



## DRILL STEM TEST REPORT

Prepared For: **R.F. Hembree Oil LLC**

PO Box 542  
Ness City KS 67560-0542

ATTN: Wyatt Urban

### **Beau #1**

#### **22-21s-21w Ness,KS**

Start Date: 2018.11.24 @ 07:12:00

End Date: 2018.11.24 @ 18:40:40

Job Ticket #: 53771                      DST #: 1

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

Printed: 2018.11.27 @ 10:55:43



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

R.F. Hembree Oil LLC  
 PO Box 542  
 Ness City KS 67560-0542  
 ATTN: Wyatt Urban

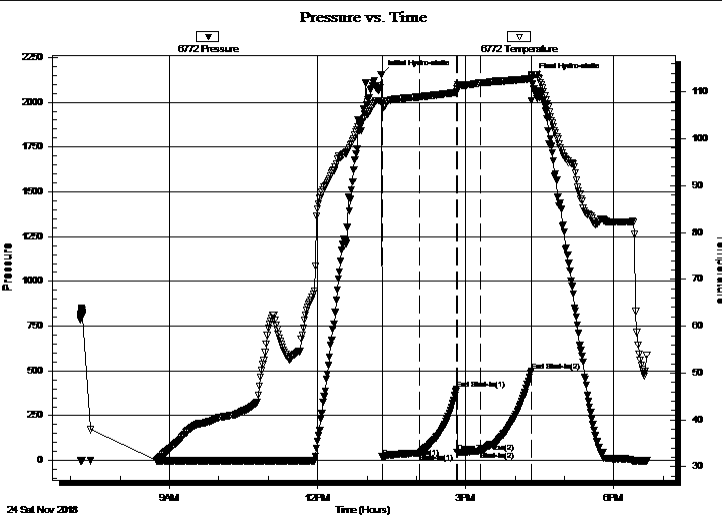
**22-21s-21w Ness, KS**  
**Beau #1**  
 Job Ticket: 53771 **DST#: 1**  
 Test Start: 2018.11.24 @ 07:12:00

## GENERAL INFORMATION:

Formation: **Miss**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:18:20  
 Time Test Ended: 18:40:40  
 Interval: **4224.00 ft (KB) To 4284.00 ft (KB) (TVD)**  
 Total Depth: 4284.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Benny Mulligan  
 Unit No: 66  
 Reference Elevations: 2136.00 ft (KB)  
 2129.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 6772 Inside**  
 Press@RunDepth: 52.67 psig @ 4225.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.11.24 End Date: 2018.11.24 Last Calib.: 2018.11.24  
 Start Time: 07:12:01 End Time: 18:40:40 Time On Btm: 2018.11.24 @ 13:17:09  
 Time Off Btm: 2018.11.24 @ 16:20:40

**TEST COMMENT:** I.F.-45- built to 6"  
 I.S.I.-45- no blow back  
 F.F.-45- built to 3"  
 F.S.I.-45- no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2155.31	108.02	Initial Hydro-static
2	21.08	107.29	Open To Flow (1)
47	40.38	108.95	Shut-In(1)
92	396.79	109.93	End Shut-In(1)
93	44.97	111.17	Open To Flow (2)
121	52.67	111.97	Shut-In(2)
183	500.02	112.85	End Shut-In(2)
184	2136.63	113.74	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
82.00	o.w.c.m. 5%O 5%W 90%M	1.15

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

R.F. Hembree Oil LLC  
 PO Box 542  
 Ness City KS 67560-0542  
 ATTN: Wyatt Urban

**22-21s-21w Ness, KS**  
**Beau #1**  
 Job Ticket: 53771      **DST#: 1**  
 Test Start: 2018.11.24 @ 07:12:00

**Tool Information**

Drill Pipe:	Length: 4229.00 ft	Diameter: 3.80 inches	Volume: 59.32 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	76000.00 lb
			<u>Total Volume: 59.32 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	72000.00 lb
Depth to Top Packer:	4224.00 ft			Final	73000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	60.00 ft				
Tool Length:	87.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			4198.00	
Shut In Tool	5.00			4203.00	
Hydraulic tool	5.00			4208.00	
Jars	5.00			4213.00	
Safety Joint	2.00			4215.00	
Packer	5.00			4220.00	27.00      Bottom Of Top Packer
Packer	4.00			4224.00	
Stubb	1.00			4225.00	
Recorder	0.00	6772	Inside	4225.00	
Recorder	0.00	6769	Outside	4225.00	
Perforations	22.00			4247.00	
Change Over Sub	1.00			4248.00	
Drill Pipe	32.00			4280.00	
Change Over Sub	1.00			4281.00	
Bullnose	3.00			4284.00	60.00      Bottom Packers & Anchor

