume: 54.52 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 55.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4068.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	73.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4044.00	
Hydraulic tool	5.00			4049.00	
EM Isolator	3.00			4052.00	
Jars	5.00			4057.00	
Safety Joint	2.00			4059.00	
Packer	5.00			4064.00	29.00 Bottom Of Top Packer
Packer	4.00			4068.00	
Stubb	1.00			4069.00	
Perforations	1.00			4070.00	
Recorder	0.00	8672	Inside	4070.00	
Recorder	0.00	6751	Outside	4070.00	
Perforations	5.00			4075.00	
Change Over Sub	1.00			4076.00	
Drill Pipe	32.00			4108.00	
Change Over Sub	1.00			4109.00	
Bullnose	3.00			4112.00	44.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>73.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Thomas Garner

**8-24s-13w Stafford,KS**

305 E 7th Ave  
St. John, KS 67576

**Carl #1**

Job Ticket: 67632

**DST#: 5**

ATTN: Keith Reavis

Test Start: 2021.09.28 @ 21:55:00

## 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:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7300.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	GMCO 15%G, 25%M, 60%O	0.738

Total Length: 150.00 ft      Total Volume: 0.738 bbl

Num Fluid Samples: 0

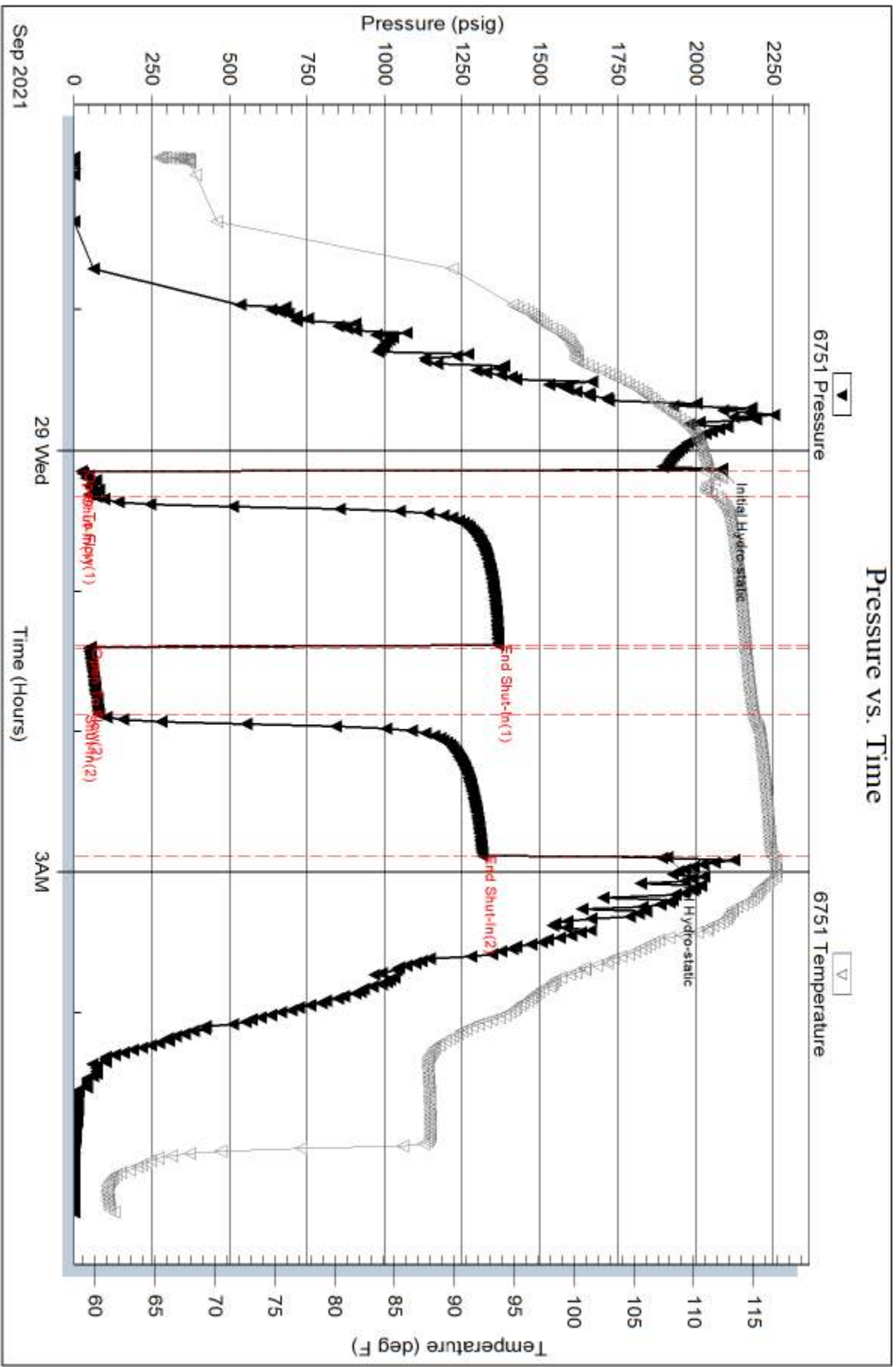
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API=37@70F=36



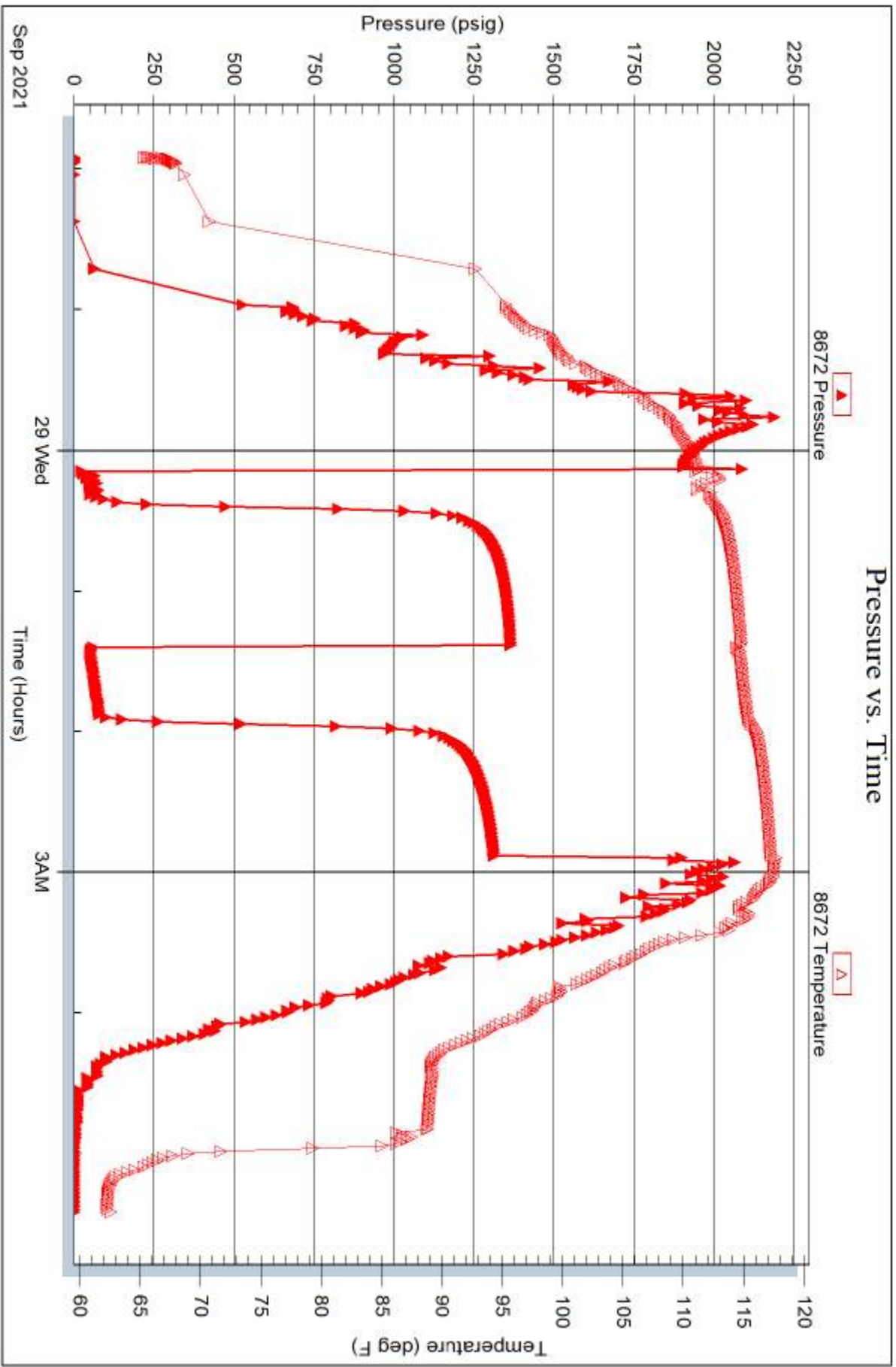
Serial #: 8672

Inside

Thomas Garner

Carl #1

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 67632

Printed: 2021.09.29 @ 09:38:40



# TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **67628**

Well Name & No. ~~Thomas Carter~~ Carl #1 Test No. 1 Date 9-25-21  
 Company Thomas Carter Elevation 1932 KB 1921 GL  
 Address 305 E 7th Ave St John, KS 67576  
 Co. Rep / Geo. Keith 620-617-4091 Rig Sterling #4  
 Location: Sec. 8 Twp 24 Rge. 13 Co. Stafford State KS

