



## DRILL STEM TEST REPORT

Prepared For: **Russell Oil Inc**

P.O. Box 8050  
Edmond OK 73083

ATTN: Kitt Noah

### **Dorothy #21-1**

### **21-11s-32w Logan,KS**

Start Date: 2017.10.26 @ 03:24:15

End Date: 2017.10.26 @ 10:22:00

Job Ticket #: 64235                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.10.31 @ 09:46:48



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc  
 P.O. Box 8050  
 Edmond OK 73083  
 ATTN: Kitt Noah

**21-11s-32w Logan,KS**  
**Dorothy #21-1**  
 Job Ticket: 64235 **DST#: 1**  
 Test Start: 2017.10.26 @ 03:24:15

## GENERAL INFORMATION:

Formation: **LKC H**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:24:00  
 Time Test Ended: 10:22:00  
 Interval: **4193.00 ft (KB) To 4224.00 ft (KB) (TVD)**  
 Total Depth: 4224.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Mike Roberts  
 Unit No: 81  
 Reference Elevations: 3045.00 ft (KB)  
 3040.00 ft (CF)  
 KB to GR/CF: 5.00 ft

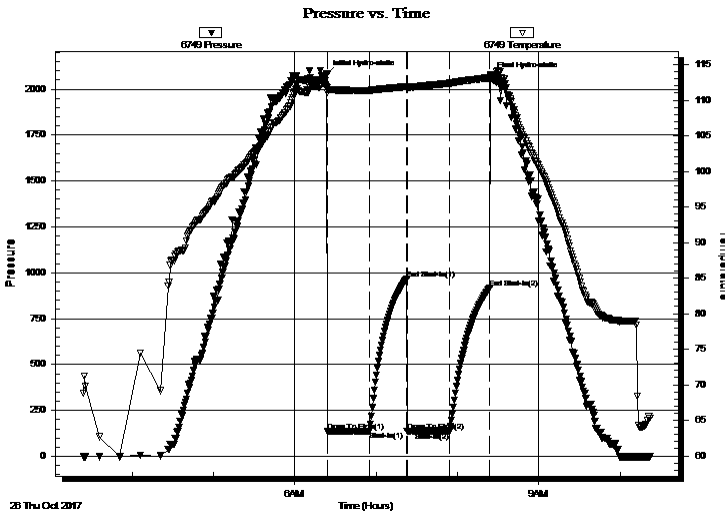
## Serial #: 6749

Outside

Press@RunDepth: 130.77 psig @ 4194.00 ft (KB)  
 Start Date: 2017.10.26 End Date: 2017.10.26  
 Start Time: 03:24:15 End Time: 10:22:00  
 Capacity: 8000.00 psig  
 Last Calib.: 2017.10.26  
 Time On Btm: 2017.10.26 @ 06:23:45  
 Time Off Btm: 2017.10.26 @ 08:24:30

TEST COMMENT: IF:Week surface blow died in 21 min.  
 IS:No return blow  
 FF:No blow  
 FS:No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2077.79	111.78	Initial Hydro-static
1	134.17	111.08	Open To Flow (1)
32	135.21	111.38	Shut-In(1)
59	967.53	111.90	End Shut-In(1)
60	136.39	111.45	Open To Flow (2)
91	130.77	112.38	Shut-In(2)
121	916.52	113.15	End Shut-In(2)
121	2067.32	113.41	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	mud w ith oil spots	0.59

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Russell Oil Inc

**21-11s-32w Logan,KS**

P.O. Box 8050  
Edmond OK 73083

**Dorothy #21-1**

Job Ticket: 64235

**DST#: 1**

ATTN: Kitt Noah

Test Start: 2017.10.26 @ 03:24:15

## Tool Information

Drill Pipe:	Length: 4075.00 ft	Diameter: 3.80 inches	Volume: 57.16 bbl	Tool Weight: 1500.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 57.75 bbl</u>	Tool Chased 10.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4193.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	59.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4166.00	
Shut In Tool	5.00			4171.00	
Hydraulic tool	5.00			4176.00	
Jars	5.00			4181.00	
Safety Joint	3.00			4184.00	
Packer	5.00			4189.00	28.00 Bottom Of Top Packer
Packer	4.00			4193.00	
Stubb	1.00			4194.00	
Recorder	0.00	8672	Inside	4194.00	
Recorder	0.00	6749	Outside	4194.00	
Perforations	25.00			4219.00	
Bullnose	5.00			4224.00	31.00 Bottom Packers & Anchor

**Total Tool Length: 59.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Inc

**21-11s-32w Logan,KS**

P.O. Box 8050  
Edmond OK 73083

**Dorothy #21-1**

Job Ticket: 64235

**DST#: 1**

ATTN: Kitt Noah

Test Start: 2017.10.26 @ 03:24:15

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.14 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	mud w ith oil spots	0.590

Total Length: 120.00 ft      Total Volume: 0.590 bbl

Num Fluid Samples: 0

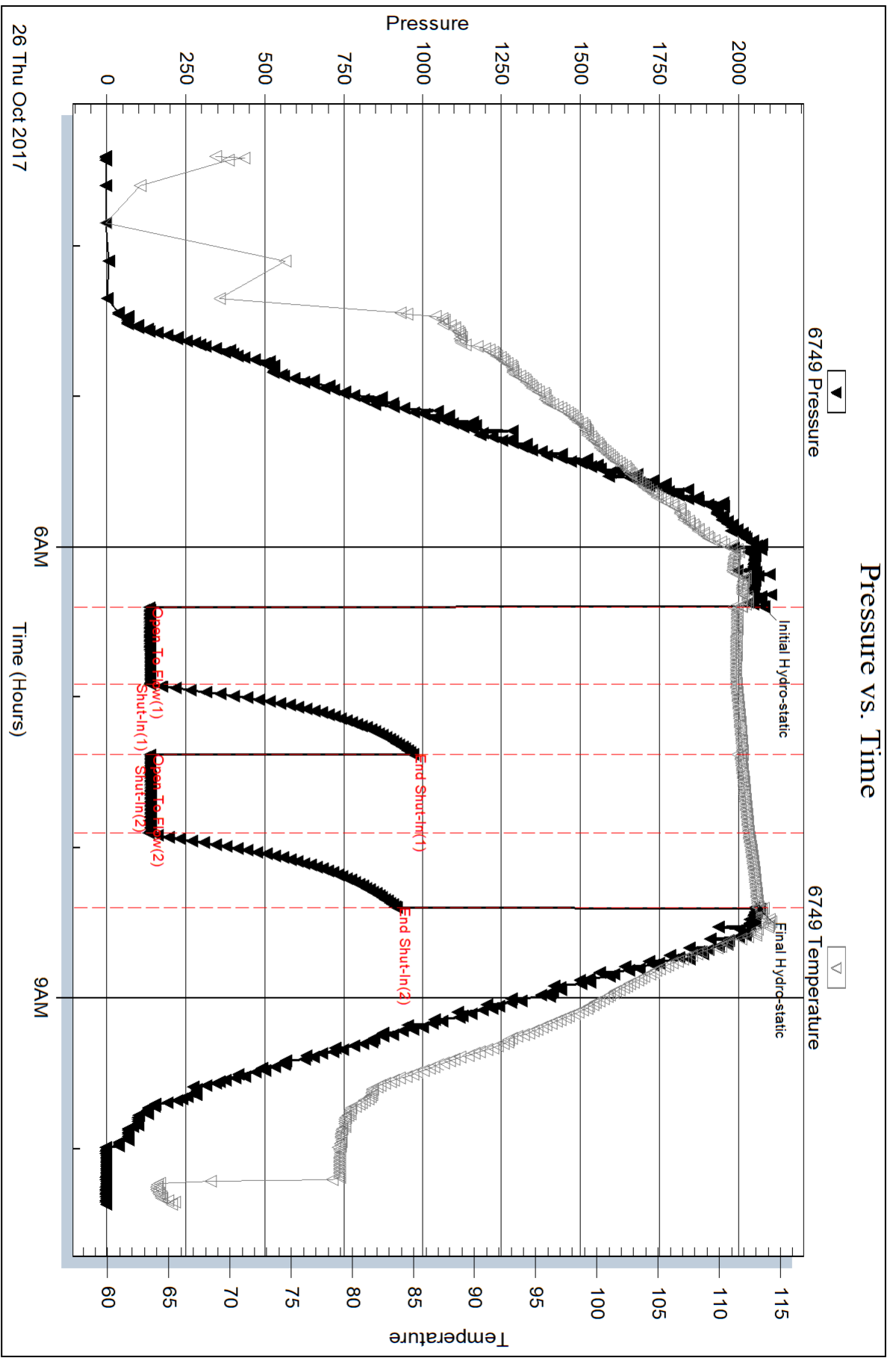
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



