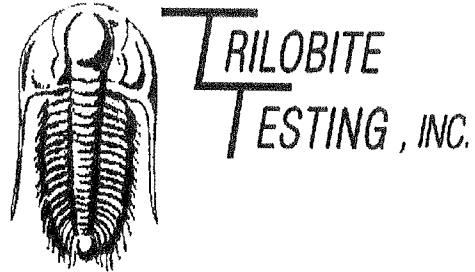


15-167-23514

32-15s-14w



## DRILL STEM TEST REPORT

Prepared For: **Russell Oil**

P.O. Box 1469  
Plainfield, IL 60544

ATTN: Steve Angle

**32 15 14 Russell KS**

**Keil "A" #1-32**

Start Date: 2008.08.04 @ 23:52:20

End Date: 2008.08.05 @ 05:40:20

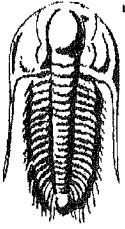
Job Ticket #: 32709                      DST #: 1

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CONSERVATION DIVISION  
WICHITA, KS

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

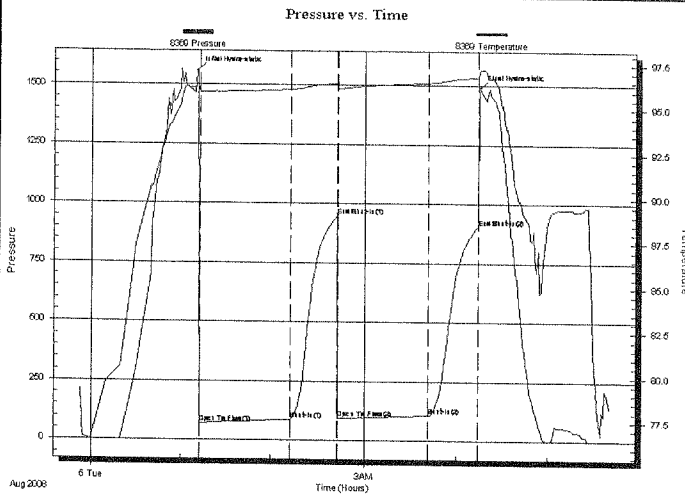
Keil "A" #1-32  
32 15 14 Russell KS  
Job Ticket: 32709      DST#: 1  
Test Start: 2008.08.04 @ 23:52:20

## GENERAL INFORMATION:

Formation: **Top-Torr**  
 Deviated: No      Whipstock:      ft (KB)  
 Time Tool Opened: 01:12:20  
 Time Test Ended: 05:40:20  
 Interval: **3008.00 ft (KB) To 3120.00 ft (KB) (TVD)**  
 Total Depth: 3120.00 ft (KB) (TVD)  
 Hole Diameter: 7.79 inches      Hole Condition: Fair  
 Test Type: Conventional Bottom Hole  
 Tester: Kyle Kinderknecht  
 Unit No: 31  
 Reference Elevations: 1927.00 ft (KB)  
 1919.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8369      Inside**  
 Press@RunDepth: 106.97 psig @ 3106.00 ft (KB)      Capacity: 7000.00 psig  
 Start Date: 2008.08.04      End Date: 2008.08.05      Last Calib.: 2008.08.05  
 Start Time: 23:52:25      End Time: 05:40:19      Time On Btm: 2008.08.05 @ 01:10:50  
 Time Off Btm: 2008.08.05 @ 04:15:20

TEST COMMENT: IF Slow building blow to 2"  
 FF Slow building blow to 1 1/2"



## PRESSURE SUMMARY

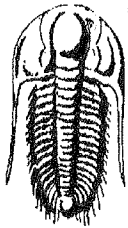
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1557.14	96.37	Initial Hydro-static
2	69.58	95.91	Open To Flow (1)
62	87.51	96.08	Shut-In(1)
92	948.29	96.42	End Shut-In(1)
92	93.73	96.12	Open To Flow (2)
150	106.97	96.48	Shut-In(2)
183	905.66	96.80	End Shut-In(2)
185	1491.23	97.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
85.00	Mud scum of Oil	1.20

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

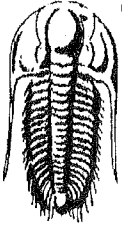
**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32709      **DST#: 1**  
Test Start: 2008.08.04 @ 23:52:20

### Tool Information

Drill Pipe:	Length: 2987.00 ft	Diameter: 3.82 inches	Volume: 42.34 bbl	Tool Weight: 2200.00 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: 45000.00 lb
			<u>Total Volume: 42.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3008.00 ft			Final 35000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	112.00 ft			
Tool Length:	140.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2981.00	
Shut In Tool	5.00			2986.00	
Hydraulic tool	5.00			2991.00	
Jars	5.00			2996.00	
Safety Joint	3.00			2999.00	
Packer	4.00			3003.00	28.00      Bottom Of Top Packer
Packer	5.00			3008.00	
Stubb	1.00			3009.00	
Perforations	3.00			3012.00	
Change Over Sub	1.00			3013.00	
Blank Spacing	93.00			3106.00	
Recorder	0.00	8369	Inside	3106.00	
Recorder	0.00	6669	Inside	3106.00	
Change Over Sub	1.00			3107.00	
Perforations	10.00			3117.00	
Bullnose	3.00			3120.00	112.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>140.00</b>				



**TRILOBITE**  
TESTING, INC

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32709      DST#: 1  
Test Start: 2008.08.04 @ 23:52:20

**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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.77 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4400.00 ppm			
Filter Cake: inches			