Interval Tested 3716-3752 Zone Tested Lansing 10J  
 Anchor Length 36 Drill Pipe Run 3505 Mud Wt. 9.0  
 Top Packer Depth 3711 Drill Collars Run 186 Vis 52  
 Bottom Packer Depth 3716 Wt. Pipe Run N.A. WL 6.0  
 Total Depth 3752 Chlorides 3900 ppm System LCM 2<sup>+</sup>

Blow Description IF: BOB ASAO, strong building blow  
 ISF: No blow back  
 FF: BOB GTS ASAO, strong steady blow  
 FSI: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
10	gassy mud	10			90
	3684' GIP				

Rec Total 10 BHT 109 Gravity API RW @ ° F Chlorides ppm  
 (A) Initial Hydrostatic 64 1890  Test (CONV) 1300 T-On Location 0400  
 (B) First Initial Flow ~~64~~ 64  Jars 250 T-Started 0645  
 (C) First Final Flow ~~98~~ 98  Safety Joint 75 T-Open ~~0910~~ 0910  
 (D) Initial Shut-In ~~1235~~ 1235  Circ Sub T-Pulled ~~1270~~ 1270  
 (E) Second Initial Flow ~~52~~ 52  Hourly Standby T-Out 1345  
 (F) Second Final Flow ~~57~~ 57  Mileage 40 50 Comments betson @ G531  
 (G) Final Shut-In 1195  Sampler  
 (H) Final Hydrostatic 1844  Straddle  EM Tool 350  
 Shale Packer  Ruined Shale Packer  
 Extra Packer  Ruined Packer  
 Extra Recorder  Extra Copies  
 Day Standby Sub Total 350  
 Accessibility Total 2025  
 Sub Total 1675 MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative Chris Hegan  
 Tribolite 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

## Gas Volume Report

8/12

Thomas Cochner  
Operator

Coal #1

Well Name and No.

1  
DST No.

Min.	Ins. of Water PSIG	Orifice Size	CF/D	Min.	Ins. of Water <u>PSIG</u>	Orifice Size	MCF/D
				10	57.61	1/4	106.22
				20	87.2	1/4	149.71
				30	56.6	3/8	242.22
				40	44.23	3/8	200.2
				50	38.90	3/8	182.07
				60	38.36	3/8	180.23

Remarks:



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **67629**

Well Name & No. Carl #1 Test No. 2 Date 9-26-21  
 Company Thomas Carter Elevation 1932 KB 1921 GL  
 Address 305 E 17th Ave St. John, KS 67576  
 Co. Rep / Geo. Keith Rig Sterling #4  
 Location: Sec. 8 Twp 24 Rge. 13 Co. Stafford State KS

Interval Tested 3800-3838 Zone Tested Lansing L+M  
 Anchor Length 38' Drill Pipe Run 3601 Mud Wt. 9.4  
 Top Packer Depth 3795 Drill Collars Run 186 Vis 60  
 Bottom Packer Depth 3800 Wt. Pipe Run N.A. WL 6.4  
 Total Depth 3838 Chlorides 5700 ppm System LCM 2<sup>nd</sup>

Blow Description IF: BOB 5 sec., strong building blow, 536 inches  
ISL: No blow back  
FP: BOB 675 ASDO, strong steady blow  
FSL: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>oil spotted gassy mud</u>	<u>5</u>	<u>spot</u>	<u>95</u>	<u>95</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>3757' GTP</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 111 Gravity API RW @ F Chlorides ppm  
 (A) Initial Hydrostatic 1894  Test COV. 1350 T-On Location 0050  
 (B) First Initial Flow 39  Jars 250 T-Started 0130  
 (C) First Final Flow 59  Safety Joint 75 T-Open 0315  
 (D) Initial Shut-In 1380  Circ Sub \_\_\_\_\_ T-Pulled 0540  
 (E) Second Initial Flow 29  Hourly Standby \_\_\_\_\_ T-Out 0745  
 (F) Second Final Flow 49  Mileage 40 50 Comments Gas on Q 0116  
 (G) Final Shut-In 1378  Sampler \_\_\_\_\_ Det on EM ≈ 0120  
 (H) Final Hydrostatic 1873  Straddle \_\_\_\_\_  EM Tool 350  
 Initial Open 10  Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Final Flow 45  Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Shut-In 60  Day Standby \_\_\_\_\_ Sub Total 350  
 Accessibility \_\_\_\_\_ Total 2025  
 Sub Total 1675 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Chris Hagan  
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**TRILOBITE TESTING INC.**

1515 Commerce Parkway • Hays, Kansas 67601

# Gas Volume Report

*Thomas Garner*

Operator

*Car #1*

Well Name and No.

*2*

DST No.

Min.	Ins. of Water PSIG	Orifice Size	CF/D	Min.	Ins. of Water PSIG	Orifice Size	MCF/D
				10	297.38	3/8	51.13
				20	347.96	3/8	51.35
				30	411.05	3/8	51.63
				40	465.71	3/8	51.87

Remarks:





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **67630**

Well Name & No. Carl 1 Test No. 3 Date 9-26-21  
 Company Thomas Garger Elevation 1932 KB 1921 GL  
 Address 305 E 7th Ave. Sta. John 67576  
 Co. Rep / Geo. Keith Rig Sterling #4  
 Location: Sec. 8 Twp 24 Rge. 13 Co. Stafford State KS

Interval Tested 3836-3902 Zone Tested MISS.  
 Anchor Length 66' Drill Pipe Run 3631 Mud Wt. 9.2  
 Top Packer Depth 3831 Drill Collars Run 186 Vis 60  
 Bottom Packer Depth 3836 Wt. Pipe Run N.A. WL 6.4  
 Total Depth 3902 Chlorides 7000 ppm System LCM 1<sup>st</sup>  
 Blow Description IF: Packer Failure, tried 2x, pulled tool  
ISI:  
FP: MISSOURI  
FST:

Rec	Feet of	%gas	%oil	%water	%mud

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

(A) Initial Hydrostatic \_\_\_\_\_  Test CONV. 1050 T-On Location 1640  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ 250 T-Started 1730  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ 75 T-Open 1905  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled 1910  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 2130  
 (F) Second Final Flow \_\_\_\_\_  Mileage 40 50 Comments bits on @ 1740  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_ EM tool @ 1720  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  EM Tool 350  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer X 1.0 335  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 10 Sub Total 685  
 Initial Shut-In \_\_\_\_\_ Total 2110  
 Final Flow \_\_\_\_\_  Day Standby \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_  Accessibility \_\_\_\_\_  
 Sub Total 1425 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Chris Hageman  
 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. **67631**

Well Name & No. Carl 1 Test No. 4 Date 9-26-21  
 Company Thomas Gerner Elevation 1932 KB 1921 GL  
 Address 305 E 17th Ave. St. John, KS 67576  
 Co. Rep / Geo. Keith Rig Sterling #4  
 Location: Sec. 8 Twp 24 Rge. 13 Co. Stafford State KS

Interval Tested 3853-3902 Zone Tested Miss  
 Anchor Length 49 Drill Pipe Run 3665 Mud Wt. 9.2  
 Top Packer Depth 3848 Drill Collars Run 186 Vis 60  
 Bottom Packer Depth 3853 Wt. Pipe Run Ø WL 6.4  
 Total Depth 3902 Chlorides 7000 ppm System LCM 1<sup>st</sup>

Blow Description IP: Weak surface blow, .5 inches 10 min.  
ISB: No blow back  
FP: Weak surface blow, 2.5 inches  
FSS: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>mud</u>			<u>100</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 20 BHT 114 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1850  Test CONV. 1300 T-On Location 2130  
 (B) First Initial Flow 22  Jars \_\_\_\_\_ 250 T-Started 2230  
 (C) First Final Flow 32  Safety Joint \_\_\_\_\_ 75 T-Open 1200  
 (D) Initial Shut-In 121  Circ Sub \_\_\_\_\_ T-Pulled 0145  
 (E) Second Initial Flow 23  Hourly Standby \_\_\_\_\_ T-Out 0330  
 (F) Second Final Flow 27  Mileage \_\_\_\_\_ Comments button @ 2216  
 (G) Final Shut-In 42  Sampler \_\_\_\_\_ EM tool @ 2220  
 (H) Final Hydrostatic 1849  Straddle \_\_\_\_\_  EM Tool 350  
 Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 350  
 Accessibility \_\_\_\_\_ Total 1975  
 Sub Total 1625 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Chris Hagan

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# TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **67632**

4/10

Well Name & No. Carl 1 Test No. 5 Date 9-27-21  
 Company Thomas Gardner Elevation 1937 KB 1921 GL  
 Address 305 E 17th Ave. St. John, KS 67576  
 Co. Rep / Geo. Keith Rig Sterling #4  
 Location: Sec. 8 Twp 24 Rge. 13 Co. Stafford State KS

