



## DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120  
Hays KS 67601

ATTN: Jeff Lawler

**Roy #1**

**8 7s 20w Rooks,KS**

Start Date: 2014.04.07 @ 13:13:00

End Date: 2014.04.07 @ 18:36:00

Job Ticket #: 57585                      DST #: 1

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

Printed: 2014.04.11 @ 13:41:01

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 1 Toronto 2014.04.07



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Jaspar Co.  
 PO Box 1120  
 Hays KS 67601  
 ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
 Job Ticket: 57585 **DST#: 1**  
 Test Start: 2014.04.07 @ 13:13:00

## GENERAL INFORMATION:

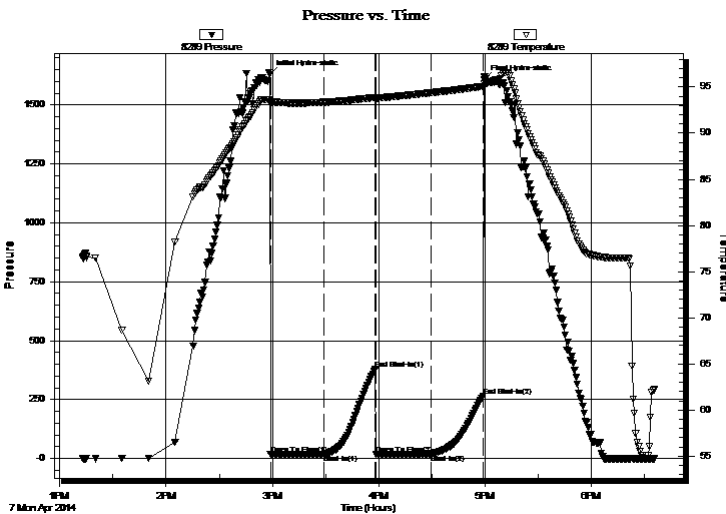
Formation: **Toronto**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:58:45  
 Time Test Ended: 18:36:00  
 Interval: **3351.00 ft (KB) To 3391.00 ft (KB) (TVD)**  
 Total Depth: 3391.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 2164.00 ft (KB)  
 2159.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 8289 Outside

Press@RunDepth: 19.46 psig @ 3352.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.04.07 End Date: 2014.04.07 Last Calib.: 2014.04.07  
 Start Time: 13:13:02 End Time: 18:35:45 Time On Btm: 2014.04.07 @ 14:58:30  
 Time Off Btm: 2014.04.07 @ 16:59:15

TEST COMMENT: 30-IFP- Weak Surface Blow Died in 17 min.  
 30-ISIP- No Blow  
 30-FFP- No Blow  
 30-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1630.51	93.66	Initial Hydro-static
1	16.46	93.16	Open To Flow (1)
31	17.59	93.36	Shut-In(1)
60	378.75	93.88	End Shut-In(1)
60	18.07	93.73	Open To Flow (2)
91	19.46	94.38	Shut-In(2)
121	263.30	95.08	End Shut-In(2)
121	1608.61	95.36	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	OSM 100%	0.01

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57585      **DST#: 1**  
Test Start: 2014.04.07 @ 13:13:00

**Tool Information**

Drill Pipe:	Length: 3240.00 ft	Diameter: 3.80 inches	Volume: 45.45 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	38000.00 lb
			<u>Total Volume: 46.05 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3351.00 ft			Final	35000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	40.00 ft				
Tool Length:	61.00 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			3331.00	
Shut In Tool	5.00			3336.00	
Hydraulic tool	5.00			3341.00	
Packer	5.00			3346.00	21.00      Bottom Of Top Packer
Packer	5.00			3351.00	
Stubb	1.00			3352.00	
Recorder	0.00	8789	Inside	3352.00	
Recorder	0.00	8289	Outside	3352.00	
Perforations	36.00			3388.00	
Bullnose	3.00			3391.00	40.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>61.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57585      **DST#: 1**  
Test Start: 2014.04.07 @ 13:13:00

## 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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.89 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1600.00 ppm			
Filter Cake: 2.00 inches			

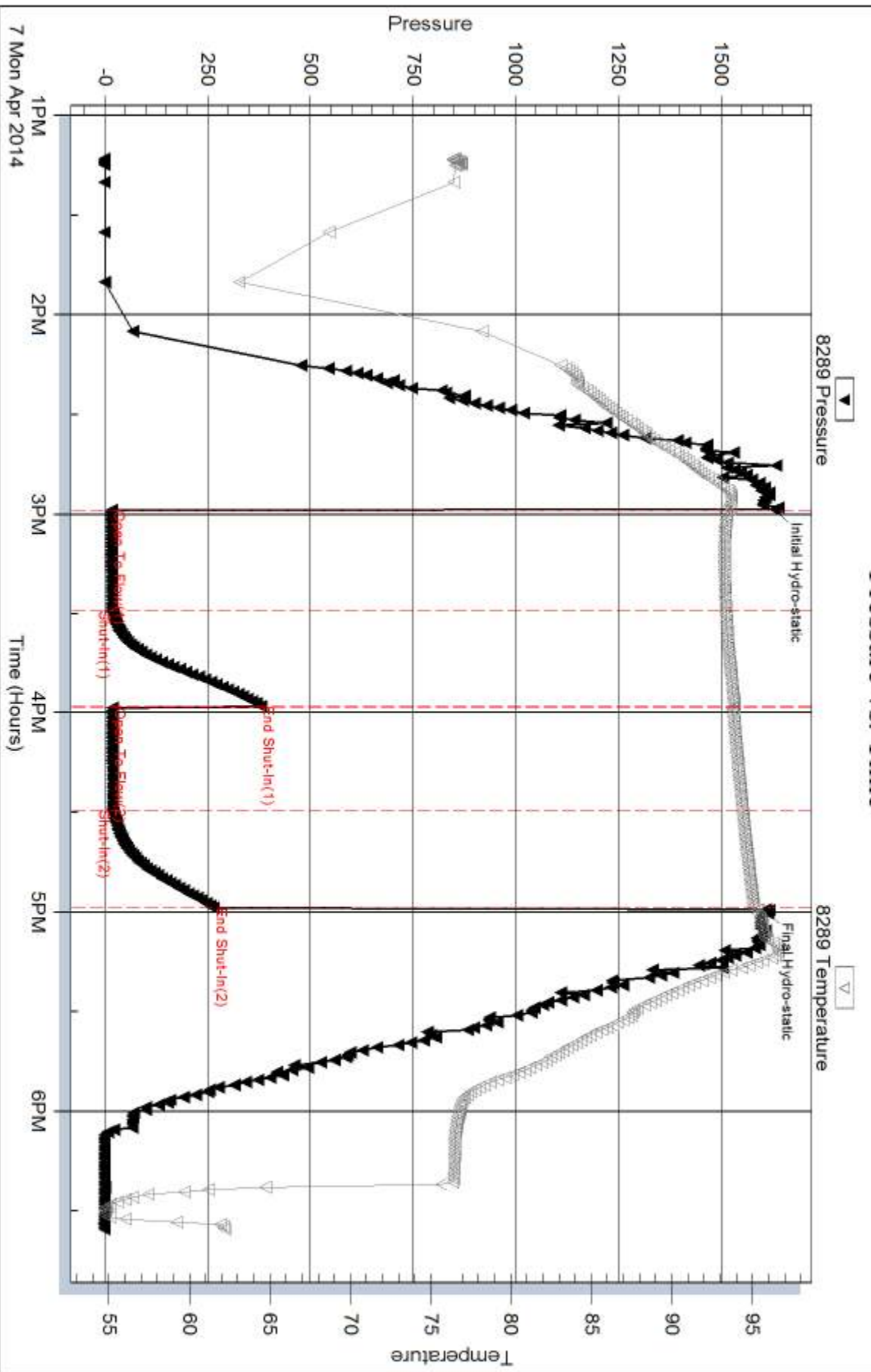
## Recovery Information

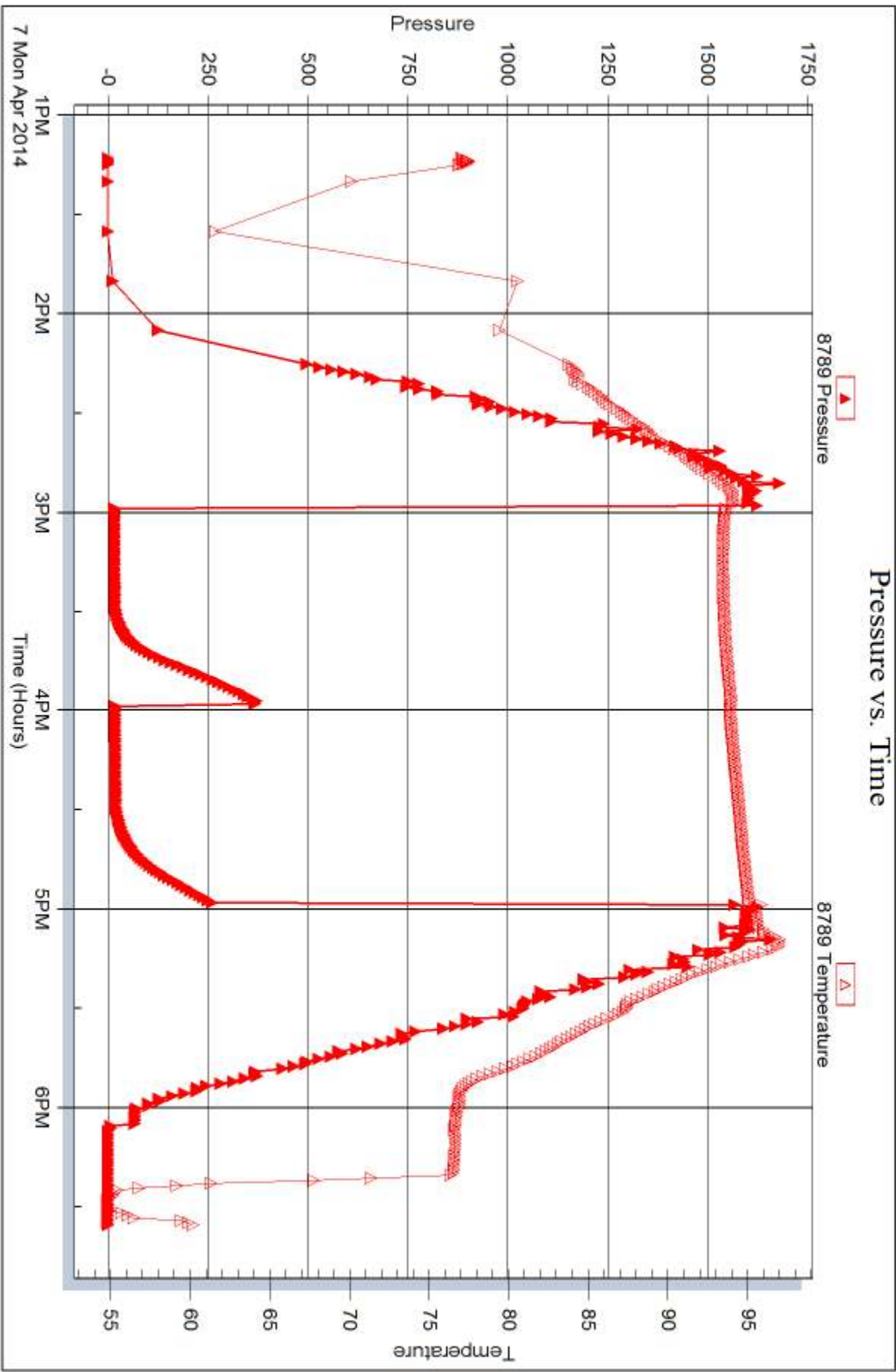
Recovery Table

Length ft	Description	Volume bbl
2.00	OSM 100%	0.010

Total Length: 2.00 ft      Total Volume: 0.010 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: **Jaspar Co.**

PO Box 1120  
Hays KS 67601

ATTN: Jeff Lawler

**Roy #1**

**8 7s 20w Rooks,KS**

Start Date: 2014.04.08 @ 01:05:00

End Date: 2014.04.08 @ 06:40:00

Job Ticket #: 57586                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.11 @ 13:40:38

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 2 LKC " A & B " 2014.04.08









**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57586      **DST#: 2**  
Test Start: 2014.04.08 @ 01:05:00

**Tool Information**

Drill Pipe:	Length: 3272.00 ft	Diameter: 3.80 inches	Volume: 45.90 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	40000.00 lb
			<u>Total Volume: 46.50 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3387.00 ft			Final	35000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	36.00 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			3367.00	
Shut In Tool	5.00			3372.00	
Hydraulic tool	5.00			3377.00	
Packer	5.00			3382.00	21.00      Bottom Of Top Packer
Packer	5.00			3387.00	
Stubb	1.00			3388.00	
Recorder	0.00	8789	Inside	3388.00	
Recorder	0.00	8289	Outside	3388.00	
Perforations	32.00			3420.00	
Bullnose	3.00			3423.00	36.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>57.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57586      **DST#: 2**  
Test Start: 2014.04.08 @ 01:05:00