**Total Tool Length: 87.00**



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

R.F. Hembree Oil LLC  
PO Box 542  
Ness City KS 67560-0542  
ATTN: Wyatt Urban

**22-21s-21w Ness,KS**  
**Beau #1**  
Job Ticket: 53771      **DST#: 1**  
Test Start: 2018.11.24 @ 07:12:00

## 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: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.77 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8400.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

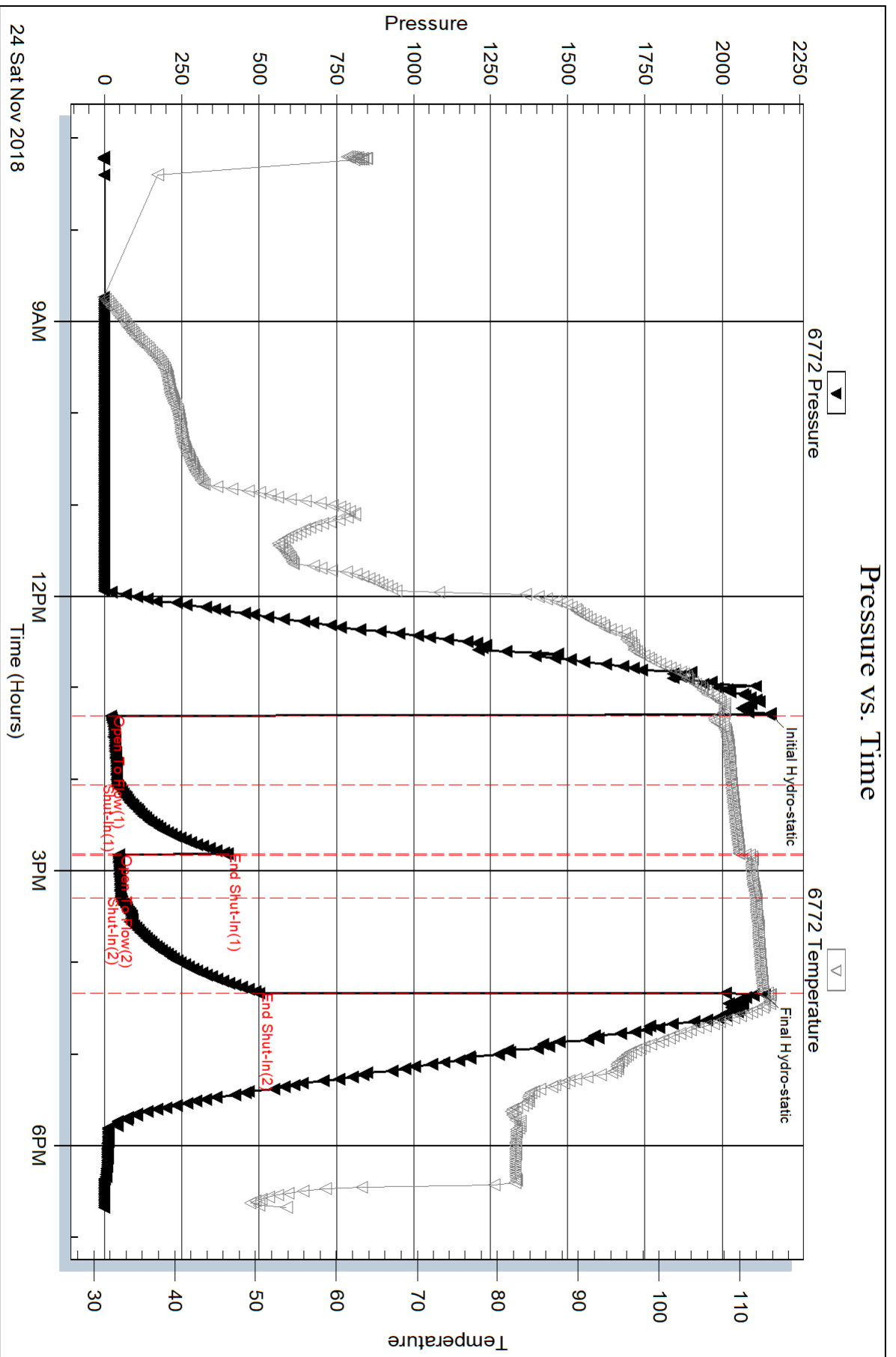
Length ft	Description	Volume bbl
82.00	o.w .c.m. 5%O 5%W 90%M	1.150