Interval Tested 4068-4112 Zone Tested Simp SD  
 Anchor Length 44' Drill Pipe Run 3887 Mud Wt. 9.2  
 Top Packer Depth 4063 Drill Collars Run 186 Vis 53  
 Bottom Packer Depth 4068 Wt. Pipe Run N.A. WL 6.0  
 Total Depth 4112 Chlorides 7300 ppm System LCM 1#

Blow Description IF: Weak surface blow, died 1 min.  
IS: No blow back  
FP: Weak surface blow, .35 inches  
ES: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>gassy muddy oil</u>	<u>15</u>	<u>60</u>		<u>25</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 150 BHT 116 Gravity 36 API RW 1450 @      °F Chlorides      ppm  
 (A) Initial Hydrostatic 2080  Test conv.  
 (B) First Initial Flow 26  Jars 250  
 (C) First Final Flow 71  Safety Joint 75  
 (D) Initial Shut-In 1366  Circ Sub       
 (E) Second Initial Flow 48  Hourly Standby       
 (F) Second Final Flow 81  Mileage x 40 50  
 (G) Final Shut-In 1315  Sampler       
 (H) Final Hydrostatic 1910  Straddle       
 Shale Packer       
 Extra Packer       
 Extra Recorder       
 Day Standby       
 Accessibility       
 Sub Total 1825

T-On Location 2100  
 T-Started 2215  
 T-Open 0010  
 T-Pulled 0250  
 T-Out 0510  
 Comments both on @ 2155  
EM Tool @ 2200  
 EM Tool 350  
 Ruined Shale Packer       
 Ruined Packer       
 Extra Copies       
 Sub Total 350  
 Total 2175  
 MP/DST Disc't     

Approved By \_\_\_\_\_ Our Representative Chris Hegman

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released 9-28 @ 1400

**OPERATOR**

Company: Tom Garner, Inc.  
 Address: 305 E. 7th Avenue  
 St. John, KS 67576

Contact Geologist:  
 Contact Phone Nbr: 620-793-0766  
 Well Name: Carl #1  
 Location: Sec. 8 - T24S - R13W  
 API: 15-185-24089-0000  
 Pool:  
 State: Kansas

Field: Rattlesnake East  
 Country: USA



Scale 1:240 Imperial

Well Name:	Carl #1	
Surface Location:	Sec. 8 - T24S - R13W	
Bottom Location:		
API:	15-185-24089-0000	
License Number:	33406	
Spud Date:	9/20/2021	Time: 8:30 PM
Region:	Stafford County	
Drilling Completed:	9/28/2021	Time: 9:00 PM
Surface Coordinates:	2562' FSL & 2905' FWL	
Bottom Hole Coordinates:		
Ground Elevation:	1920.00ft	
K.B. Elevation:	1931.00ft	
Logged Interval:	3400.00ft	To: 4190.00ft
Total Depth:	4190.00ft	
Formation:	Arbuckle	
Drilling Fluid Type:	Chemical/Fresh Water Gel	

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude: -98.77723  
 Latitude: 37.97759  
 N/S Co-ord: 2562' FSL  
 E/W Co-ord: 2905' FWL

**LOGGED BY**

***Keith Reavis***  
*Consulting Geologist*

Company: Keith Reavis, Inc.  
 Address: 3420 22nd Street  
 Great Bend, KS 67530

Phone Nbr: 620-617-4091  
 Logged By: KLG #136

Name: Keith Reavis

**CONTRACTOR**

Contractor: Sterling Drilling Company

Rig #: 4

Rig Type: mud rotary

Spud Date: 9/20/2021

Time: 8:30 PM



Spud Date: 9/20/2021  
 TD Date: 9/28/2021  
 Rig Release:

Time: 8:30 PM  
 Time: 9:00 PM  
 Time:

### ELEVATIONS

K.B. Elevation: 1931.00ft      Ground Elevation: 1920.00ft  
 K.B. to Ground: 11.00ft

### NOTES

With favorable drill stem tests in the Lansing and Simpson, combined with positive electrical log analysis, it was decided to set 5 1/2" production casing and further test the Arbuckle, Simpson and Lansing through perforations and stimulation.

A Tooke Daq gas detection system operated by Sterling Drilling was employed during the drilling of this well. ROP and gas curves were imported into this log from said system. Gamma ray and caliper curves from the electrical log suite were also imported.

Respectfully submitted,  
 Keith Reavis

## daily drilling report

DATE	7:00 AM DEPTH	REMARKS
09/24/2021	3370	Geologist Keith Reavis on location @0530 hrs, 3332 ft, drilling ahead Heebner, Toronto, Douglas, Lansing
09/25/2021	3752	show in I and J zones warrant test, short trip, ctch, TOH for DST #1, conduct DST #1, successful test. Lay down tools, TIH w/bit, drill ahead, gas kick and show in M zone warrants test, TOH w/bit
09/26/2021	3838	TIH w/tools, conduct and complete DST #2, successful test, TIH w/bit, resume drilling, gas kick and show in Mississippian warrants test, TOH w/bit and in w/tools, conduct DST #3, mis-run, packer failure, TOH, reset anchor, TIH
09/27/2021	3902	Conduct and complete DST #4, successful test, TIH w/bit, resume drilling, Kinderhook, Viola, Simpson, show in Simpson Sand warrants test, short trip, TOH for DST #5
09/28/2021	4112	Conduct and complete DST #5, successful test, TIH w/bit, resume drilling, Simpson, Arbuckle. Bit shot @ 4149' had to bit trip to make TD. Resume drilling, TD 4190' @ 2100 hrs, ctch, TOH for logs, begin logging
09/29/2021	4190	complete logging operations 0500 hrs, geologist of location 0600 hrs

## well comparison sheet

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
Carl #1					Pet. Inc. - #1 McConaughay				Garner - Henderson #1			
2562' FSL & 2095' FWL					SW SW NW				NW NW SE			
Sec 8-T24S-R13W					Sec 8-T24S-R13W				Sec 7-T24S-R13W			
1931 KB					1928 KB		Structural Relationship		1926 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Heebner	3413	-1482	3408	-1477	3411	-1483	1	6	3408	-1482	0	5
Toronto	3434	-1503	3427	-1496	3432	-1504	1	8	3430	-1504	1	8
Douglas	3449	-1518	3446	-1515	3449	-1521	3	6	3446	-1520	2	5
Brown Lime	3546	-1615	3544	-1613	3552	-1624	9	11	3543	-1617	2	4
Lansing	3576	-1645	3570	-1639	3574	-1646	1	7	3570	-1644	-1	5
Lansing F	3644	-1713	3640	-1709	3646	-1718	5	9	3640	-1714	1	5
Lansing H	3705	-1774	3702	-1771	3704	-1776	2	5	3696	-1770	-4	-1
BKC	3836	-1905	3832	-1901	3837	-1909	4	8	3827	-1901	-4	0
Mississippian	3884	-1953	3880	-1949	3891	-1963	10	14	3881	-1955	2	6
Kinderhook	3902	-1971	3898	-1967	3908	-1980	9	13	3896	-1970	-1	3
Kind. Chert	3976	-2045	3970	-2039	3934	-2006	-39	-33	3890	-1964	-81	-75
Viola	4018	-2087	4014	-2083	3991	-2063	-24	-20	3978	-2052	-35	-31
Simpson	4082	-2151	4081	-2150	4076	-2148	-3	-2	4093	-2167	16	17
Simpson Sand	4093	-2162	4090	-2159	4094	-2166	4	7	4107	-2181	19	22
Arbuckle	4133	-2202	4133	-2202	4132	-2204	2	2	4146	-2220	18	18
Total Depth	4190	-2259	4188	-2257	4142	-2214	-45	-43	4176	-2250	-9	-7

### Drill Stem Test #1



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Thomas Garner  
305 E 7th Ave St. John, KS 67576  
ATTN: Keith

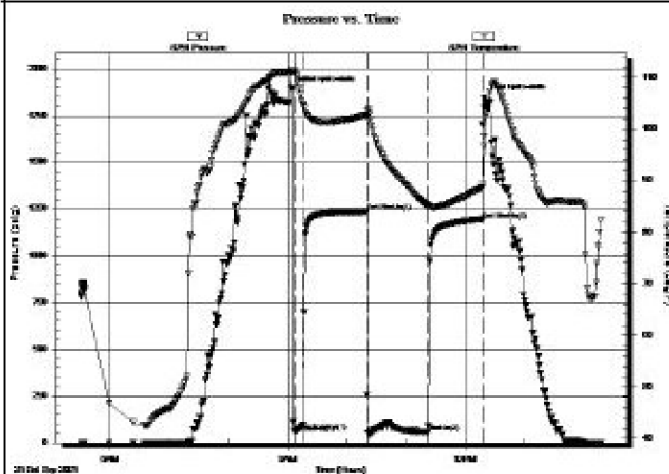
8/24/13 Stafford, KS  
Carl 1  
Job Ticket: 67628 DST#: 1  
Test Start: 2021.09.25 @ 05:31:00