## Mud and Cushion Information

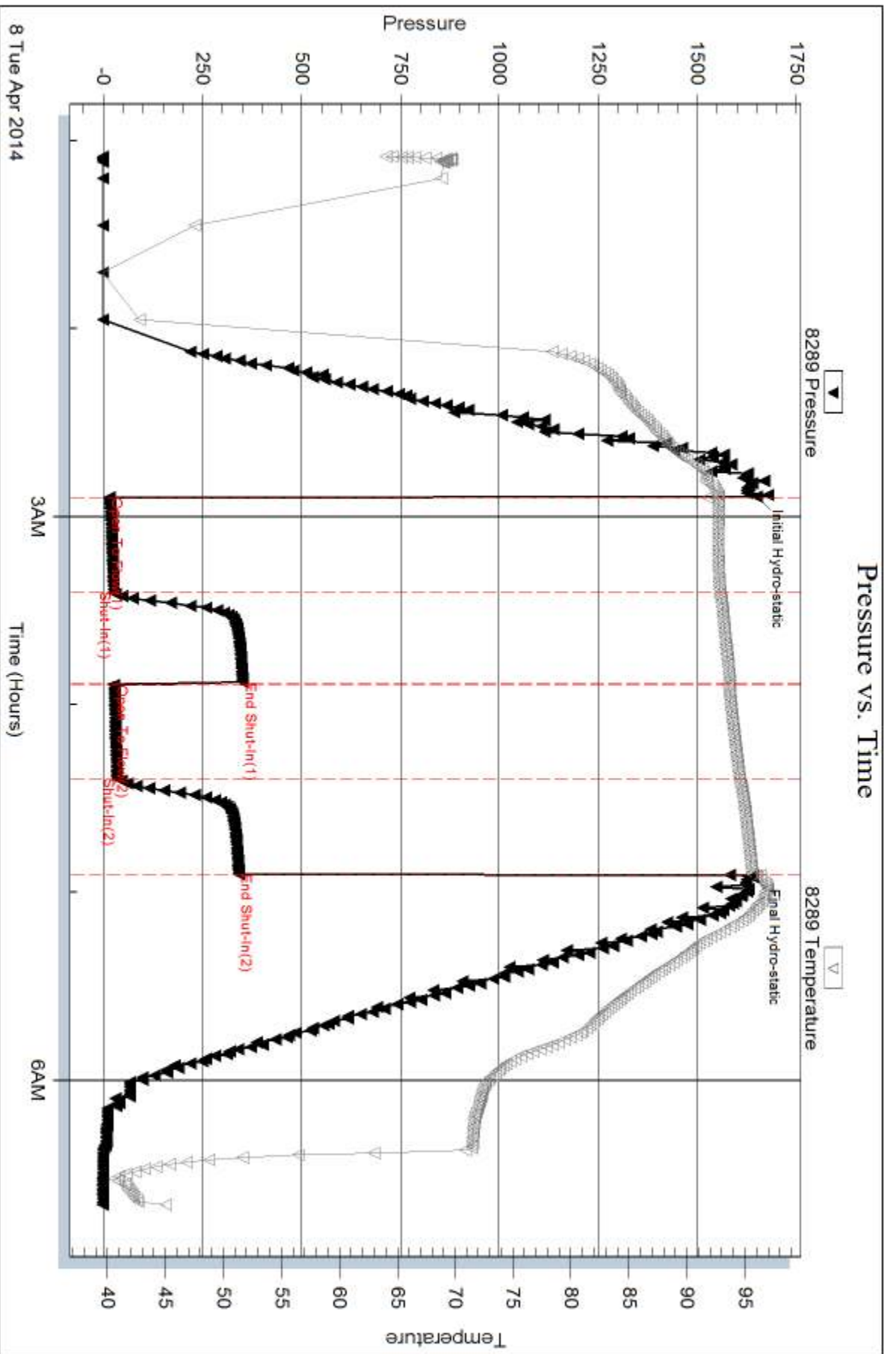
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.90 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1600.00 ppm			
Filter Cake: 2.00 inches			

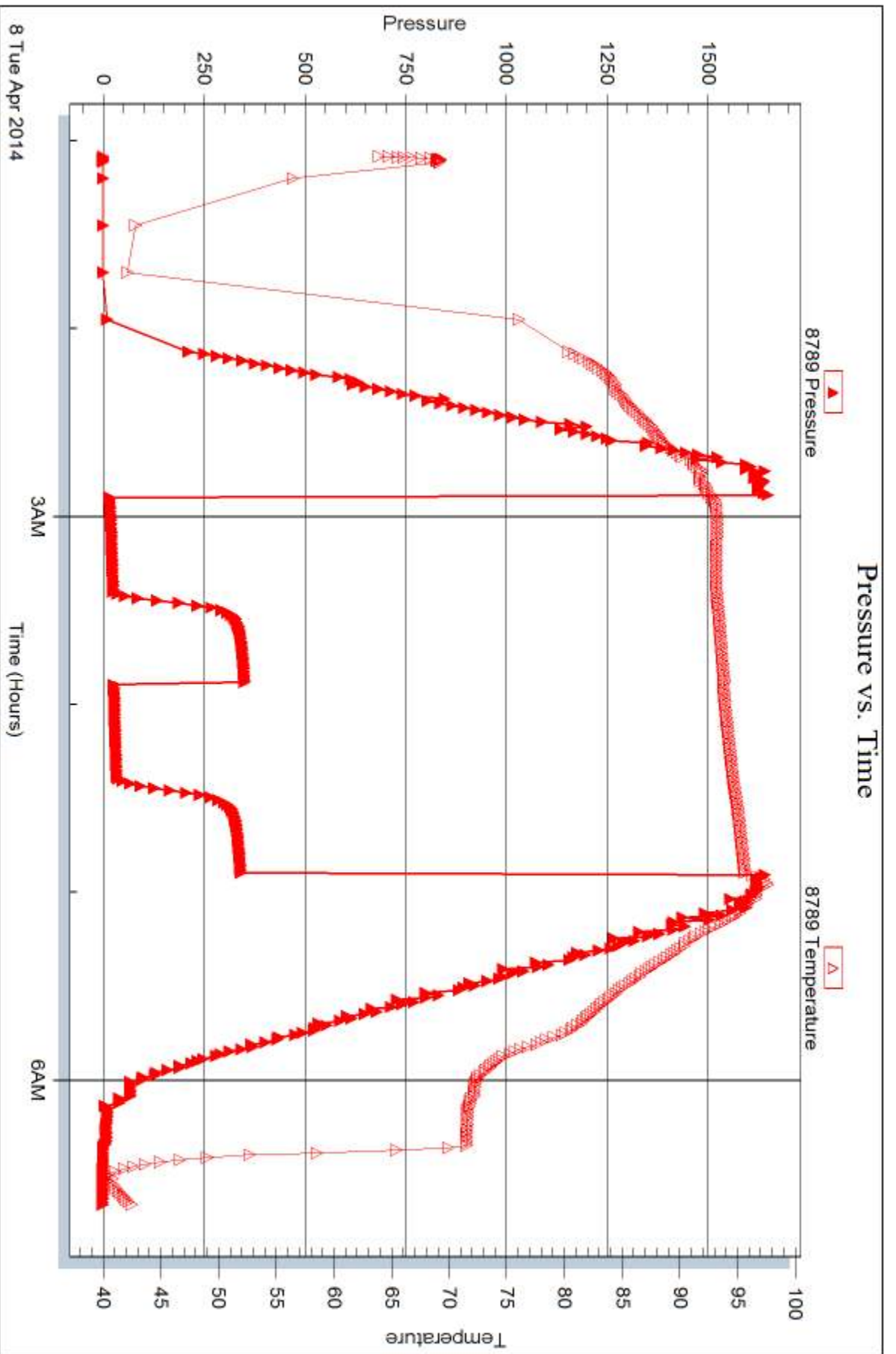
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	WCM 30%w 70%m	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120  
Hays KS 67601

ATTN: Jeff Lawler

**Roy #1**

**8 7s 20w Rooks,KS**

Start Date: 2014.04.08 @ 12:55:00

End Date: 2014.04.08 @ 17:50:00

Job Ticket #: 57587                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

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**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57587      **DST#: 3**  
Test Start: 2014.04.08 @ 12:55:00

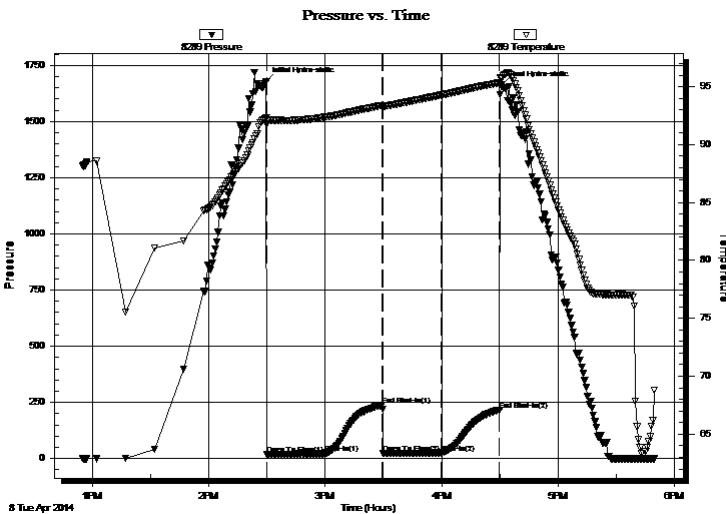
## GENERAL INFORMATION:

Formation: **LKC " C & D "**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:29:45  
 Time Test Ended: 17:50:00  
 Interval: **3418.00 ft (KB) To 3460.00 ft (KB) (TVD)**  
 Total Depth: 3460.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 2164.00 ft (KB)  
 2159.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8289      Outside**  
 Press@RunDepth: 24.61 psig @ 3419.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.04.08      End Date: 2014.04.08      Last Calib.: 2014.04.08  
 Start Time: 12:55:02      End Time: 17:50:15      Time On Btm: 2014.04.08 @ 14:29:30  
 Time Off Btm: 2014.04.08 @ 16:30:30

TEST COMMENT: 30-IFP- 1/4" Blow  
 30-ISIP- No Blow  
 30-FFP- No Blow  
 30-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1677.74	92.29	Initial Hydro-static
1	19.14	91.74	Open To Flow (1)
31	21.95	92.36	Shut-In(1)
60	238.11	93.37	End Shut-In(1)
61	22.80	93.24	Open To Flow (2)
91	24.61	94.26	Shut-In(2)
121	216.22	95.33	End Shut-In(2)
121	1661.81	95.67	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100%	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**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57587      **DST#: 3**  
Test Start: 2014.04.08 @ 12:55:00

**Tool Information**

Drill Pipe:	Length: 3302.00 ft	Diameter: 3.80 inches	Volume: 46.32 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	37000.00 lb
			<u>Total Volume: 46.92 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3418.00 ft			Final	35000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	42.00 ft				
Tool Length:	63.00 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			3398.00	
Shut In Tool	5.00			3403.00	
Hydraulic tool	5.00			3408.00	
Packer	5.00			3413.00	21.00      Bottom Of Top Packer
Packer	5.00			3418.00	
Stubb	1.00			3419.00	
Recorder	0.00	8789	Inside	3419.00	
Recorder	0.00	8289	Outside	3419.00	
Perforations	38.00			3457.00	
Bullnose	3.00			3460.00	42.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>63.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57587      **DST#: 3**  
Test Start: 2014.04.08 @ 12:55:00

## 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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.70 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