Total Length: 82.00 ft      Total Volume: 1.150 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

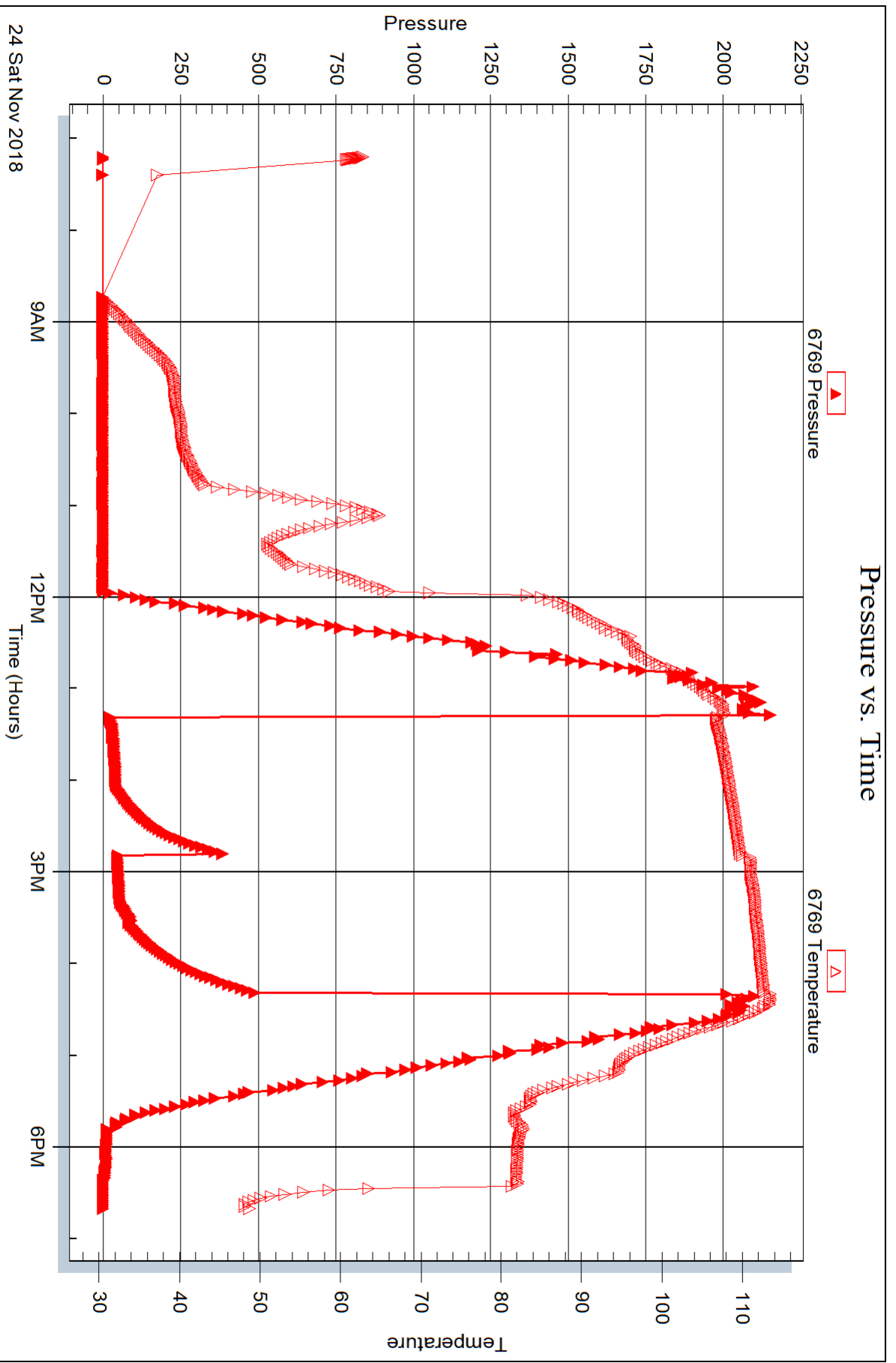


Serial #: 6769

Outside R.F. Hembree Oil LLC

Beau #1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **R.F. Hembree Oil LLC**