### GENERAL INFORMATION:

Formation: **Lansing I&J**  
Deviated: No Whipstock ft (KB)  
Time Tool Opened: 09:07:02  
Time Test Ended: 14:19:02  
Test Type: Conventional Bottom Hole (hitia)  
Tester: Chris Hagman  
Unit No: 69  
Interval: **3716.00 ft (KB) To 3752.00 ft (KB) (TVD)**  
Total Depth: 3752.00 ft (KB) (TVD)  
Reference Elevations: 1932.00 ft (KB)  
1921.00 ft (CF)  
Hole Diameter: 7.85 inches Hole Condition: Good  
KB to GR/CF: 11.00 ft

Serial #: **6751** Outside  
Press@RunDepth: 57.38 psig @ 3720.00 ft (KB) Capacity: psig  
Start Date: 2021.09.25 End Date: 2021.09.25 Last Calib.: 1899.12.30  
Start Time: 05:31:01 End Time: 14:19:02 Time On Btm: 2021.09.25 @ 09:04:32  
Time Off Btm: 2021.09.25 @ 12:19:32

TEST COMMENT: IF: BOB ASAO, strong building blow  
IS: No blow back  
FF: BOB GTS ASAO, strong blow  
FS: No blow back



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1890.40	111.19	Initial Hydro-static
3	64.12	111.29	Open To Flow(1)
12	98.46	104.46	Shut-In(1)
76	1235.07	102.75	End Shut-In(1)
77	51.62	103.48	Open To Flow(2)
139	57.38	85.14	Shut-In(2)
193	1194.91	88.67	End Shut-In(2)
195	1843.63	98.63	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
10.00	gassy mud, 10%G, 90%M	0.05

### Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (MMcfD)
First Gas Rate	0.25	57.61	0.11
Last Gas Rate	0.38	38.36	0.19
Max. Gas Rate	0.25	67.20	0.16

## Drill Stem Test #2



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Thomas Garner  
305 E 7th Ave St. John, KS 67576  
ATTN: Keith

8/24/13  
Carl 1  
Job Ticket: 67629 DST#: 2  
Test Start: 2021.09.26 @ 01:16:00

### GENERAL INFORMATION:

Formation: **Lansing L&M**



Deviated: No Whipstock: 1932.00 ft (KB)  
 Time Tool Opened: 03:16:17  
 Time Test Ended: 07:48:02

Test Type: Conventional Bottom Hole (Initial)  
 Tester: Chris Hagman  
 Unit No: 69

Interval: 3800.00 ft (KB) To 3830.00 ft (KB) (TVD)  
 Total Depth: 3838.00 ft (KB) (TVD)  
 Hole Diameter: 7.85 inches -hole Condition: Good

Reference Elevations: 1932.00 ft (KB)  
 1921.00 ft (CF)  
 KB to GR/CF: 11.00 ft

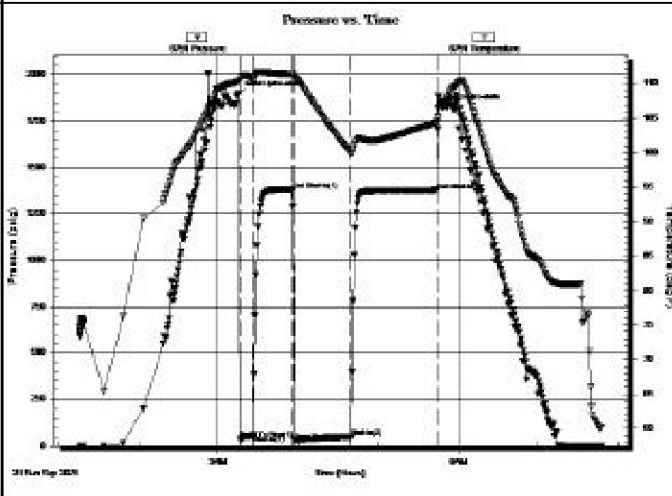
Serial #: 6751

Outside

Press@RunDepth: 49.17 psig @ 3804.00 ft (KB)  
 Start Date: 2021.09.26 End Date: 2021.09.26  
 Start Time: 01:16:01 End Time: 07:48:02

Capacity: psig  
 Last Calib.: 1899.12.30  
 Time On Btm: 2021.09.26 @ 03:15:17  
 Time Off Btm: 2021.09.26 @ 05:45:02

TEST COMMENT: IF: BOB 5 sec., strong building blow, 538 inches  
 IST: No blow back  
 FF: BOBGTS ASAO, strong steady blow  
 FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1893.52	110.34	Initial Hydro-static
1	39.13	110.40	Open To Flow (1)
11	58.57	110.51	Shut-In (1)
41	1380.32	111.37	End Shut-In (1)
42	28.99	110.80	Open To Flow (2)
85	49.17	99.87	Shut-In (2)
149	1377.83	104.36	End Shut-In (2)
150	1823.25	105.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	oil spotted gassy mud 5% G, 95% M	0.15

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (MMcfd)
First Gas Rate	0.38	10.74	0.09
Last Gas Rate	0.38	16.82	0.11
Max. Gas Rate	0.38	16.82	0.11

Drill Stem Test #3 Mis-Run

Drill Stem Test #4



DRILL STEM TEST REPORT

Thomas Garner  
 305 E 7th Ave St. John, KS 67576  
 ATTN: Keith

8/24/13  
 Carl 1  
 Job Ticket: 67631 DST#:4  
 Test Start: 2021.09.27 @ 22:16:00

GENERAL INFORMATION:

Formation: Miss  
 Deviated: No Whipstock: 1932.00 ft (KB)  
 Time Tool Opened: 00:01:02  
 Time Test Ended: 04:02:02

Test Type: Conventional Bottom Hole (Initial)  
 Tester: Chris Hagman  
 Unit No: 69

Interval: 3853.00 ft (KB) To 3902.00 ft (KB) (TVD)  
 Total Depth: 3902.00 ft (KB) (TVD)  
 Hole Diameter: 7.85 inches -hole Condition: Good

Reference Elevations: 1932.00 ft (KB)  
 1921.00 ft (CF)  
 KB to GR/CF: 11.00 ft

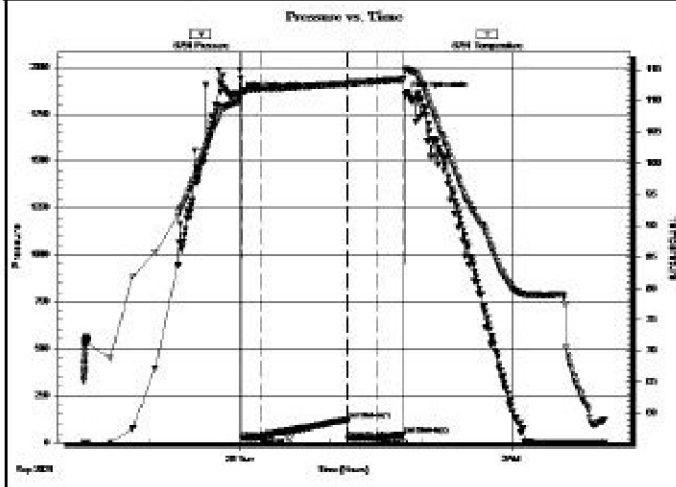
Serial #: 6751

Outside

Serial #: 6751      Outside  
 Press@RunDepth: 26.59 psig @ 3855.00 ft (KB)  
 Start Date: 2021.09.27      End Date:  
 Start Time: 22:16:01      End Time:

Capacity: psig  
 Last Calib.: 1899.12.30  
 Time On Btm: 2021.09.27 @ 23:59:17  
 Time Off Btm: 2021.09.28 @ 01:49:32

TEST COMMENT: IF: Weak surface blow, .5 inches  
 IS: No blow back  
 FF: Weak surface blow, 2.5 inches  
 FS: No blow back



**PRESSURE SUMMARY**

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1849.75	109.94	Initial Hydro-static
2	22.08	111.07	Open To Flow (1)
14	32.03	111.93	Shut-In (1)
72	121.19	112.78	End Shut-In (1)
73	23.26	112.83	Open To Flow (2)
92	26.59	113.14	Shut-In (2)
110	42.08	113.40	End Shut-In (2)
111	1848.68	114.93	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
20.00	100%M	0.10

**Gas Rates**

Choke (inches)	Pressure (psig)	Gas Rate (MMcfd)

**Drill Stem Test #5**



**DRILL STEM TEST REPORT**

Thomas Garner      8/24/13  
 305 E 7th Ave St. John, KS 67576      Carl 1  
 ATTN: Keith      Job Ticket: 67632      DST#: 5  
 Test Start: 2021.09.28 @ 21:55:00

**GENERAL INFORMATION:**

Formation: **Simp SND**  
 Deviated: No Whipstock: 1932.00 ft (KB)  
 Time Tool Opened: 00:08:47  
 Time Test Ended: 05:25:02  
 Interval: **4068.00 ft (KB) To 4112.00 ft (KB) (TVD)**  
 Total Depth: 4112.00 ft (KB) (TVD)  
 Hole Diameter: 7.85 inches - Hole Condition: Good  
 Test Type: Conventional Bottom Hole (hita)  
 Tester: Chris Hagman  
 Unit No: 69  
 Reference Elevations: 1932.00 ft (KB)  
 1921.00 ft (CF)  
 KB to GR/CF: 11.00 ft

