



## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating, Inc.**

PO Box 86  
Plainville, KS 67663

ATTN: Marc Downing

### **Newell #23-1**

### **23-8s-21w Graham, KS**

Start Date: 2014.02.09 @ 11:49:09

End Date: 2014.02.09 @ 20:49:39

Job Ticket #: 54001                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.14 @ 14:46:10



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54001

**DST#: 1**

ATTN: Marc Downing

Test Start: 2014.02.09 @ 11:49:09

## GENERAL INFORMATION:

Formation: **LKC 'C-D'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:46:09

Time Test Ended: 20:49:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan L

Unit No: 48

**Interval: 3354.00 ft (KB) To 3400.00 ft (KB) (TVD)**

Reference Elevations: 2098.00 ft (KB)

Total Depth: 3400.00 ft (KB) (TVD)

2091.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8372**

**Inside**

Press@RunDepth: 664.80 psig @ 3363.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.09

End Date:

2014.02.09

Last Calib.:

2014.02.09

Start Time: 11:49:10

End Time:

20:49:39

Time On Btm:

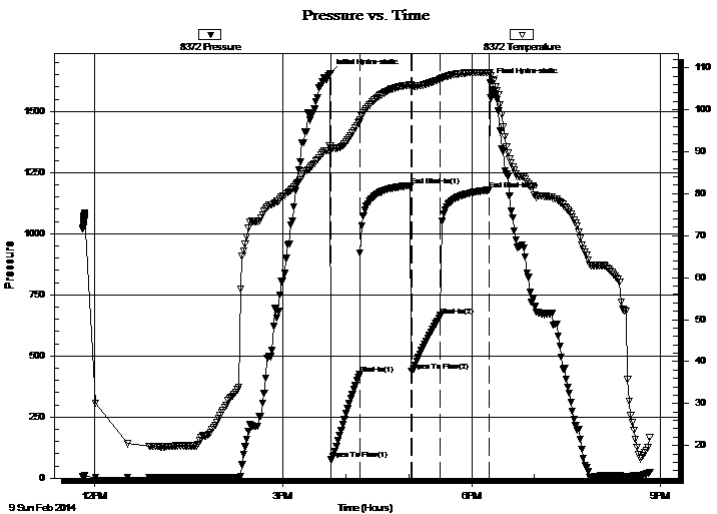
2014.02.09 @ 15:44:39

Time Off Btm:

2014.02.09 @ 18:17:39

**TEST COMMENT:** 30- IF- BOB 1 1/2 mins  
45- IS- No blow  
30- FF- BOB 1 1/2 mins  
45- FS- No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1655.94	91.31	Initial Hydro-static
2	77.32	90.57	Open To Flow (1)
29	424.77	97.21	Shut-In(1)
78	1196.94	105.95	End Shut-In(1)
78	437.71	105.63	Open To Flow (2)
106	664.80	107.28	Shut-In(2)
152	1178.57	108.80	End Shut-In(2)
153	1616.79	108.91	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1375.00	MW, 90%W	18.52

## Gas Rates

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



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# DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54001

**DST#: 1**

ATTN: Marc Downing

Test Start: 2014.02.09 @ 11:49:09

## GENERAL INFORMATION:

Formation: **LKC 'C-D'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:46:09

Time Test Ended: 20:49:39

Interval: **3354.00 ft (KB) To 3400.00 ft (KB) (TVD)**

Total Depth: 3400.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan L

Unit No: 48

Reference Elevations: 2098.00 ft (KB)

2091.00 ft (CF)

KB to GR/CF: 7.00 ft

**Serial #: 8321**

**Outside**

Press@RunDepth: psig @ 3363.00 ft (KB)

Start Date: 2014.02.09

End Date:

2014.02.09

Start Time: 11:49:31

End Time:

20:50:00

Capacity: 8000.00 psig

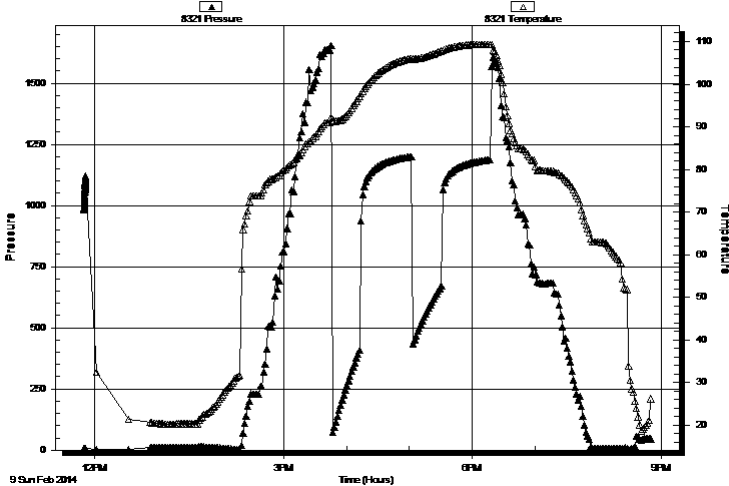
Last Calib.: 2014.02.09

Time On Btm:

Time Off Btm:

TEST COMMENT: 30- IF- BOB 1 1/2 mins  
45- IS- No blow  
30- FF- BOB 1 1/2 mins  
45- FS- No blow

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
1375.00	MW, 90%W	18.52

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54001

**DST#: 1**

ATTN: Marc Downing

Test Start: 2014.02.09 @ 11:49:09

## Tool Information

Drill Pipe:	Length: 3308.00 ft	Diameter: 3.75 inches	Volume: 45.19 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 33000.00 lb
Depth to Top Packer:	3354.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3335.00	
Shut In Tool	5.00			3340.00	
Hydraulic tool	5.00			3345.00	
Packer	5.00			3350.00	20.00 Bottom Of Top Packer
Packer	4.00			3354.00	
Stubb	1.00			3355.00	
Perforations	8.00			3363.00	
Recorder	0.00	8372	Inside	3363.00	
Recorder	0.00	8321	Outside	3363.00	
Blank Spacing	34.00			3397.00	
Bullnose	3.00			3400.00	46.00 Bottom Packers & Anchor

**Total Tool Length: 66.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54001

**DST#: 1**

ATTN: Marc Downing

Test Start: 2014.02.09 @ 11:49:09

## 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:

100000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1375.00	MW, 90%W	18.521

Total Length: 1375.00 ft      Total Volume: 18.521 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