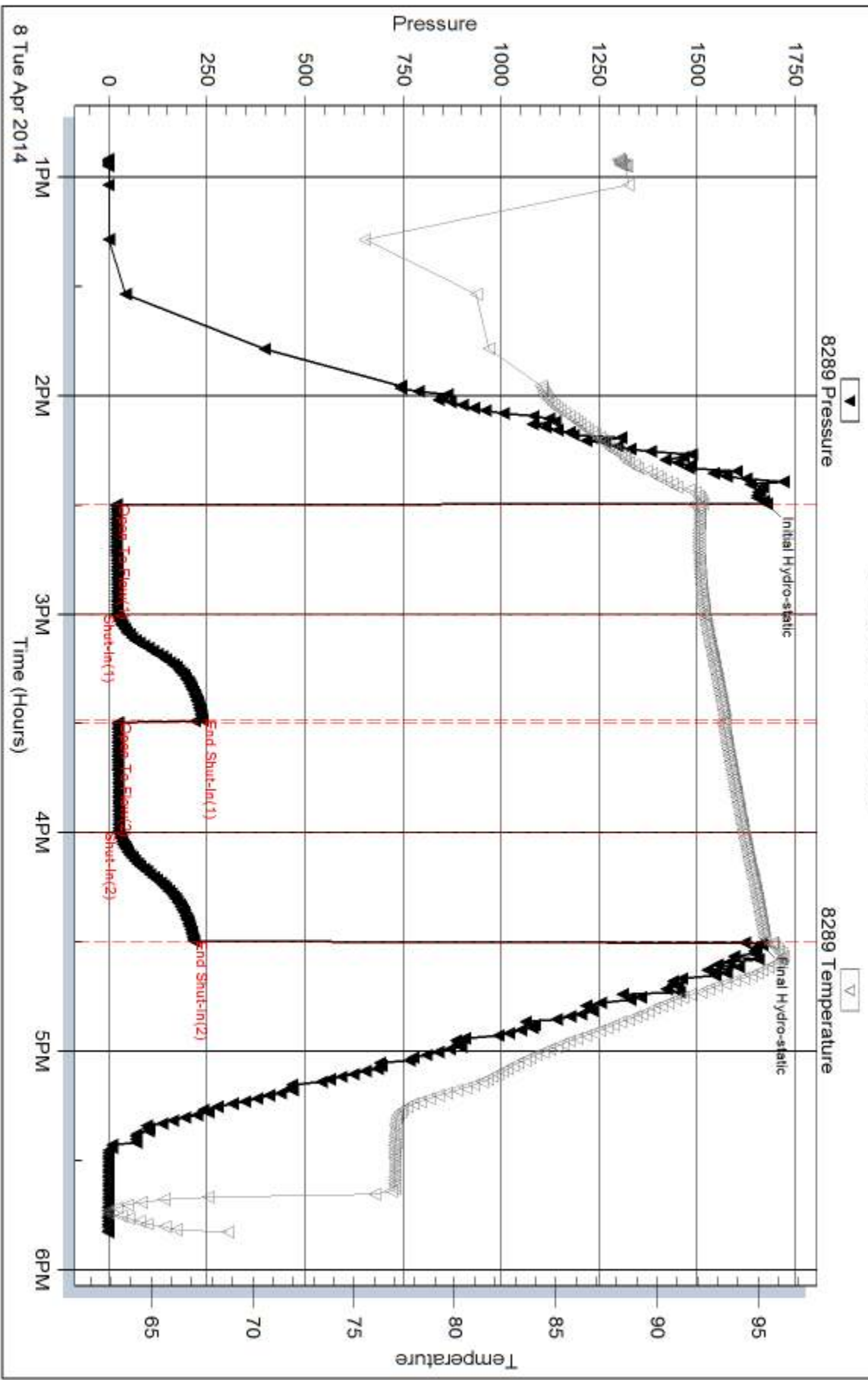
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OSM 100%	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:

### Pressure vs. Time

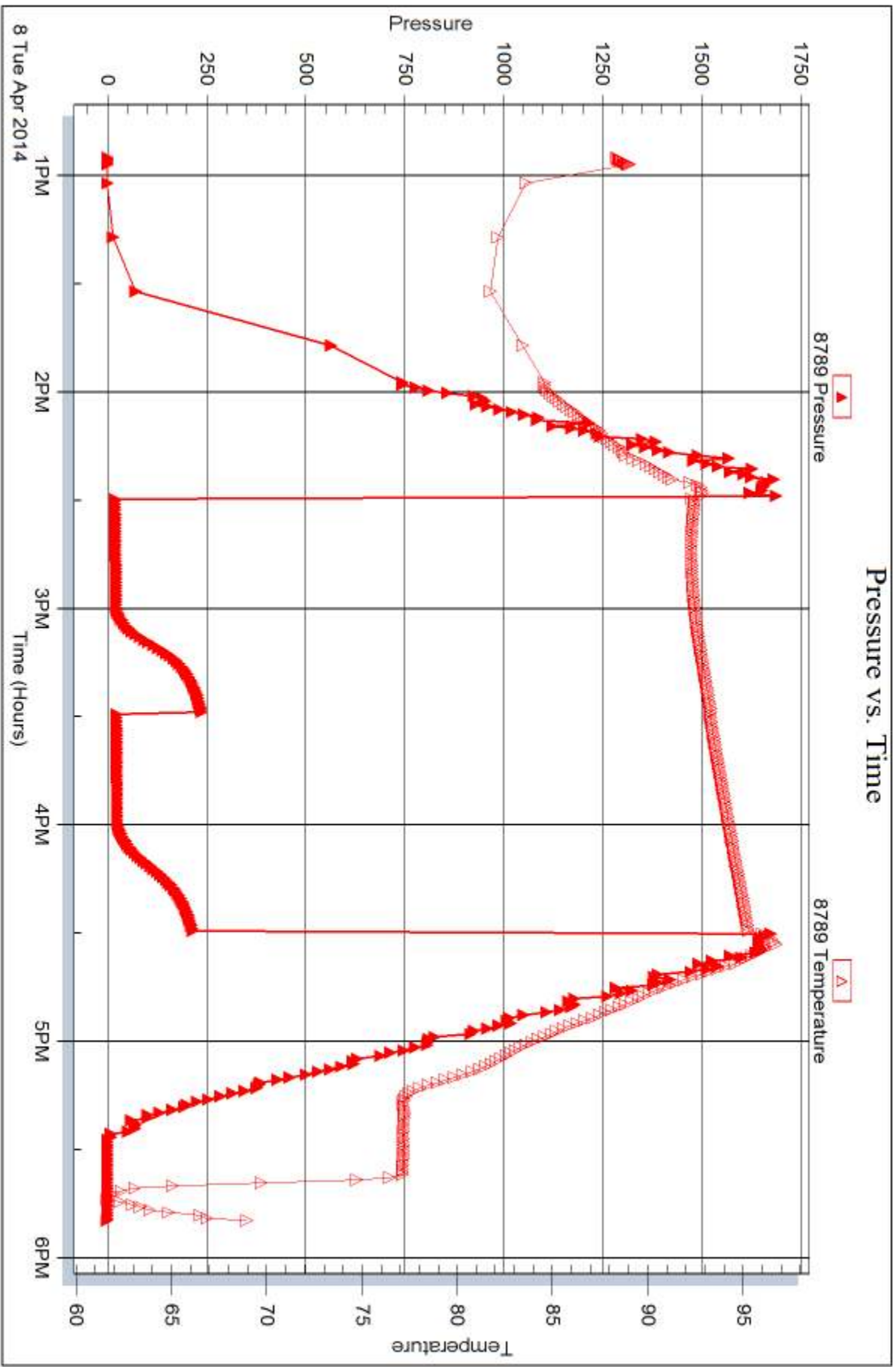


Serial #: 8789

Inside Jasper Co.

Roy #1

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120  
Hays KS 67601

ATTN: Jeff Lawler

**Roy #1**

**8 7s 20w Rooks,KS**

Start Date: 2014.04.08 @ 23:33:00

End Date: 2014.04.09 @ 06:06:00

Job Ticket #: 57588                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.11 @ 13:39:45

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 4 LKC " E & F " 2014.04.08









**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57588      **DST#: 4**  
Test Start: 2014.04.08 @ 23:33:00

**Tool Information**

Drill Pipe:	Length: 3333.00 ft	Diameter: 3.80 inches	Volume: 46.75 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	38000.00 lb
			<u>Total Volume: 47.35 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3452.00 ft			Final	36000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	30.00 ft				
Tool Length:	51.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

**Tool Description**

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3432.00	
Shut In Tool	5.00			3437.00	
Hydraulic tool	5.00			3442.00	
Packer	5.00			3447.00	21.00 Bottom Of Top Packer
Packer	5.00			3452.00	
Stubb	1.00			3453.00	
Recorder	0.00	8789	Inside	3453.00	
Recorder	0.00	8289	Outside	3453.00	
Perforations	26.00			3479.00	
Bullnose	3.00			3482.00	30.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>51.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57588      **DST#: 4**  
Test Start: 2014.04.08 @ 23:33:00

### Mud and Cushion Information

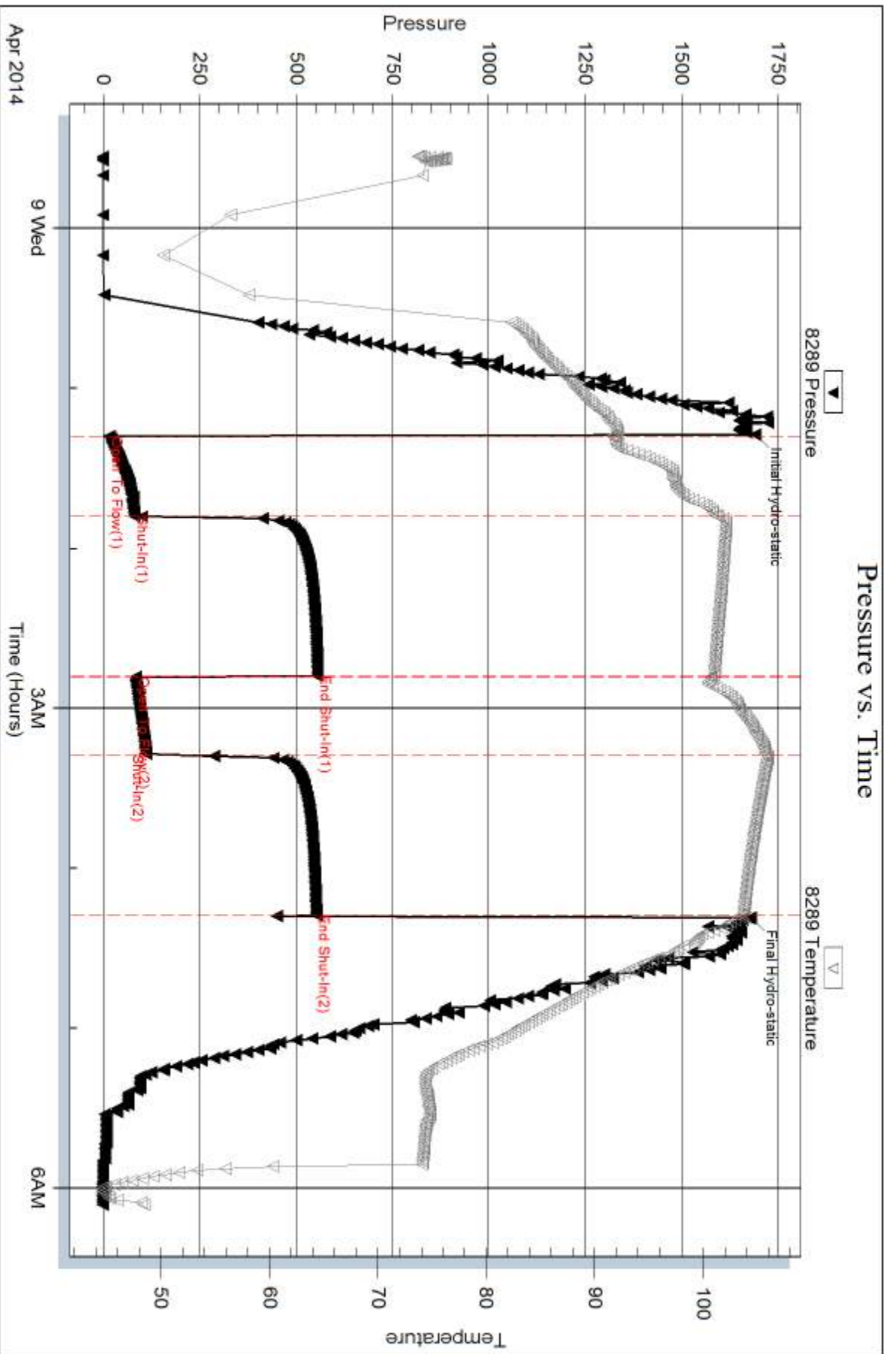
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	42000 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.72 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