PO Box 542  
Ness City KS 67560-0542

ATTN: Wyatt Urban

### **Beau #1**

#### **22-21s-21w Ness,KS**

Start Date: 2018.11.25 @ 01:53:00

End Date: 2018.11.25 @ 10:21:50

Job Ticket #: 53772                      DST #: 2

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

Printed: 2018.11.27 @ 10:55:19





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

R.F. Hembree Oil LLC  
 PO Box 542  
 Ness City KS 67560-0542  
 ATTN: Wyatt Urban

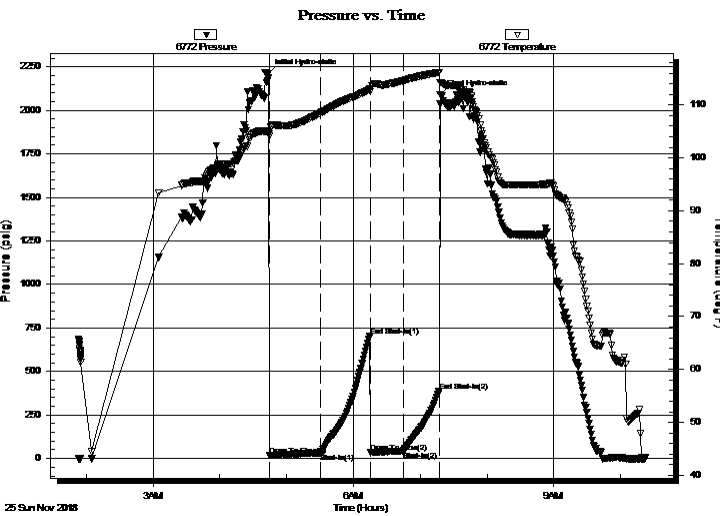
**22-21s-21w Ness, KS**  
**Beau #1**  
 Job Ticket: 53772      **DST#: 2**  
 Test Start: 2018.11.25 @ 01:53:00

## GENERAL INFORMATION:

Formation: **Miss**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 04:44:30  
 Time Test Ended: 10:21:50  
 Interval: **4274.00 ft (KB) To 4292.00 ft (KB) (TVD)**  
 Total Depth: 4292.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Benny Mulligan  
 Unit No: 66  
 Reference Elevations: 2136.00 ft (KB)  
 2129.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 6772 Inside**  
 Press@RunDepth: 43.74 psig @ 4275.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.11.25 End Date: 2018.11.25 Last Calib.: 2018.11.25  
 Start Time: 01:53:01 End Time: 10:21:50 Time On Btm: 2018.11.25 @ 04:43:20  
 Time Off Btm: 2018.11.25 @ 07:17:50

**TEST COMMENT:** I.F.-45- built to 5 1/2 "  
 I.S.I.-45- no blow back  
 F.F.-30- built to 2 1/2 "  
 F.S.I.-30- no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2209.95	104.84	Initial Hydro-static
2	19.68	104.08	Open To Flow (1)
47	32.19	108.47	Shut-In(1)
92	704.87	112.97	End Shut-In(1)
93	32.87	112.47	Open To Flow (2)
122	43.74	114.59	Shut-In(2)
154	386.56	116.14	End Shut-In(2)
155	2091.87	114.19	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	F.O 100%O	0.14
55.00	M.W. 25%M 75%W	0.77

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

R.F. Hembree Oil LLC  
 PO Box 542  
 Ness City KS 67560-0542  
 ATTN: Wyatt Urban

**22-21s-21w Ness, KS**  
**Beau #1**  
 Job Ticket: 53772      **DST#: 2**  
 Test Start: 2018.11.25 @ 01:53:00

**Tool Information**

Drill Pipe:	Length: 4262.00 ft	Diameter: 3.80 inches	Volume: 59.78 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 59.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4274.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	45.00 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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Change Over Sub	1.00			4248.00	
Shut In Tool	5.00			4253.00	
Hydraulic tool	5.00			4258.00	
Jars	5.00			4263.00	
Safety Joint	2.00			4265.00	
Packer	5.00			4270.00	27.00 Bottom Of Top Packer
Packer	4.00			4274.00	
Stubb	1.00			4275.00	
Recorder	0.00	6772	Inside	4275.00	
Recorder	0.00	6769	Outside	4275.00	
Perforations	14.00			4289.00	
Bullnose	3.00			4292.00	18.00 Bottom Packers & Anchor