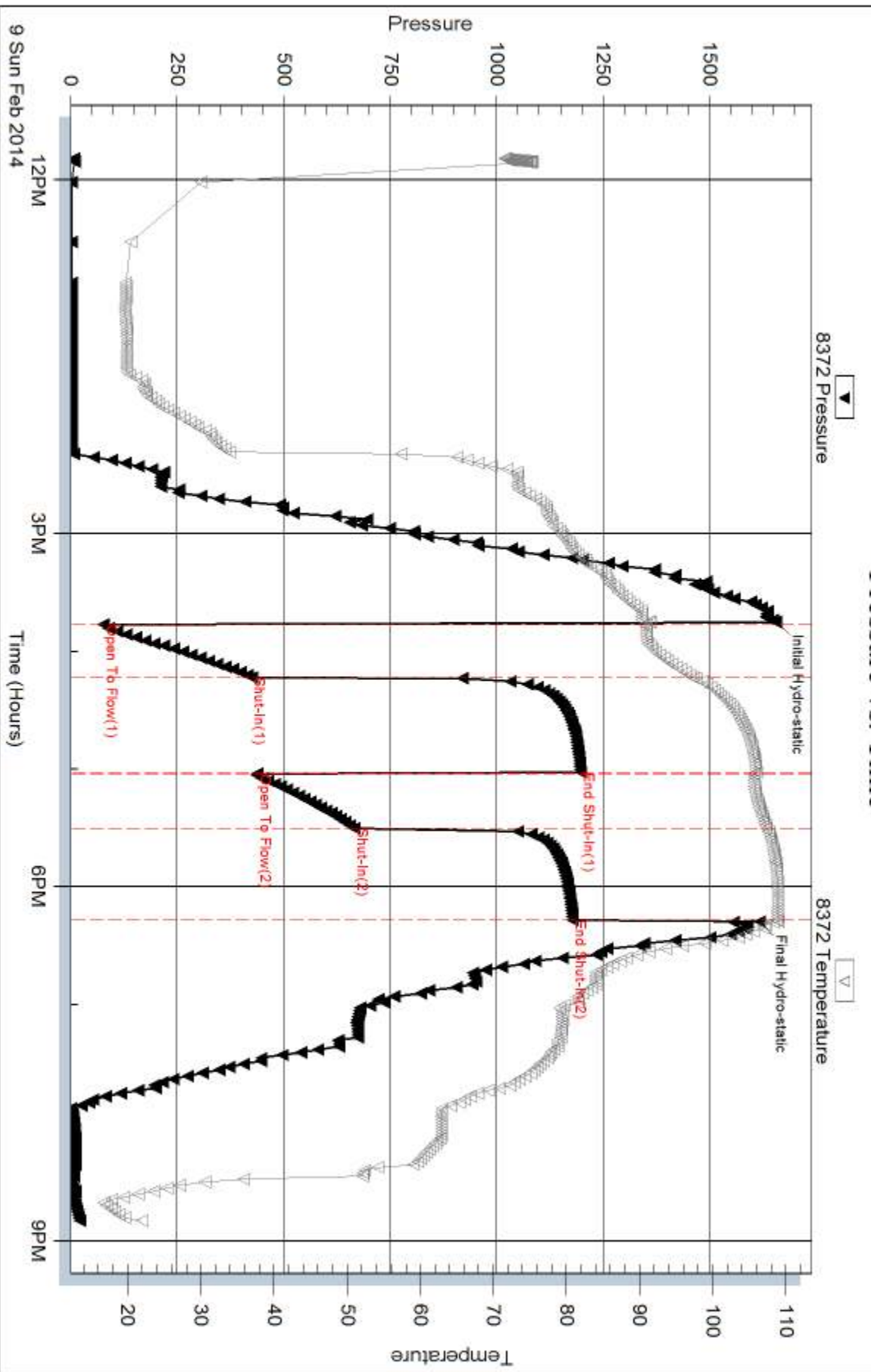
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