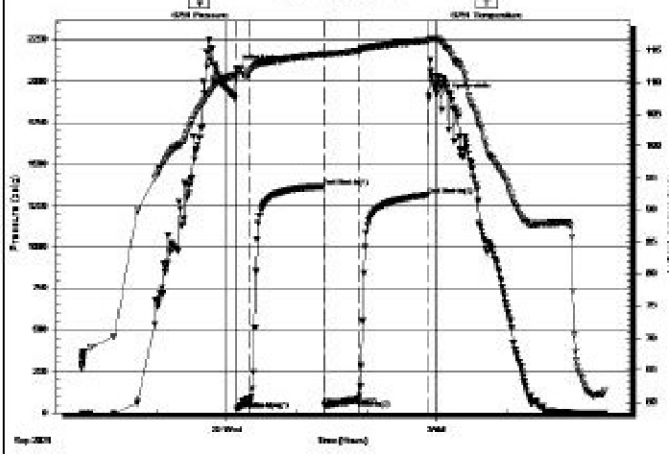
Serial #: 6751      Outside  
 Press@RunDepth: 80.80 psig @ 4070.00 ft (KB)  
 Start Date: 2021.09.28      End Date: 2021.09.29  
 Start Time: 21:55:01      End Time: 05:25:02

Capacity: psig  
 Last Calib.: 1899.12.30  
 Time On Btm: 2021.09.29 @ 00:08:02  
 Time Off Btm: 2021.09.29 @ 02:53:32

TEST COMMENT: IF: Weak surface blow, died 1 min.  
 IS: No blow back  
 FF: Weak surface blow, .5 inches  
 FS: No blow back

**PRESSURE SUMMARY**





Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2079.60	111.21	Initial Hydro-static
1	25.52	110.99	Open To Flow(1)
12	70.99	111.95	Shut-In(1)
75	1366.21	114.30	End Shut-In(1)
76	48.10	114.22	Open To Flow(2)
105	80.80	114.96	Shut-In(2)
165	1315.12	116.47	End Shut-In(2)
168	1909.81	116.62	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
150.00	gassy muddy oil 15%G, 25%M, 60%O	0.74

Gas Rates			
	Choke (Inches)	Pressure (psig)	Gas Rate (MMcfd)

### ROCK TYPES

Cht	Dolprim	shale, grn	shale, red
Cht vari	Lmst fw<7	shale, gry	Shcol
Chtcongl	Lmst fw7>	Carbon Sh	Ss

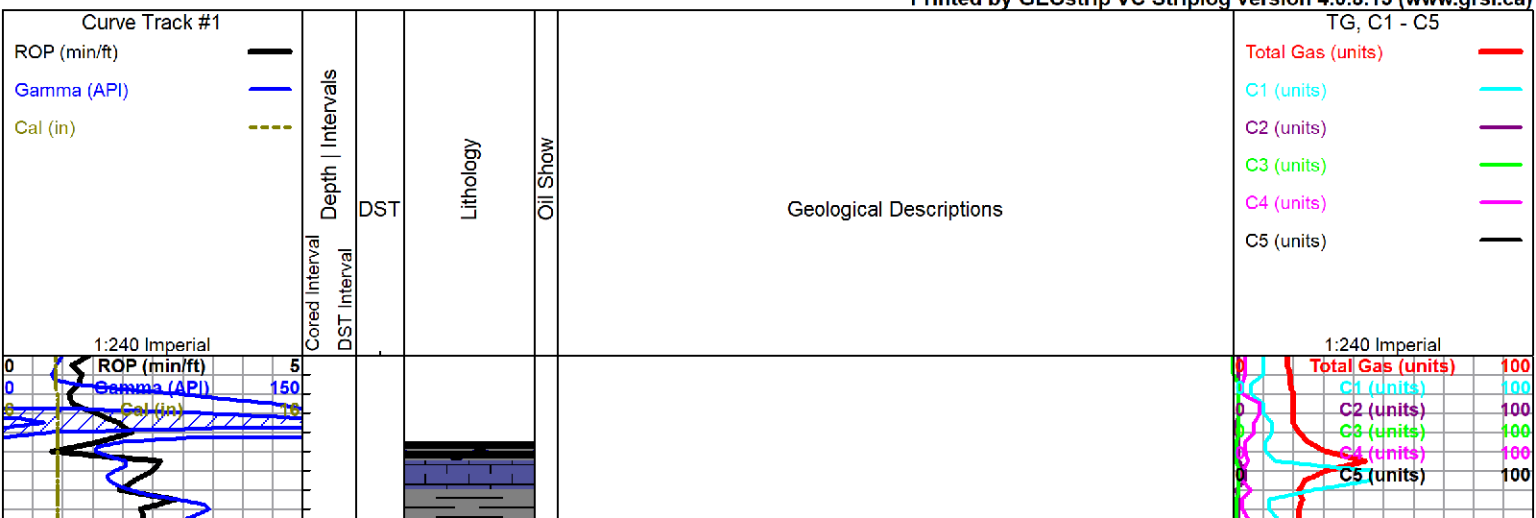
### ACCESSORIES

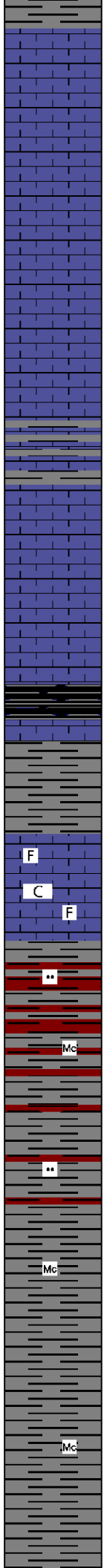
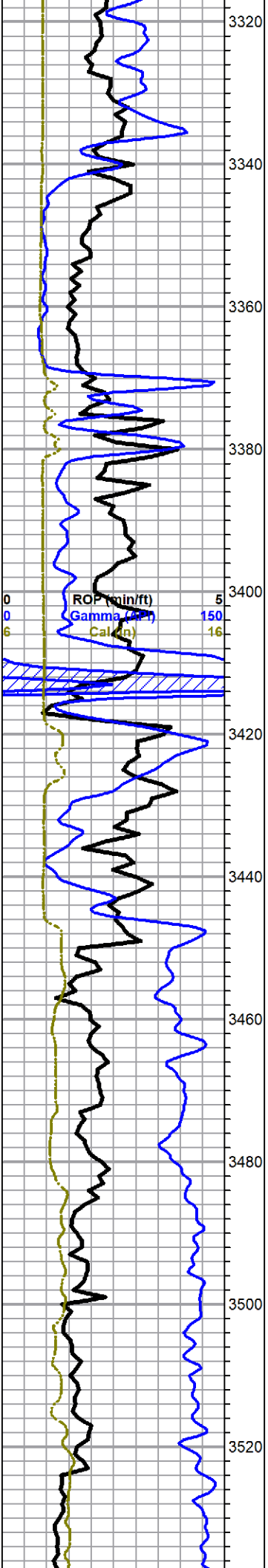
<b>MINERAL</b>	<b>FOSSIL</b>	<b>STRINGER</b>	<b>TEXTURE</b>
▲ Chert, dark	F Fossils < 20%	Dolomite	C Chalky
⊠ Chert, tripolitic	○ Oolite	Sandstone	CX Cryptocrystalline
•• Silty	⊗ Pellets		L Lithogr
⋯ Varicolored chert	⊕ Oomoldic		
△ Chert White	⊖ Fossilinid		
Mc Mica			

### OTHER SYMBOLS

<b>Oil Show</b>	<b>DST</b>
● Good Show	DST Int
● Fair Show	DST alt
● Poor Show	Core
○ Spotted or Trace	tail pipe
○ Questionable Stn	
D Dead Oil Stn	
■ Fluorescence	
* Gas	

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begin 10 ft wet and dry samples @ 3400'

**Heebner 3413 -1482**

shale, black carbonaceous

**Toronto 3434 -1503**

limestone, light gray to white, cryptocrystalline, fossiliferous, grainy in part, chalky in part, trace vugs, poor overall porosity, no shows, abundant chalk