**Total Tool Length: 45.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

R.F. Hembree Oil LLC  
 PO Box 542  
 Ness City KS 67560-0542  
 ATTN: Wyatt Urban

**22-21s-21w Ness,KS**  
**Beau #1**  
 Job Ticket: 53772      **DST#: 2**  
 Test Start: 2018.11.25 @ 01:53:00

**Mud and Cushion Information**

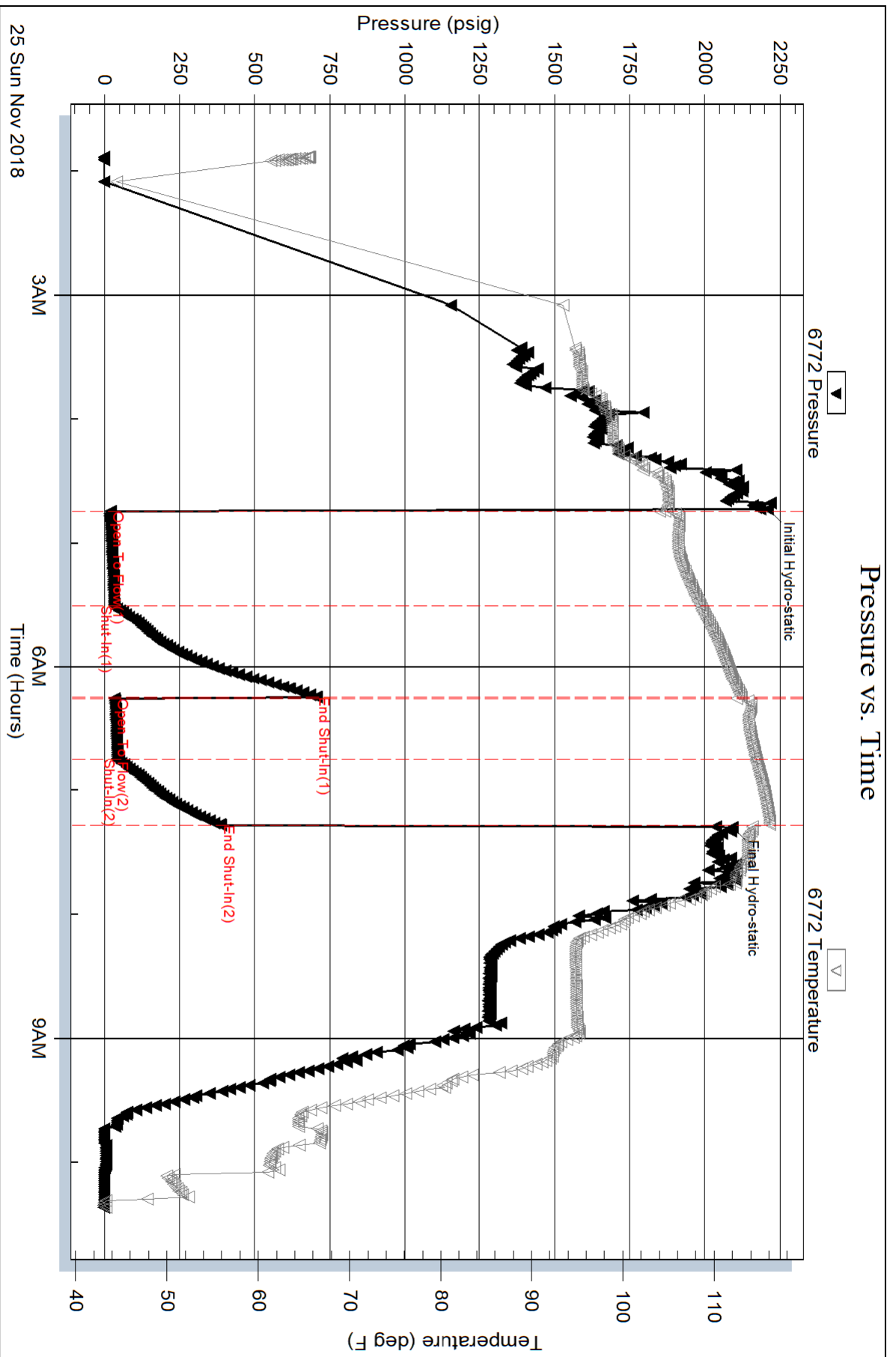
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	43000 ppm
Viscosity: 64.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8100.00 ppm			
Filter Cake: 1.00 inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
10.00	F.O 100%O	0.140
55.00	M.W. 25%M 75%W	0.772