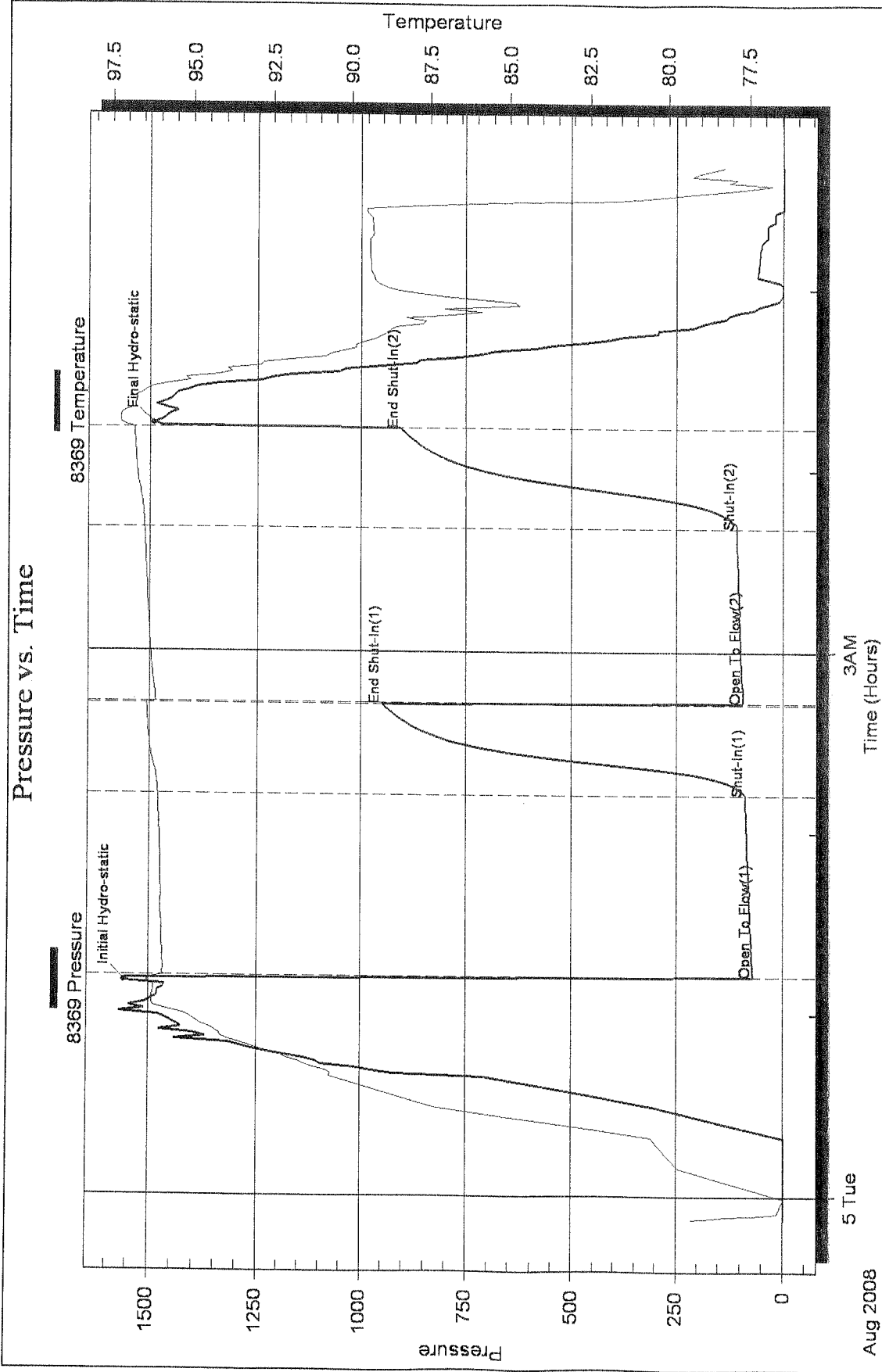
**Recovery Information**

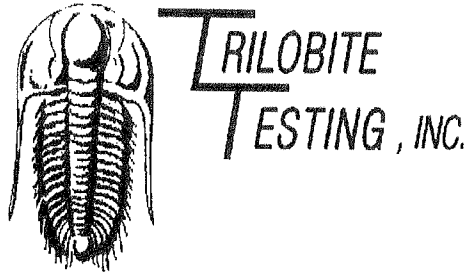
Recovery Table

Length ft	Description	Volume bbl
85.00	Mud scum of Oil	1.205

Total Length: 85.00 ft      Total Volume: 1.205 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Russell Oil**

P.O. Box 1469  
Plainfield, IL 60544

ATTN: Steve Angle

**32 15 14 Russell KS**

**Keil "A" #1-32**

Start Date: 2008.08.05 @ 18:16:21

End Date: 2008.08.06 @ 00:36:51

Job Ticket #: 32710                      DST #: 2

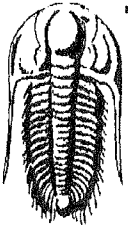
Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

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CONSERVATION DIVISION  
WICHITA, KS





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

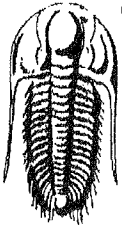
**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32710      **DST#: 2**  
Test Start: 2008.08.05 @ 18:16:21

**Tool Information**

Drill Pipe:	Length: 3084.00 ft	Diameter: 3.82 inches	Volume: 43.72 bbl	Tool Weight: 2200.00 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: 38000.00 lb
			<u>Total Volume: 43.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3106.00 ft			Final 35000.00 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	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3079.00	
Shut In Tool	5.00			3084.00	
Hydraulic tool	5.00			3089.00	
Jars	5.00			3094.00	
Safety Joint	3.00			3097.00	
Packer	4.00			3101.00	28.00      Bottom Of Top Packer
Packer	5.00			3106.00	
Stubb	1.00			3107.00	
Perforations	1.00			3108.00	
Change Over Sub	1.00			3109.00	
Blank Spacing	31.00			3140.00	
Recorder	0.00	8369	Inside	3140.00	
Recorder	0.00	6669	Inside	3140.00	
Change Over Sub	1.00			3141.00	
Perforations	10.00			3151.00	
Bullnose	3.00			3154.00	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  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32710      DST#: 2  
Test Start: 2008.08.05 @ 18:16:21

**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: 70000 ppm	
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.76 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: inches			