**Douglas 3449 -1518**

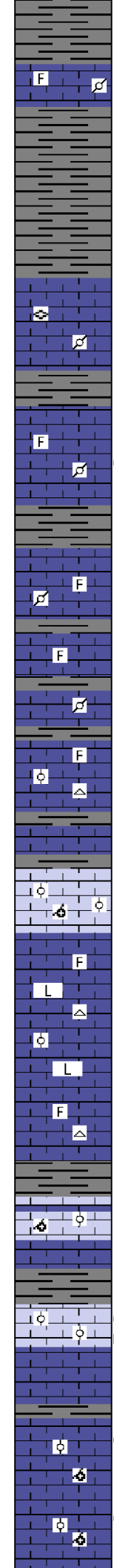
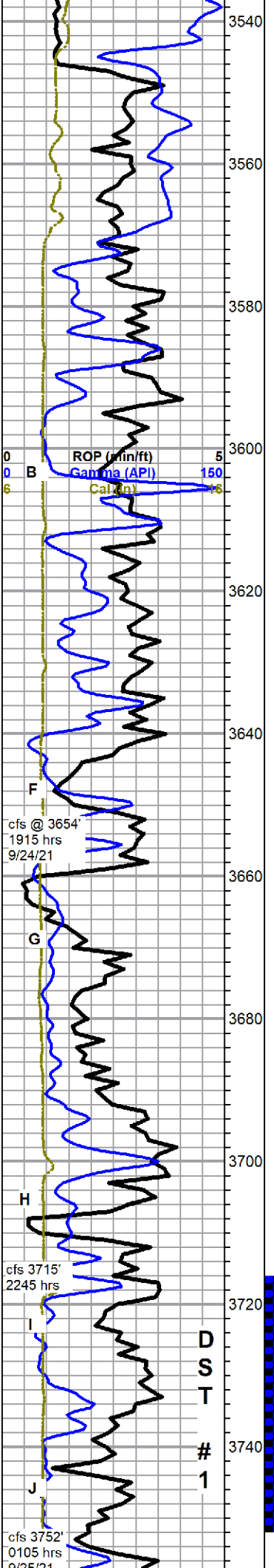
shale, red and gray, slightly silty, gray shales slightly micaceous

red shales dropping out  
gray shales a.a., slight increase mica

shale, soft, gray, mushy

Total Gas (units)	100
C1 (units)	100
C2 (units)	100
C3 (units)	100
C4 (units)	100
C5 (units)	100

MudCo Mud Ck  
3427 ft  
9/24/21 0855 hrs  
Vis 52 Wt 9.0  
PV 17 YP 24  
pH 11.0 WL 6.0  
Cake 1/32  
Cl 3900 ppm  
Ca tr ppm  
Solids 4.8%  
LCM 2#  
DMC \$1741.21  
CMC \$9054.19



### Brown Lime 3546 -1615

limestone, brown to gray, fine crystalline, fossiliferous, grainy, dense, some cream, chalky, some gray pelletal, no shows

### Lansing 3576 -1645

limestone, variable gray, mottled, micro-cryptocrystalline, recrystallized, pelletal, fusulinids, sucrosic in part, trace small vugs, poor overall porosity, no shows

limestone, light gray, cryptocrystalline dense, cream, chalky, mottled grays, pelletal to fossiliferous, recrystallized, some brown fragments, poor visible porosity, faint odor, no stain, 2 specimens in 4 trays with trace oil droplets on break, poor fluorescence

3620 sample, a.a. with influx white crystalline limestone, chalky in part, no stain or oil, good odor, some scattered fair fluorescence

limestones, mixed, brown and gray, dense fossiliferous, gray mottled pelletal, white to light gray, fossiliferous to sub-lithographic, chalky in part, no shows

a.a.

limestone, tan to cream and light gray, crypto-microcrystalline, fossiliferous, some crystalline sub-oolitic, recrystallized, poor visible porosity, no shows, scattered white chert

limestone, tan to cream, oolitic to oomoldic, some good inter-oolite and vuggy mold porosity, barren

limestone, light gray to cream, cryptocrystalline, fossiliferous to lithographic, dense, some mixed chalky and sub-oolitic limestones, scattered gray to white cherts, no shows

limestone, cream to light gray, recrystallized sub-oolitic to sub-oomoldic, poor visible porosity, no shows, poor fluorescence

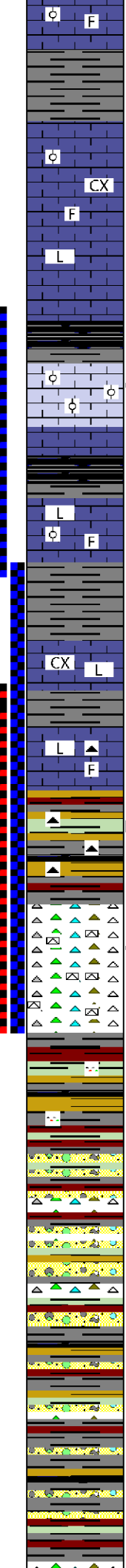
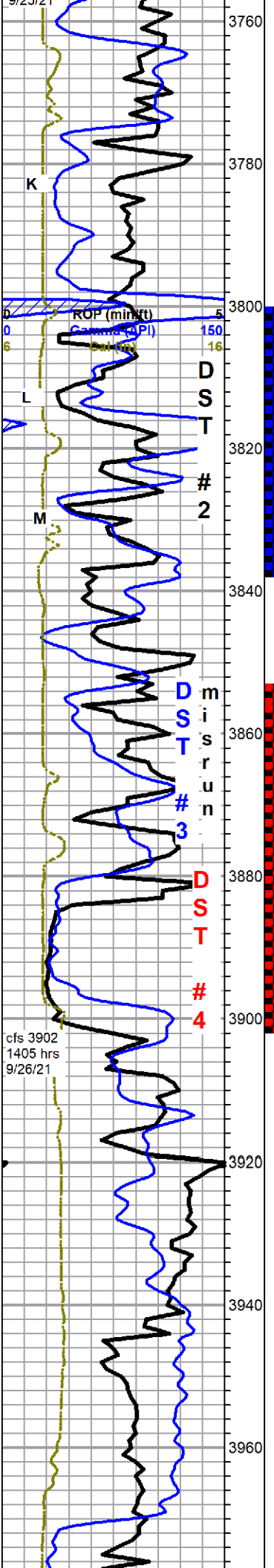
limestone, tan and gray, oolitic, some fair inter-oolite porosity, good staining to barren, trace of free oil with fair show oil droplets on break, no odor in wet cup but few pieces odor on break, poor fluorescence, good cut

limestone, white to cream, sub-oolitic to sub-oomoldic, scattered light golden stain, trace heavy dark dead stain, few pieces good light streaming oil and light droplets on break, no odor, light fluorescence, slow streaming ribbons on cut

60 min sample, limestone, white, weathered, mostly chalky oolitic, some very light stain, few specimens with good show gassy oil on break, no free oil in tray, no odor in wet cup, slight cut with good halo

Total Gas (units)	100
C1 (units)	100
C2 (units)	100
C3 (units)	100
C4 (units)	100
C5 (units)	100

MudCo Mud Ck  
3752 ft  
9/25/21 0755 hrs  
Vis 60 Wt 9.4  
PV 18 YP 30  
pH 10.5 WL 6.4  
Cake 1/32  
Cl 5700 ppm  
Ca 20 ppm  
Solids 7.5%  
LCM 2#  
DMC \$140.07  
CMC \$9202.26



limestone, white grainy oolitic, dense gray cryptocrystalline, partly fossiliferous to lithographic

limestone, cream to gray, mostly smooth dense lithographic, rest is fossiliferous to slightly oolitic, still dense, no shows

shale, black carbonaceous

limestone, white to gray, weathered fine oolitic, chalky to cherty mix, some friable, good inter-oolite and pin-point porosity, spotty to saturated brown to black stain, good odor, good show gassy, heavy oil, no fluorescence, slow milky streaming cut

shale, black carbonaceous

limestone mix, gray to brown, lithographic to fossiliferous, some cherty oolitic, dense to chalky, shows questionable due to abundant carryover from above

**Base KC 3836 -1905**

limestone, mostly light gray, cyptocrystalline, lithographic, dense, some mixed gray to tan and lavender limestones, trace oolites and fossiliferous

mixed limestone, fossiliferous to lithographic, with some orange cherts

multi-colored shales with pale green cherts, dead black staining, no free oil, no odor - conglomeritic

**Mississippian 3884 -1953**  
(Penn congl.? or lower Marmaton)

chert, yellow, tan and smokey gray, appx 70% fresh and sharp, some tripolitic edges, with balance tripolitic, white to gray, fair porosity, spotted to good wormy to saturated stain, slight show slow bleeding oil and free oil in tray, fleeting odor, poor fluorescence, slow blooming light milky cut

**Kinderhook 3902 -1971**

shale, maroon, lavender, green, gray, black, with cherts from above

conglomerate, shales a.a., green, yellow, black and orange cherts, heavy red wash with abundant pink mushy clays

conglomerate a.a., more gray wash

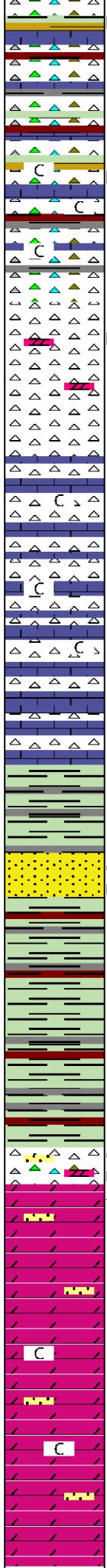
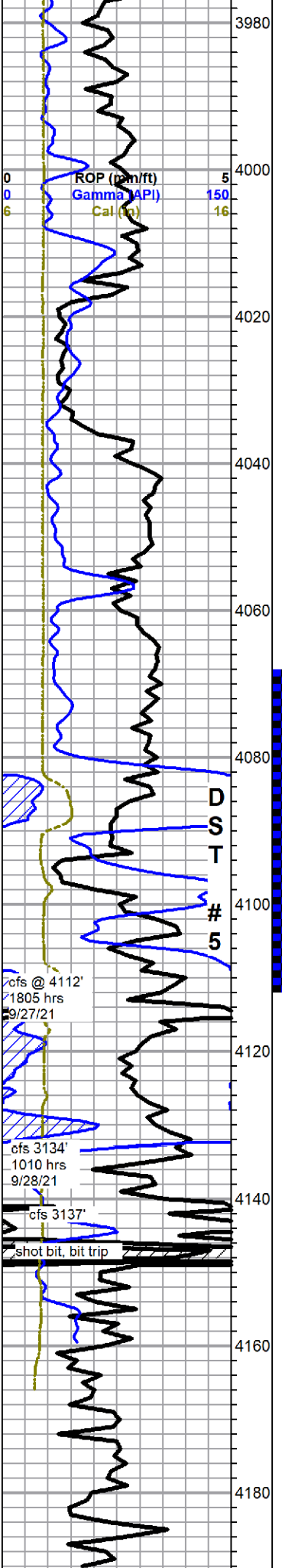
Total Gas (units)	100
C1 (units)	100
C2 (units)	100
C3 (units)	100
C4 (units)	100
C5 (units)	100

