



## DRILL STEM TEST REPORT

Prepared For: **DS Langston**

310 W Central STE 202  
Wichita KS 67202

ATTN: Dave Williams

### **Reif A&B #31-3**

### **31-18s-10w Rice,KS**

Start Date: 2014.05.17 @ 17:16:00

End Date: 2014.05.17 @ 23:37:00

Job Ticket #: 58958                      DST #: 1

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

Printed: 2014.05.22 @ 09:39:41

DS Langston  
31-18s-10w Rice,KS  
Reif A&B #31-3  
DST # 1  
LKC "A"  
2014.05.17



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

DS Langston  
310 W Central STE 202  
Wichita KS 67202  
ATTN: Dave Williams

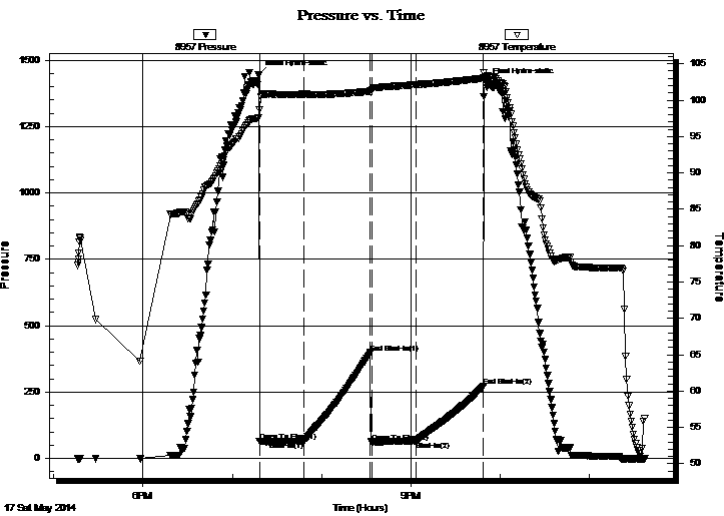
**31-18s-10w Rice, KS**  
**Reif A&B #31-3**  
Job Ticket: 58958 **DST#: 1**  
Test Start: 2014.05.17 @ 17:16:00

## GENERAL INFORMATION:

Formation: **LKC "A"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:18:15  
 Time Test Ended: 23:37:00  
 Interval: **2983.00 ft (KB) To 3010.00 ft (KB) (TVD)**  
 Total Depth: 3010.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition:  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brett Dickinson  
 Unit No: 59  
 Reference Elevations: 1765.00 ft (KB)  
 1757.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8957 Outside**  
 Press@RunDepth: 63.94 psig @ 3007.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.05.17 End Date: 2014.05.17 Last Calib.: 2014.05.18  
 Start Time: 17:16:05 End Time: 23:36:59 Time On Btm: 2014.05.17 @ 19:17:30  
 Time Off Btm: 2014.05.17 @ 21:50:15

TEST COMMENT: IF-1/2" blow  
 IS-No blow  
 FF-1/4" blow  
 FS-No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1443.88	97.55	Initial Hydro-static
1	64.75	98.65	Open To Flow (1)
31	64.16	100.84	Shut-In(1)
76	398.49	101.23	End Shut-In(1)
77	61.86	101.37	Open To Flow (2)
106	63.94	102.16	Shut-In(2)
152	271.69	103.02	End Shut-In(2)
153	1414.48	103.23	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	Mud	0.72

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

DS Langston  
310 W Central STE 202  
Wichita KS 67202  
ATTN: Dave Williams

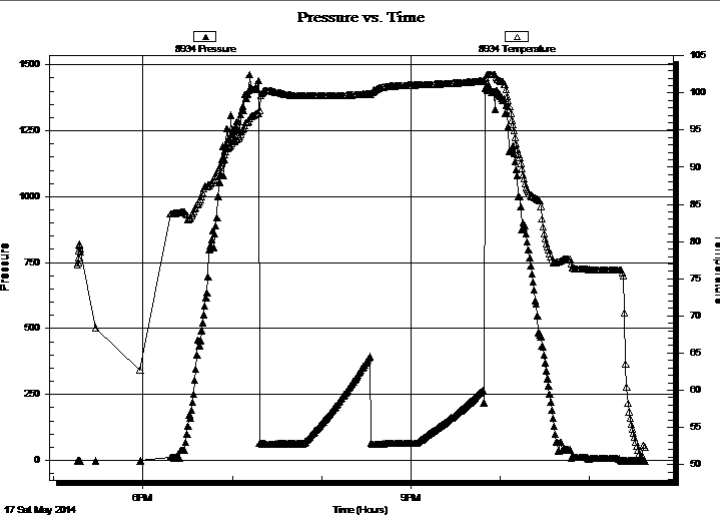
**31-18s-10w Rice, KS**  
**Reif A&B #31-3**  
Job Ticket: 58958      **DST#: 1**  
Test Start: 2014.05.17 @ 17:16:00

## GENERAL INFORMATION:

Formation: <b>LKC "A"</b>		
Deviated: No Whipstock:                      ft (KB)	Test Type: Conventional Bottom Hole (Initial)	
Time Tool Opened: 19:18:15	Tester: Brett Dickinson	
Time Test Ended: 23:37:00	Unit No: 59	
<b>Interval: 2983.00 ft (KB) To 3010.00 ft (KB) (TVD)</b>	Reference Elevations: 1765.00 ft (KB)	
Total Depth: 3010.00 ft (KB) (TVD)	1757.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: KB to GR/CF: 8.00 ft	

<b>Serial #: 8934</b> <b>Inside</b>				
Press@RunDepth:                      psig @      3007.00 ft (KB)	Capacity: 8000.00 psig			
Start Date: 2014.05.17      End Date: 2014.05.17	Last Calib.: 2014.05.18			
Start Time: 17:16:05      End Time: 23:36:59	Time On Btm:			
	Time Off Btm:			

TEST COMMENT: IF-1/2" blow  
IS-No blow  
FF-1/4" blow  
FS-No blow



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

Recovery		
Length (ft)	Description	Volume (bbl)
90.00	Mud	0.72

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

DS Langston  
310 W Central STE 202  
Wichita KS 67202  
ATTN: Dave Williams

**31-18s-10w Rice,KS**  
**Reif A&B #31-3**  
Job Ticket: 58958      **DST#: 1**  
Test Start: 2014.05.17 @ 17:16:00

**Tool Information**

Drill Pipe:	Length: 2905.00 ft	Diameter: 3.80 inches	Volume: 40.75 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased	20.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	2983.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	27.00 ft				
Tool Length:	55.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