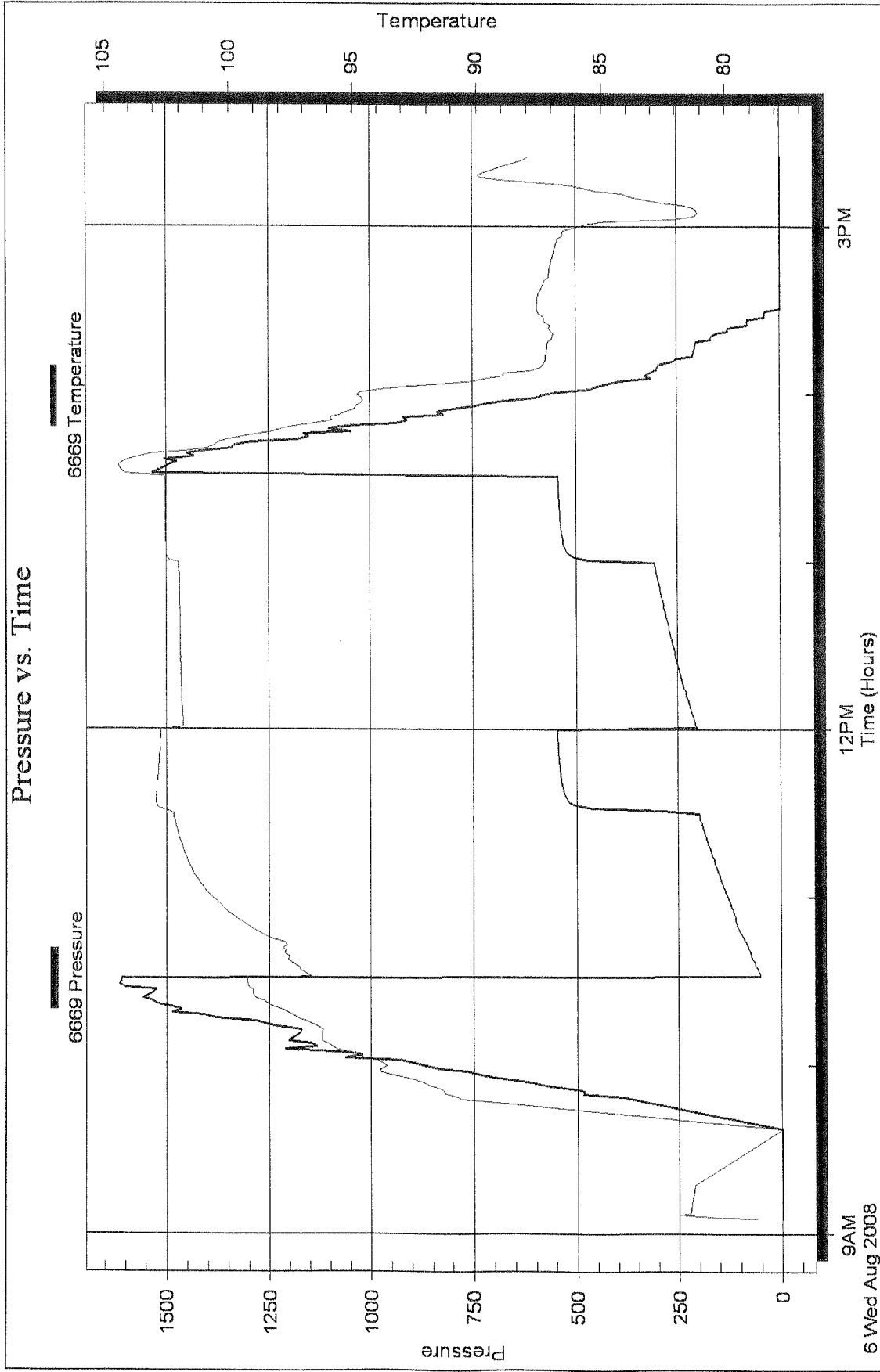
**Recovery Information**

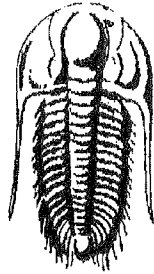
Recovery Table

Length ft	Description	Volume bbl
60.00	Gsyhw cm scum of Oil 10% G 40%W 50%M	0.851
15.00	Gsyow cm 10%G10%O 5%W 75%M	0.213
0.00	200' GIP	0.000

Total Length: 75.00 ft      Total Volume: 1.064 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: rw .10 @ 78 deg.

### Pressure vs. Time





**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Russell Oil**

P.O. Box 1469  
Plainfield, IL 60544

ATTN: Steve Angle

**32 15 14 Russell KS**

**Keil "A" #1-32**

Start Date: 2008.08.06 @ 09:05:34

End Date: 2008.08.06 @ 15:25:04

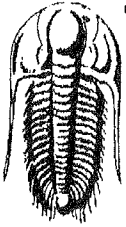
Job Ticket #: 32711                      DST #: 3

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

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CONSERVATION DIVISION  
WICHITA, KS



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

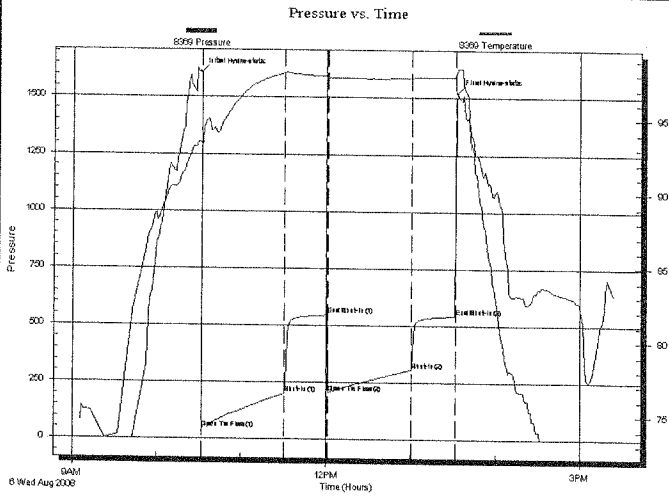
**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32711      **DST#: 3**  
Test Start: 2008.08.06 @ 09:05:34

## GENERAL INFORMATION:

Formation: **LKC "B-C"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 10:32:04  
Time Test Ended: 15:25:04  
Interval: **3154.00 ft (KB) To 3198.00 ft (KB) (TVD)**  
Total Depth: 3198.00 ft (KB) (TVD)  
Hole Diameter: 7.79 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole  
Tester: Kyle Kinderknecht  
Unit No: 31  
Reference Elevations: 1927.00 ft (KB)  
1919.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8369**      **Inside**  
Press@RunDepth: 306.16 psig @ 3189.00 ft (KB)      Capacity: 7000.00 psig  
Start Date: 2008.08.06      End Date: 2008.08.06      Last Calib.: 2008.08.06  
Start Time: 09:05:39      End Time: 15:25:03      Time On Btm: 2008.08.06 @ 10:31:04  
Time Off Btm: 2008.08.06 @ 13:33:04

**TEST COMMENT:** IF BOB 8 min  
ISI Weak surface 6-12 min  
FF BOB 15 min  
FSI No blow



## PRESSURE SUMMARY

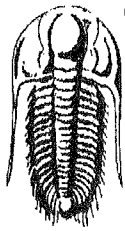
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1609.33	93.43	Initial Hydro-static
1	43.64	92.94	Open To Flow (1)
60	198.92	98.13	Shut-In(1)
90	545.27	97.93	End Shut-In(1)
91	203.75	97.82	Open To Flow (2)
150	306.16	97.80	Shut-In(2)
181	542.20	97.88	End Shut-In(2)
182	1522.27	98.34	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
250.00	Gsymcw 10%G 70%W 20%M	3.54
186.00	Gsymcw 5%G 60%W 35%M	2.64
140.00	Ow cm 5%O 35%W 60%M	1.98
0.00	200' GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Russell Oil

**Keil "A" #1-32**

P.O. Box 1469  
Plainfield, IL 60544

**32 15 14 Russell KS**

Job Ticket: 32711

**DST#: 3**

ATTN: Steve Angle

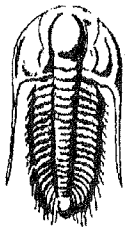
Test Start: 2008.08.06 @ 09:05:34

### Tool Information

Drill Pipe:	Length: 3150.00 ft	Diameter: 3.82 inches	Volume: 44.65 bbl	Tool Weight: 2200.00 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: 42000.00 lb
			<u>Total Volume: 44.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3154.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	72.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3127.00	
Shut In Tool	5.00			3132.00	
Hydraulic tool	5.00			3137.00	
Jars	5.00			3142.00	
Safety Joint	3.00			3145.00	
Packer	4.00			3149.00	28.00 Bottom Of Top Packer
Packer	5.00			3154.00	
Stubb	1.00			3155.00	
Perforations	2.00			3157.00	
Change Over Sub	1.00			3158.00	
Blank Spacing	31.00			3189.00	
Recorder	0.00	8369	Inside	3189.00	
Recorder	0.00	6669	Inside	3189.00	
Change Over Sub	1.00			3190.00	
Perforations	5.00			3195.00	
Bullnose	3.00			3198.00	44.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>72.00</b>				