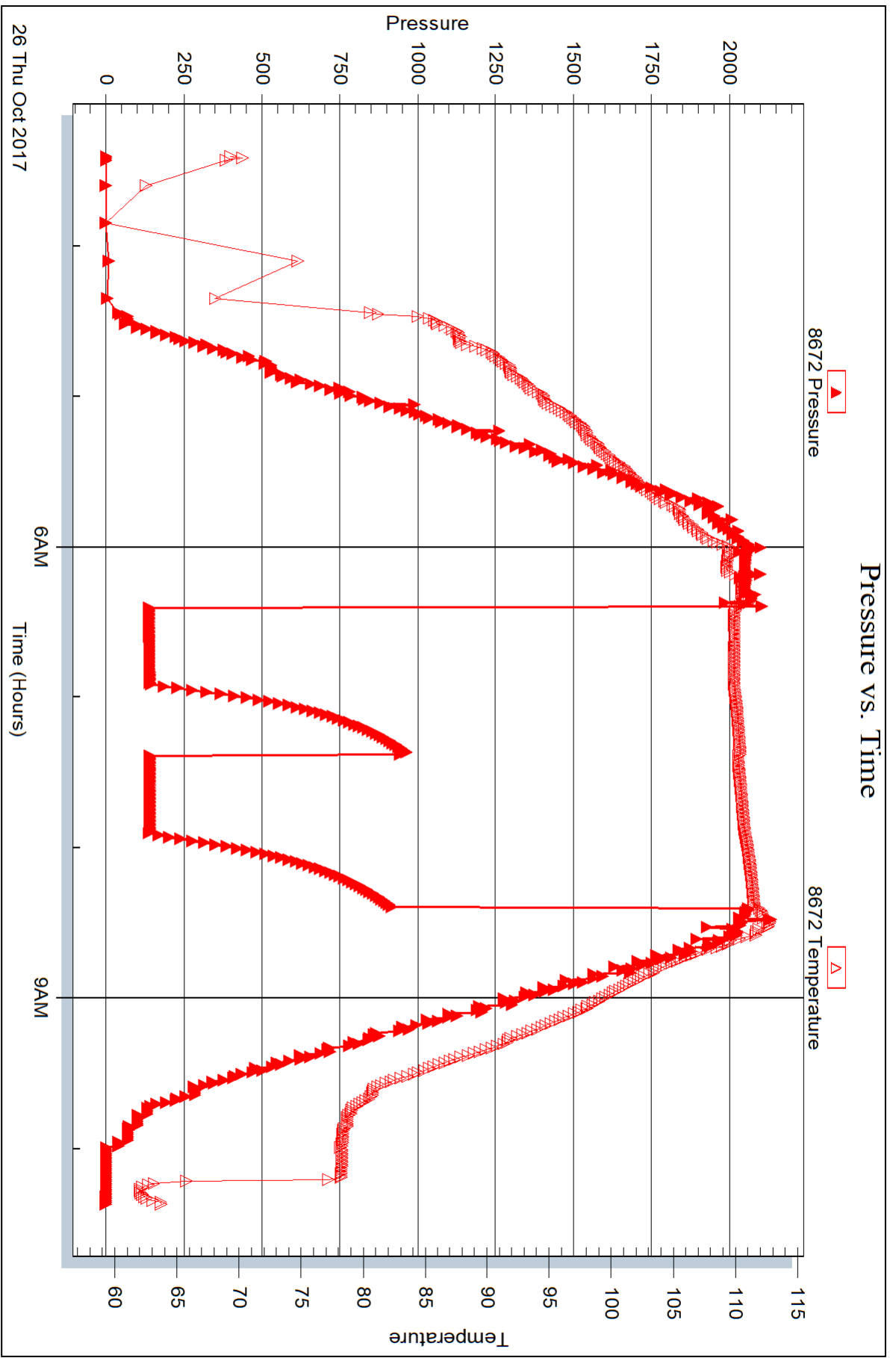
Serial #: 8672

Inside

Russell Oil Inc

Dorothy #21-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 64235

Printed: 2017.10.31 @ 09:46:49



## DRILL STEM TEST REPORT

Prepared For: **Russell Oil Inc**

P.O. Box 8050  
Edmond OK 73083

ATTN: Kitt Noah

### **Dorothy #21-1**

### **21-11s-32w Logan,KS**

Start Date: 2017.10.26 @ 21:22:15

End Date: 2017.10.27 @ 04:23:00

Job Ticket #: 64236                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.10.31 @ 09:46:12





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc  
P.O. Box 8050  
Edmond OK 73083  
ATTN: Kitt Noah

**21-11s-32w Logan,KS**

**Dorothy #21-1**

Job Ticket: 64236

**DST#: 2**

Test Start: 2017.10.26 @ 21:22:15

## GENERAL INFORMATION:

Formation: **LKC I**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:04:30  
 Time Test Ended: 04:23:00  
 Interval: **4222.00 ft (KB) To 4250.00 ft (KB) (TVD)**  
 Total Depth: 4250.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 81  
 Reference Elevations: 3045.00 ft (KB)  
 3040.00 ft (CF)  
 KB to GR/CF: 5.00 ft

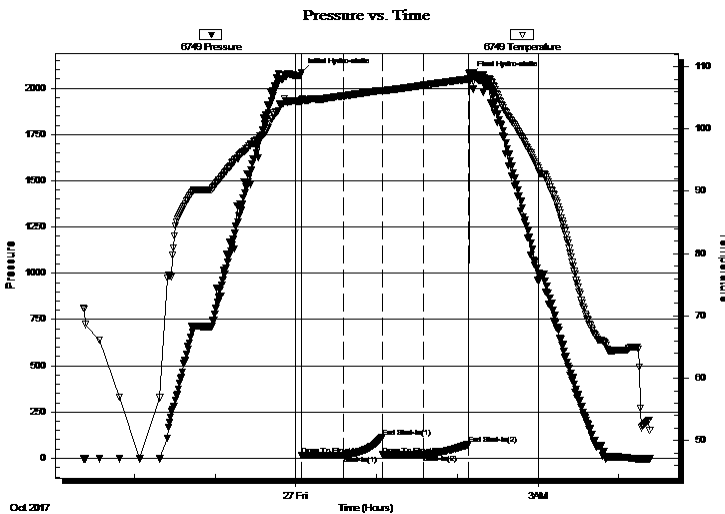
**Serial #: 6749**

**Outside**

Press@RunDepth: 20.30 psig @ 4223.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.10.26 End Date: 2017.10.27 Last Calib.: 2017.10.27  
 Start Time: 21:22:15 End Time: 04:23:00 Time On Btm: 2017.10.27 @ 00:04:15  
 Time Off Btm: 2017.10.27 @ 02:09:30

TEST COMMENT: IF:Weak surface blow died in 3 min.  
 IS:No return blow  
 FF:No blow  
 FS:No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2085.34	104.68	Initial Hydro-static
1	14.67	104.34	Open To Flow (1)
31	17.59	105.27	Shut-In(1)
60	115.31	106.20	End Shut-In(1)
61	18.76	106.16	Open To Flow (2)
91	20.30	107.01	Shut-In(2)
124	75.90	107.98	End Shut-In(2)
126	2069.41	109.07	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.02

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Russell Oil Inc  
 P.O. Box 8050  
 Edmond OK 73083  
 ATTN: Kitt Noah

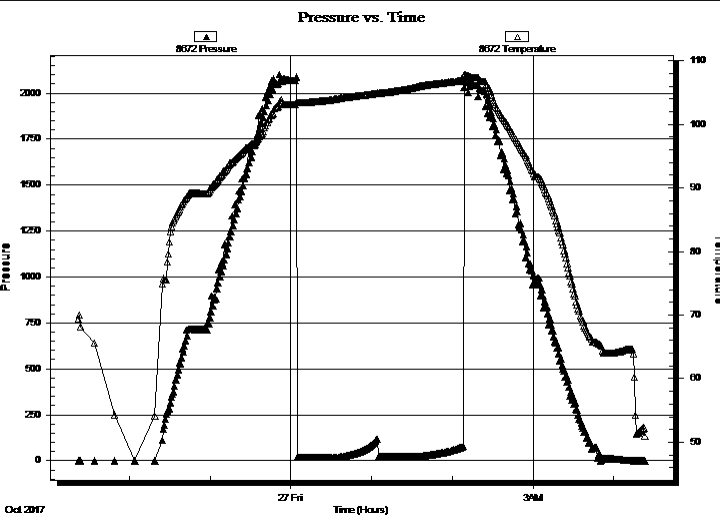
**21-11s-32w Logan,KS**  
**Dorothy #21-1**  
 Job Ticket: 64236 **DST#: 2**  
 Test Start: 2017.10.26 @ 21:22:15

**GENERAL INFORMATION:**

Formation: **LKC I**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:04:30  
 Time Test Ended: 04:23:00  
 Interval: **4222.00 ft (KB) To 4250.00 ft (KB) (TVD)**  
 Total Depth: 4250.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 81  
 Reference Elevations: 3045.00 ft (KB)  
 3040.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8672 Inside**  
 Press@RunDepth: psig @ 4223.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.10.26 End Date: 2017.10.27 Last Calib.: 2017.10.27  
 Start Time: 21:22:15 End Time: 04:23:00 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IF:Weak surface blow died in 3 min.  
 IS:No return blow  
 FF:No blow  
 FS:No return blow



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

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.02

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Russell Oil Inc

**21-11s-32w Logan,KS**

P.O. Box 8050  
Edmond OK 73083

**Dorothy #21-1**

Job Ticket: 64236

**DST#: 2**

ATTN: Kitt Noah

Test Start: 2017.10.26 @ 21:22:15

## Tool Information

Drill Pipe:	Length: 4106.00 ft	Diameter: 3.80 inches	Volume: 57.60 bbl	Tool Weight: 1500.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.19 bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	4222.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4195.00	
Shut In Tool	5.00			4200.00	
Hydraulic tool	5.00			4205.00	
Jars	5.00			4210.00	
Safety Joint	3.00			4213.00	
Packer	5.00			4218.00	28.00 Bottom Of Top Packer
Packer	4.00			4222.00	
Stubb	1.00			4223.00	
Recorder	0.00	8672	Inside	4223.00	
Recorder	0.00	6749	Outside	4223.00	
Perforations	15.00			4238.00	
Bullnose	5.00			4243.00	21.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Inc