Total Length: 65.00 ft      Total Volume: 0.912 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: 0.35@30.4



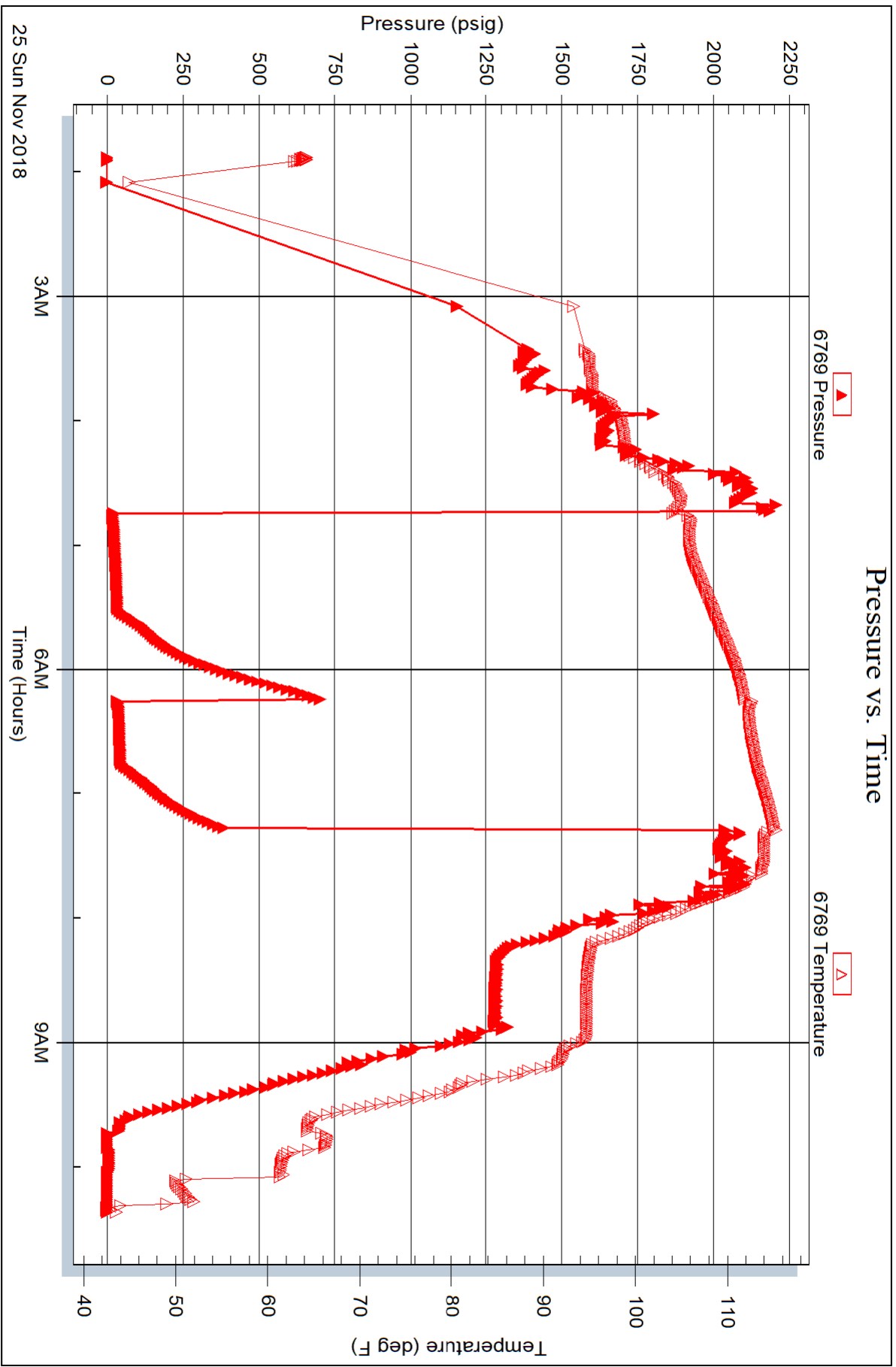
Serial #: 6769

Outside

R.F. Hembree Oil LLC

Beau #1

DST Test Number: 2





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53771

Well Name & No. Beau #1 Test No. 1 Date 11-24-2018  
 Company R.F. Hembree Oil LLC Elevation 2136' KB 2129' GL  
 Address PO box 542 Ness City KS 67560-0542  
 Co. Rep / Geo. Wyatt Rig Pickrell #10  
 Location: Sec. 22 Twp. 21s Rge. 21w Co. Hodgeman State KS