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32711      DST#: 3  
Test Start: 2008.08.06 @ 09:05:34

## 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: 95000 ppm	
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.77 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: inches			

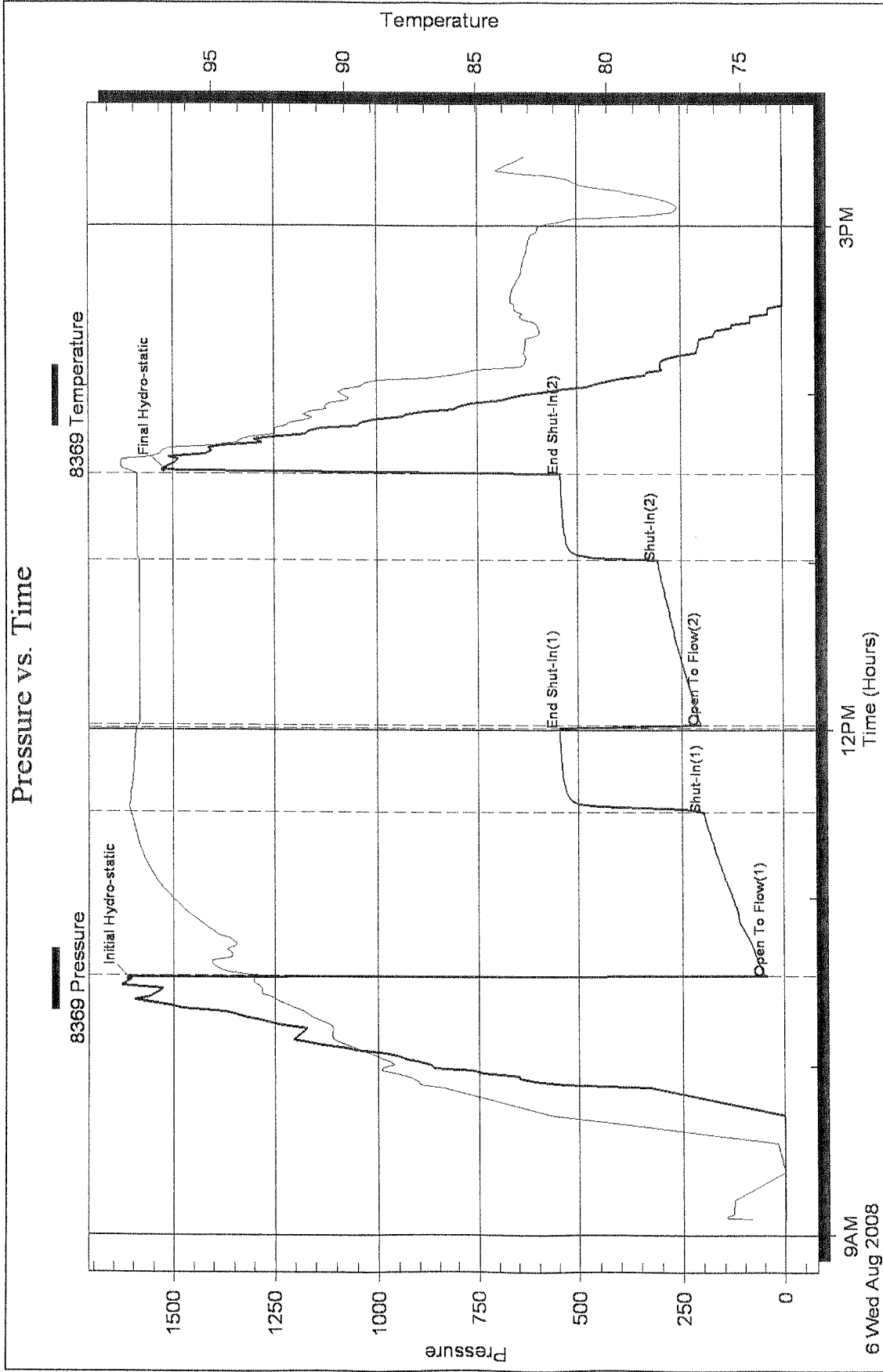
## Recovery Information

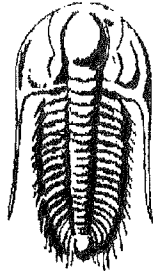
Recovery Table

Length ft	Description	Volume bbl
250.00	Gsymcw 10%G 70%W 20%M	3.544
186.00	Gsymcw 5%G 60%W 35%M	2.637
140.00	Ow cm 5%O 35%W 60%M	1.985
0.00	200' GIP	0.000

Total Length: 576.00 ft      Total Volume: 8.166 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: RW .07 @ 86 deg.

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Russell Oil**

P.O. Box 1469  
Plainfield, IL 60544

ATTN: Steve Angle

**32 15 14 Russell KS**

**Keil "A" #1-32**

Start Date: 2008.08.07 @ 04:12:55

End Date: 2008.08.07 @ 10:47:25

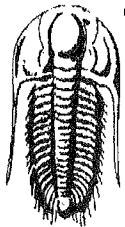
Job Ticket #: 32712                      DST #: 4

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CONSERVATION DIVISION  
WICHITA, KS

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

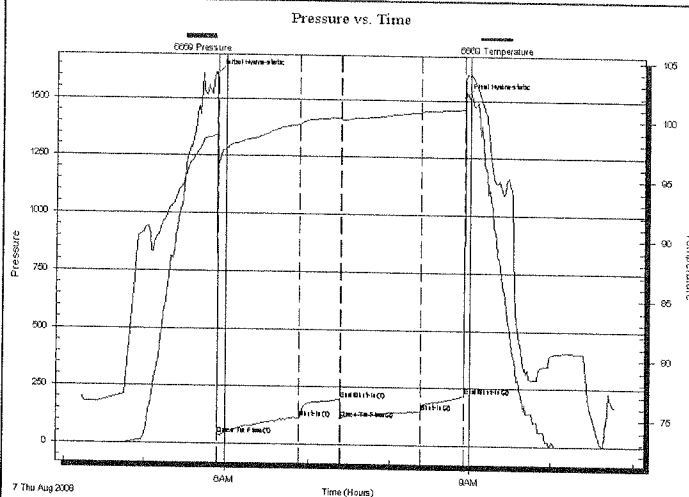
Keil "A" #1-32  
32 15 14 Russell KS  
Job Ticket: 32712      DST#: 4  
Test Start: 2008.08.07 @ 04:12:55