**21-11s-32w Logan,KS**

P.O. Box 8050  
Edmond OK 73083

**Dorothy #21-1**

Job Ticket: 64236

**DST#: 2**

ATTN: Kitt Noah

Test Start: 2017.10.26 @ 21:22:15

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 0 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.73 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 2500.00 ppm		
Filter Cake: 1.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100% m	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

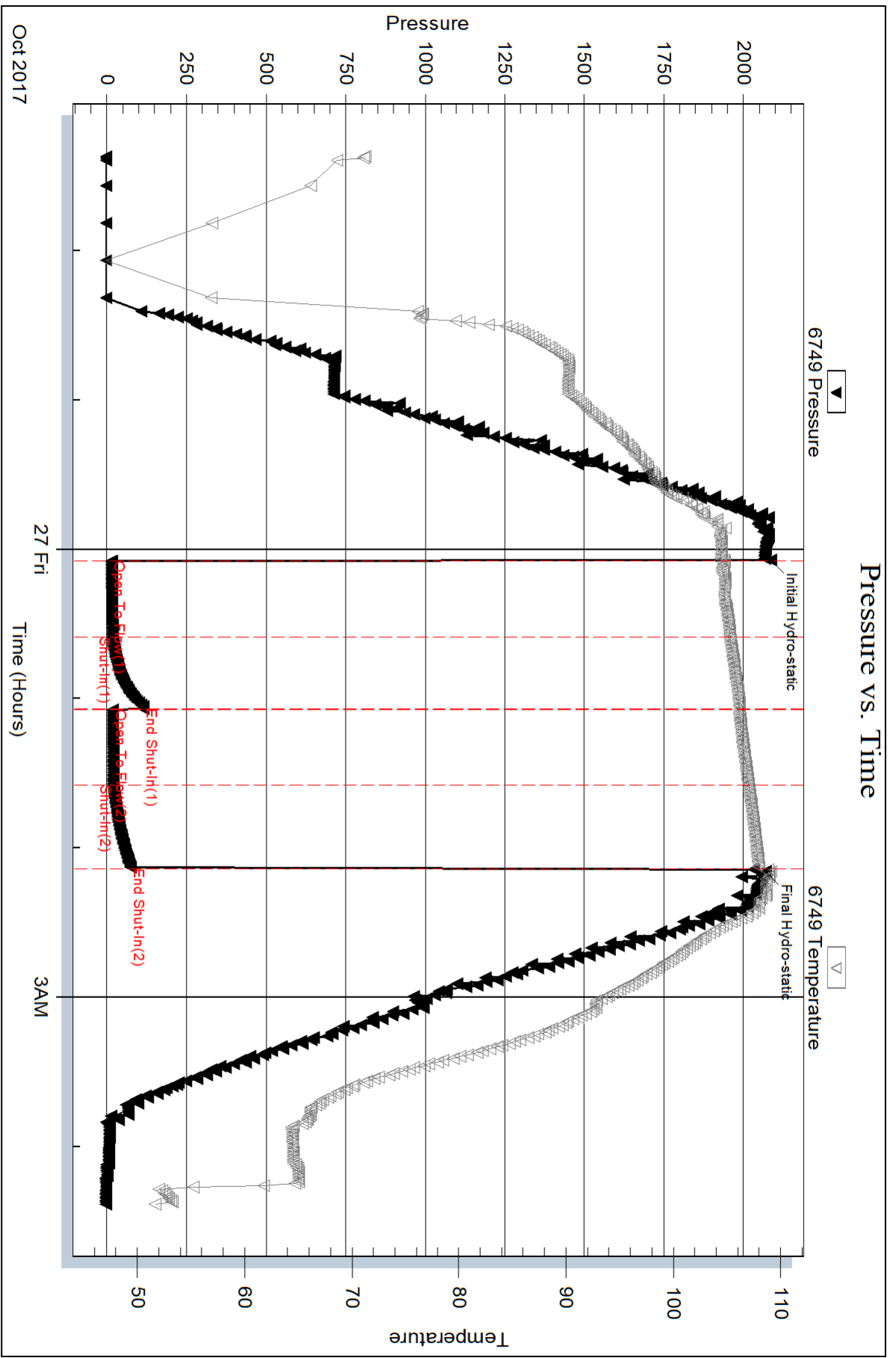
Recovery Comments:

Serial #: 6749

Outside Russell Oil Inc

Dorothy #21-1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 64236

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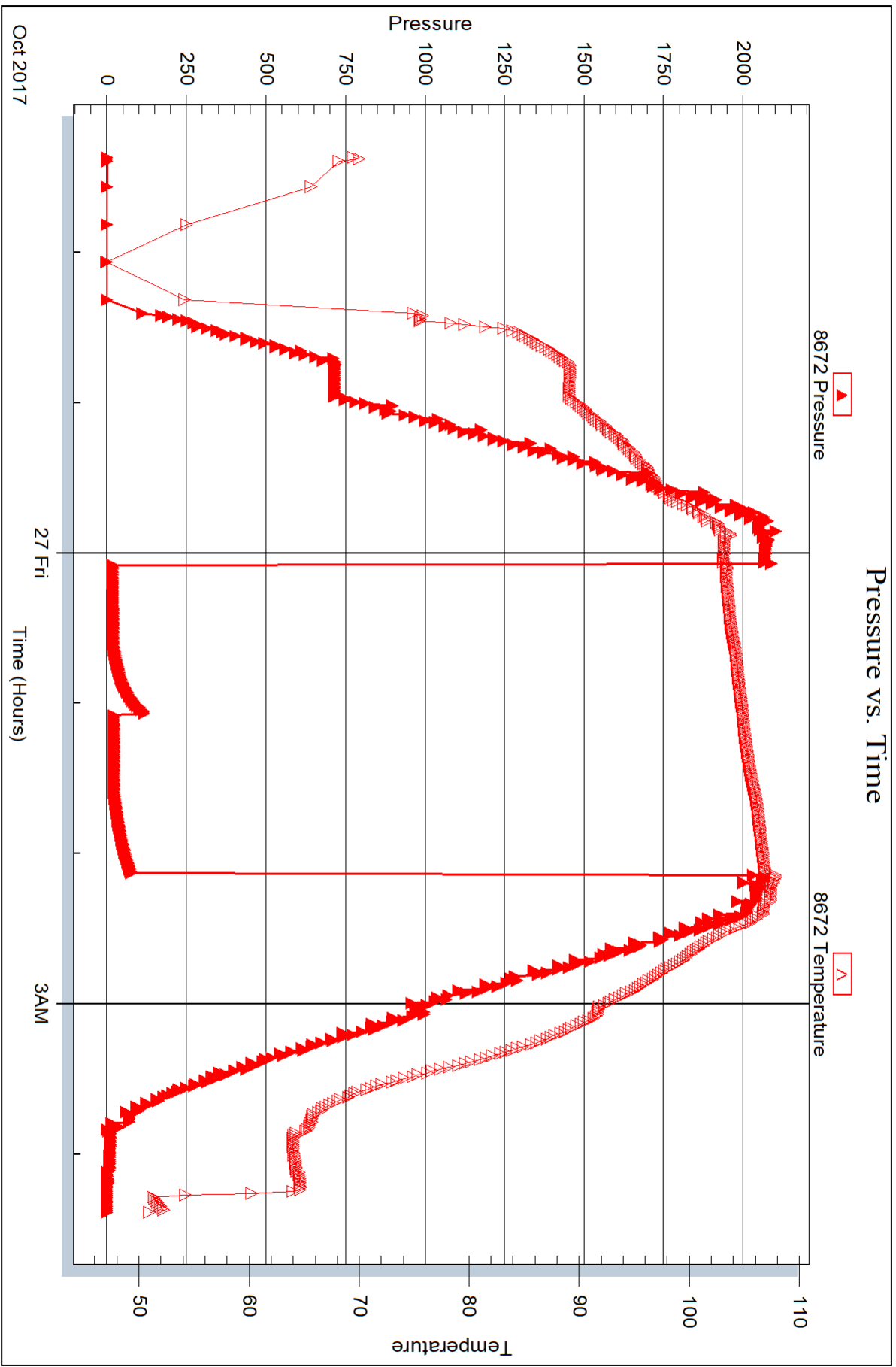
Serial #: 8672

Inside

Russell Oil Inc

Dorothy #21-1

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Russell Oil Inc**

P.O. Box 8050  
Edmond OK 73083

ATTN: Kitt Noah

### **Dorothy #21-1**

### **21-11s-32w Logan,KS**

Start Date: 2017.10.27 @ 11:58:15

End Date: 2017.10.27 @ 18:14:30

Job Ticket #: 64237                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.10.31 @ 09:45:42



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc  
P.O. Box 8050  
Edmond OK 73083  
ATTN: Kitt Noah

**21-11s-32w Logan,KS**

**Dorothy #21-1**

Job Ticket: 64237

**DST#: 3**

Test Start: 2017.10.27 @ 11:58:15

## GENERAL INFORMATION:

Formation: **LKC J**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:00:30  
 Time Test Ended: 18:14:30  
 Interval: **4246.00 ft (KB) To 4275.00 ft (KB) (TVD)**  
 Total Depth: 4275.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 81  
 Reference Elevations: 3045.00 ft (KB)  
 3040.00 ft (CF)  
 KB to GR/CF: 5.00 ft