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

Shut In Tool	5.00			2960.00	
Hydraulic tool	5.00			2965.00	
Safety Joint	3.00		Fluid	2968.00	
Jars	5.00			2973.00	
Packer	5.00			2978.00	28.00      Bottom Of Top Packer
Packer	5.00			2983.00	
Stubb	1.00		Inside	2984.00	
Perforations	23.00			3007.00	
Recorder	0.00	8934	Inside	3007.00	
Recorder	0.00	8957	Outside	3007.00	
Bullnose	3.00			3010.00	27.00      Bottom Packers & Anchor

**Total Tool Length:      55.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

DS Langston  
310 W Central STE 202  
Wichita KS 67202  
ATTN: Dave Williams

**31-18s-10w Rice,KS**  
**Reif A&B #31-3**  
Job Ticket: 58958      **DST#: 1**  
Test Start: 2014.05.17 @ 17:16:00

## Mud and Cushion Information

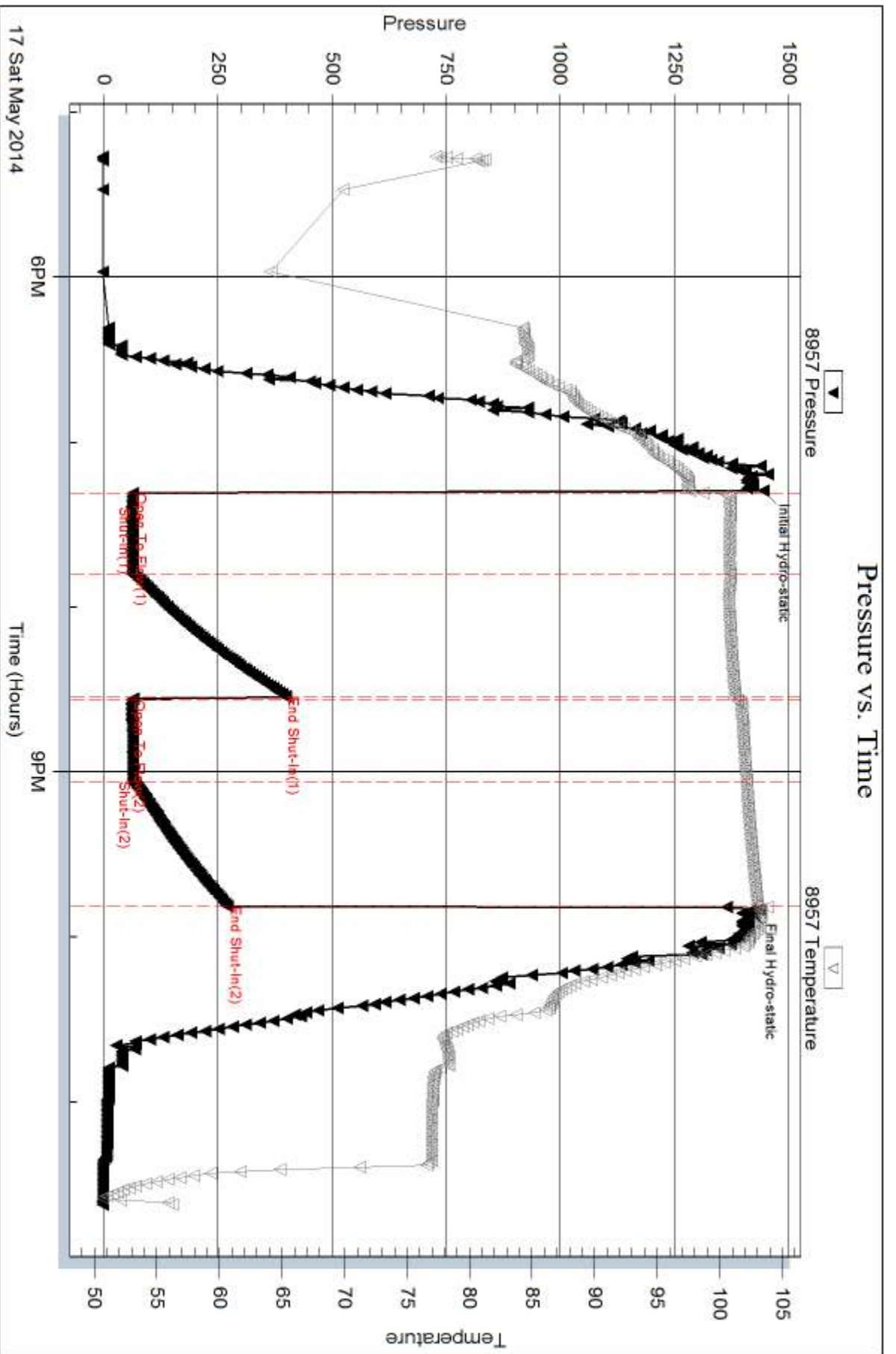
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4300.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	Mud	0.716

Total Length: 90.00 ft      Total Volume: 0.716 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:



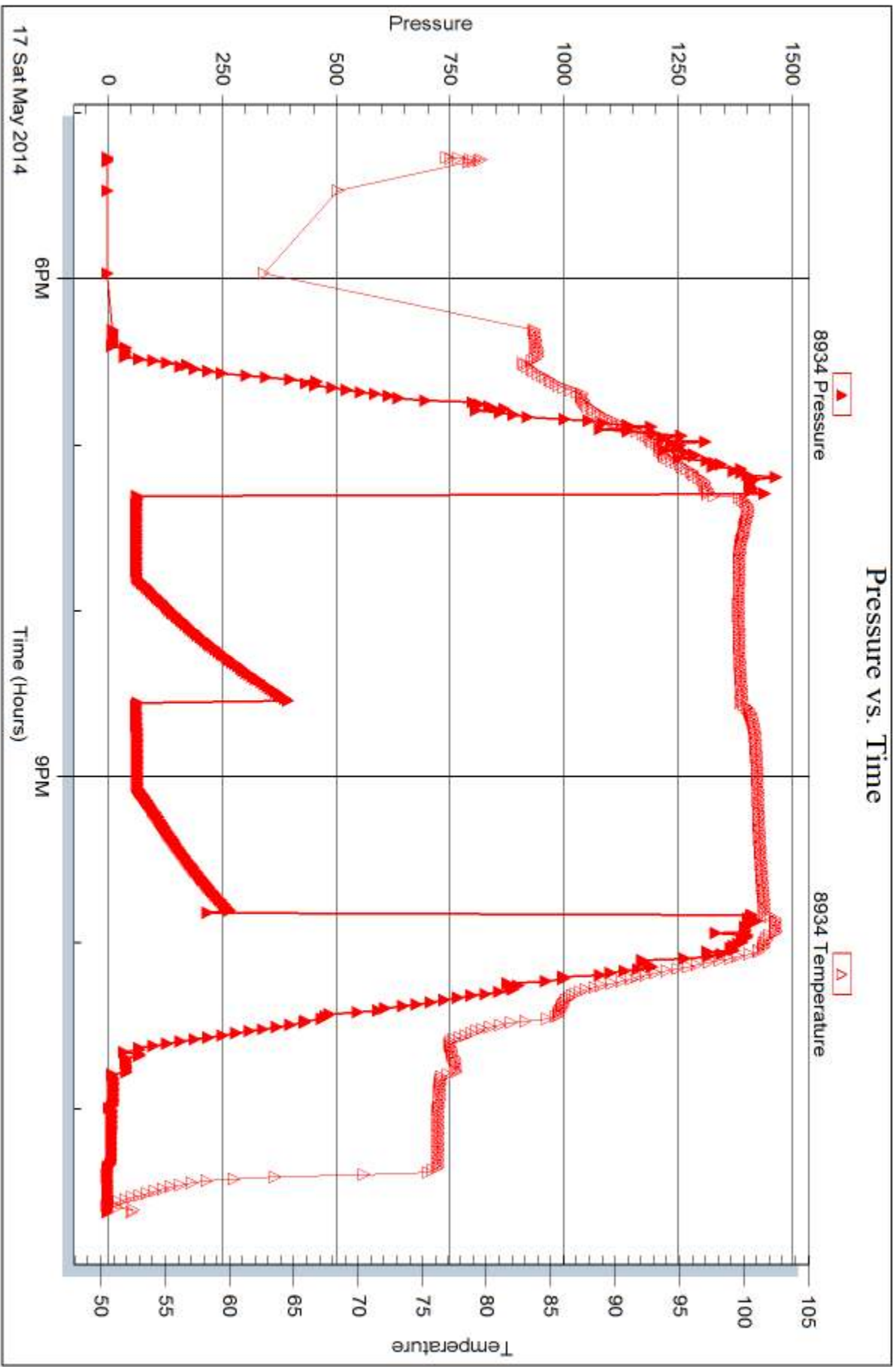
Serial #: 8934

Inside

DS Langston

Ref: A8B #31-3

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **DS Langston**

310 W Central STE 202  
Wichita KS 67202

ATTN: Dave Williams

### **Reif A&B #31-3**

#### **31-18s-10w Rice,KS**

Start Date: 2014.05.18 @ 06:40:00

End Date: 2014.05.18 @ 16:48:30

Job Ticket #: 58959                      DST #: 2

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

Printed: 2014.05.22 @ 09:39:11

DS Langston  
31-18s-10w Rice,KS  
Reif A&B #31-3  
DST # 2  
LKC "B"  
2014.05.18





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

DS Langston  
 310 W Central STE 202  
 Wichita KS 67202  
 ATTN: Dave Williams

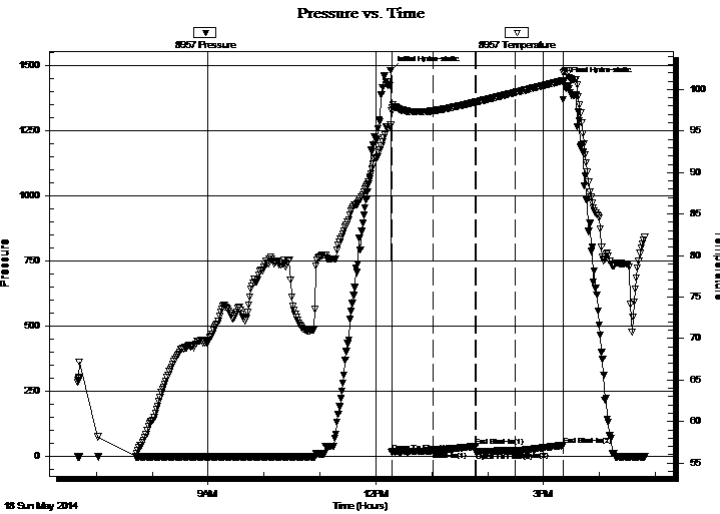
**31-18s-10w Rice, KS**  
**Reif A&B #31-3**  
 Job Ticket: 58959 **DST#: 2**  
 Test Start: 2014.05.18 @ 06:40:00

## GENERAL INFORMATION:

Formation: **LKC "B"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 12:17:00  
 Time Test Ended: 16:48:30  
 Interval: **3014.00 ft (KB) To 3030.00 ft (KB) (TVD)**  
 Total Depth: 3030.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brett Dickinson  
 Unit No: 59  
 Reference Elevations: 1765.00 ft (KB)  
 1757.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8957 Outside**  
 Press@RunDepth: 19.65 psig @ 3027.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.05.18 End Date: 2014.05.18 Last Calib.: 2014.05.18  
 Start Time: 06:40:05 End Time: 16:48:30 Time On Btm: 2014.05.18 @ 12:16:00  
 Time Off Btm: 2014.05.18 @ 15:22:15

TEST COMMENT: IF-2 1/4" blow  
 IS-No blow  
 FF-1 1/4" blow  
 FS-No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1482.23	95.72	Initial Hydro-static
1	15.49	97.40	Open To Flow (1)
46	19.33	97.44	Shut-In(1)
91	39.37	98.48	End Shut-In(1)
92	16.30	98.48	Open To Flow (2)
134	19.65	99.65	Shut-In(2)
185	42.81	101.04	End Shut-In(2)
187	1440.10	102.15	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud	0.02

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC

## DRILL STEM TEST REPORT

DS Langston  
 310 W Central STE 202  
 Wichita KS 67202  
 ATTN: Dave Williams

**31-18s-10w Rice, KS**  
**Reif A&B #31-3**  
 Job Ticket: 58959      **DST#: 2**  
 Test Start: 2014.05.18 @ 06:40:00

### GENERAL INFORMATION:

Formation: **LKC "B"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 12:17:00  
 Time Test Ended: 16:48:30

Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brett Dickinson  
 Unit No: 59

**Interval: 3014.00 ft (KB) To 3030.00 ft (KB) (TVD)**  
 Total Depth: 3030.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1765.00 ft (KB)  
 1757.00 ft (CF)  
 KB to GR/CF: 8.00 ft

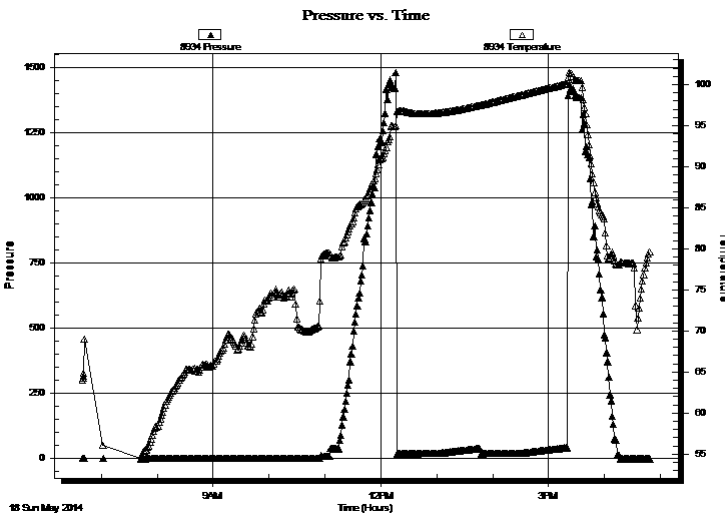
**Serial #: 8934      Inside**

Press@RunDepth: psig @ 3027.00 ft (KB)  
 Start Date: 2014.05.18 End Date: 2014.05.18  
 Start Time: 06:40:05 End Time: 16:48:30

Capacity: 8000.00 psig  
 Last Calib.: 2014.05.18  
 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF-2 1/4" blow  
 IS-No blow  
 FF-1 1/4" blow  
 FS-No blow

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud	0.02

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

DS Langston  
310 W Central STE 202  
Wichita KS 67202  
ATTN: Dave Williams

**31-18s-10w Rice, KS**  
**Reif A&B #31-3**  
Job Ticket: 58959      **DST#: 2**  
Test Start: 2014.05.18 @ 06:40:00

**Tool Information**

Drill Pipe:	Length: 2941.00 ft	Diameter: 3.80 inches	Volume: 41.25 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:            ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3014.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	16.00 ft				
Tool Length:	44.00 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>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			2991.00	
Hydraulic tool	5.00			2996.00	
Jars	5.00			3001.00	
Safety Joint	3.00			3004.00	
Packer	5.00			3009.00	28.00      Bottom Of Top Packer
Packer	5.00			3014.00	
Stubb	1.00		Inside	3015.00	
Perforations	12.00			3027.00	
Recorder	0.00	8934	Inside	3027.00	
Recorder	0.00	8957	Outside	3027.00	
Bullnose	3.00			3030.00	16.00      Bottom Packers & Anchor

**Total Tool Length: 44.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

DS Langston  
310 W Central STE 202  
Wichita KS 67202  
ATTN: Dave Williams

**31-18s-10w Rice,KS**  
**Reif A&B #31-3**  
Job Ticket: 58959      **DST#: 2**  
Test Start: 2014.05.18 @ 06:40:00

## Mud and Cushion Information

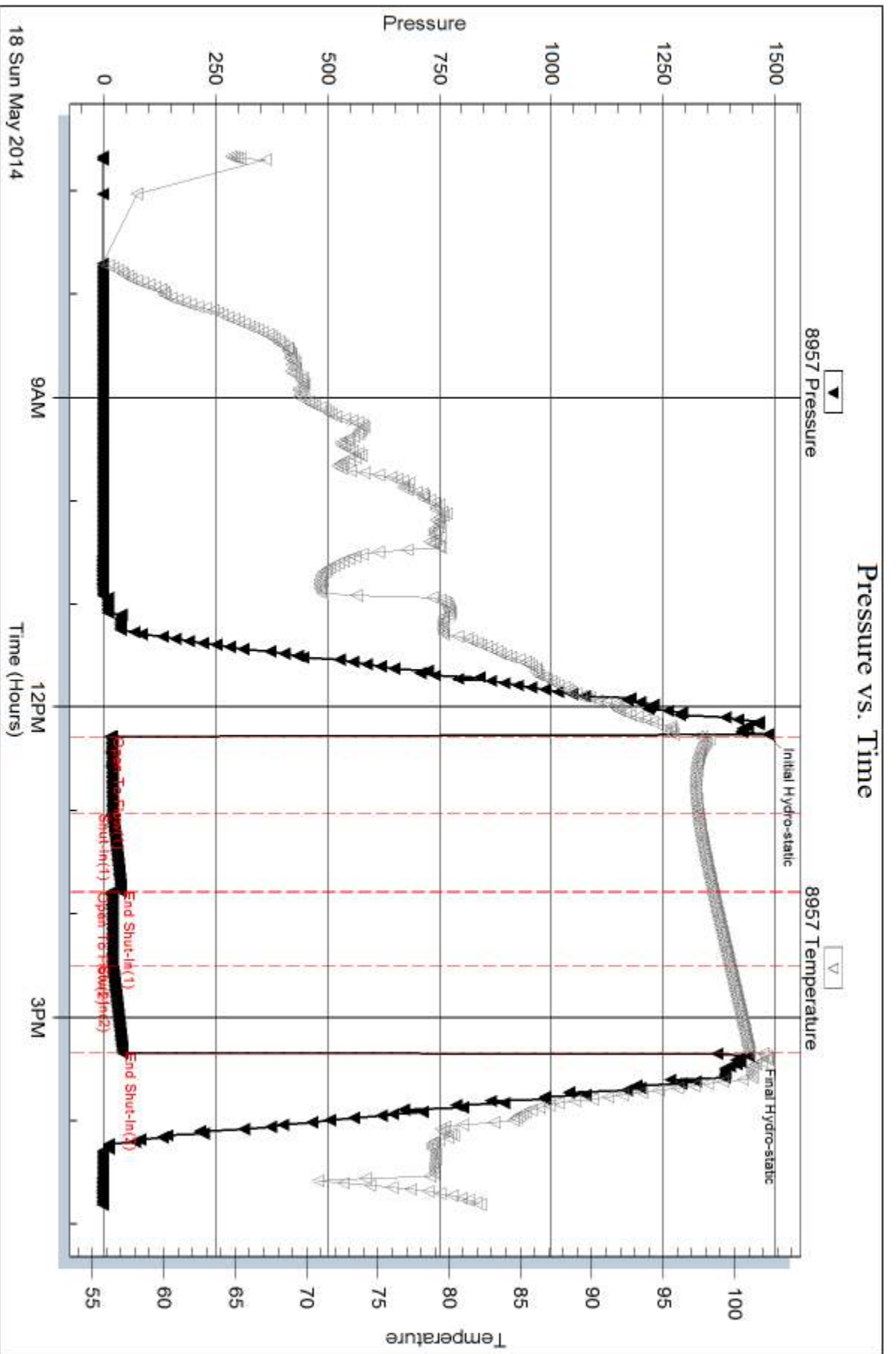
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.18 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4300.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud	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:



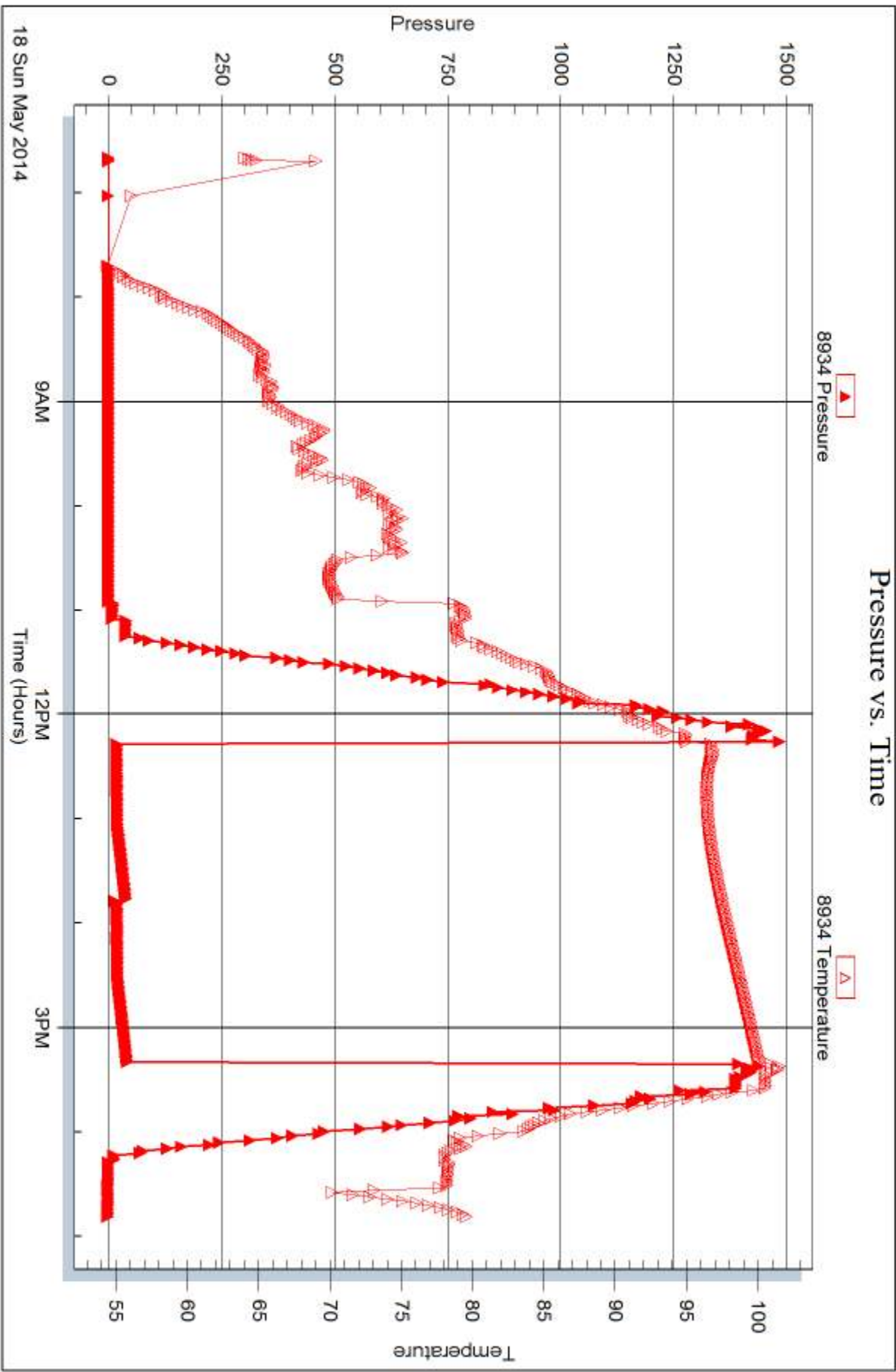
Serial #: 8934

Inside

DS Langston

Ref: A&B #31-3

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **DS Langston**

310 W Central STE 202  
Wichita KS 67202

ATTN: Dave Williams

### **Reif A&B #31-3**

### **31-18s-10w Rice,KS**

Start Date: 2014.05.19 @ 19:30:00

End Date: 2014.05.20 @ 00:14:30

Job Ticket #: 58960                      DST #: 3

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

Printed: 2014.05.22 @ 09:38:33

DS Langston  
31-18s-10w Rice,KS  
Reif A&B #31-3  
DST # 3  
Arb.  
2014.05.19



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

DS Langston  
310 W Central STE 202  
Wichita KS 67202  
ATTN: Dave Williams

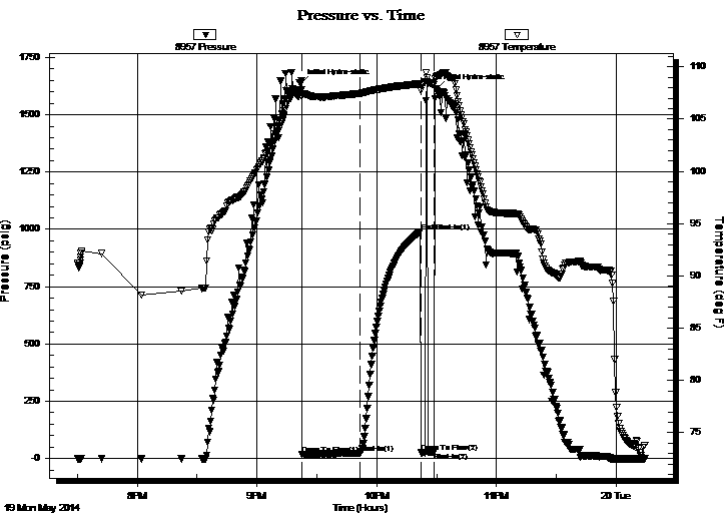
**31-18s-10w Rice, KS**  
**Reif A&B #31-3**  
Job Ticket: 58960      **DST#: 3**  
Test Start: 2014.05.19 @ 19:30:00