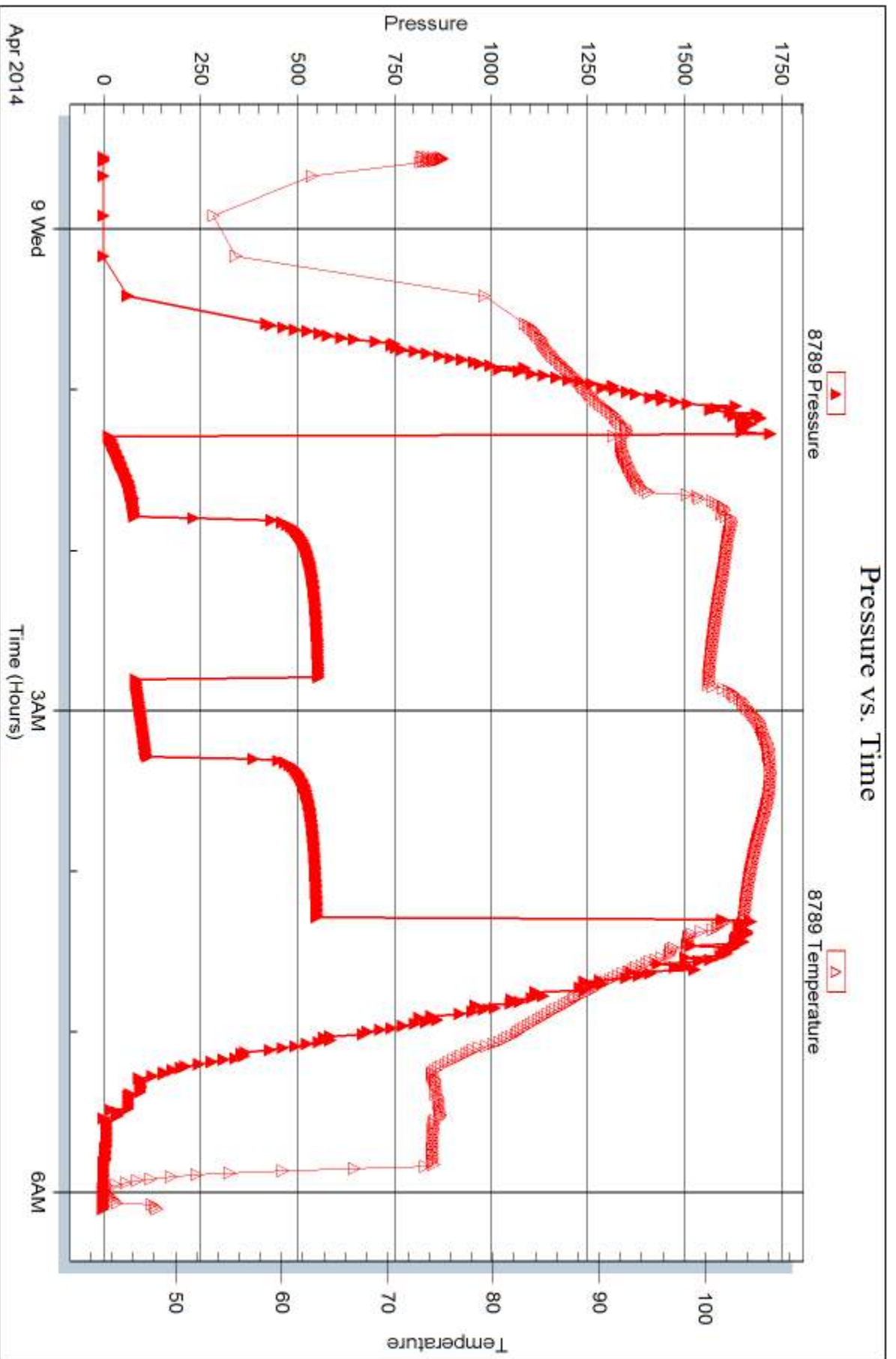
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
202.00	MCW 10% m 90% w	1.722
1.00	Oil Cap 100%	0.014

Total Length: 203.00 ft      Total Volume: 1.736 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: .325 @ 42







## DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120  
Hays KS 67601

ATTN: Jeff Lawler

**Roy #1**

**8 7s 20w Rooks,KS**

Start Date: 2014.04.09 @ 17:05:00

End Date: 2014.04.10 @ 00:28:00

Job Ticket #: 57589                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.11 @ 13:39:18

Jaspar Co.  
8 7s 20w Rooks,KS  
Roy #1  
DST # 5  
LKC " H - J "  
2014.04.09



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Jaspar Co.  
 PO Box 1120  
 Hays KS 67601  
 ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
 Job Ticket: 57589 **DST#: 5**  
 Test Start: 2014.04.09 @ 17:05:00

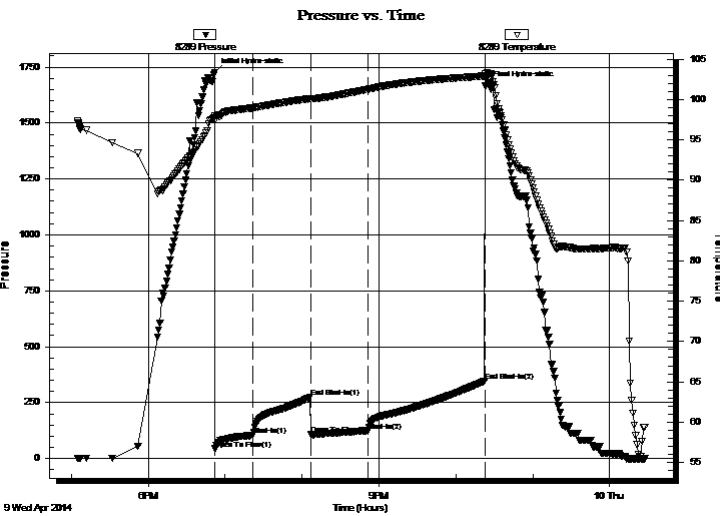
## GENERAL INFORMATION:

Formation: **LKC "H - J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:52:15  
 Time Test Ended: 00:28:00  
 Interval: **3497.00 ft (KB) To 3560.00 ft (KB) (TVD)**  
 Total Depth: 3560.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 2164.00 ft (KB)  
 2159.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 8289 Outside

Press@RunDepth: 124.03 psig @ 3532.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.04.09 End Date: 2014.04.10 Last Calib.: 2014.04.10  
 Start Time: 17:05:02 End Time: 00:28:00 Time On Btm: 2014.04.09 @ 18:52:00  
 Time Off Btm: 2014.04.09 @ 22:23:15

TEST COMMENT: 30-IFP- BOB in 9 min.  
 45-ISIP- Surface Blow in 2 min. Died Back in 35 min.  
 45-FFP- BOB in 29 min.  
 90-FSIP- Surface Blow in 1 1/2 min. Died Back in 36 min.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1726.78	97.97	Initial Hydro-static
1	42.94	97.42	Open To Flow (1)
30	102.61	98.96	Shut-In(1)
75	274.66	100.11	End Shut-In(1)
75	108.32	100.05	Open To Flow (2)
120	124.03	101.25	Shut-In(2)
211	346.32	102.91	End Shut-In(2)
212	1666.08	103.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
184.00	OCM 40%o 60%m	1.47
67.00	CO 100%	0.94
0.00	670 GIP	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**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57589      **DST#: 5**  
Test Start: 2014.04.09 @ 17:05:00

**Tool Information**

Drill Pipe:	Length: 3367.00 ft	Diameter: 3.80 inches	Volume: 47.23 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	40000.00 lb
			<u>Total Volume: 47.83 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3497.00 ft			Final	36000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	63.00 ft				
Tool Length:	84.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3477.00	
Shut In Tool	5.00			3482.00	
Hydraulic tool	5.00			3487.00	
Packer	5.00			3492.00	21.00      Bottom Of Top Packer
Packer	5.00			3497.00	
Stubb	1.00			3498.00	
Perforations	1.00			3499.00	
Change Over Sub	1.00			3500.00	
Blank Spacing	31.00			3531.00	
Change Over Sub	1.00			3532.00	
Recorder	0.00	8789	Inside	3532.00	
Recorder	0.00	8289	Outside	3532.00	
Perforations	25.00			3557.00	
Bullnose	3.00			3560.00	63.00      Bottom Packers & Anchor

**Total Tool Length: 84.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57589      **DST#: 5**  
Test Start: 2014.04.09 @ 17:05:00

## Mud and Cushion Information

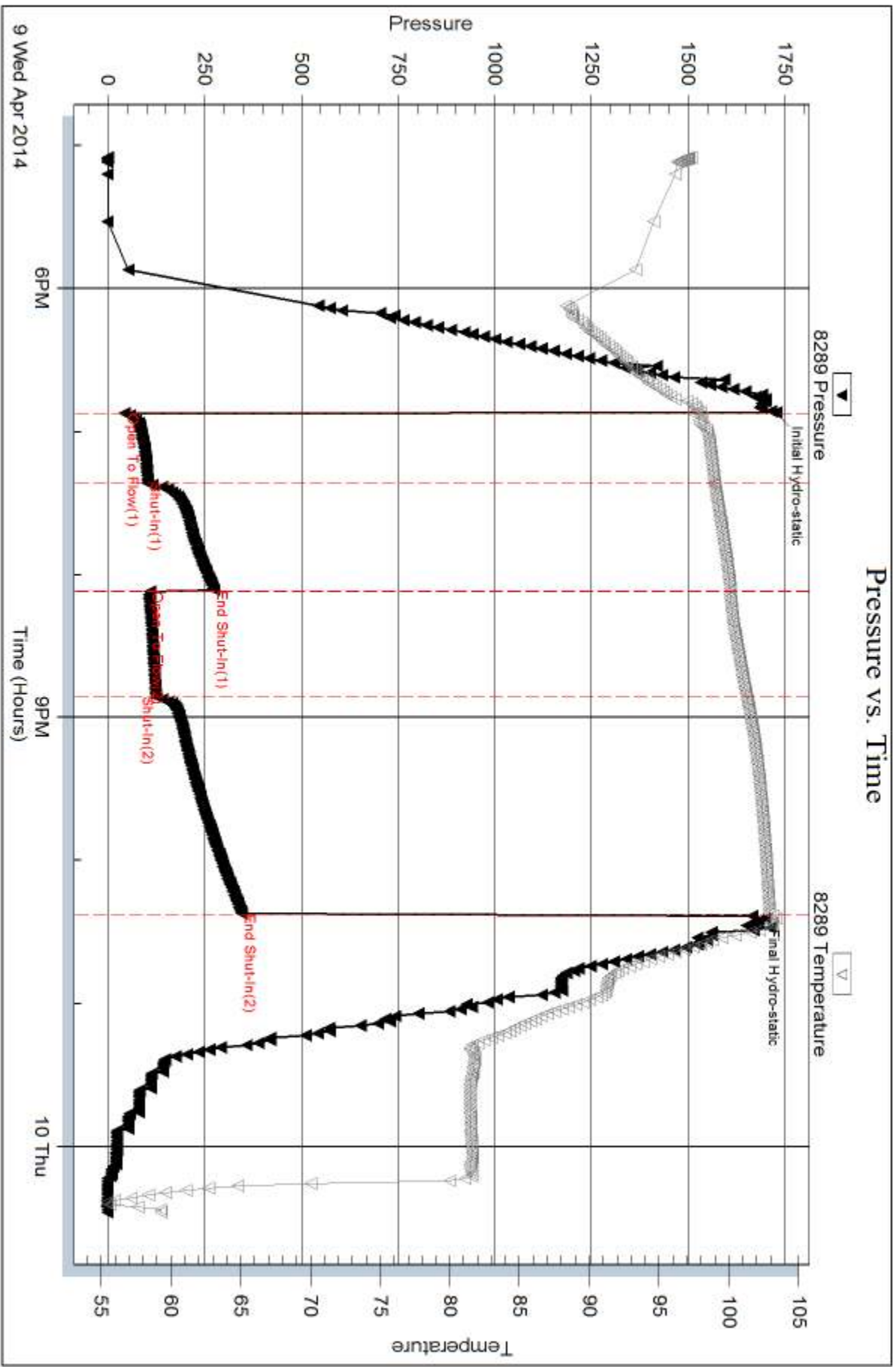
Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.94 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2000.00 ppm		
Filter Cake: 1.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
184.00	OCM 40%o 60%m	1.470
67.00	CO 100%	0.940
0.00	670 GIP	0.000

Total Length: 251.00 ft      Total Volume: 2.410 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:



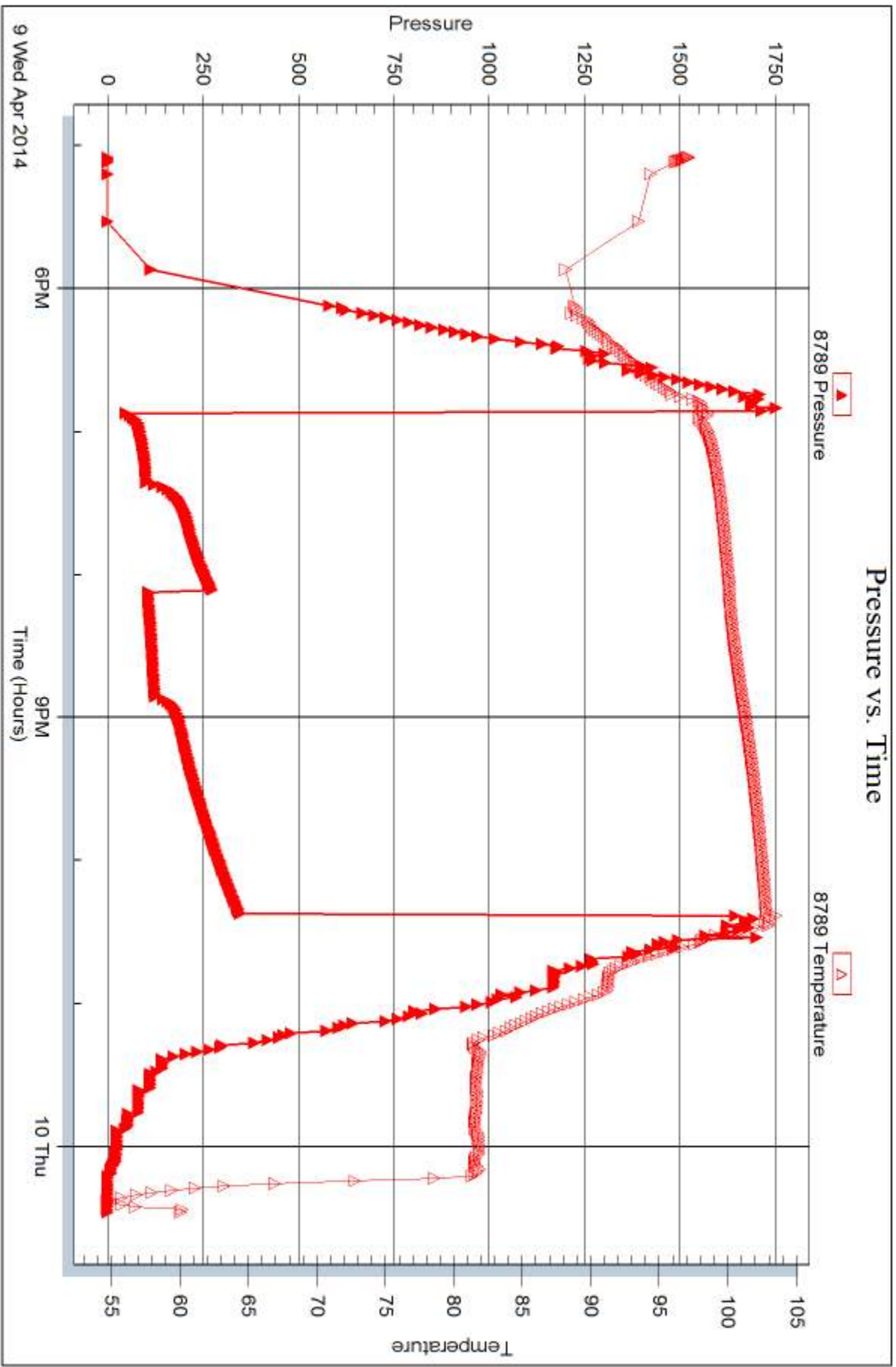
Serial #: 8789

Inside

Jaspar Co.