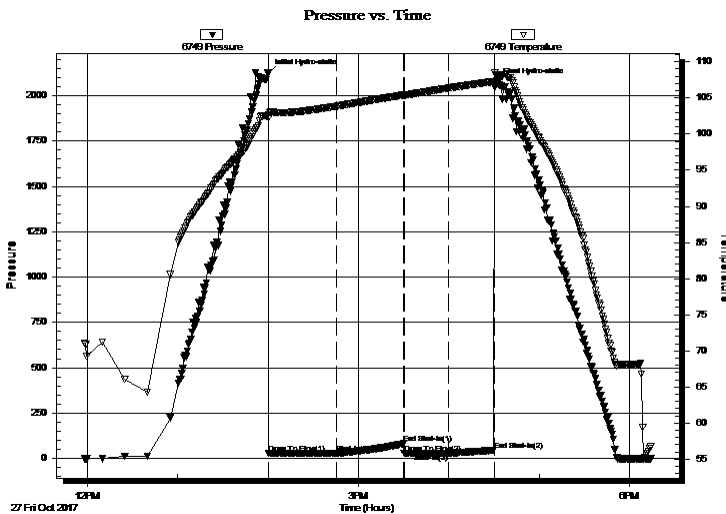
**Serial #: 6749**

**Outside**

Press@RunDepth: 28.59 psig @ 4247.00 ft (KB)  
 Start Date: 2017.10.27 End Date: 2017.10.27  
 Start Time: 11:58:15 End Time: 18:14:30  
 Capacity: 8000.00 psig  
 Last Calib.: 2017.10.27  
 Time On Btm: 2017.10.27 @ 14:00:15  
 Time Off Btm: 2017.10.27 @ 16:31:15

TEST COMMENT: IF: Built to 1 3/4" blow  
 IS: No return blow  
 FF: No blow  
 FS: No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2124.25	102.73	Initial Hydro-static
1	26.72	102.26	Open To Flow (1)
45	28.34	103.85	Shut-In(1)
90	81.10	105.41	End Shut-In(1)
90	28.70	105.39	Open To Flow (2)
120	28.59	106.37	Shut-In(2)
150	44.14	107.28	End Shut-In(2)
151	2074.07	108.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	mud 100% m	0.15

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Russell Oil Inc

**21-11s-32w Logan,KS**

P.O. Box 8050  
Edmond OK 73083

**Dorothy #21-1**

Job Ticket: 64237

**DST#: 3**

ATTN: Kitt Noah

Test Start: 2017.10.27 @ 11:58:15

## Tool Information

Drill Pipe:	Length: 4106.00 ft	Diameter: 3.80 inches	Volume: 57.60 bbl	Tool Weight: 1500.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.19 bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	4246.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4219.00	
Shut In Tool	5.00			4224.00	
Hydraulic tool	5.00			4229.00	
Jars	5.00			4234.00	
Safety Joint	3.00			4237.00	
Packer	5.00			4242.00	28.00 Bottom Of Top Packer
Packer	4.00			4246.00	
Stubb	1.00			4247.00	
Recorder	0.00	8672	Inside	4247.00	
Recorder	0.00	6749	Outside	4247.00	
Perforations	23.00			4270.00	
Bullnose	5.00			4275.00	29.00 Bottom Packers & Anchor

**Total Tool Length: 57.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Russell Oil Inc

**21-11s-32w Logan,KS**

P.O. Box 8050  
Edmond OK 73083

**Dorothy #21-1**

Job Ticket: 64237

**DST#: 3**

ATTN: Kitt Noah

Test Start: 2017.10.27 @ 11:58:15

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.75 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
30.00	mud 100% m	0.148

Total Length: 30.00 ft      Total Volume: 0.148 bbl

Num Fluid Samples: 0

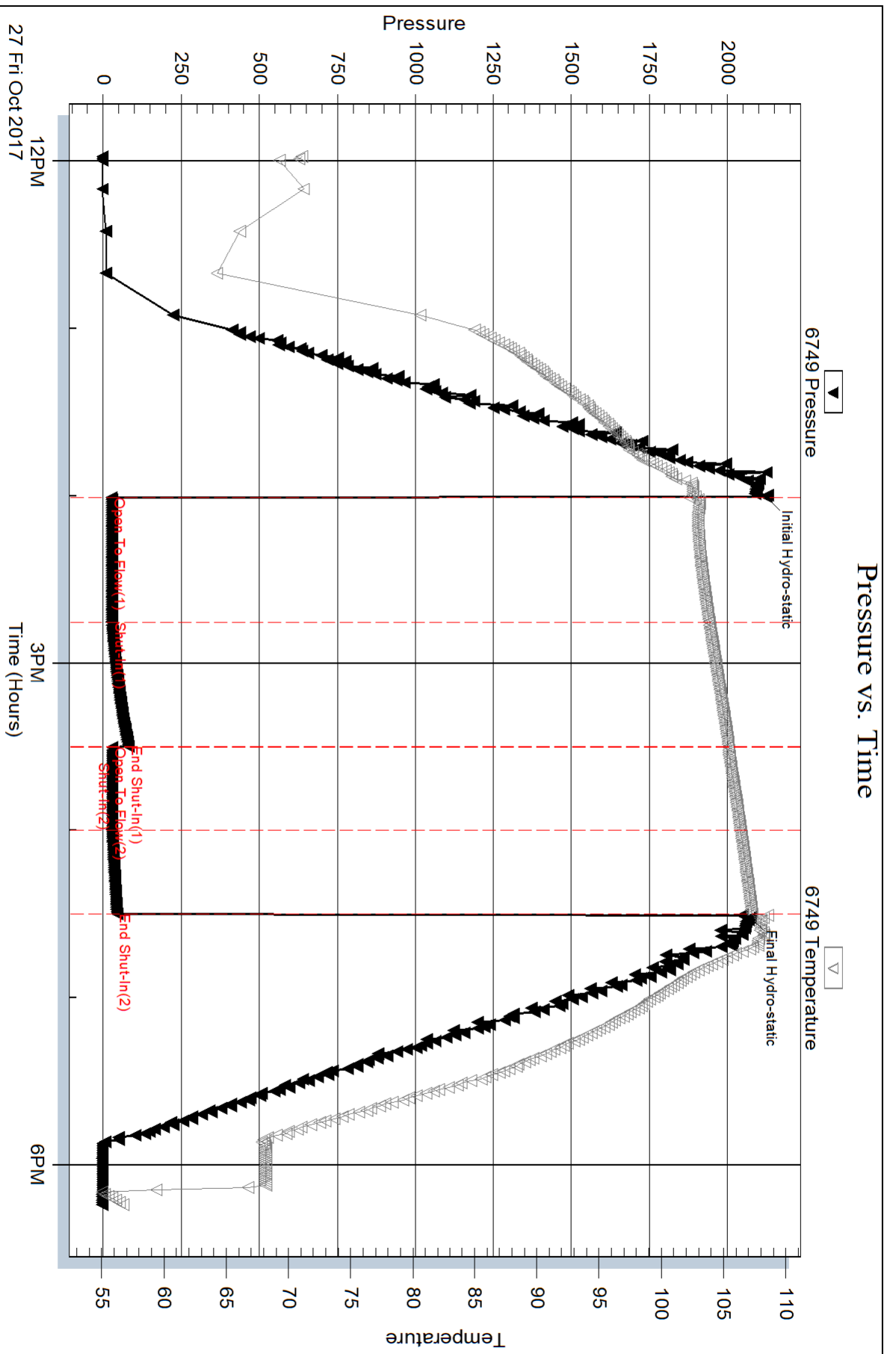
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