141 unit total  
shale kick  
re-cycle

MudCo Mud Ck	3838 ft
	9/226/21 0910 hrs
	Vis 60 Wt 9.2
	PV 17 YP 25
	pH 10.5 WL 6.4
	Cake 1/32
	Cl 7000 ppm
	Ca 20 ppm
	Solids 6.0%
	LCM 1#
	DMC \$913.25
	CMC \$10115.51

had to replace filament in Tooke

MudCo Mud Ck	3942 ft
	9/27/21 0915 hrs
	Vis 53 Wt 9.2
	PV 15 YP 22
	pH 10.5 WL 6.0
	Cake 1/32
	Cl 7300 ppm
	Ca tr ppm
	Solids 6.0%
	LCM 1#
	DMC \$955.18
	CMC \$11110.69



chert, white, yellow, some pale green to gray, weathered to tripolitic, heavy to spotted dead black stain, no free oil or odor, with limestone, yellow, pale green, cream, mix of dense cryptocrystalline to chalky, grainy

chert and limestone a.a., increase in limestone, still carrying abundant shales, flood chalk in samples

**Viola 4018 -2087**

chert, boney white to light gray, mostly fresh and sharp, some slightly weathered and tripolitic, less than 10% dead black stain, no free oil in tray, with: brown and tan dolomite, some stained, bright green fluorescence, trace white crystalline limestone, fleeting sour odor in wet cup, no cut fluorescence

60% chert a.a., barren, sharp, fresh, limestone, gray, light gray and cream, cryptocrystalline, sub-lithographic, dense, abundant chalk, no shows

a.a., some redish brown arenaceous limestones

increase limestone, decrease chert, flood chalk in 4090 & 4100 samples

**Simpson 4081 -2151**

4100 sample, flood green shales, gray shale, some white quartz sand, very dense cement matrix, barren,

**Simpson Sand 4093 -2162**

● sandstone, quartz, very fine grain, well rounded, fair sorting, well to fair cementing, clean to shaley (inclusions), good odor, good show free oil, light golden to heavy brown saturated stain, good fluorescence, slow streaming cut, slowly blooms into good cut

shales, waxy green, gray and maroon

**Arbuckle 4133 -2202**

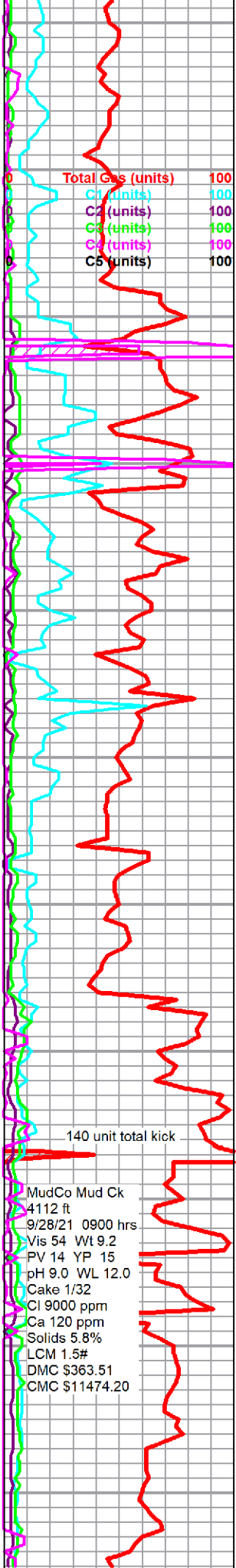
● chert, brown to white/gray mottled and lavender, oolitic, mostly sharp/fresh, some adhering brown dolomite, good fluorescence, trace white tripolitic, bleeding oil and gas, trace brown micro-crystalline dolomite, stained, faint odor

\* 30 min sample, influx white very fine grain sandstone, well sorted and cemented, barren, 60 min, a.a., few pieces gray dense cryptocrystalline, no stain, no free oil, no odor

4150 & 60 samples, mostly trip trash

● dolomite, mixed gray and tan, micro-cryptocrystalline, some scattered sub-rhombic, dense, poor visible porosity, abundant caliche-chalk, sand stringers a.a., barren

● dolomite a.a., influx of some fairly porous rhombic, no shows, still abundant caliche, sand drops out



140 unit total kick

MudCo Mud Ck  
4112 ft  
9/28/21 0900 hrs  
Vis 54 Wt 9.2  
PV 14 YP 15  
pH 9.0 WL 12.0  
Cake 1/32  
Cl 9000 ppm  
Ca 120 ppm  
Solids 5.8%  
LCM 1.5#  
DMC \$363.51  
CMC \$11474.20

Rotary TD 4190 ft 2100 hrs 9/28/21  
Midwest Wireline TD 4188'  
Complete wireline operations 0500 hrs 9/29/21





Bob's Hauling Service Inc.

Invoice

P.O. Box 277

St John ,Ks. 67576

Phone 1-620-549-3228-Office

Phone 1-620-793-4017 - Bob's Mobile

Date	Invoice #
9/27/2021	31652

Bill To
Tom Garner 307 E 7th Ave. St. John, KS 67576

Project	Terms	PO Number
Carl #1	Net 30	

Item	Qty	Description	Rate	Amount
Vac Truck	4.5	240 bbls free water to SWD -- service date -- 9/24/21	87.50	393.75
SWD Charge	3	SWD Charge	20.00	60.00
<p><i>Thanks Bob</i></p> <p>PERMIT DOC #D23350 OPERATOR 33779 LEGAL NW4-34-23-13W ROGERS SWD</p>				

Thank you for your business.	E-mail	<b>Total</b>	\$453.75
	bobshaulingservice@gmail.com		



## HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.  
250 N. Water, Suite 200  
Wichita, KS 67202  
316-303-9515

Customer:  
THOMAS GARNER INC  
305 E 7TH AVE  
SAINT JOHN, KS 67576-1652

Invoice Date: 9/21/2021  
Invoice #: 0355782  
Lease Name: Carl #1  
Well #: 1 (New)  
County: Stafford, Ks  
Job Number: WP1888  
District: Pratt

Date/Description	HRS/QTY	Rate	Total
8 5/8	0.000	0.000	0.00
Cement Pozmix 60/40	400.000	11.700	4,680.00
Calcium Chloride	1,032.000	0.675	696.60
Cello Flake	100.000	1.575	157.50
Wooden plug 8 5/8"	1.000	135.000	135.00
Light Eq Mileage	25.000	1.800	45.00
Heavy Eq Mileage	25.000	3.600	90.00
Ton Mileage	430.000	1.350	580.50
Depth Charge 0'-500'	1.000	900.000	900.00
Cement Plug Container	1.000	225.000	225.00

**Total** 7,509.60

**TERMS:** Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

**SALES TAX:** Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

**WE APPRECIATE YOUR BUSINESS!**





Customer	Thomas Garner Inc	Lease & Well #	Carl 1-1	Date	9/21/2021
Service District	Pratt Kansas	County & State	Stafford Kansas	Legals S/T/R	8-24s-13w
Job Type	8 5/8	<input checked="" type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	Job #
		New Well? <input checked="" type="checkbox"/> YES <input type="checkbox"/> No			Ticket #
					wp 1888

Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			
916	M Brungardt	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
176/521	R Osborn	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
182	M Flores	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input checked="" type="checkbox"/> Muster Point/Medical Locations
		<input type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	

**Comments**

Product/ Service Code	Description	Unit of Measure	Quantity	Net Amount
cp070	60/40/2 Pozmix	sack	400.00	\$4,680.00
cp100	Calcium Chloride	lb	1,032.00	\$696.60
cp120	Cello-flake	lb	100.00	\$157.50
fe290	8 5/8" Wooden Plug	ea	1.00	\$135.00
m015	Light Equipment Mileage	mi	25.00	\$45.00
m010	Heavy Equipment Mileage	mi	25.00	\$90.00
m020	Ton Mileage	tm	430.00	\$580.60
d010	Depth Charge: 0'-500'	job	1.00	\$900.00
c050	Cement Plug Container	job	1.00	\$225.00

Customer Section: On the following scale how would you rate Hurricane Services Inc.?