## GENERAL INFORMATION:

Formation: **Arb.**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 21:22:30  
Time Test Ended: 00:14:30  
Interval: **3295.00 ft (KB) To 3329.00 ft (KB) (TVD)**  
Total Depth: 3329.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 1765.00 ft (KB)  
1757.00 ft (CF)  
KB to GR/CF: 8.00 ft  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Brett Dickinson  
Unit No: 59

**Serial #: 8957      Outside**  
Press@RunDepth: 23.22 psig @ 3326.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.05.19      End Date: 2014.05.20      Last Calib.: 2014.05.20  
Start Time: 19:30:05      End Time: 00:14:29      Time On Btm: 2014.05.19 @ 21:21:45  
Time Off Btm: 2014.05.19 @ 22:30:00

TEST COMMENT: IF-very weak surface blow died in 28 min  
IS-No blow  
FF-No blow flush tool surge no blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1636.41	107.85	Initial Hydro-static
1	17.86	107.17	Open To Flow (1)
30	23.22	107.45	Shut-In(1)
61	989.44	108.41	End Shut-In(1)
61	25.09	107.74	Open To Flow (2)
67	28.35	108.28	Shut-In(2)
69	1614.33	109.08	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OS mud	0.02

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

DS Langston  
310 W Central STE 202  
Wichita KS 67202  
ATTN: Dave Williams

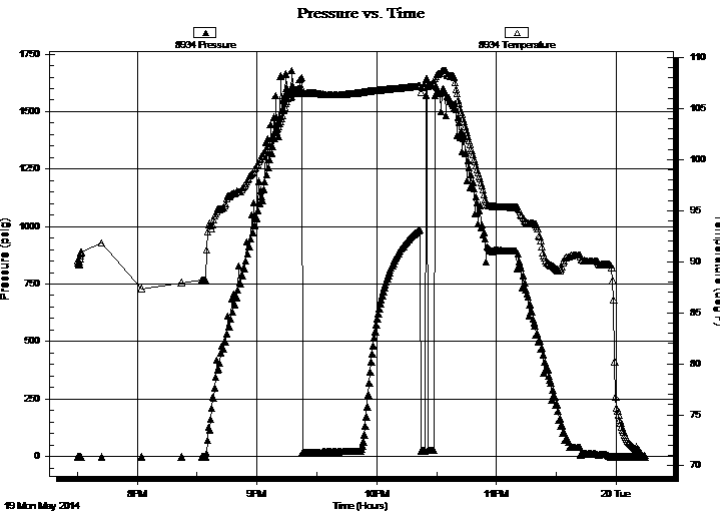
**31-18s-10w Rice, KS**  
**Reif A&B #31-3**  
Job Ticket: 58960      **DST#: 3**  
Test Start: 2014.05.19 @ 19:30:00

## GENERAL INFORMATION:

Formation: **Arb.**  
 Deviated: No Whipstock: ft (KB)      Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 21:22:30      Tester: Brett Dickinson  
 Time Test Ended: 00:14:30      Unit No: 59  
**Interval: 3295.00 ft (KB) To 3329.00 ft (KB) (TVD)**      Reference Elevations: 1765.00 ft (KB)  
 Total Depth: 3329.00 ft (KB) (TVD)      1757.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair      KB to GR/CF: 8.00 ft

**Serial #: 8934      Inside**  
 Press@RunDepth:      psig @ 3326.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.05.19      End Date: 2014.05.20      Last Calib.: 2014.05.20  
 Start Time: 19:30:05      End Time: 00:14:29      Time On Btm:  
    Time Off Btm:

TEST COMMENT: IF-very weak surface blow died in 28 min  
 IS-No blow  
 FF-No blow flush tool surge no blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OS mud	0.02

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

DS Langston  
310 W Central STE 202  
Wichita KS 67202  
ATTN: Dave Williams

**31-18s-10w Rice,KS**  
**Reif A&B #31-3**  
Job Ticket: 58960      **DST#: 3**  
Test Start: 2014.05.19 @ 19:30:00

**Tool Information**

Drill Pipe:	Length: 3228.00 ft	Diameter: 3.80 inches	Volume: 45.28 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose:	45000.00 lb
		Total Volume: - bbl		Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3295.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	34.00 ft				
Tool Length:	62.00 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>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			3272.00	
Hydraulic tool	5.00			3277.00	
Safety Joint	3.00		Fluid	3280.00	
Jars	5.00			3285.00	
Packer	5.00			3290.00	28.00      Bottom Of Top Packer
Packer	5.00			3295.00	
Stubb	1.00		Inside	3296.00	
Perforations	30.00			3326.00	
Recorder	0.00	8934	Inside	3326.00	
Recorder	0.00	8957	Outside	3326.00	
Bullnose	3.00			3329.00	34.00      Bottom Packers & Anchor