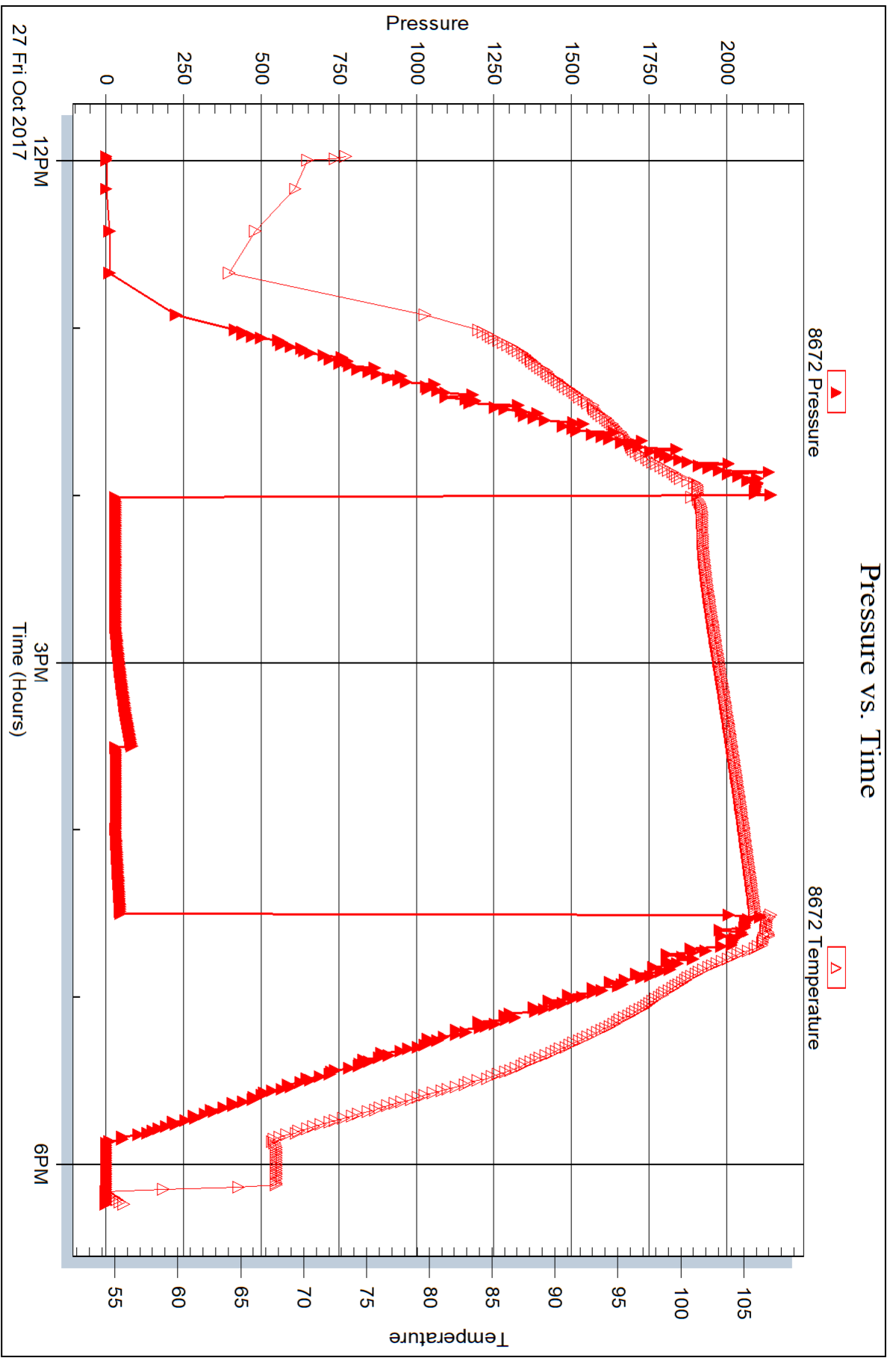
Serial #: 8672

Inside

Russell Oil Inc

Dorothy #21-1

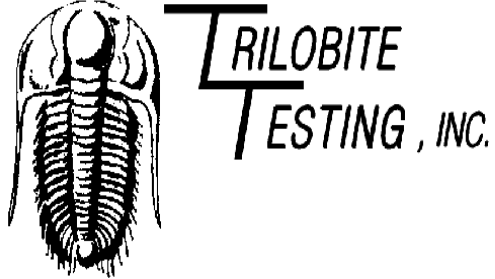
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 64237

Printed: 2017.10.31 @ 09:45:44



## DRILL STEM TEST REPORT

Prepared For: **Russell Oil Inc**

P.O. Box 8050  
Edmond OK 73083

ATTN: Kitt Noah

### **Dorothy #21-1**

### **21-11s-32w Logan,KS**

Start Date: 2017.10.28 @ 02:43:00

End Date: 2017.10.28 @ 08:52:30

Job Ticket #: 64238                      DST #: 4

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

Printed: 2017.10.31 @ 09:45:20



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc  
 P.O. Box 8050  
 Edmond OK 73083  
 ATTN: Kitt Noah

**21-11s-32w Logan,KS**

**Dorothy #21-1**

Job Ticket: 64238

**DST#: 4**

Test Start: 2017.10.28 @ 02:43:00

## GENERAL INFORMATION:

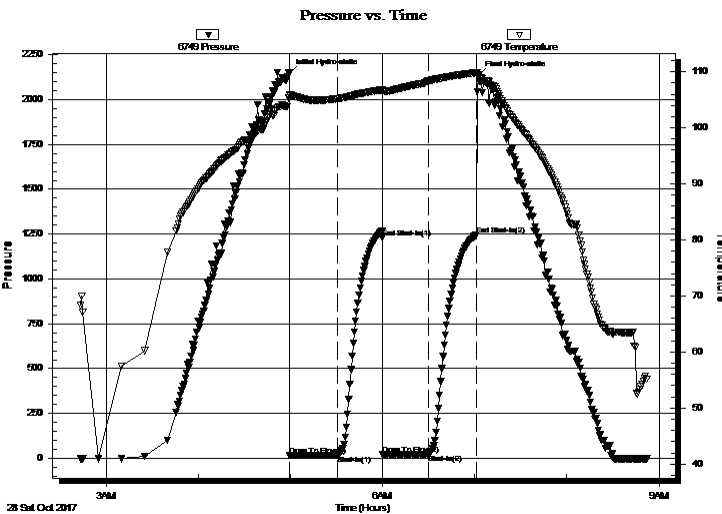
Formation: **LKC K**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 04:59:15  
 Tester: Mike Roberts  
 Time Test Ended: 08:52:30  
 Unit No: 81  
 Interval: **4274.00 ft (KB) To 4312.00 ft (KB) (TVD)**  
 Reference Elevations: 3045.00 ft (KB)  
 Total Depth: 4312.00 ft (KB) (TVD)  
 3040.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

**Serial #: 6749**

**Outside**

Press@RunDepth: 23.21 psig @ 4275.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.10.28 End Date: 2017.10.28 Last Calib.: 2017.10.28  
 Start Time: 02:43:00 End Time: 08:52:30 Time On Btm: 2017.10.28 @ 04:59:00  
 Time Off Btm: 2017.10.28 @ 07:02:00

**TEST COMMENT:** IF: Built to 1/8" blow and died in 12 min.  
 IS: No return blow  
 FF: No blow  
 FS: No return blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2143.62	105.90	Initial Hydro-static
1	15.90	105.35	Open To Flow (1)
32	18.67	105.18	Shut-In(1)
61	1229.59	106.76	End Shut-In(1)
61	20.17	106.41	Open To Flow (2)
91	23.21	108.35	Shut-In(2)
122	1247.76	109.81	End Shut-In(2)
123	2134.18	109.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud with oil spots 100% m	0.02

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Russell Oil Inc

**21-11s-32w Logan,KS**

P.O. Box 8050  
Edmond OK 73083

**Dorothy #21-1**

Job Ticket: 64238

**DST#: 4**

ATTN: Kitt Noah

Test Start: 2017.10.28 @ 02:43:00

## Tool Information

Drill Pipe:	Length: 4137.00 ft	Diameter: 3.80 inches	Volume: 58.03 bbl	Tool Weight: 1500.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4274.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4247.00	
Shut In Tool	5.00			4252.00	
Hydraulic tool	5.00			4257.00	
Jars	5.00			4262.00	
Safety Joint	3.00			4265.00	
Packer	5.00			4270.00	28.00 Bottom Of Top Packer
Packer	4.00			4274.00	
Stubb	1.00			4275.00	
Recorder	0.00	8672	Inside	4275.00	
Recorder	0.00	6749	Outside	4275.00	
Perforations	32.00			4307.00	
Bullnose	5.00			4312.00	38.00 Bottom Packers & Anchor

**Total Tool Length: 66.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Inc

**21-11s-32w Logan,KS**

P.O. Box 8050  
Edmond OK 73083

**Dorothy #21-1**

Job Ticket: 64238

**DST#: 4**

ATTN: Kitt Noah

Test Start: 2017.10.28 @ 02:43:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud with oil spots 100%m	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

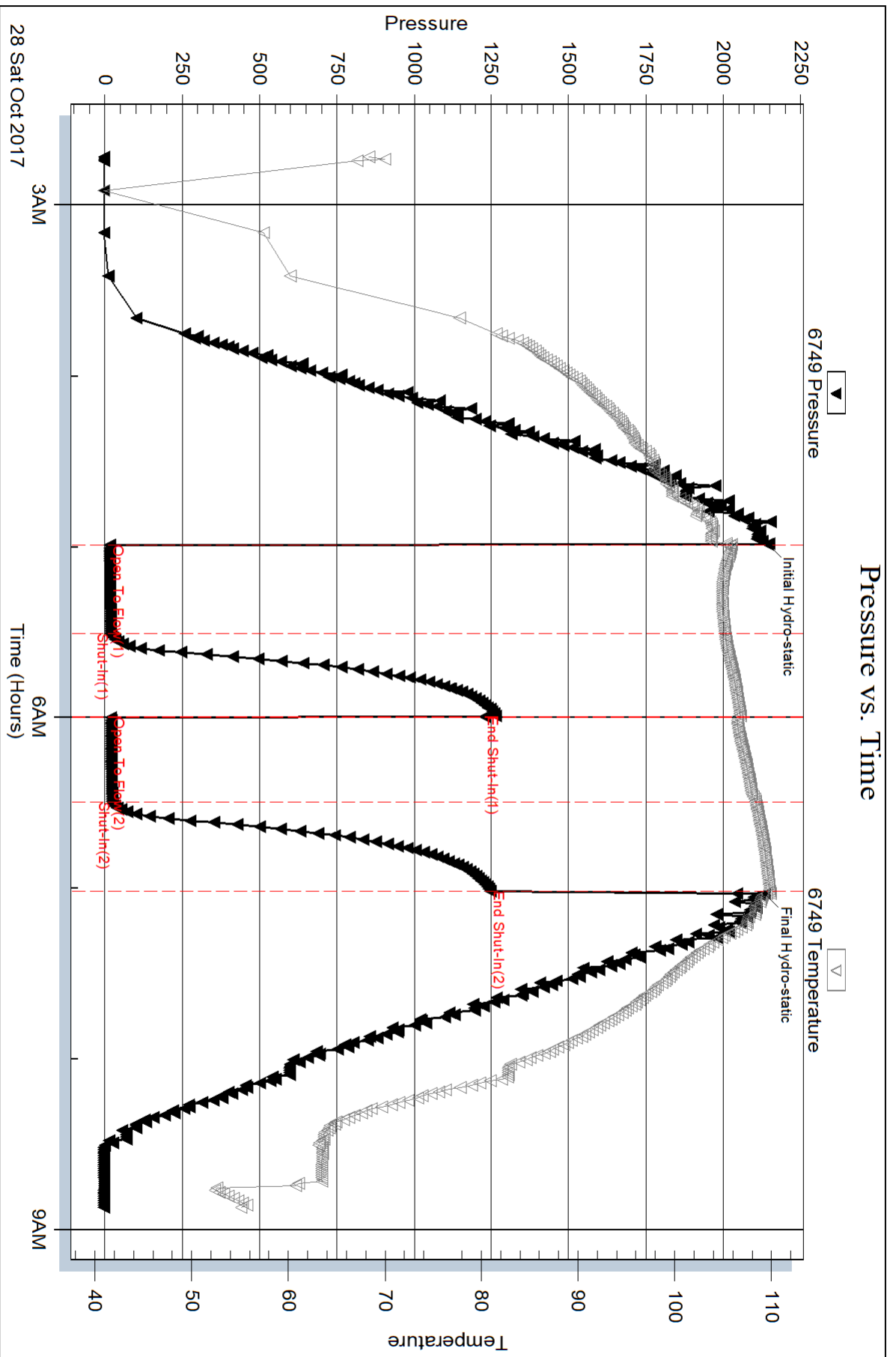
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