## GENERAL INFORMATION:

Formation: **LKC "E-G"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:54:55  
 Time Test Ended: 10:47:25  
 Interval: **3198.00 ft (KB) To 3235.00 ft (KB) (TVD)**  
 Total Depth: 3235.00 ft (KB) (TVD)  
 Hole Diameter: 7.79 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole  
 Tester: Kyle Kinderknecht  
 Unit No: 31  
 Reference Elevations: 1927.00 ft (KB)  
 1919.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 6669      Inside**  
 Press@RunDepth: 147.64 psig @ 3201.00 ft (KB)      Capacity: 7000.00 psig  
 Start Date: 2008.08.07      End Date: 2008.08.07      Last Calib.: 2008.08.07  
 Start Time: 04:13:00      End Time: 10:47:24      Time On Btm: 2008.08.07 @ 05:53:55  
 Time Off Btm: 2008.08.07 @ 08:56:24

TEST COMMENT: IF BOB 2 min GTS 60 min  
 ISI Strong blow 8" died back to 6"  
 FF BOB 3 min  
 FSI Slow build to 3"



## PRESSURE SUMMARY

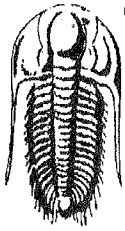
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1607.03	98.67	Initial Hydro-static
1	37.53	96.14	Open To Flow (1)
60	114.23	99.64	Shut-In(1)
90	199.44	100.21	End Shut-In(1)
90	115.86	100.04	Open To Flow (2)
149	147.64	100.71	Shut-In(2)
182	217.89	100.98	End Shut-In(2)
183	1514.99	103.47	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (tbl)
124.00	GsyCO 10%G 90%O	1.76
62.00	Gas	0.88
164.00	Gsyhocm 15%G 30%O 55%M	2.32
0.00	2828' GIP	0.00

## Gas Rates

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



**TRILOBITE**  
TESTING, INC

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32712      DST#: 4  
Test Start: 2008.08.07 @ 04:12:55

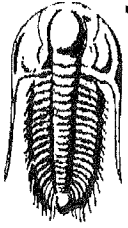
**Tool Information**

Drill Pipe:	Length: 3178.00 ft	Diameter: 3.82 inches	Volume: 45.05 bbl	Tool Weight: 2200.00 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: 40000.00 lb
			<b>Total Volume: 45.05 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3198.00 ft			Final 37000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 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
Change Over Sub	1.00			3171.00	
Shut In Tool	5.00			3176.00	
Hydraulic tool	5.00			3181.00	
Jars	5.00			3186.00	
Safety Joint	3.00			3189.00	
Packer	4.00			3193.00	28.00 Bottom Of Top Packer
Packer	5.00			3198.00	
Stubb	1.00			3199.00	
Perforations	1.00			3200.00	
Change Over Sub	1.00			3201.00	
Recorder	0.00	8369	Inside	3201.00	
Recorder	0.00	6669	Inside	3201.00	
Blank Spacing	30.00			3231.00	
Change Over Sub	1.00			3232.00	
Bullnose	3.00			3235.00	37.00 Bottom Packers & Anchor

**Total Tool Length: 65.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32712      **DST#: 4**  
Test Start: 2008.08.07 @ 04:12:55

**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: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: inches			

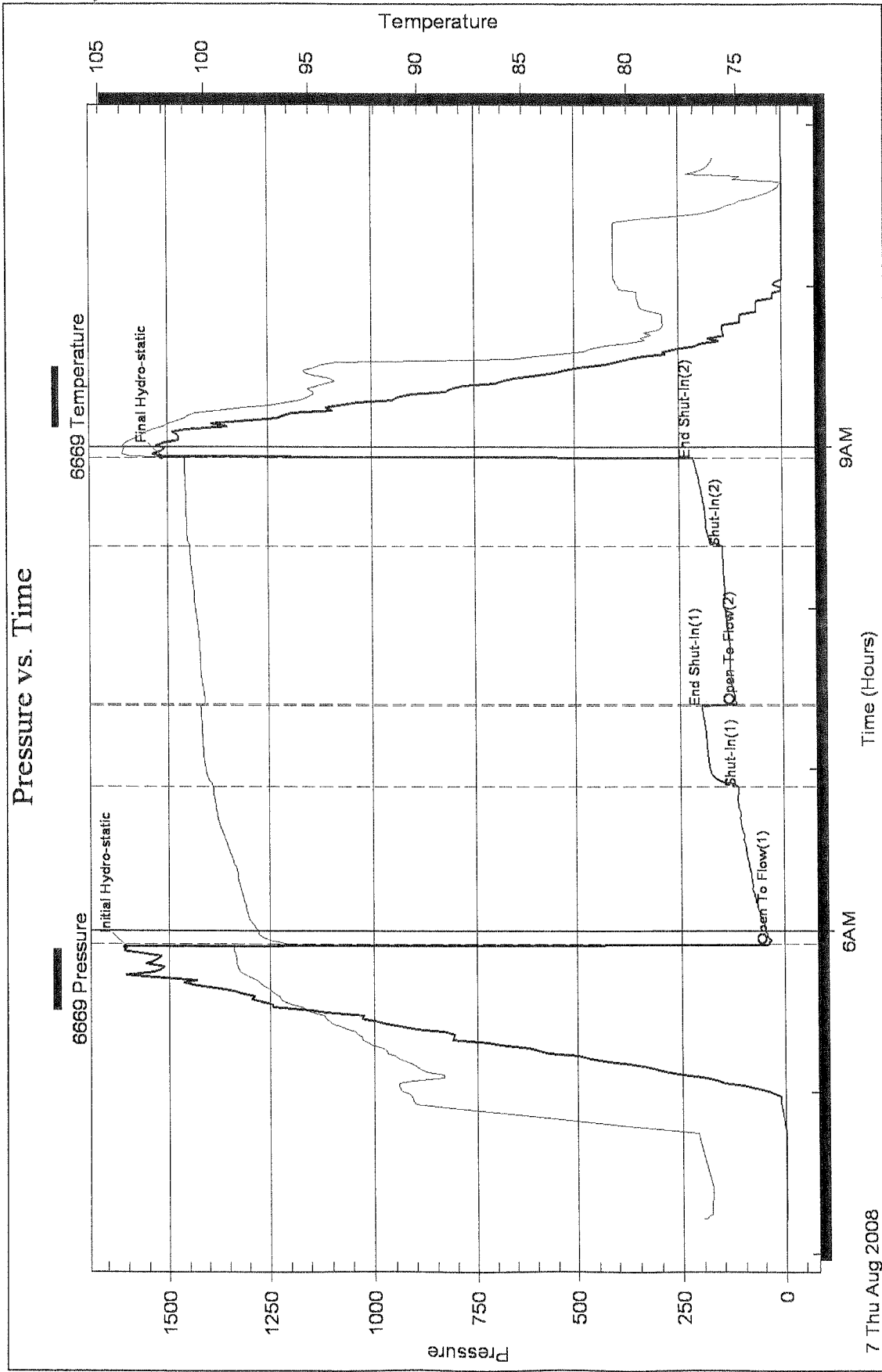
**Recovery Information**

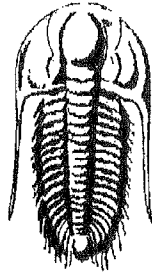
Recovery Table

Length ft	Description	Volume bbl
124.00	GsyCO 10%G 90%O	1.758
62.00	Gas	0.879
164.00	Gsyhocm 15%G 30%O 55%M	2.325
0.00	2828' GIP	0.000