Roy #1

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 57589

Printed: 2014.04.11 @ 13:39:21



## DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120  
Hays KS 67601

ATTN: Jeff Lawler

**Roy #1**

**8 7s 20w Rooks,KS**

Start Date: 2014.04.10 @ 06:40:00

End Date: 2014.04.10 @ 11:51:00

Job Ticket #: 57533                      DST #: 6

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

Printed: 2014.04.11 @ 13:38:54

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 6 LKC K 2014.04.10



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Jaspar Co.  
 PO Box 1120  
 Hays KS 67601  
 ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
 Job Ticket: 57533      **DST#: 6**  
 Test Start: 2014.04.10 @ 06:40:00

## GENERAL INFORMATION:

Formation: **LKC K**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 08:19:45  
 Time Test Ended: 11:51:00  
 Interval: **3547.00 ft (KB) To 3570.00 ft (KB) (TVD)**  
 Total Depth: 3570.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Tim Phillips  
 Unit No: 76  
 Reference Elevations: 2164.00 ft (KB)  
 2159.00 ft (CF)  
 KB to GR/CF: 5.00 ft

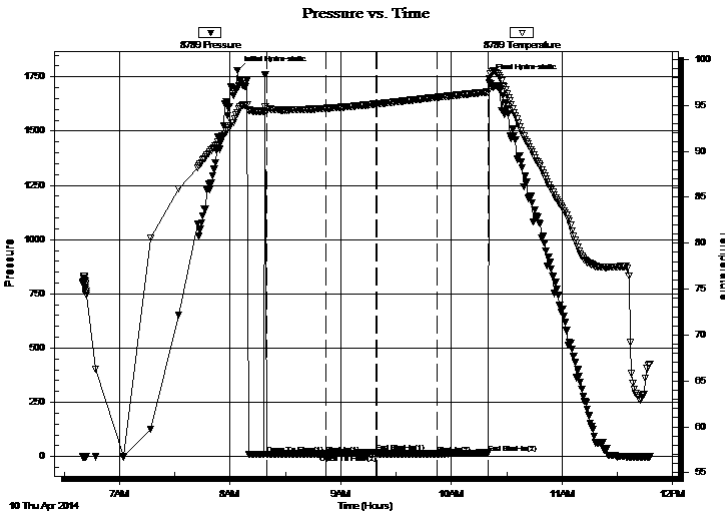
## Serial #: 8789

Inside

Press@RunDepth: 12.48 psig @ 3548.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.04.10      End Date: 2014.04.10      Last Calib.: 2014.04.10  
 Start Time: 06:40:02      End Time: 11:48:00      Time On Btm: 2014.04.10 @ 08:04:00  
 Time Off Btm: 2014.04.10 @ 10:20:30

TEST COMMENT: IFP- Dead no blow  
 ISI-Dead no blow back  
 FF-Dead no blow  
 FSI-Dead no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1780.09	94.16	Initial Hydro-static
16	11.66	94.32	Open To Flow (1)
48	12.19	94.69	Shut-In(1)
76	19.24	95.15	End Shut-In(1)
76	11.90	95.15	Open To Flow (2)
108	12.48	95.89	Shut-In(2)
136	17.28	96.47	End Shut-In(2)
137	1742.73	97.53	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 5%O, 95% M	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**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57533      **DST#: 6**  
Test Start: 2014.04.10 @ 06:40:00

**Tool Information**

Drill Pipe: Length: 3430.00 ft	Diameter: 3.80 inches	Volume: 48.11 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe: Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar: Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 40000.00 lb
	Total Volume: 48.71 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB: 26.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer: 3547.00 ft			Final 36000.00 lb
Depth to Bottom Packer: ft			
Interval between Packers: 23.00 ft			
Tool Length: 44.00 ft			
Number of Packers: 2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3527.00	
Shut In Tool	5.00			3532.00	
Hydraulic tool	5.00			3537.00	
Packer	5.00			3542.00	21.00 Bottom Of Top Packer
Packer	5.00			3547.00	
Stubb	1.00			3548.00	
Recorder	0.00	8789	Inside	3548.00	
Recorder	0.00	8289	Outside	3548.00	
Perforations	19.00			3567.00	
Bullnose	3.00			3570.00	23.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>44.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57533      **DST#: 6**  
Test Start: 2014.04.10 @ 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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.95 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

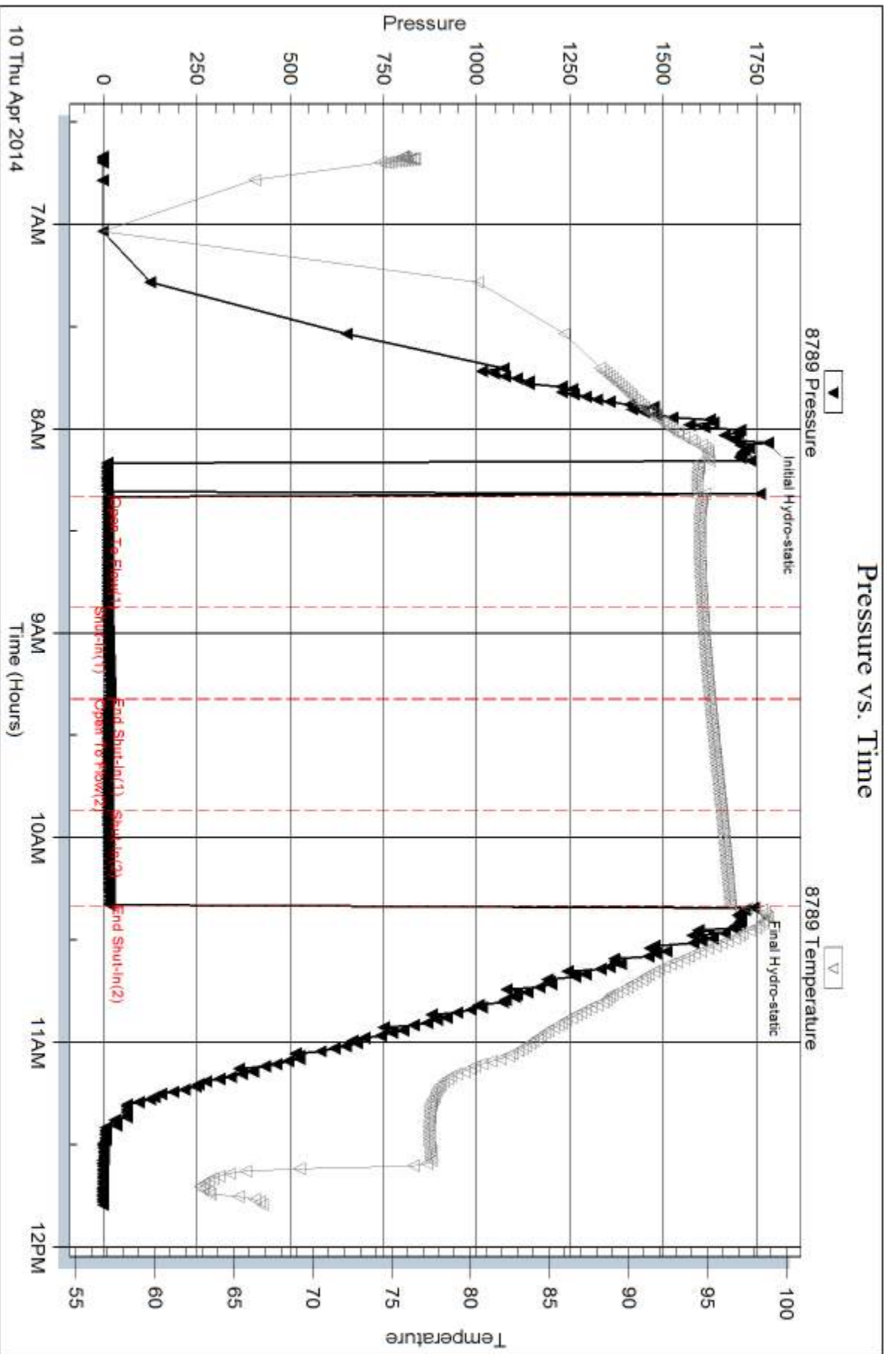
### Recovery Information

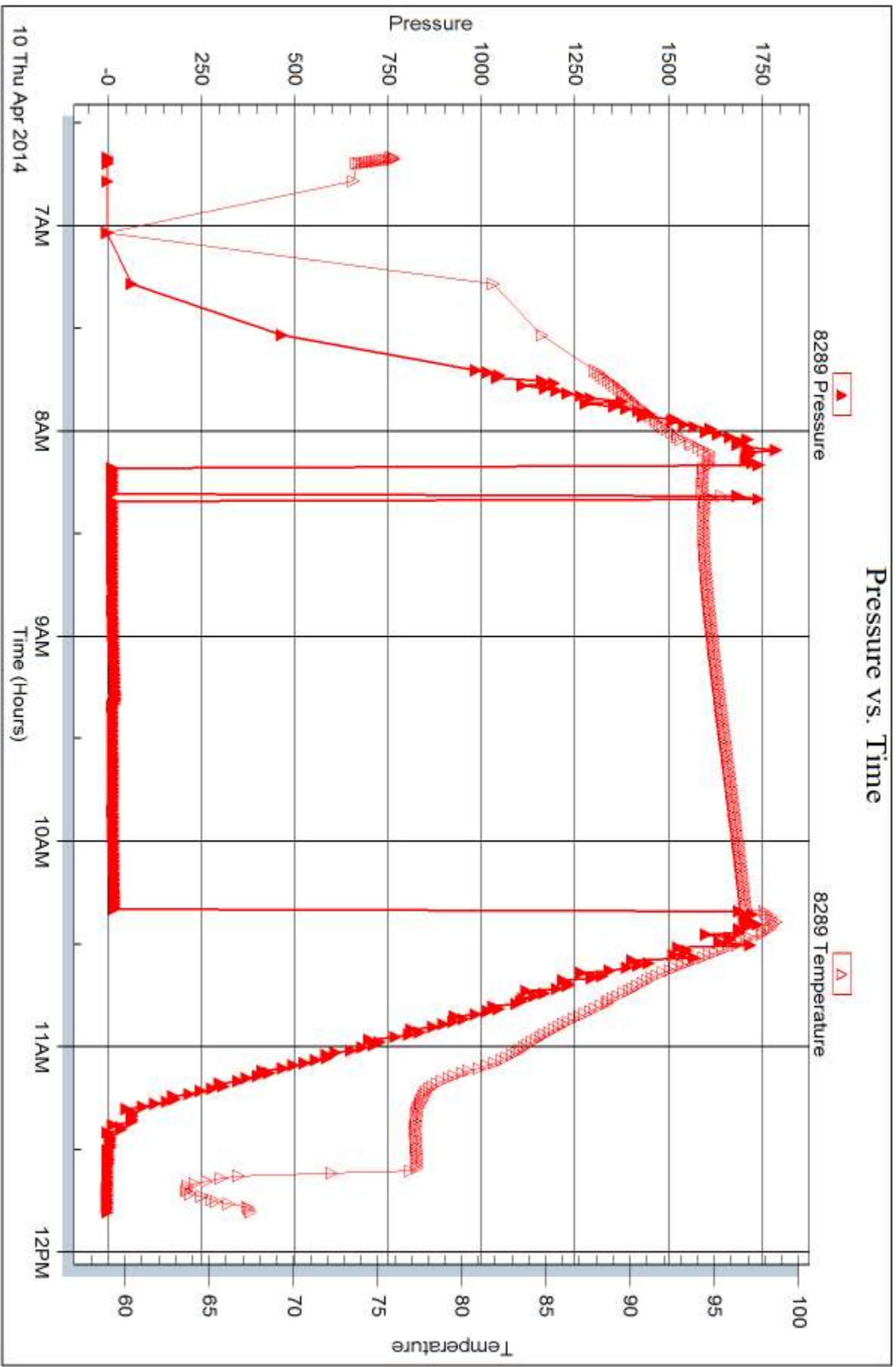
Recovery Table

Length ft	Description	Volume bbl
5.00	SOCM 5%O, 95% 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:









## DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120  
Hays KS 67601

ATTN: Jeff Lawler

**Roy #1**

**8 7s 20w Rooks,KS**

Start Date: 2014.04.10 @ 16:22:00

End Date: 2014.04.10 @ 20:42:00

Job Ticket #: 57534                      DST #: 7

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

Printed: 2014.04.11 @ 13:38:30

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 7 LKC L 2014.04.10





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Jaspar Co.  
PO Box 1120  
Hays KS 67601

**8 7s 20w Rooks,KS**

**Roy #1**

Job Ticket: 57534

**DST#: 7**

ATTN: Jeff Lawler

Test Start: 2014.04.10 @ 16:22:00

## GENERAL INFORMATION:

Formation: **LKC L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 20:42:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Tim Phillips

Unit No: 76

**Interval: 3567.00 ft (KB) To 3580.00 ft (KB) (TVD)**

Total Depth: 3580.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2164.00 ft (KB)

2159.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8289 Outside**

Press@RunDepth: psig @ 3574.00 ft (KB)

Start Date: 2014.04.10

End Date:

2014.04.10

Start Time: 16:22:02

End Time:

20:37:00

Capacity: 8000.00 psig

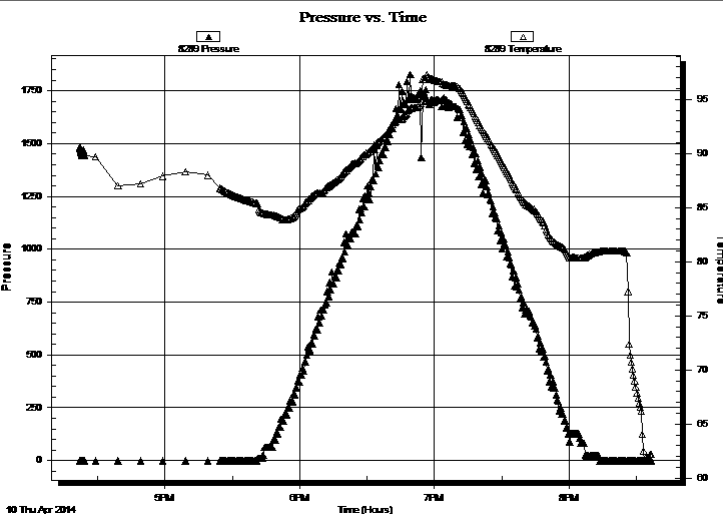
Last Calib.:

2014.04.10

Time On Btm:

Time Off Btm:

TEST COMMENT: Packer failure



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
220.00	100% Mud	1.97

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57534      **DST#: 7**  
Test Start: 2014.04.10 @ 16:22:00

**Tool Information**

Drill Pipe:	Length: 3430.00 ft	Diameter: 3.80 inches	Volume: 48.11 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	40000.00 lb
			<u>Total Volume: 48.71 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	ft			String Weight: Initial	36000.00 lb
Depth to Top Packer:	3573.00 ft			Final	36000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	13.00 ft				
Tool Length:	34.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3553.00	
Shut In Tool	5.00			3558.00	
Hydraulic tool	5.00			3563.00	
Packer	5.00			3568.00	21.00      Bottom Of Top Packer
Packer	5.00			3573.00	
Stubb	1.00			3574.00	
Recorder	0.00	8789	Inside	3574.00	
Recorder	0.00	8289	Outside	3574.00	
Perforations	9.00			3583.00	
Bullnose	3.00			3586.00	13.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>34.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57534      **DST#: 7**  
Test Start: 2014.04.10 @ 16:22:00

### 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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 2.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
220.00	100% Mud	1.975

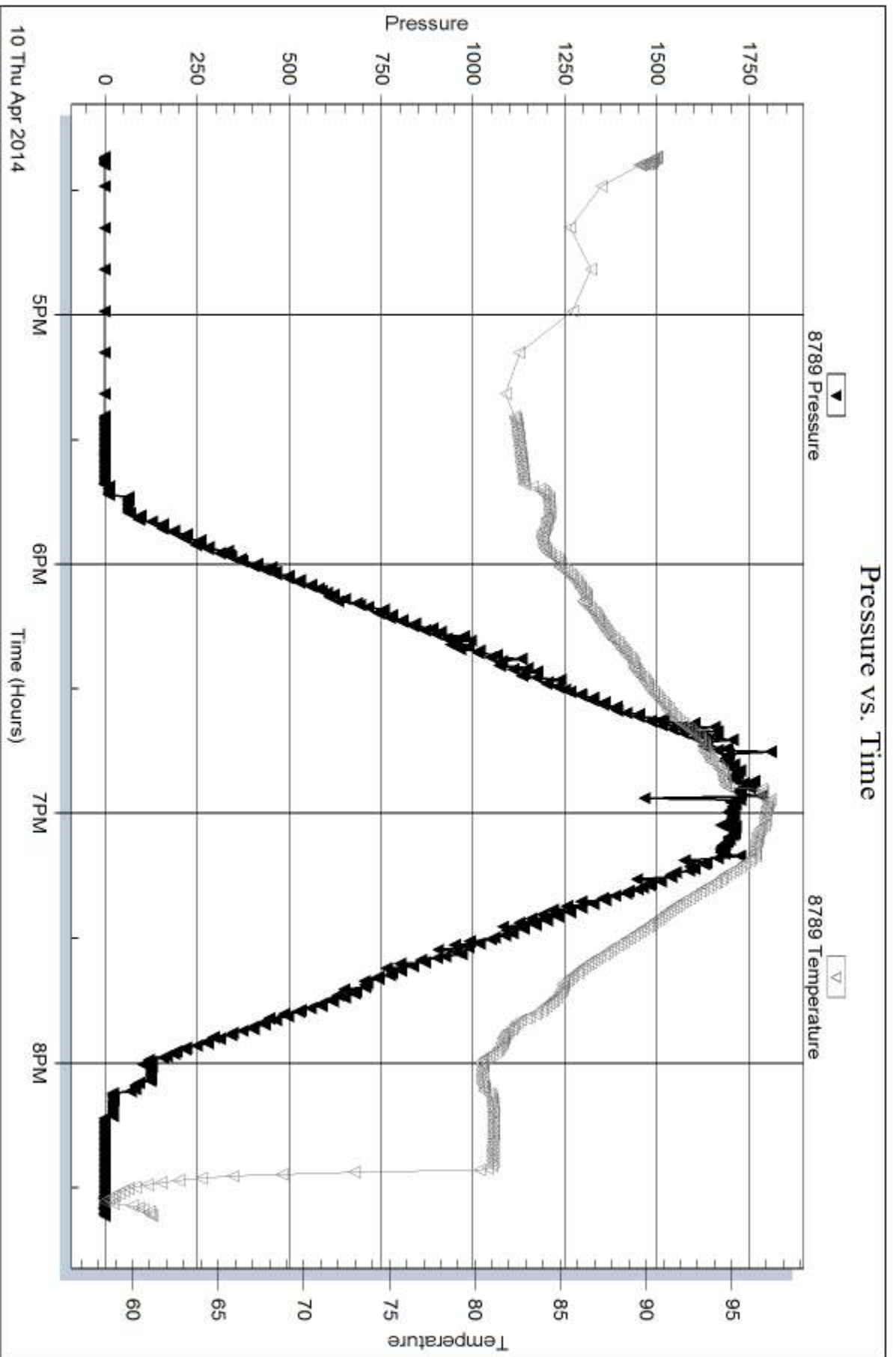
Total Length: 220.00 ft      Total Volume: 1.975 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

Serial #: 8789

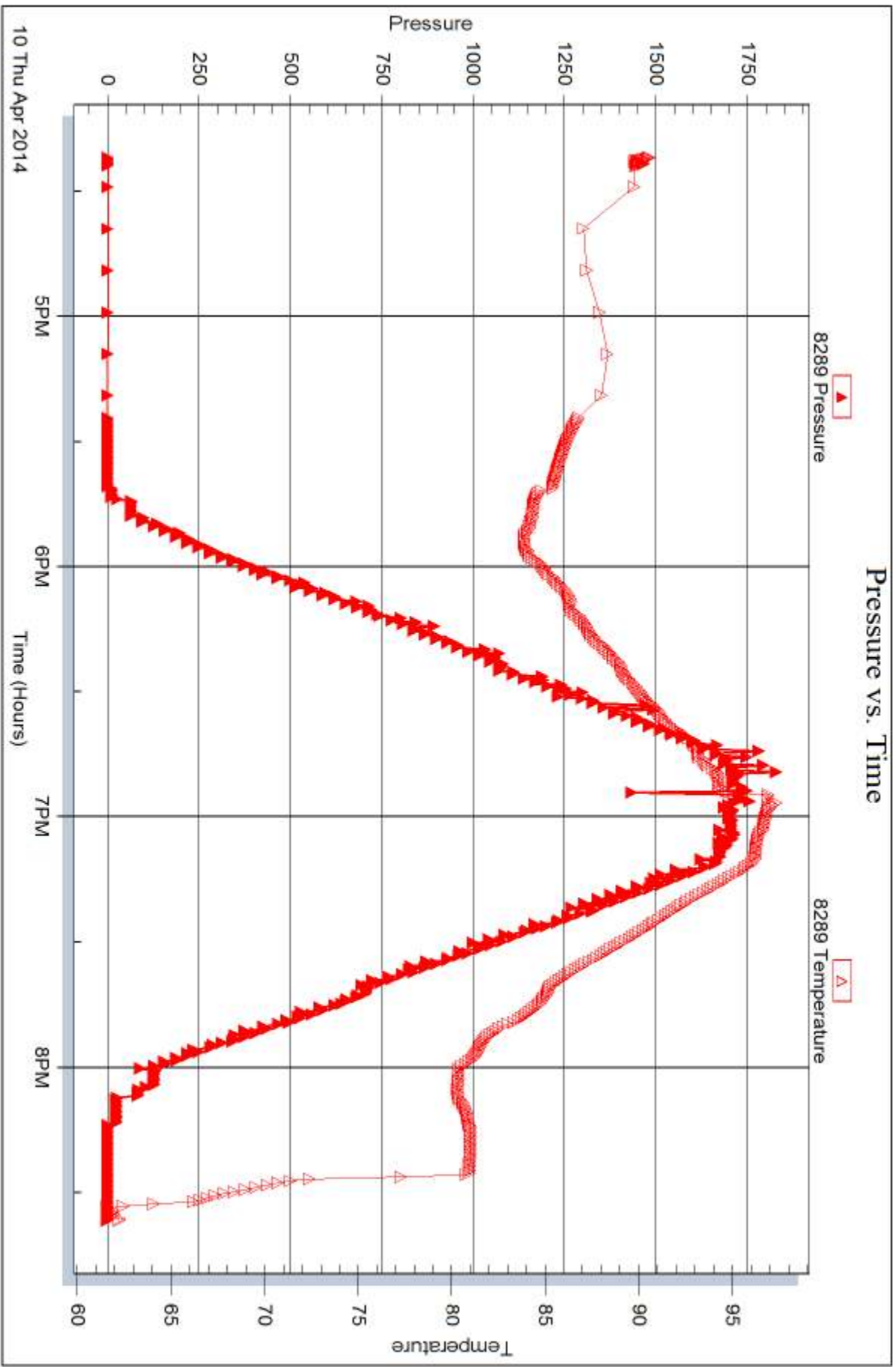
Inside Jasper Co.