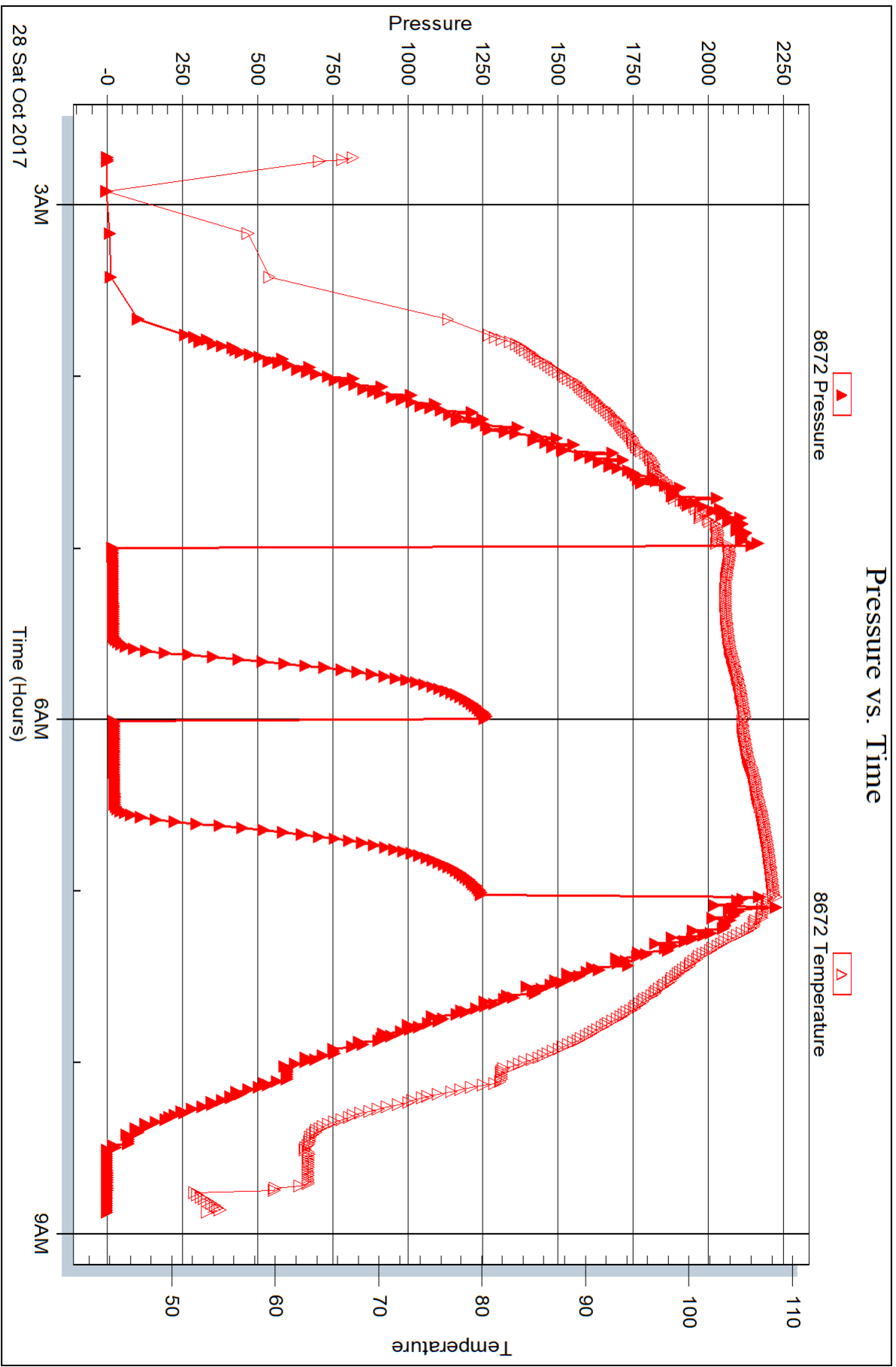
Serial #: 8672

Inside

Russell Oil Inc

Dorothy #21-1

DST Test Number: 4





## DRILL STEM TEST REPORT

Prepared For: **Russell Oil Inc**

P.O. Box 8050  
Edmond OK 73083

ATTN: Kitt Noah

**Dorothy #21-1**

**21-11s-32w Logan,KS**

Start Date: 2017.10.29 @ 14:28:15

End Date: 2017.10.29 @ 22:16:15

Job Ticket #: 64239                      DST #: 5

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

Printed: 2017.10.31 @ 09:44:51



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil Inc  
 P.O. Box 8050  
 Edmond OK 73083  
 ATTN: Kitt Noah

**21-11s-32w Logan,KS**

**Dorothy #21-1**

Job Ticket: 64239

**DST#: 5**

Test Start: 2017.10.29 @ 14:28:15

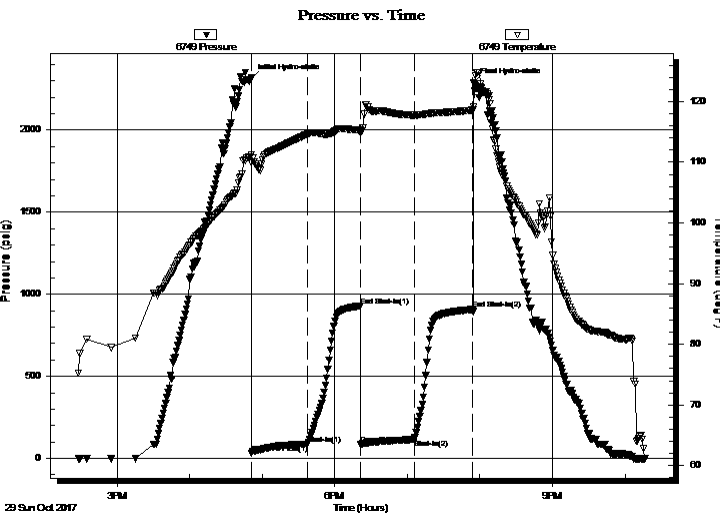
## GENERAL INFORMATION:

Formation: **Johnson**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 16:51:15 Tester: Mike Roberts  
 Time Test Ended: 22:16:15 Unit No: 81  
 Interval: **4574.00 ft (KB) To 4622.00 ft (KB) (TVD)** Reference Elevations: 3045.00 ft (KB)  
 Total Depth: 4622.00 ft (KB) (TVD) 3040.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

**Serial #: 6749 Outside**

Press@RunDepth: 116.22 psig @ 4617.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.10.29 End Date: 2017.10.29 Last Calib.: 2017.10.29  
 Start Time: 14:28:15 End Time: 22:16:15 Time On Btm: 2017.10.29 @ 16:51:00  
 Time Off Btm: 2017.10.29 @ 19:54:45

**TEST COMMENT:** IF:BOB in 10 min.  
 IS:Built to weak surface blow and died in 3 min.  
 FF:BOB in 4 min.  
 FS:Built to 1/2" blow died in 27 min.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2316.50	111.26	Initial Hydro-static
1	31.76	109.90	Open To Flow (1)
47	87.19	114.66	Shut-In(1)
91	928.87	115.28	End Shut-In(1)
91	86.08	114.92	Open To Flow (2)
135	116.22	117.75	Shut-In(2)
183	907.51	118.57	End Shut-In(2)
184	2291.27	119.09	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	w cgom 3%w 5%g 22%o 70%m (collars)	0.30
60.00	gcom 2%g 10%o 88%m (collars)	0.30
92.00	ocm 3%o 97%m	1.29
0.00	GIP= 650	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Russell Oil Inc

**21-11s-32w Logan,KS**

P.O. Box 8050  
Edmond OK 73083

**Dorothy #21-1**

Job Ticket: 64239

**DST#: 5**

ATTN: Kitt Noah

Test Start: 2017.10.29 @ 14:28:15

## Tool Information

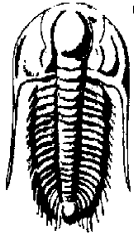
Drill Pipe:	Length: 4451.00 ft	Diameter: 3.80 inches	Volume: 62.44 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 63.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4574.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	76.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4547.00	
Shut In Tool	5.00			4552.00	
Hydraulic tool	5.00			4557.00	
Jars	5.00			4562.00	
Safety Joint	3.00			4565.00	
Packer	5.00			4570.00	28.00 Bottom Of Top Packer
Packer	4.00			4574.00	
Stubb	1.00			4575.00	
Perforations	4.00			4579.00	
Change Over Sub	1.00			4580.00	
Drill Pipe	31.00			4611.00	
Change Over Sub	1.00			4612.00	
Perforations	5.00			4617.00	
Recorder	0.00	8672	Inside	4617.00	
Recorder	0.00	6749	Outside	4617.00	
Bullnose	5.00			4622.00	48.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>76.00</b>				