**Total Tool Length: 62.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

DS Langston  
310 W Central STE 202  
Wichita KS 67202  
ATTN: Dave Williams

**31-18s-10w Rice,KS**  
**Reif A&B #31-3**  
Job Ticket: 58960      **DST#: 3**  
Test Start: 2014.05.19 @ 19:30:00

### Mud and Cushion Information

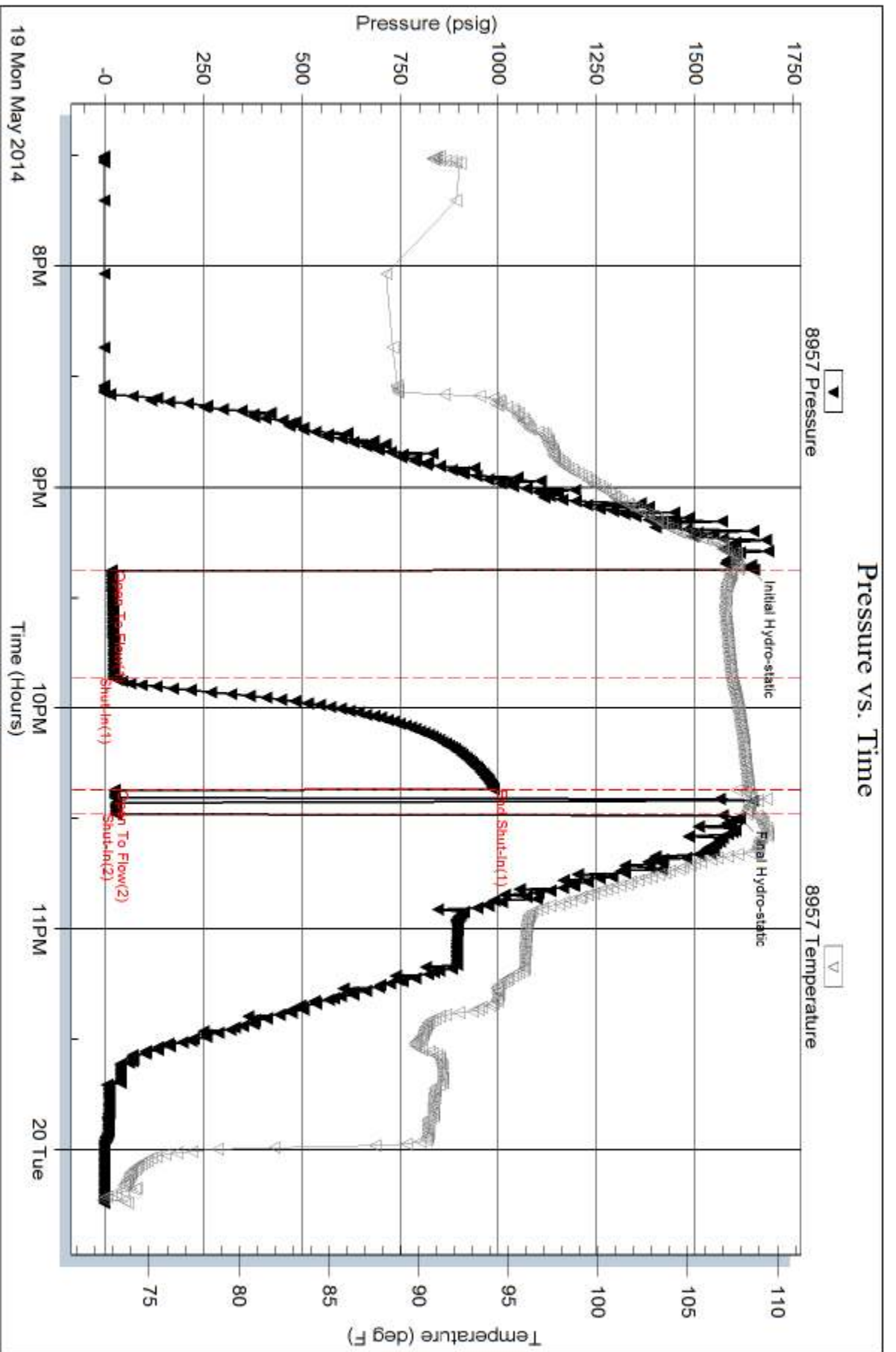
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.18 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4300.00 ppm			
Filter Cake: inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OS mud	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:



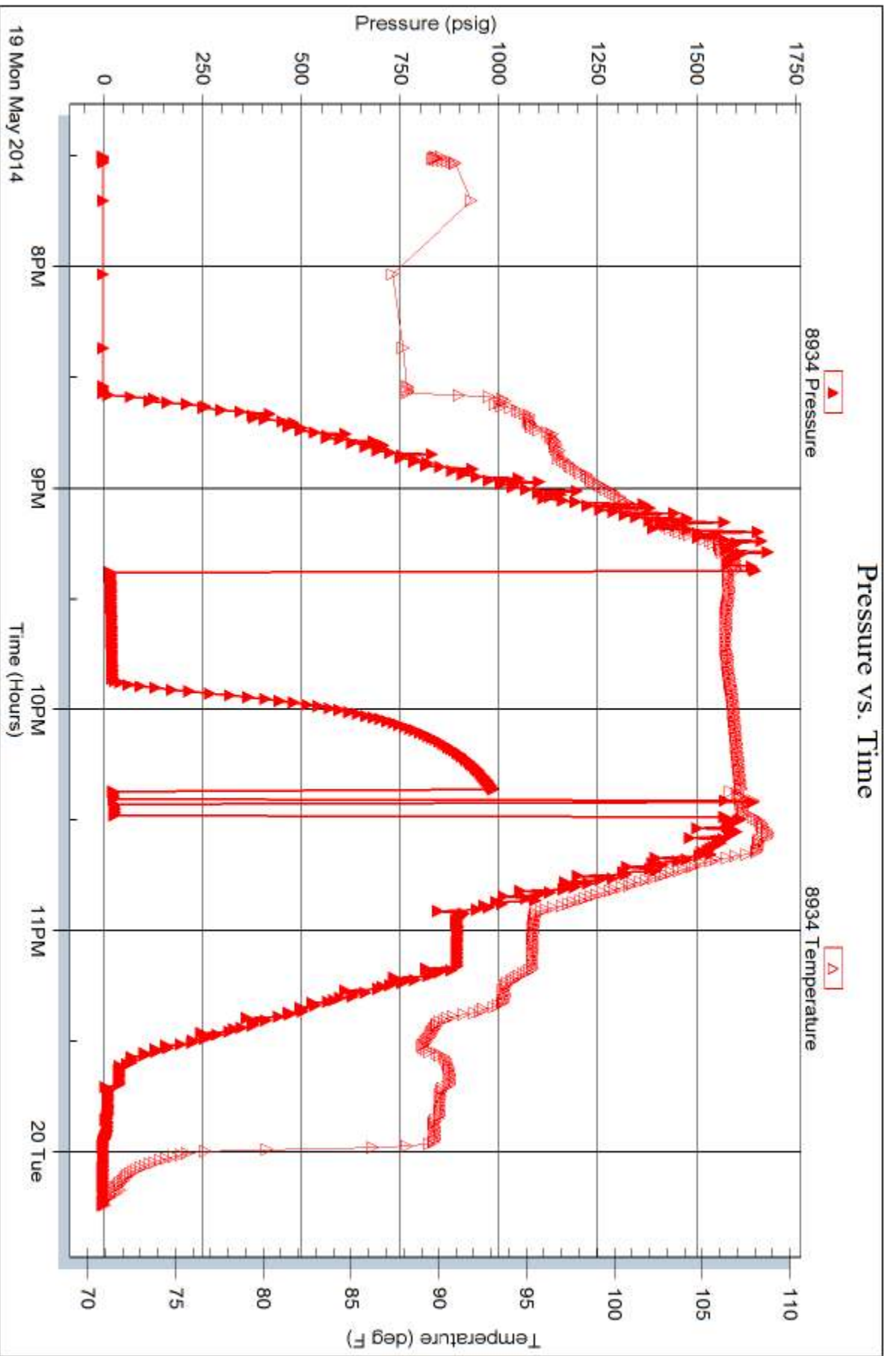
Serial #: 8934

Inside

DS Langston

Ref A&B #31-3

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58960

Printed: 2014.05.22 @ 09:38:34



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58958

4/10

Well Name & No. Reit CAB #31-3 Test No. 1 Date 5/17/14  
 Company Langston, D.S. Elevation 1765 KB 1757 GL  
 Address 310 W Central St - 202 Wichita KS 67202  
 Co. Rep / Geo. Pave Williams Rig Southwind #8  
 Location: Sec. 31 Twp. 18 Rge. 10 Co. Rice State KS

Interval Tested 2983-3010 Zone Tested KC "A"  
 Anchor Length 27 Drill Pipe Run 2905 Mud Wt. 8.8  
 Top Packer Depth ~~3010~~ 2978 Drill Collars Run ~~30~~ 60 Vis 52  
 Bottom Packer Depth 2983 Wt. Pipe Run — WL 7.2  
 Total Depth 3010 Chlorides 4,300 ppm System LCM —  
 Blow Description IF - 1/2 in blow  
FST - No blow  
CF - 1/4 in blow  
FST - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>Mud</u>				

Rec Total 90 BHT 1,444 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1,444  Test 1150 T-On Location 12:00  
 (B) First Initial Flow 65  Jars 250 T-Started ~~17:22~~ 17:16  
 (C) First Final Flow 64  Safety Joint 75 T-Open ~~19:32~~ 19:32  
 (D) Initial Shut-In 398  Circ Sub — T-Pulled 22:52  
 (E) Second Initial Flow 62  Hourly Standby — T-Out 00:45  
 (F) Second Final Flow 64  Mileage 145 RT 130 RT 201.50 Comments —  
 (G) Final Shut-In 272  Sampler —  
 (H) Final Hydrostatic 1,414  Straddle —  Ruined Shale Packer —  
 Shale Packer —  Ruined Packer —  
 Extra Packer —  Extra Copies —  
 Extra Recorder — Sub Total 0  
 Day Standby — Total 1676.50  
 Accessibility — MP/DST Disc't —  
 Sub Total 1676.50

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

Approved By \_\_\_\_\_ Our Representative Beth Dickinson

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. 58959

4/10

Well Name & No. Reif AB #31-3 Test No. 2 Date 5/18/14  
 Company Langston, D.S. Elevation 1765 KB 1757 GL  
 Address 310 w central STB 202 Wichita KS 67202  
 Co. Rep / Geo. Dave Williams Rig Southwind #8  
 Location: Sec. 31 Twp. 18 Rge. 10 Co. Rice State KS

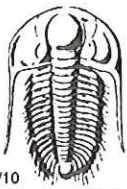
Interval Tested 3014 - 3030 Zone Tested KB  
 Anchor Length 16 Drill Pipe Run 2941 Mud Wt. 8.8  
 Top Packer Depth 3009 Drill Collars Run 60 Vis 52  
 Bottom Packer Depth 3014 Wt. Pipe Run - WL 7.2  
 Total Depth 3030 Chlorides 4,300 ppm System LCM -  
 Blow Description FF - 2 1/4 in blow  
ISI - No blow  
FF - 1 1/4 in blow  
ESI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>				

Rec Total 5 BHT 101 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1,482  Test 1150 T-On Location 6:00  
 (B) First Initial Flow 15  Jars 250 T-Started 6:40  
 (C) First Final Flow 19  Safety Joint 75 T-Open 12:12  
 (D) Initial Shut-In 39  Circ Sub \_\_\_\_\_ T-Pulled 15:12  
 (E) Second Initial Flow 16  Hourly Standby \_\_\_\_\_ T-Out 16:45  
 (F) Second Final Flow 20  Mileage 145 rT 201.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 43  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1,440  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1676.50  
 Final Flow 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 45 Sub Total 1676.50

Approved By \_\_\_\_\_ Our Representative Butt D...  
 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. 58960

4/10

Well Name & No. Reit AB #31-3 Test No. 3 Date 5/19/14  
 Company Langston, D.S. Elevation 1765 KB 1757 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Dave Williams Rig Southwind #8  
 Location: Sec. 31 Twp. 18 Rge. 10 Co. Rice State KS

Interval Tested 3295-3329 Zone Tested Arbuckle  
 Anchor Length 34 Drill Pipe Run \_\_\_\_\_ Mud Wt. \_\_\_\_\_  
 Top Packer Depth 3290 Drill Collars Run 60 Vis \_\_\_\_\_  
 Bottom Packer Depth 3295 Wt. Pipe Run \_\_\_\_\_ WL \_\_\_\_\_  
 Total Depth 3329 Chlorides \_\_\_\_\_ ppm System LCM \_\_\_\_\_  
 Blow Description IF - very weak surface blow died in 28 min  
ISI - No blow  
FP - No blow flush tool surge No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>25 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 5 BHT 108 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1,636</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>18:45</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>19:30</u>
(C) First Final Flow <u>23</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>21:20</u>
(D) Initial Shut-In <u>989</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>22:25</u>
(E) Second Initial Flow <u>25</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>00:15</u>
(F) Second Final Flow _____	<input checked="" type="checkbox"/> Mileage <u>145 RT x 2</u> 403	Comments _____
(G) Final Shut-In _____	<input type="checkbox"/> Sampler _____	<u>loaded</u>
(H) Final Hydrostatic <u>1,614</u>	<input type="checkbox"/> Straddle _____	<u>Tools 49:00 2014</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>5</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In _____	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1878</u>
	Sub Total <u>1878</u>	MP/DST Disc't _____

Approved By \_\_\_\_\_ Our Representative Butt Durr

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.