Roy #1

DST Test Number: 7









## DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120  
Hays KS 67601

ATTN: Jeff Lawler

**Roy #1**

**8 7s 20w Rooks,KS**

Start Date: 2014.04.10 @ 20:58:00

End Date: 2014.04.11 @ 03:24:00

Job Ticket #: 57535                      DST #: 8

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

Printed: 2014.04.11 @ 13:38:01



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

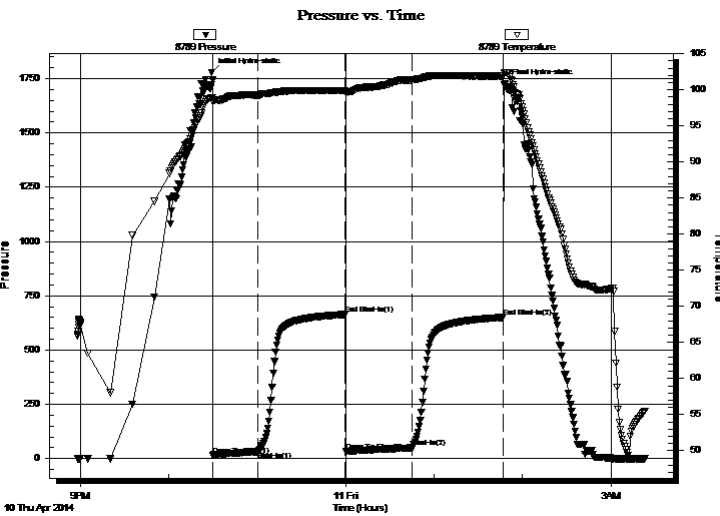
**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57535      **DST#: 8**  
Test Start: 2014.04.10 @ 20:58:00

## GENERAL INFORMATION:

Formation: **LKC K,L**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 22:29:45  
Time Test Ended: 03:24:00  
Interval: **3547.00 ft (KB) To 3580.00 ft (KB) (TVD)**  
Total Depth: 3580.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Tim Phillips  
Unit No: 76  
Reference Elevations: 2164.00 ft (KB)  
2159.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8789      Inside**  
Press@RunDepth: 50.13 psig @ 3548.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.04.10      End Date: 2014.04.11      Last Calib.: 2014.04.11  
Start Time: 20:58:02      End Time: 03:23:15      Time On Btm: 2014.04.10 @ 22:29:00  
Time Off Btm: 2014.04.11 @ 01:48:00

TEST COMMENT: IFP- Blow built to 3 3/4"  
IS- Dead no blow back  
FF- Blow built to 4"  
FS- Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1779.26	98.95	Initial Hydro-static
1	16.38	98.30	Open To Flow (1)
31	31.16	99.19	Shut-In(1)
91	663.85	99.93	End Shut-In(1)
91	32.99	99.71	Open To Flow (2)
136	50.13	101.34	Shut-In(2)
198	650.45	101.92	End Shut-In(2)
199	1728.46	102.41	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	CO 100% Oil	0.05
63.00	MCO 40%M, 60%O	0.31
0.00	GIP 50 ft	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**

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57535      **DST#: 8**  
Test Start: 2014.04.10 @ 20:58:00

**Tool Information**

Drill Pipe:	Length: 3430.00 ft	Diameter: 3.80 inches	Volume: 48.11 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	lb
			<u>Total Volume: 48.71 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	36000.00 lb
Depth to Top Packer:	3547.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	33.00 ft				
Tool Length:	54.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3527.00	
Shut In Tool	5.00			3532.00	
Hydraulic tool	5.00			3537.00	
Packer	5.00			3542.00	21.00      Bottom Of Top Packer
Packer	5.00			3547.00	
Stubb	1.00			3548.00	
Recorder	0.00	8789	Inside	3548.00	
Recorder	0.00	8289	Outside	3548.00	
Perforations	29.00			3577.00	
Bullnose	3.00			3580.00	33.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>54.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Jaspar Co.  
PO Box 1120  
Hays KS 67601  
ATTN: Jeff Lawler

**8 7s 20w Rooks,KS**  
**Roy #1**  
Job Ticket: 57535      **DST#: 8**  
Test Start: 2014.04.10 @ 20:58:00

### 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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 2.00 inches			

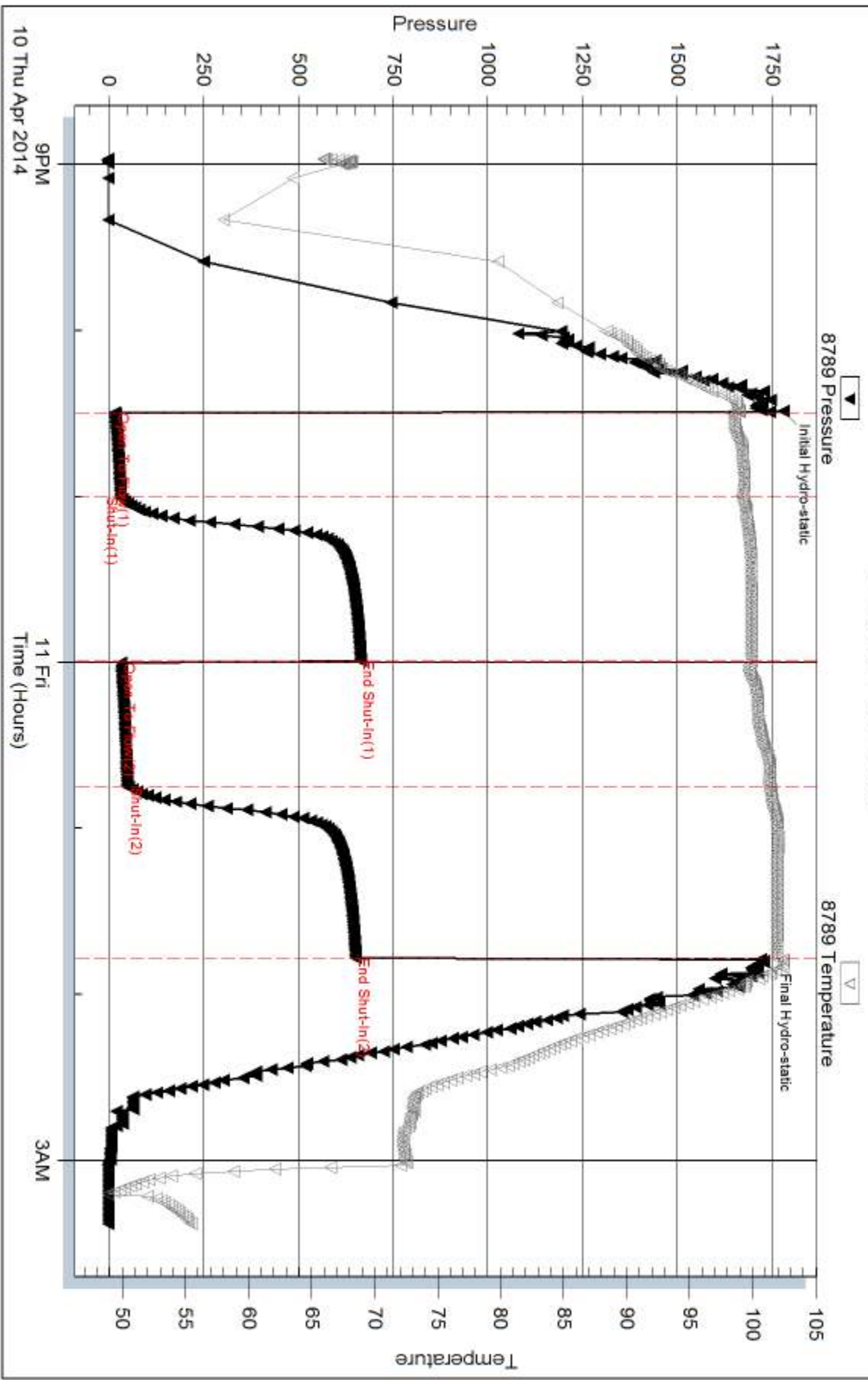
### Recovery Information

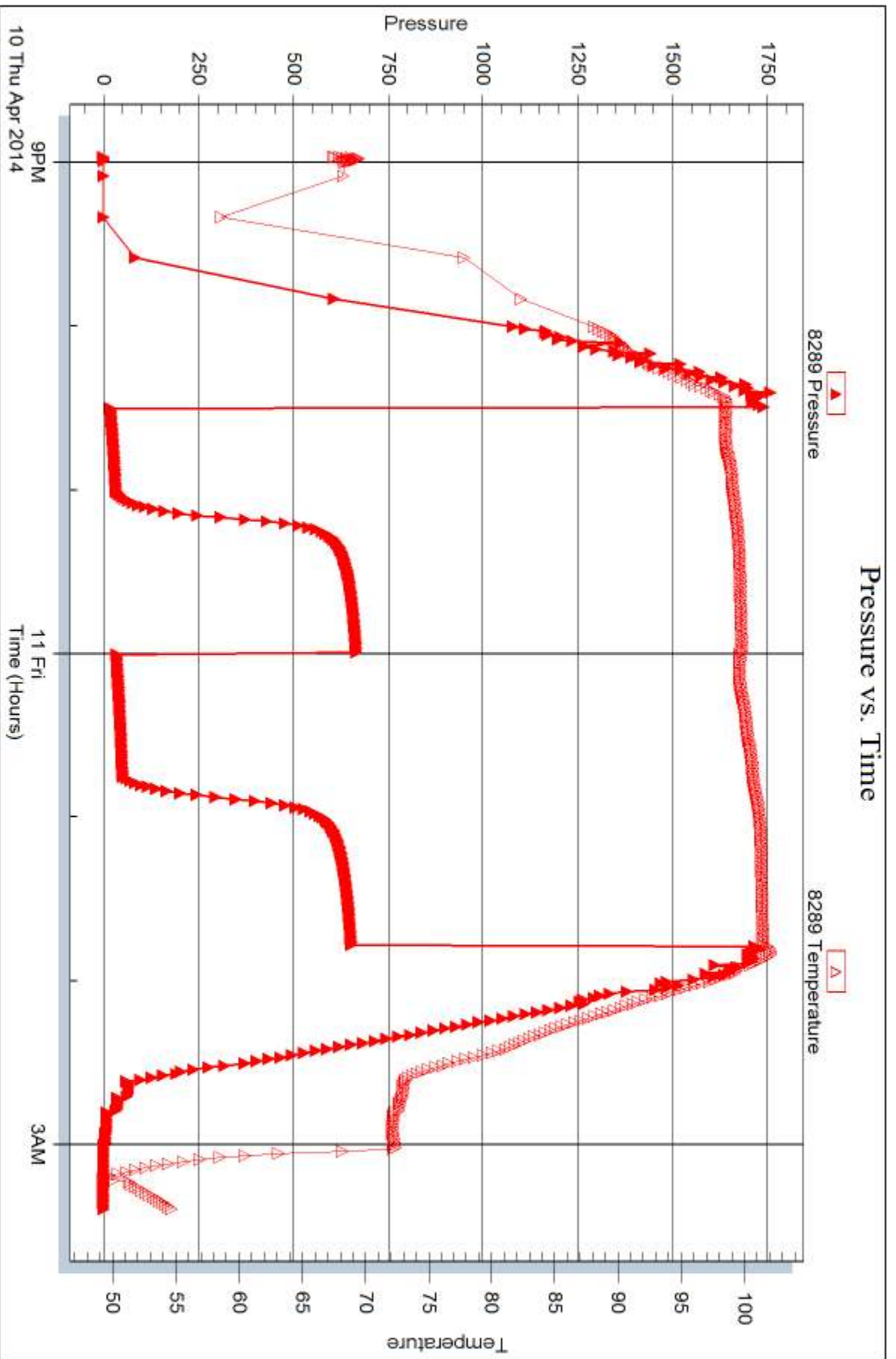
Recovery Table

Length ft	Description	Volume bbl
10.00	CO 100% Oil	0.049
63.00	MCO 40%M, 60%O	0.310
0.00	GIP 50 ft	0.000

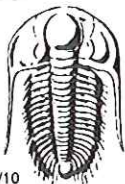
Total Length: 73.00 ft      Total Volume: 0.359 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

### Pressure vs. Time









# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57585

4/10

Well Name & No. Roy #1 Test No. 1 Date 4-7-14  
 Company Jasper Co. Elevation 2164 KB 2159 GL  
 Address P.O. Box 1120 Hays KS 67601  
 Co. Rep / Geo. Jeff Lawler Rig WW6  
 Location: Sec. 8 Twp. 7<sup>s</sup> Rge. 20<sup>w</sup> Co. Rooks State KS

Interval Tested 3351-3391 Zone Tested Toronto  
 Anchor Length 40 Drill Pipe Run 3240 Mud Wt. 9.0  
 Top Packer Depth 3346 Drill Collars Run 122 Vis 54  
 Bottom Packer Depth 3351 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3391 Chlorides 1600 ppm System LCM 2

Blow Description I-FP-Weak Surface Blow Died in 17 min.  
ISIP- No Blow  
FFP- No Blow  
FSIP- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>0.5m</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

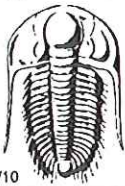
Rec Total 2 BHT 95 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1630  Test 1150 T-On Location 12:18  
 (B) First Initial Flow 16  Jars \_\_\_\_\_ T-Started 13:13  
 (C) First Final Flow 17  Safety Joint \_\_\_\_\_ T-Open 14:59  
 (D) Initial Shut-In 378  Circ Sub \_\_\_\_\_ T-Pulled 16:59  
 (E) Second Initial Flow 18  Hourly Standby \_\_\_\_\_ T-Out 18:36  
 (F) Second Final Flow 19  Mileage 116 RT 179.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 263  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1608  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1329.80  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Sub Total 1329.80