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil Inc

**21-11s-32w Logan,KS**

P.O. Box 8050  
Edmond OK 73083

**Dorothy #21-1**

Job Ticket: 64239

**DST#: 5**

ATTN: Kitt Noah

Test Start: 2017.10.29 @ 14:28:15

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

19000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	w cgom 3%w 5%g 22%o 70%m (collars)	0.295
60.00	gcom 2%g 10%o 88%m (collars)	0.295
92.00	ocm 3%o 97%m	1.291
0.00	GIP= 650	0.000

Total Length: 212.00 ft      Total Volume: 1.881 bbl

Num Fluid Samples: 0

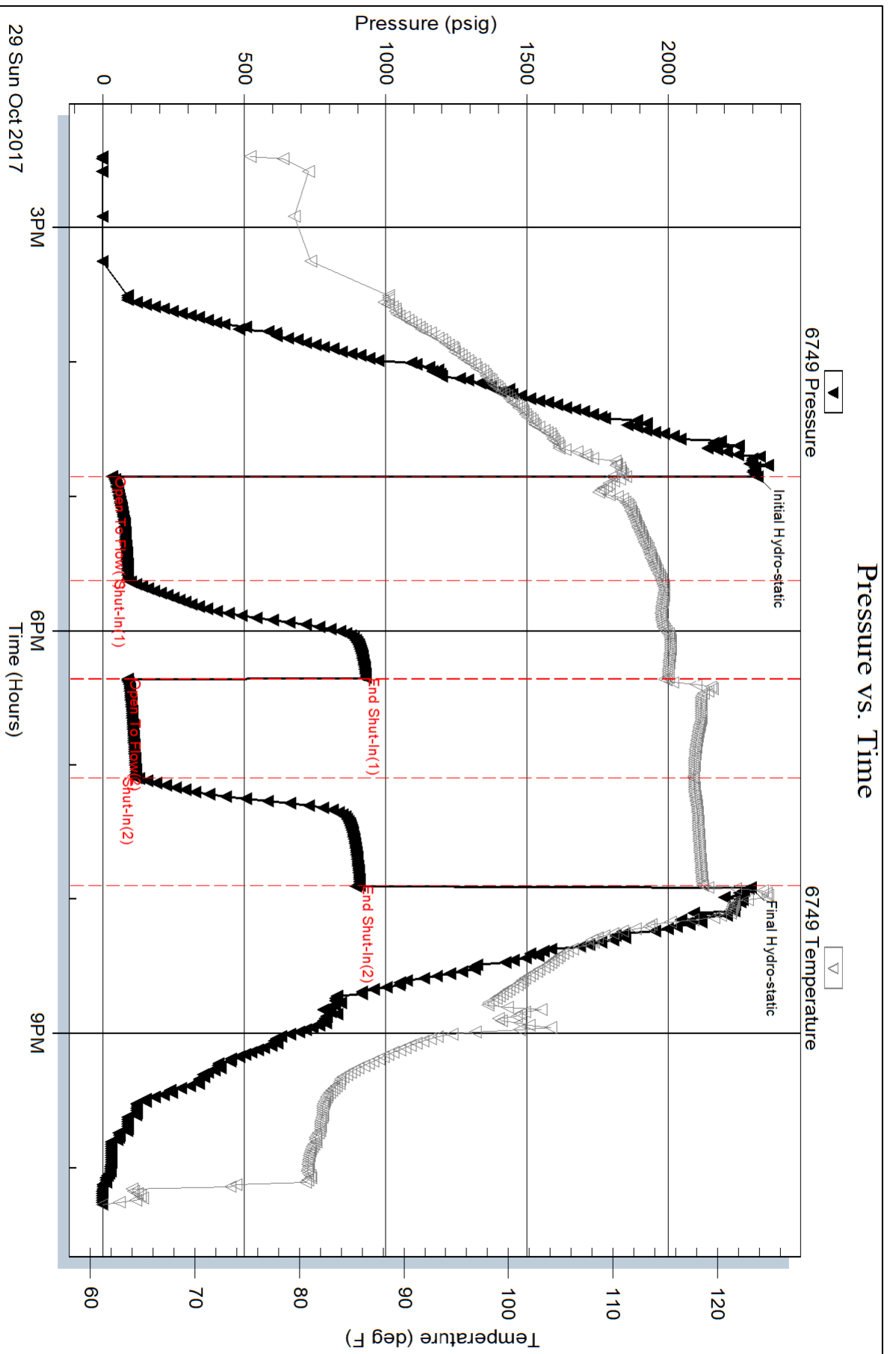
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .426@ 74.3= 19,000 ppm



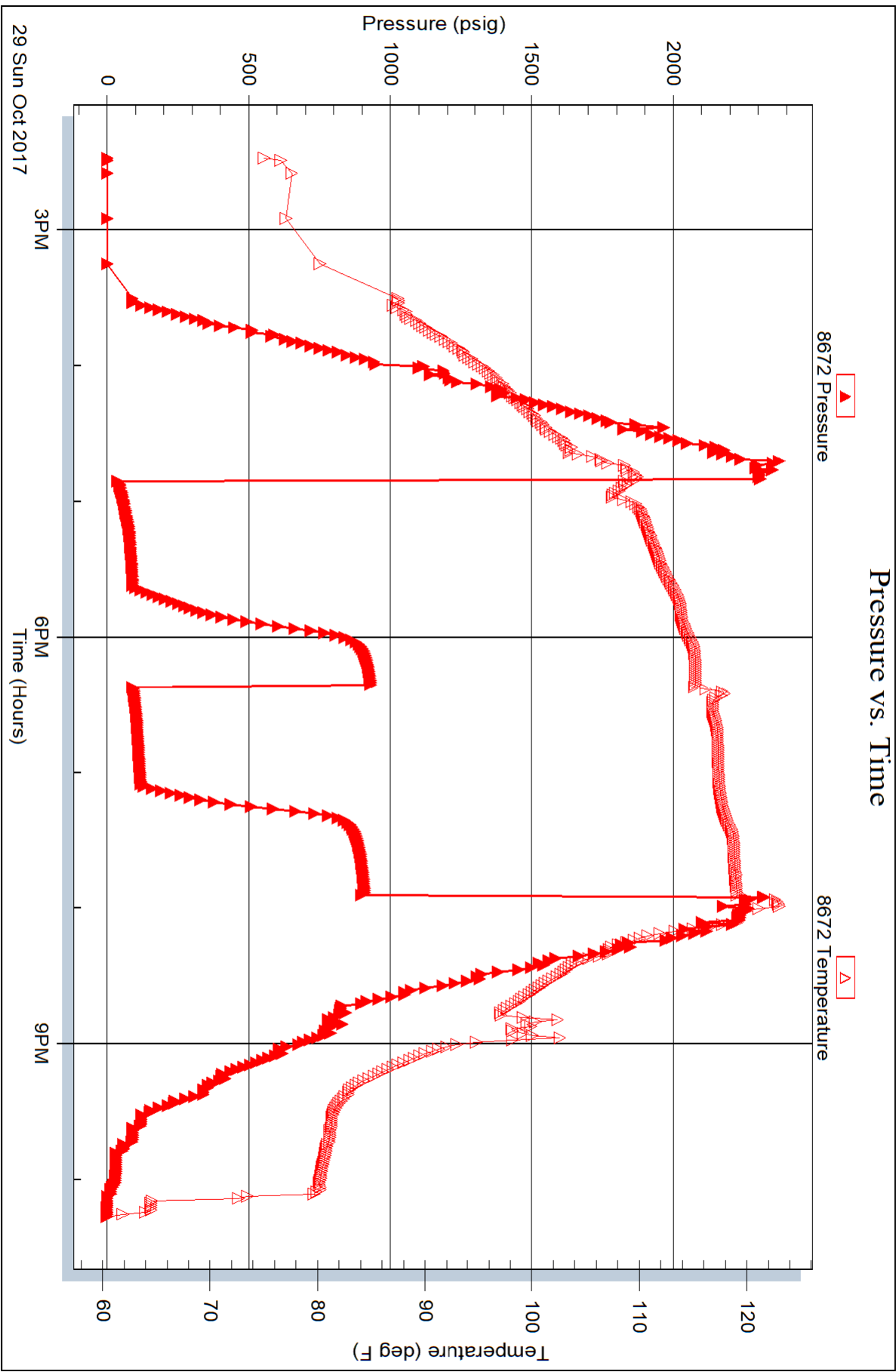
Serial #: 8672

Inside

Russell Oil Inc

Dorothy #21-1

DST Test Number: 5





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64235**

Well Name & No. Dorothy # 21-1 Test No. 1 Date 10-26-17  
 Company Russell Oil, Inc Elevation 3045 KB 3040 GL  
 Address P.O. Box ~~8050~~ 8050 EDMOND OK 73083  
 Co. Rep / Geo. KITT Noah Rig WW12  
 Location: Sec. 21 Twp. 11s Rge. 32w Co. Logan State KS