Interval Tested 4224-4284 Zone Tested Miss  
 Anchor Length 60' Drill Pipe Run 4229' Mud Wt. 9.1  
 Top Packer Depth 4219' Drill Collars Run --- Vis 50  
 Bottom Packer Depth 4224' Wt. Pipe Run --- WL 10.8  
 Total Depth 4284' Chlorides 8,400 ppm System LCM 1#

Blow Description I.F. - built to 6"  
I.S.I. - no blow back  
F.F. - built to 3"  
F.S.I. - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>82'</u>	<u>O.W.C.M.</u>		<u>5</u>	<u>5</u>	<u>90</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 82' BHT 113 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2155  Test 1150 T-On Location 5:50 AM  
 (B) First Initial Flow 21  Jars 250 T-Started 7:12  
 (C) First Final Flow 40  Safety Joint 75 T-Open 1:26  
 (D) Initial Shut-In 396  Circ Sub \_\_\_\_\_ T-Pulled 4:27  
 (E) Second Initial Flow 44  Hourly Standby 1.5h 120 T-Out 6:49  
 (F) Second Final Flow 52  Mileage 92 RT 92 Comments Pulled tight with bit  
 (G) Final Shut-In 500  Sampler \_\_\_\_\_ so went back in to circulate  
 (H) Final Hydrostatic 2136  Straddle \_\_\_\_\_ was on bunk at 11:15 AM  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 45  Extra Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Recorder \_\_\_\_\_  
 Final Flow 45  Day Standby \_\_\_\_\_  
 Final Shut-In 45  Accessibility \_\_\_\_\_  
 Sub Total 1687 MP/DST Disc't \_\_\_\_\_

Approved By Fred J. Hembree Our Representative Benny Mulligan  
 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. 53772

4/10

Well Name & No. Beau #1 Test No. 2 Date 11-25-2018  
 Company R.F. Hembree Oil LLC Elevation 2136 KB 2129 GL  
 Address PO box 542 Ness City KS 67560-0542  
 Co. Rep / Geo. Wyatt Rig Pickrell 10  
 Location: Sec. 22 Twp. 21s Rge. 21w Co. Hodgeman State KS

Interval Tested 4274'-4292' Zone Tested Miss  
 Anchor Length 18' Drill Pipe Run 4262' Mud Wt. 9.2  
 Top Packer Depth 4269' Drill Collars Run --- Vis 64  
 Bottom Packer Depth 4274' Wt. Pipe Run --- WL 10.8  
 Total Depth 4292' Chlorides 8,100 ppm System LCM 1#  
 Blow Description IF - built to 5 1/2"  
ISI - no blow back  
FF - built to 2 1/2"  
FSI - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
10	F.O		100		
55	M.W			75	25

Rec Total 65' BHT 114° Gravity 1150 API RW 0.35 @ 30.4° F Chlorides 43,000 ppm

(A) Initial Hydrostatic 2209  Test 1150 T-On Location 1:22  
 (B) First Initial Flow 19  Jars 250 T-Started 1:53  
 (C) First Final Flow 32  Safety Joint 75 T-Open 4:45  
 (D) Initial Shut-In 704  Circ Sub \_\_\_\_\_ T-Pulled 7:18  
 (E) Second Initial Flow 32  Hourly Standby \_\_\_\_\_ T-Out 10:22  
 (F) Second Final Flow 43  Mileage 92 RT 92 Comments Loaded tool  
 (G) Final Shut-In 386  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2091  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 45  
 Initial Shut-In 45  
 Final Flow 30  
 Final Shut-In 30

Sub Total 1567  
 Total 1567  
 MP/DST Disc't \_\_\_\_\_

Approved By [Signature] Our Representative Benny Mulligan  
 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.