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57586

4/10

Well Name & No. Roy #1 Test No. 2 Date 4-8-14  
 Company Jasper Co. Elevation 2164 KB 2159 GL  
 Address P.O. Box 1120 Hays KS 67601  
 Co. Rep / Geo. Jeff Lawler Rig W W 6  
 Location: Sec. 8 Twp. 7<sup>s</sup> Rge. 20<sup>w</sup> Co. Rooks State KS

Interval Tested 3387-3423 Zone Tested LKC "A+B"  
 Anchor Length 36 Drill Pipe Run 3272 Mud Wt. 9.0  
 Top Packer Depth 3382 Drill Collars Run 122 Vis 54  
 Bottom Packer Depth 3387 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3423 Chlorides 1600 ppm System LCM 2

Blow Description IFP - Surface Blow Building to 1 in.  
ISIP - No Blow  
FFP - Weak Surface Blow in 4 min.  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>WCM</u>			<u>30</u>	<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 95 Gravity \_\_\_\_\_ API RW 515 @ 44 °F Chlorides 21000 ppm

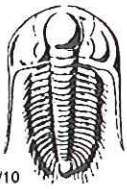
(A) Initial Hydrostatic 1649  Test 1150 T-On Location 00:45  
 (B) First Initial Flow 15  Jars \_\_\_\_\_ T-Started 01:05  
 (C) First Final Flow 25  Safety Joint \_\_\_\_\_ T-Open 02:54  
 (D) Initial Shut-In 350  Circ Sub \_\_\_\_\_ T-Pulled 04:54  
 (E) Second Initial Flow 27  Hourly Standby \_\_\_\_\_ T-Out 06:40  
 (F) Second Final Flow 34  Mileage 116 RT 179.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 341  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1640  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1329.80  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Sub Total 1329.80

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57587

4/10

Well Name & No. Ray #1 Test No. 3 Date 4-8-14  
 Company Jasper Co. Elevation 2164 KB 2159 GL  
 Address P.O. Box 1120 Hays KS 67601  
 Co. Rep / Geo. JEFF LAWLER Rig WW6  
 Location: Sec. 8 Twp. 7<sup>s</sup> Rge. 20<sup>w</sup> Co. Rooks State KS

Interval Tested 3418-3460 Zone Tested LKC "C & D"  
 Anchor Length 42 Drill Pipe Run 3302 Mud Wt. 9.2  
 Top Packer Depth 3413 Drill Collars Run 122 Vis 48  
 Bottom Packer Depth 3418 Wt. Pipe Run 0 WL 8.8  
 Total Depth 3460 Chlorides 2000 ppm System LCM 1

Blow Description IFF - 1/4 in Blow  
ISIP - No Blow  
FFP - No Blow  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>0.5m</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

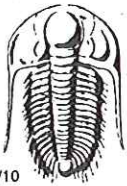
Rec Total 5 BHT 95 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1677  Test 1150 T-On Location 12:22  
 (B) First Initial Flow 19  Jars \_\_\_\_\_ T-Started 12:55  
 (C) First Final Flow 21  Safety Joint \_\_\_\_\_ T-Open 14:30  
 (D) Initial Shut-In 238  Circ Sub \_\_\_\_\_ T-Pulled 16:30  
 (E) Second Initial Flow 22  Hourly Standby \_\_\_\_\_ T-Out 17:50  
 (F) Second Final Flow 24  Mileage 179.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 216  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1661  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_

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

Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1329.80  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1329.80

Approved By \_\_\_\_\_ 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. 57588

4/10

Well Name & No. Rou #1 Test No. 4 Date 4-8-14  
 Company Jasper Co. Elevation 2164 KB 2159 GL  
 Address P.O. Box 1120 Hays KS. 67601  
 Co. Rep / Geo. JEFF LAWLER Rig WW 6  
 Location: Sec. 8 Twp. 7<sup>s</sup> Rge. 20W Co. ROOKS State KS

Interval Tested 3452-3482 Zone Tested LKC "E+F"  
 Anchor Length 30 Drill Pipe Run 3333 Mud Wt. 9.2  
 Top Packer Depth 3447 Drill Collars Run 122 Vis 48  
 Bottom Packer Depth 3452 Wt. Pipe Run 0 WL 8.8  
 Total Depth 3482 Chlorides 2000 ppm System LCM 1

Blow Description IIFP - SURFACE Blow Building to 9 1/2 in.  
ISIF - NO Blow  
FFP - SURFACE Blow Building to 7 1/4 in.  
FSIF - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>202</u>	<u>mcw</u>		<u>90</u>		<u>10</u>
<u>1</u>	<u>Oil Cap</u>		<u>100</u>		

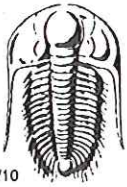
Rec Total 203 BHT 104 Gravity \_\_\_\_\_ API RW 325 @ 42 °F Chlorides 42000 ppm  
 (A) Initial Hydrostatic 1691  Test 1150 T-On Location 23:11  
 (B) First Initial Flow 14  Jars \_\_\_\_\_ T-Started 23:33  
 (C) First Final Flow 81  Safety Joint \_\_\_\_\_ T-Open 01:18  
 (D) Initial Shut-In 555  Circ Sub \_\_\_\_\_ T-Pulled 04:18  
 (E) Second Initial Flow 83  Hourly Standby \_\_\_\_\_ T-Out 06:06  
 (F) Second Final Flow 111  Mileage 1329.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 551  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1679  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 30  
 Final Shut-In 60  
 Sub Total 0  
 Total 1329.80  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1329.80

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57589

Well Name & No. Roy #1 Test No. 5 Date 4-9-14  
 Company Jasper Co. Elevation 2164 KB 2159 GL  
 Address P.O. Box 1120 HAYS KS 67601  
 Co. Rep / Geo. JEFF LAWLER Rig WW6  
 Location: Sec. 8 Twp. 7<sup>s</sup> Rge. 20<sup>w</sup> Co. ROOKS State KS

Interval Tested 3497-3560 Zone Tested LRC "H-J"  
 Anchor Length 63 Drill Pipe Run 3367 Mud Wt. 9.1  
 Top Packer Depth 3492 Drill Collars Run 122 Vis 53  
 Bottom Packer Depth 3497 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3560 Chlorides 2000 ppm System LCM 1

Blow Description IFP- BOB in 9min.  
ISIP- Surface Blow in 2min. Died Back in 35min.  
FFP- BOB in 29min.  
FSIP- Surface Blow in 1 1/2min. Died Back in 36min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>184</u>	<u>OCm</u>	<u>40</u>		<u>60</u>	
<u>67</u>	<u>CO</u>	<u>100</u>			
	<u>670 ISIP</u>				

Rec Total 251 BHT 103 Gravity 38 API RW @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1726</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>16:30</u>
(B) First Initial Flow <u>42</u>	<input type="checkbox"/> Jars _____	T-Started <u>17:05</u>
(C) First Final Flow <u>102</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>18:52</u>
(D) Initial Shut-In <u>274</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>22:22</u>
(E) Second Initial Flow <u>108</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>00:28</u>
(F) Second Final Flow <u>124</u>	<input checked="" type="checkbox"/> Mileage <u>179.80</u>	Comments _____
(G) Final Shut-In <u>346</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1666</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 90

Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

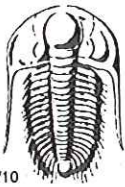
Sub Total 1329.80

MP/DST Disc't \_\_\_\_\_

Total 1329.80

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57533

4/10

Well Name & No. Roy #1 Test No. 6 Date 04/09/2014  
 Company Jasper CO Elevation 2164 KB 2159 GL  
 Address P.O. Box 1120 Hays KS 67601  
 Co. Rep / Geo. Jeff Lawler Rig WW #6  
 Location: Sec. 8 Twp. 7S Rge. 20 W Co. Rooks State KS

Interval Tested 3547- 3570 Zone Tested LKC K  
 Anchor Length 23 Drill Pipe Run 3430 Mud Wt. 9.1  
 Top Packer Depth 3543 Drill Collars Run 122 Vis 53  
 Bottom Packer Depth 3547 Wt. Pipe Run 0 WL 8  
 Total Depth 3570 Chlorides 2000 ppm System LCM 1#  
 Blow Description IFP- DEAD NO blow back  
ISI- DEAD NO blow back  
FF- DEAD NO blow  
FSI- DEAD NO blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>50CM</u>		<u>5</u>	<u>95</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

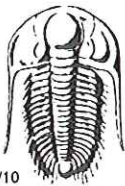
Rec Total 5 BHT 97 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1780  Test 1150 T-On Location 0640  
 (B) First Initial Flow 11  Jars — T-Started 0640  
 (C) First Final Flow 12  Safety Joint — T-Open 0822  
 (D) Initial Shut-In 19  Circ Sub — T-Pulled 1022  
 (E) Second Initial Flow 11  Hourly Standby — T-Out 1151  
 (F) Second Final Flow 12  Mileage 130 R/T 179.80 Comments —  
 (G) Final Shut-In 17  Sampler —  
 (H) Final Hydrostatic 1742  Straddle —  Ruined Shale Packer —  
 Shale Packer —  Ruined Packer —  
 Extra Packer —  Extra Copies —  
 Extra Recorder — Sub Total 0  
 Day Standby — Total 1329.80  
 Accessibility — MP/DST Disc't —  
 Sub Total 1329.80

Approved By \_\_\_\_\_ Our Representative Jim Phillips

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57534

4/10

Well Name & No. Roy #1 Test No. 7 Date 04/10/2014  
 Company Jasper CO Elevation 2164 KB 2159 GL  
 Address P.O. Box 1120 Hays, KS 67601  
 Co. Rep / Geo. Jeff Lawler Rig WW #6  
 Location: Sec. 8 Twp. 7S Rge. 20 W Co. Rooks State KS

Interval Tested 3567 - 3580 Zone Tested LKC L  
 Anchor Length 13' Drill Pipe Run \_\_\_\_\_ Mud Wt. 9.2  
 Top Packer Depth 3563 Drill Collars Run 122 Vis 53  
 Bottom Packer Depth 3567 Wt. Pipe Run 0 WL 8  
 Total Depth 3580 Chlorides 2000 ppm System LCM 1#  
 Blow Description \_\_\_\_\_

Rec	Feet of	%gas	%oil	%water	%mud
<u>220</u>	<u>Mud</u>			<u>100</u>	
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 220 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

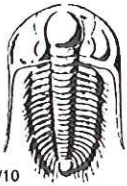
(A) Initial Hydrostatic \_\_\_\_\_  Test 950 T-On Location 1547  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started 1622  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open \_\_\_\_\_  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled \_\_\_\_\_  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 2042  
 (F) Second Final Flow \_\_\_\_\_  Mileage 130 R/T 179.80 Comments PACKER FAILURE  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 \_\_\_\_\_  Shale Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open \_\_\_\_\_  Extra Packer \_\_\_\_\_  
 Initial Shut-In \_\_\_\_\_  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow \_\_\_\_\_  Day Standby \_\_\_\_\_ Total 1129.80  
 Final Shut-In \_\_\_\_\_  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1129.80

Approved By \_\_\_\_\_

Our Representative

*Tom Phillips*

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **57535**

4/10

Well Name & No. Roy #1 Test No. 8 Date 04/10/2014  
 Company JASPER Co Elevation 2164 KB 2159 GL  
 Address P.O. Box 1120 Hays, KS 67601  
 Co. Rep / Geo. Jeff Lawler Rig WW#6  
 Location: Sec. 8 Twp. 7 S Rge. 20 W Co. Rooks State KS

Interval Tested LKC Zone Tested LKC K, L  
 Anchor Length 33' Drill Pipe Run 3430 Mud Wt. 9.2  
 Top Packer Depth 3543 Drill Collars Run 122 Vis 53  
 Bottom Packer Depth 3547 Wt. Pipe Run 0 WL 8  
 Total Depth 3580 Chlorides 2000 ppm System LCM 1#

Blow Description IFP- Blow built to 3.75 in  
ISI- DEAD NO blow back  
FF- Blow built to 4 in  
FSI- DEAD NO blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>CO</u>	<u>100</u>			
<u>63</u>	<u>MCO</u>	<u>60</u>		<u>40</u>	
<u>0</u>	<u>50ft GIP</u>				

Rec Total 73 BHT 102 Gravity 34 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1779  Test 1150 T-On Location 1547  
 (B) First Initial Flow 16  Jars \_\_\_\_\_ T-Started 2058  
 (C) First Final Flow 31  Safety Joint \_\_\_\_\_ T-Open 2230  
 (D) Initial Shut-In 663  Circ Sub \_\_\_\_\_ T-Pulled 0145  
 (E) Second Initial Flow 32  Hourly Standby 3.5 T-Out 0324  
 (F) Second Final Flow 50  Mileage 130 R/T 179.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 650  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1728  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 30 45  Day Standby \_\_\_\_\_ Total 1329.80  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1329.80

Approved By \_\_\_\_\_ Our Representative Tom Phillips

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