Interval Tested 4193-4224 Zone Tested LKC 'H'  
 Anchor Length 31 Drill Pipe Run 4075 Mud Wt. 8.7  
 Top Packer Depth 4188 Drill Collars Run 120 Vis 0.55  
 Bottom Packer Depth 4193 Wt. Pipe Run 0 WL 7.2  
 Total Depth 4224 Chlorides 1800 ppm System LCM 1  
 Blow Description IF: Weak Surface Blow Died in 21 Min.  
IS: No Return Blow  
FF: No Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>mud with oil spots</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 120 BHT 113 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2077</u>	<input checked="" type="checkbox"/> Test <u>\$1150.00/-</u>	T-On Location <u>02:10</u>
(B) First Initial Flow <u>134</u>	<input checked="" type="checkbox"/> Jars <u>\$250.00/-</u>	T-Started <u>03:24</u>
(C) First Final Flow <u>135</u>	<input checked="" type="checkbox"/> Safety Joint <u>\$75.00/-</u>	T-Open <u>06:23</u>
(D) Initial Shut-In <u>967</u>	<input checked="" type="checkbox"/> Circ Sub <u>WC</u>	T-Pulled <u>08:23</u>
(E) Second Initial Flow <u>136</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:22</u>
(F) Second Final Flow <u>130</u>	<input checked="" type="checkbox"/> Mileage <u>100RT = \$75.00/-</u>	Comments
(G) Final Shut-In <u>916</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2067</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1550</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>\$1550.00/-</u>	

Approved By Kitt Noah Our Representative Mike Roberts  
 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. **64236**

Well Name & No. Dorothy #21-1 Test No. 2 Date 10-26-17  
 Company Russell Oil, Inc. Elevation 3045 KB 3040 GL  
 Address P.O. Box 8050 Edmond OK 73083  
 Co. Rep / Geo. KITT NOAH Rig WW 12  
 Location: Sec. 21 Twp. 11S Rge. 32w Co. Logan State KS

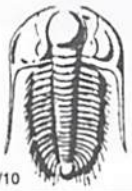
Interval Tested 4222-4250 Zone Tested LKC "I"  
 Anchor Length 28 Drill Pipe Run 4106 Mud Wt. 9.0  
 Top Packer Depth 4217 Drill Collars Run 120 Vis 49  
 Bottom Packer Depth 4222 Wt. Pipe Run 0 WL 8.8  
 Total Depth 4250 Chlorides 2500 ppm System LCM 1  
 Blow Description IF: Weak Blow Dried in 3 Min  
IS: No Return Blow  
FF: No Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Feet of 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 5 BHT 108 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2085</u>	<input checked="" type="checkbox"/> Test <u>\$1150.00/-</u>	T-On Location <u>19:45</u>
(B) First Initial Flow <u>14</u>	<input checked="" type="checkbox"/> Jars <u>\$250.00/-</u>	T-Started <u>21:22</u>
(C) First Final Flow <u>17</u>	<input checked="" type="checkbox"/> Safety Joint <u>\$75.00/-</u>	T-Open <u>12:05</u>
(D) Initial Shut-In <u>115</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>02:05</u>
(E) Second Initial Flow <u>18</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>04:23</u>
(F) Second Final Flow <u>20</u>	<input checked="" type="checkbox"/> Mileage <u>RT=100 = \$75.00/-</u>	Comments
(G) Final Shut-In <u>75</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2069</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1550</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>\$1550.00/-</u>	

Approved By Kitt Noah Our Representative Mike Polak  
 Trilobite Testing Inc. shall not be liable for damaged or 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. **64237**

Well Name & No. Dorothy #21-1 Test No. 3 Date 10-27-17  
 Company Russell Oil Inc Elevation 3045 KB 3040 GL  
 Address P.O. Box 8050 Edmond OK 73083  
 Co. Rep / Geo. KITT NOAH Rig WW 12  
 Location: Sec. 21 Twp. 11S Rge. 32W Co. Logan State KS

Interval Tested 4246-4275 Zone Tested LKC 'J'  
 Anchor Length 29 Drill Pipe Run 4106 Mud Wt. 9.1  
 Top Packer Depth 4241 Drill Collars Run 120 Vis 52  
 Bottom Packer Depth 4246 Wt. Pipe Run 0 WL 8.8  
 Total Depth 4275 Chlorides 2500 ppm System LCM 1

Blow Description IF: Built to 134' Blow  
IS: No Return Blow  
FF: No Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</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 Total 30 BHT 107 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2124</u>	<input checked="" type="checkbox"/> Test <u>\$ 1150.00/-</u>	T-On Location <u>11:30</u>
(B) First Initial Flow <u>26</u>	<input checked="" type="checkbox"/> Jars <u>\$ 250.00/-</u>	T-Started <u>11:58</u>
(C) First Final Flow <u>28</u>	<input checked="" type="checkbox"/> Safety Joint <u>\$ 75.00/-</u>	T-Open <u>14:00</u>
(D) Initial Shut-In <u>81</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>16:30</u>
(E) Second Initial Flow <u>28</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>18:14</u>
(F) Second Final Flow <u>28</u>	<input checked="" type="checkbox"/> Mileage <u>100RT = \$75.00/-</u>	Comments
(G) Final Shut-In <u>84</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2074</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

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

Sub Total 0  
 Total 1550  
 MP/DST Disc't —

Approved By [Signature] Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64238**

Well Name & No. Dorothy # 21-1 Test No. 4 Date 10-28-17  
 Company Russell Oil Inc Elevation 3045 KB 3040 GL  
 Address P.O. Box 8050 Edmond OK 73083  
 Co. Rep / Geo. KITT NOAH Rig WW12  
 Location: Sec. 21 Twp. 11S Rge. 32W Co. Logan State KS

Interval Tested 4274-4312 Zone Tested LICC 'K'  
 Anchor Length 38 Drill Pipe Run 4137 Mud Wt. 9.1  
 Top Packer Depth 4269 Drill Collars Run 120 Vis 52  
 Bottom Packer Depth 4274 Wt. Pipe Run Ø WL 8.8  
 Total Depth 4312 Chlorides 2500 ppm System LCM 1  
 Blow Description IF: Built to 1/8' Blow & Died in 12 Min.  
IS: No Return Blow  
FF: No Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MUD with oil spots</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 5 BHT 110  
 (A) Initial Hydrostatic 2143  
 (B) First Initial Flow 15  
 (C) First Final Flow 18  
 (D) Initial Shut-In 1229  
 (E) Second Initial Flow 20  
 (F) Second Final Flow 23  
 (G) Final Shut-In 1247  
 (H) Final Hydrostatic 2134  
 Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30

Gravity — API RW — @ — F Chlorides — ppm  
 Test \$ 1150.00/- T-On Location 01:45  
 Jars \$ 250.00/- T-Started 0  
 Safety Joint \$ 75.00/- T-Open 05:00  
 Circ Sub NC T-Pulled 07:00  
 Hourly Standby — T-Out —  
 Mileage 100RT = \$75.00/- Comments —  
 Sampler —  
 Straddle —  
 Shale Packer —  
 Extra Packer —  
 Extra Recorder —  
 Day Standby —  
 Accessibility —  
 Sub Total \$1550.00/-

Approved By [Signature] Our Representative [Signature]  
 TriLOBITE TESTING INC. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64239**

Well Name & No. Dorothy #21-1 Test No. 5 Date 10-29-17  
 Company Russell Oil Inc Elevation 3045 KB 3040 GL  
 Address P.O. Box 8050 Edmond OK 73083  
 Co. Rep / Geo. KITT NOAH Rig WW12  
 Location: Sec. 21 Twp. 11s Rge. 32w Co. Logan State KS

Interval Tested 4574-4622 Zone Tested Johnson  
 Anchor Length 48 Drill Pipe Run 4451 Mud Wt. 9.1  
 Top Packer Depth 4569 Drill Collars Run 120 Vis 58  
 Bottom Packer Depth 4574 Wt. Pipe Run Ø WL 7.4  
 Total Depth 4622 Chlorides 2200 ppm System LCM 2

Blow Description IF: BOB in 10 Min  
IS: ~~BOB~~ Weak Surface Blow died in 3 Min  
FF: BOB in 4 Min  
FS: Built to 1/2" Blow died in 27 Min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>Ø</u>	<u>GIP = 650</u>	<u>100</u>			
<u>92</u>	<u>OCM</u>		<u>3</u>		<u>97</u>
<u>60</u>	<u>gcom</u>	<u>2</u>	<u>10</u>		<u>88</u>
<u>60</u>	<u>wcgom</u>	<u>5</u>	<u>22</u>	<u>3</u>	<u>70</u>

Rec Total 212 BHT 120 Gravity — API RW 426 @ 74.3° F Chlorides 19000 ppm

- (A) Initial Hydrostatic 2316
- (B) First Initial Flow 31
- (C) First Final Flow 87
- (D) Initial Shut-In 928
- (E) Second Initial Flow 86
- (F) Second Final Flow 116
- (G) Final Shut-In 907
- (H) Final Hydrostatic 2291

- Test \$1150.00/- T-On Location 13:10
- Jars \$250.00/- T-Started 14:28
- Safety Joint \$75.00/- T-Open 16:52
- Circ Sub NC T-Pulled 19:52
- Hourly Standby \_\_\_\_\_ T-Out 22:16
- Mileage 100RT = \$75.00/- Comments Loaded at 18:00 10-30-17
- Sampler x2 75
- Straddle \_\_\_\_\_
- Shale Packer \_\_\_\_\_
- Extra Packer \_\_\_\_\_
- Extra Recorder \_\_\_\_\_
- Day Standby \_\_\_\_\_
- Accessibility 1625
- Sub Total \$1550.00/-

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

- Ruined Shale Packer \_\_\_\_\_
- Ruined Packer \_\_\_\_\_
- Extra Copies \_\_\_\_\_
- Sub Total 0
- Total 1625
- MP/DST Disc't \_\_\_\_\_

Approved By Kitt Noah Our Representative Mike Roberts

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.