Based on this job, how likely is it you would recommend HSI to a colleague? <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely	Total Taxable	\$ -	Tax Rate:	Net:	\$7,509.60
	State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.				Sale Tax:
				Total:	\$ 7,509.60

HSI Representative: *Mark Brungardt*

**TERMS:** Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/2% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

x *[Signature]* CUSTOMER AUTHORIZATION SIGNATURE





CEMENT TREATMENT REPORT					
Customer:	Thomas Garner Inc	Well:	Carl 1-1	Ticket:	wp 1888
City, State:	ST John Kansas	County:	Stafford Kansas	Date:	9/21/2021
Field Rep:	Tom Garner	S-T-R:	8-24s-13w	Service:	8.625

Downhole Information		Calculated Slurry - Lead		Calculated Slurry - Tail	
Hole Size:	12 1/4 in	Blend:	60/40/2&3	Blend:	
Hole Depth:	410 ft	Weight:	14.8 ppg	Weight:	ppg
Casing Size:	8 5/8 in	Water / Sx:	5.2 gal / sx	Water / Sx:	gal / sx
Casing Depth:	407 ft	Yield:	1.21 ft <sup>3</sup> / sx	Yield:	ft <sup>3</sup> / sx
Tubing / Liner:	in	Annular Bbls / Ft.:	bbs / ft.	Annular Bbls / Ft.:	bbs / ft.
Depth:	ft	Depth:	ft	Depth:	ft
Tool / Packer:		Annular Volume:	0.0 bbls	Annular Volume:	0 bbls
Tool Depth:	ft	Excess:		Excess:	
Displacement:	24.0 bbls	Total Slurry:	86.0 bbls	Total Slurry:	0.0 bbls
		Total Sacks:	400 sx	Total Sacks:	0 sx

TIME	RATE	PSI	STAGE TOTAL		REMARKS
			BBLs	BBLs	
4:30 AM			-	-	on location job and safety
4:45 AM				-	spot trucks and rig up
				-	
5:45 AM				-	start casing in the hole
6:55 AM				-	casing on bottom and circulate
				-	
7:00 AM				-	start cement
	6.0	250.0	86.0	86.0	mix 400 sacks
7:30 AM				86.0	cement in and shut down
7:34 AM				-	start displacement
7:45 AM		150.0	24.0		displacement in
					cement did circulate

	CREW		UNIT	SUMMARY		
				Average Rate	Average Pressure	Total Fluid
Cementer:	M Brungardt		916			
Pump Operator:	R Osborn		176/521	6.0 bpm	200 psi	110 bbls
Bulk #1:	M Flores		182			
Bulk #2:						



## HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.  
250 N. Water, Suite 200  
Wichita, KS 67202  
316-303-9515

Customer:  
THOMAS GARNER INC  
305 E 7TH AVE  
SAINT JOHN, KS 67576-1652

Invoice Date: 9/29/2021  
Invoice #: 0355787  
Lease Name: Carl #1  
Well #: 1 (New)  
County: Stafford, Ks  
Job Number: WP1922  
District: Pratt

Date/Description	HRS/QTY	Rate	Total
5 1/2" Casing	0.000	0.000	0.00
H-Long	195.000	25.200	4,914.00
H-Plug	50.000	11.700	585.00
GYP Seal	920.000	0.900	828.00
Cement Fluid Loss 2	10.000	13.500	135.00
Gas Block	552.000	2.700	1,490.40
5 1/2" Floatshoe-Flapper AFU	1.000	337.500	337.50
5 1/2" LD Plug & Baffle	1.000	315.000	315.00
Cement baskets 5 1/2"	2.000	270.000	540.00
5 1/2" Turbolizers	10.000	72.000	720.00
Mud flush	1,000.000	0.900	900.00
Light Eq Mileage	25.000	1.800	45.00
Heavy Eq Mileage	25.000	3.600	90.00
Ton Mileage	283.000	1.350	382.05
Depth Charge 4001'-5000'	1.000	2,250.000	2,250.00
Cement Plug Container	1.000	225.000	225.00

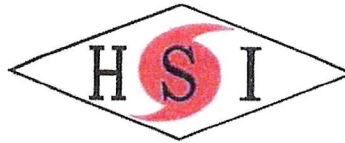
**Total** 13,756.95

**TERMS:** Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

**SALES TAX:** Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

**WE APPRECIATE YOUR BUSINESS!**





Customer	Thomas Garner Inc	Lease & Well #	Carl 1-1	Date	9/29/2021
Service District	Pratt Kansas	County & State	Stafford Kansas	Legals S/T/R	8-24s-13w
Job Type	5 1/2 casing	<input checked="" type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	Job #
					wp1922
				Legals S/T/R	
				New Well?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> No

Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			
916	M Brungardt	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
176/522	R Osborn	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
182/256	M Flores	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input checked="" type="checkbox"/> Muster Point/Medical Locations
		<input type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	

Comments	

Product/ Service Code	Description	Unit of Measure	Quantity	Net Amount
cp030	H-Long	sack	195.00	\$4,914.00
cp055	H-Plug	sack	50.00	\$585.00
cp105	Gypsum	lb	920.00	\$828.00
cp132	Cement Fluid Loss 2	lb	10.00	\$135.00
cp155	Gas Block	lb	552.00	\$1,490.40
fe145	5 1/2" Float Shoe - AFU Flapper Type	ea	1.00	\$337.50
fe170	5 1/2" Latch Down Plug & Baffle	ea	1.00	\$315.00
fe130	5 1/2" Cement Basket	ea	2.00	\$540.00
fe135	5 1/2 Turbolizer	ea	10.00	\$720.00
cp170	Mud Flush	gal	1,000.00	\$900.00
m015	Light Equipment Mileage	mi	25.00	\$45.00
m010	Heavy Equipment Mileage	mi	25.00	\$90.00
m020	Ton Mileage	tm	283.00	\$382.05
d015	Depth Charge: 4001'-5000'	job	1.00	\$2,250.00
c050	Cement Plug Container	job	1.00	\$225.00

Customer Section: On the following scale how would you rate Hurricane Services Inc.?		Total Taxable	\$ -	Tax Rate:	Net:	\$13,756.95
Based on this job, how likely is it you would recommend HSI to a colleague?		State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.		Sale Tax:	\$ -	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Unlikely 1    2    3    4    5    6    7    8    9    10    Exceedingly Likely				Total:	\$ 13,756.95	
HSI Representative: <i>Mark Brungardt</i>						

**TERMS:** Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 3/4% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X \_\_\_\_\_ **CUSTOMER AUTHORIZATION SIGNATURE**





**CEMENT TREATMENT REPORT**

<b>Customer:</b> Thomas Garner Inc	<b>Well:</b> Carl 1-1	<b>Ticket:</b> wp1922
<b>City, State:</b> ST John Kansas	<b>County:</b> Stafford Kansas	<b>Date:</b> 9/29/2021
<b>Field Rep:</b> Tom Garner	<b>S-T-R:</b> 8-24s-13w	<b>Service:</b> 5 1/2 casing

Downhole Information	
Hole Size:	7 7/8 in
Hole Depth:	4189 ft
Casing Size:	5 1/2 in
Casing Depth:	4184 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	100.0 bbls

Calculated Slurry - Lead	
Blend:	H - Long
Weight:	15.0 ppg
Water / Sx:	6.0 gal / sx
Yield:	1.49 ft <sup>3</sup> / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	51.7 bbls
Total Sacks:	195 sx

Calculated Slurry - Tail	
Blend:	H -Plug
Weight:	13.7 ppg
Water / Sx:	6.9 gal / sx
Yield:	1.43 ft <sup>3</sup> / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	12.7 bbls
Total Sacks:	50 sx

TIME	RATE	PSI	BBLs	STAGE TOTAL BBLs	REMARKS
11:00 AM			-	-	on location job and safety
11:15 AM					spot trucks and rig up
					centralizers....2.3.4.7.8.9.10.11.12.13
					baskets....1 & 13
3:00 PM					start casing in the hole
5:30 PM					casing on bottom
6:00 PM					rig up and circulate
7:00 PM					start flush
	4.5	200.0	5.0	5.0	5bbls fresh
	4.5	200.0	24.0	29.0	1000 gal mud flush
	4.5	200.0	5.0		5 bbls fresh
7:10 PM			12.7		plug rat and mouse.....rat hole mix 30 sack.....mouse hole mix 20 sacks
7:25 PM					start cement
	4.5	300.0	51.7		mix 195 sacks
7:40 PM					shut down pump & wqash pump and lines
7:45 PM					start displacement
	6.0	200.0	40.0		
	6.0	500.0	70.0		
	3.0	600.0	90.0		slow rate
8:15 PM	3.0	900.0	100.0		plug landed....900 to 1600.....plug did hold

CREW		UNIT		SUMMARY		
Cementer:	M Brungardt	916		Average Rate	Average Pressure	Total Fluid
Pump Operator:	R Osborn	176/522		4.5 bpm	388 psi	398 bbls
Bulk #1:	M Flores	182/256				
Bulk #2:						

Tom Garner  
carl 1-1