Total Length: 350.00 ft      Total Volume: 4.962 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Russell Oil**

P.O. Box 1469  
Plainfield, IL 60544

ATTN: Steve Angle

**32 15 14 Russell KS**

**Keil "A" #1-32**

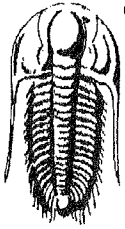
Start Date: 2008.08.08 @ 13:17:42

End Date: 2008.08.08 @ 20:38:42

Job Ticket #: 32713                      DST #: 5

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KANSAS CORPORATION COMMISSION  
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CONSERVATION DIVISION  
WICHITA, KS

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32713      DST#: 5  
Test Start: 2008.08.08 @ 13:17:42

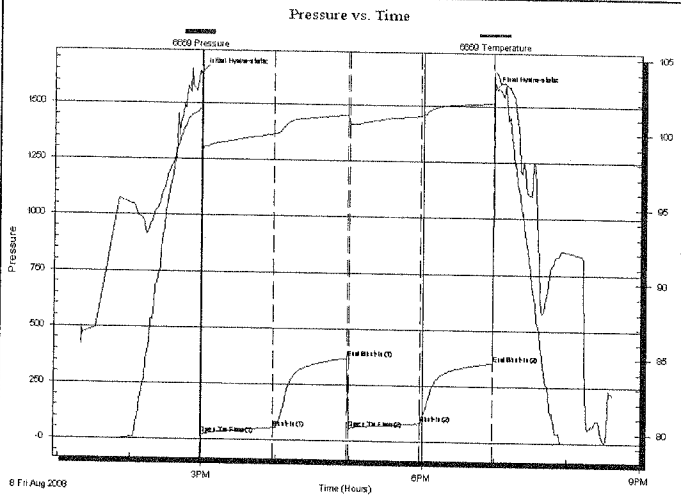
## GENERAL INFORMATION:

Formation: **LKC base**  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened: 14:59:12  
Time Test Ended: 20:38:42  
Interval: **3263.00 ft (KB) To 3384.00 ft (KB) (TVD)**  
Total Depth: 3384.00 ft (KB) (TVD)  
Hole Diameter: 7.79 inches      Hole Condition: Fair

Test Type: Conventional Bottom Hole  
Tester: Kyle Kinderknecht  
Unit No: 31  
Reference Elevations: 1927.00 ft (KB)  
1919.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 6669      Inside**  
Press@RunDepth: 80.72 psig @ 3360.00 ft (KB)  
Start Date: 2008.08.08      End Date: 2008.08.08  
Start Time: 13:17:47      End Time: 20:38:41  
Capacity: 7000.00 psig  
Last Calib.: 2008.08.08  
Time On Btm: 2008.08.08 @ 14:58:42  
Time Off Btm: 2008.08.08 @ 18:59:11

**TEST COMMENT:** IF Slow build to 7 1/2"  
ISI Weak Surface died 10 min  
FF Slow build to 4 1/2"  
FSI Weak surface



## PRESSURE SUMMARY

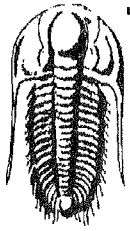
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1636.15	101.52	Initial Hydro-static
1	21.53	98.86	Open To Flow (1)
59	54.46	99.86	Shut-In(1)
120	368.13	101.19	End Shut-In(1)
121	55.96	100.55	Open To Flow (2)
179	80.72	101.16	Shut-In(2)
240	353.39	102.07	End Shut-In(2)
241	1573.91	104.11	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
140.00	OCM 15%O 85%M	1.98
10.00	Clean Oil	0.14

## Gas Rates

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



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

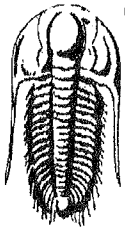
Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32713      **DST#: 5**  
Test Start: 2008.08.08 @ 13:17:42

**Tool Information**

Drill Pipe:	Length: 3240.00 ft	Diameter: 3.82 inches	Volume: 45.93 bbl	Tool Weight: 2200.00 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: 40000.00 lb
			<u>Total Volume: 45.93 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3263.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	121.00 ft			
Tool Length:	149.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3236.00	
Shut In Tool	5.00			3241.00	
Hydraulic tool	5.00			3246.00	
Jars	5.00			3251.00	
Safety Joint	3.00			3254.00	
Packer	4.00			3258.00	28.00      Bottom Of Top Packer
Packer	5.00			3263.00	
Stubb	1.00			3264.00	
Perforations	1.00			3265.00	
Change Over Sub	1.00			3266.00	
Blank Spacing	94.00			3360.00	
Recorder	0.00	8369	Inside	3360.00	
Recorder	0.00	6669	Inside	3360.00	
Change Over Sub	1.00			3361.00	
Perforations	20.00			3381.00	
Bullnose	3.00			3384.00	121.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>149.00</b>				



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32713      DST#: 5  
Test Start: 2008.08.08 @ 13:17:42

## 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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.58 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
140.00	OCM 15%O 85%M	1.985
10.00	Clean Oil	0.142

Total Length: 150.00 ft      Total Volume: 2.127 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

Serial #: 6669

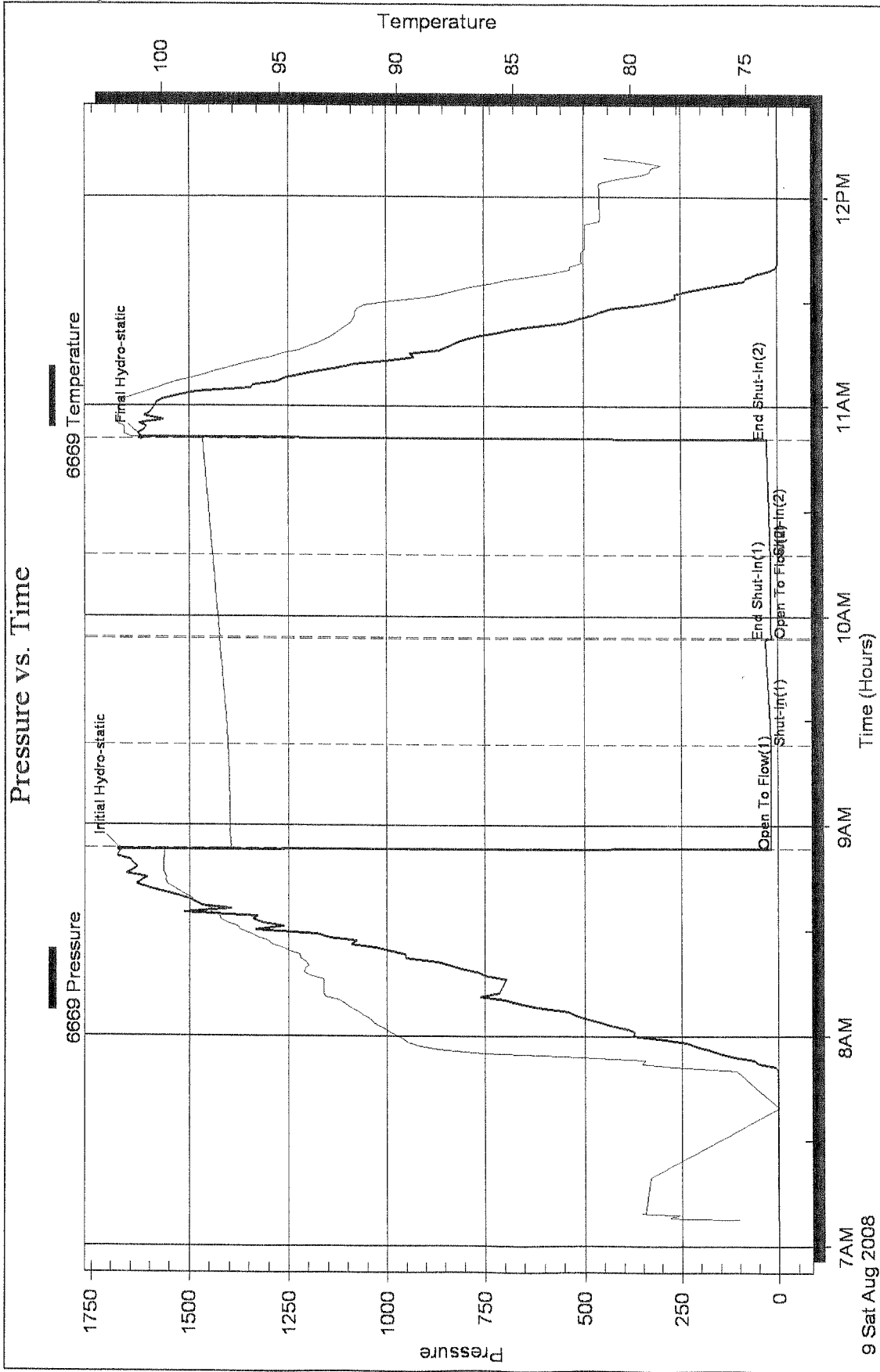
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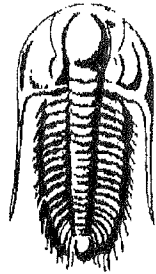
Russell Oil

32 15 14 Russell KS

DST Test Number: 5

### Pressure vs. Time





**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Russell Oil**

P.O. Box 1469  
Plainfield, IL 60544

ATTN: Steve Angle

**32 15 14 Russell KS**

**Keil "A" #1-32**

Start Date: 2008.08.09 @ 07:07:27

End Date: 2008.08.09 @ 12:11:27

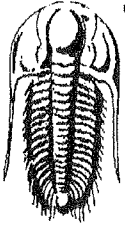
Job Ticket #: 32714                      DST #: 6

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CONSERVATION DIVISION  
WICHITA, KS

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

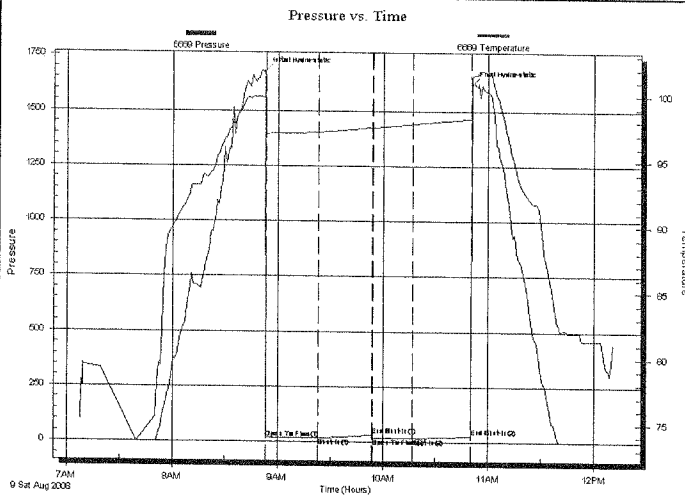
**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32714      **DST#: 6**  
Test Start: 2008.08.09 @ 07:07:27

## GENERAL INFORMATION:

Formation: **Arb**  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened: 08:53:27  
Time Test Ended: 12:11:27  
Interval: **3372.00 ft (KB) To 3392.00 ft (KB) (TVD)**  
Total Depth: 3392.00 ft (KB) (TVD)  
Hole Diameter: 7.79 inches      Hole Condition: Fair  
Test Type: Conventional Bottom Hole  
Tester: Kyle Kinderknecht  
Unit No: 31  
Reference Elevations: 1927.00 ft (KB)  
1919.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 6669      Inside**  
Press@RunDepth: 17.84 psig @ 3374.00 ft (KB)      Capacity: 7000.00 psig  
Start Date: 2008.08.09      End Date: 2008.08.09      Last Calib.: 2008.08.09  
Start Time: 07:07:32      End Time: 12:11:26      Time On Btm: 2008.08.09 @ 08:52:57  
Time Off Btm: 2008.08.09 @ 10:50:57

TEST COMMENT: IF Weak surface  
FF No blow



## PRESSURE SUMMARY

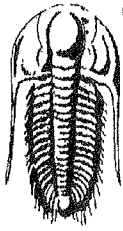
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.14	99.89	Initial Hydro-static
1	16.38	97.12	Open To Flow (1)
30	17.46	97.22	Shut-In(1)
61	30.87	97.58	End Shut-In(1)
61	16.23	97.56	Open To Flow (2)
85	17.84	97.86	Shut-In(2)
118	26.79	98.27	End Shut-In(2)
118	1621.01	101.31	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	SitOCM	0.07

## Gas Rates

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



**TRILOBITE**  
TESTING, INC

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32714      DST#: 6  
Test Start: 2008.08.09 @ 07:07:27

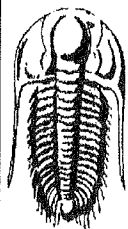
**Tool Information**

Drill Pipe:	Length: 3364.00 ft	Diameter: 3.82 inches	Volume: 47.69 bbl	Tool Weight: 2200.00 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: 40000.00 lb
			<u>Total Volume: 47.69 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3372.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3345.00	
Shut In Tool	5.00			3350.00	
Hydraulic tool	5.00			3355.00	
Jars	5.00			3360.00	
Safety Joint	3.00			3363.00	
Packer	4.00			3367.00	28.00      Bottom Of Top Packer
Packer	5.00			3372.00	
Stubb	1.00			3373.00	
Perforations	1.00			3374.00	
Recorder	0.00	8369	Inside	3374.00	
Recorder	0.00	6669	Inside	3374.00	
Perforations	15.00			3389.00	
Bullnose	3.00			3392.00	20.00      Bottom Packers & Anchor

**Total Tool Length: 48.00**



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 32714      **DST#: 6**  
Test Start: 2008.08.09 @ 07:07:27

## 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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.77 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4400.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SitOCM	0.071

Total Length: 5.00 ft      Total Volume: 0.071 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

DST Test Number: 6

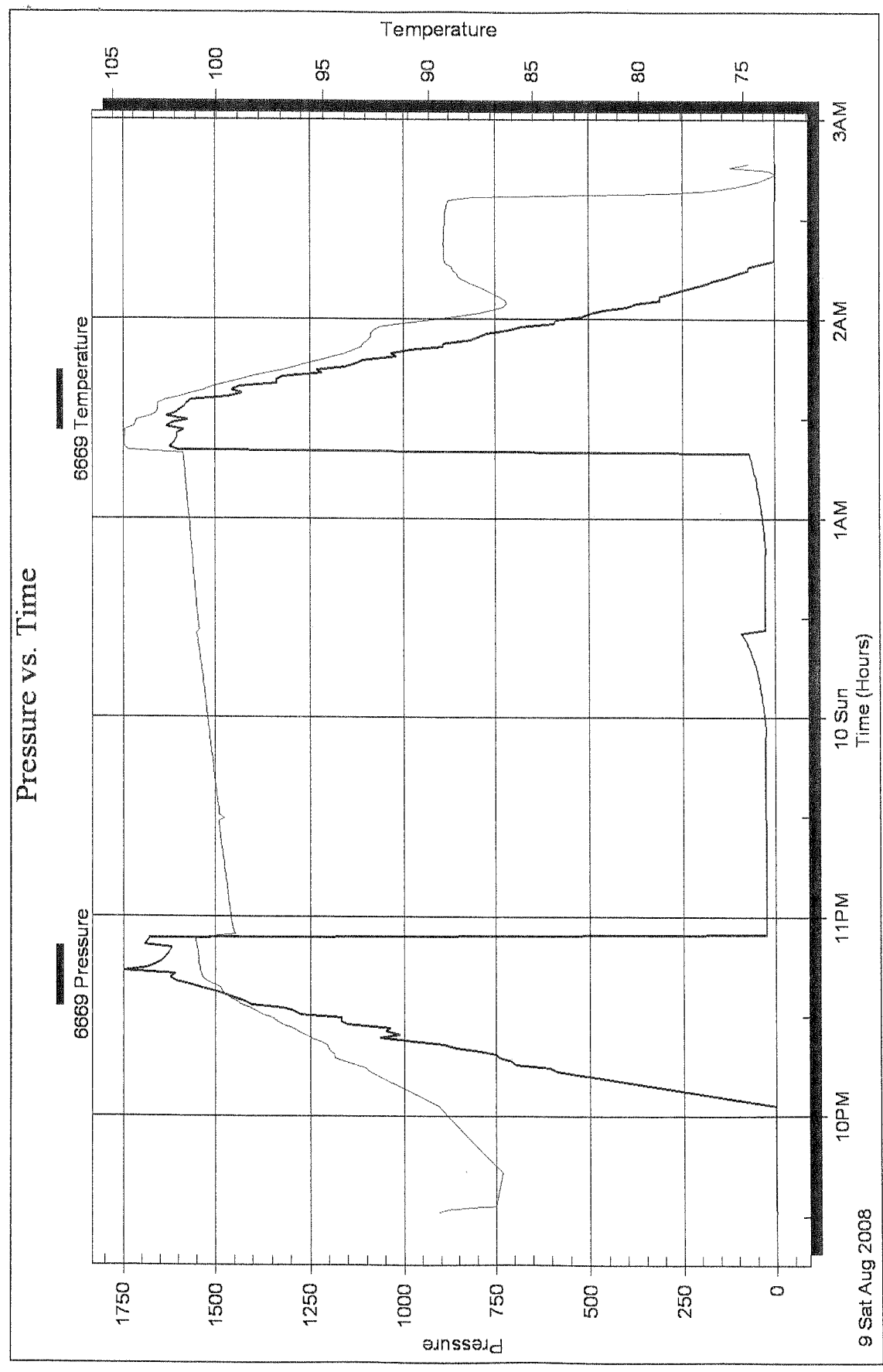
32 15 14 Russell KS

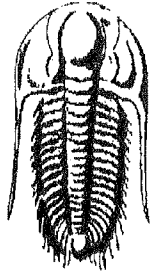
Russell Oil

Inside

Serial #: 6669

### Pressure vs. Time





**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Russell Oil**

P.O. Box 1469  
Plainfield, IL 60544

ATTN: Steve Angle

**32 15 14 Russell KS**

**Keil "A" #1-32**

Start Date: 2008.08.09 @ 21:31:37

End Date: 2008.08.10 @ 02:47:37

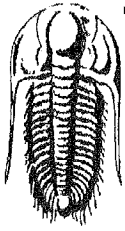
Job Ticket #: 3309                      DST #: 7

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CONSERVATION DIVISION  
WICHITA, KS

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

**Keil "A" #1-32**  
**32 15 14 Russell KS**  
Job Ticket: 3309      **DST#: 7**  
Test Start: 2008.08.09 @ 21:31:37

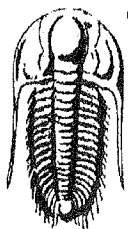
**Tool Information**

Drill Pipe:	Length: 3396.00 ft	Diameter: 3.82 inches	Volume: 48.14 bbl	Tool Weight: 2200.00 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: 40000.00 lb
			<u>Total Volume: 48.14 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3392.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	9.00 ft			
Tool Length:	37.00 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			3365.00	
Shut In Tool	5.00			3370.00	
Hydraulic tool	5.00			3375.00	
Jars	5.00			3380.00	
Safety Joint	3.00			3383.00	
Packer	4.00			3387.00	28.00      Bottom Of Top Packer
Packer	5.00			3392.00	
Stubb	1.00			3393.00	
Perforations	5.00			3398.00	
Recorder	0.00	8369	Inside	3398.00	
Recorder	0.00	6669	Inside	3398.00	
Bullnose	3.00			3401.00	9.00      Bottom Packers & Anchor

**Total Tool Length: 37.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil  
P.O. Box 1469  
Plainfield, IL 60544  
ATTN: Steve Angle

Keil "A" #1-32  
32 15 14 Russell KS  
Job Ticket: 3309      DST#: 7  
Test Start: 2008.08.09 @ 21:31:37

## 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: 8.38 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
15.00	Oil spotted mud	0.213

Total Length: 15.00 ft      Total Volume: 0.213 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

Serial #: 8369

Inside

Russell Oil

32 15 14 Russell KS

DST Test Number: 7

### Pressure vs. Time