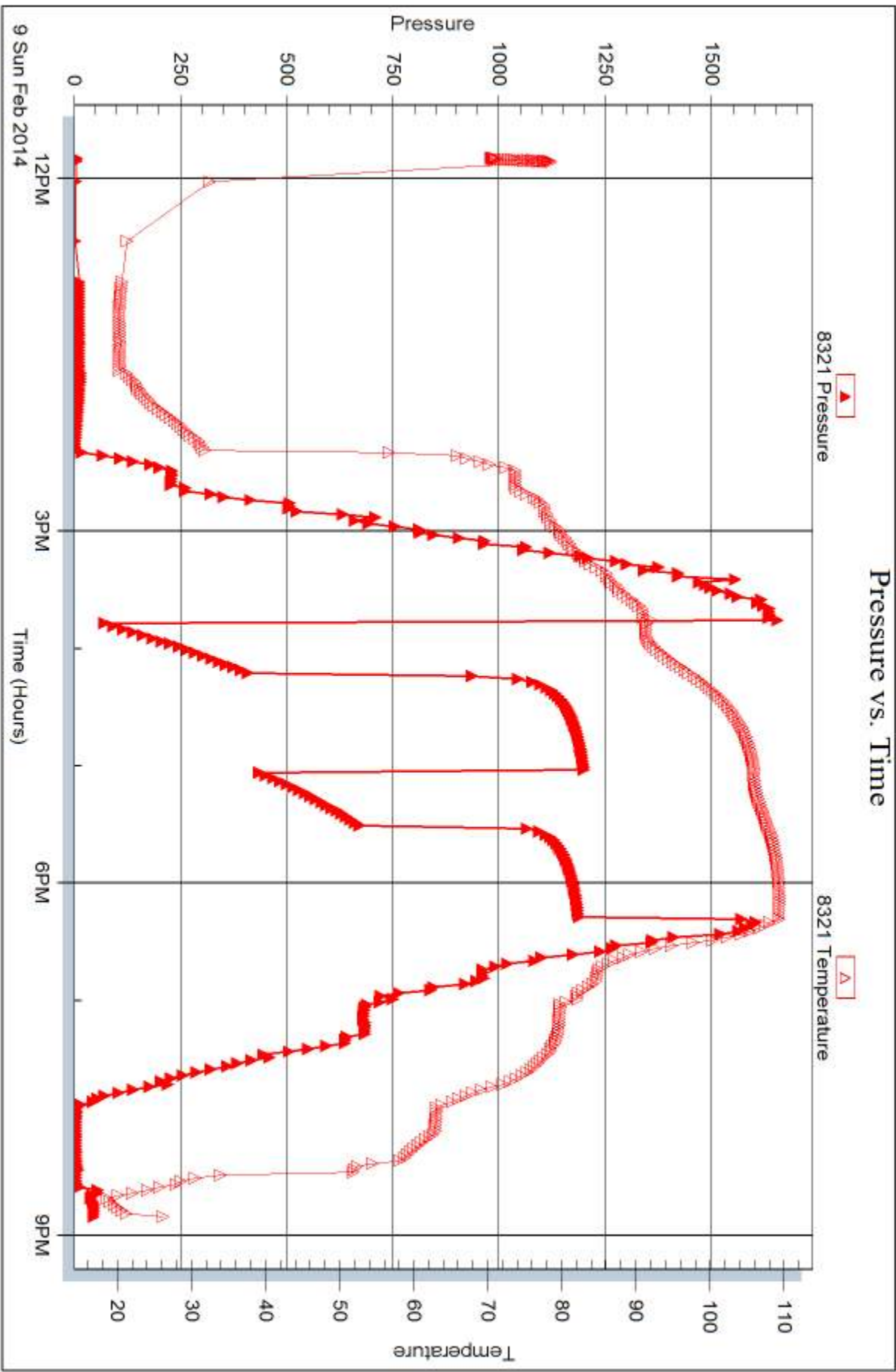


Serial #: 8321

Outside H&C Oil Operating, Inc.

New well #23-1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating, Inc.**

PO Box 86  
Plainville, KS 67663

ATTN: Marc Downing

### **Newell #23-1**

#### **23-8s-21w Graham, KS**

Start Date: 2014.02.10 @ 17:44:25

End Date: 2014.02.11 @ 00:44:55

Job Ticket #: 54002                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.14 @ 14:45:09





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54002

**DST#: 2**

ATTN: Marc Downing

Test Start: 2014.02.10 @ 17:44:25

## GENERAL INFORMATION:

Formation: **LKC "H-K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:07:25

Time Test Ended: 00:44:55

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan L

Unit No: 48

**Interval: 3444.00 ft (KB) To 3532.00 ft (KB) (TVD)**

Reference Elevations: 2098.00 ft (KB)

Total Depth: 3532.00 ft (KB) (TVD)

2091.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8372**

**Inside**

Press@RunDepth: 47.39 psig @ 3464.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.10

End Date:

2014.02.11

Last Calib.: 2014.02.11

Start Time: 17:44:26

End Time:

00:44:55

Time On Btm: 2014.02.10 @ 20:04:25

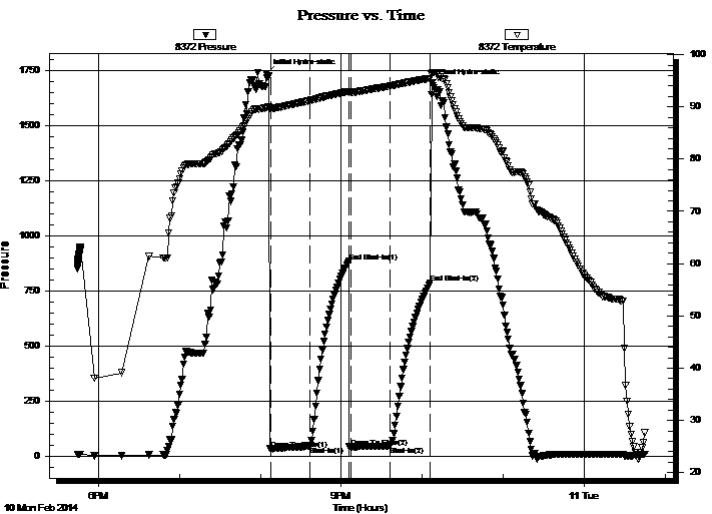
Time Off Btm: 2014.02.10 @ 22:07:25

TEST COMMENT: 30- IF- Built slowly to 2"

30- IS- No blow

30- FF- Built to 1/2"

30- FS- No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1736.91	89.83	Initial Hydro-static
3	34.46	89.68	Open To Flow (1)
32	46.14	91.19	Shut-In(1)
61	884.31	92.95	End Shut-In(1)
63	43.97	92.72	Open To Flow (2)
92	47.39	93.96	Shut-In(2)
122	786.43	95.46	End Shut-In(2)
123	1692.98	96.50	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	M	0.15

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54002

**DST#: 2**

ATTN: Marc Downing

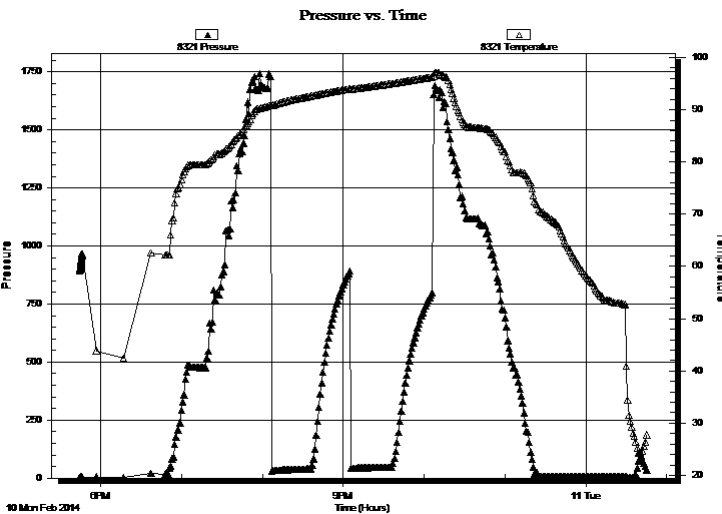
Test Start: 2014.02.10 @ 17:44:25

## GENERAL INFORMATION:

Formation: <b>LKC "H-K"</b>				
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)		
Time Tool Opened: 20:07:25		Tester: Brannan L		
Time Test Ended: 00:44:55		Unit No: 48		
<b>Interval: 3444.00 ft (KB) To 3532.00 ft (KB) (TVD)</b>		Reference Elevations: 2098.00 ft (KB)		
Total Depth: 3532.00 ft (KB) (TVD)		2091.00 ft (CF)		
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 7.00 ft		

<b>Serial #: 8321</b>	<b>Outside</b>				
Press@RunDepth: psig @	3464.00 ft (KB)	Capacity:	8000.00 psig		
Start Date: 2014.02.10	End Date: 2014.02.11	Last Calib.:	2014.02.11		
Start Time: 17:44:31	End Time: 00:45:00	Time On Btm:			
		Time Off Btm:			

TEST COMMENT: 30- IF- Built slowly to 2"  
30- IS- No blow  
30- FF- Built to 1/2"  
30- FS- No blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	M	0.15

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54002

**DST#: 2**

ATTN: Marc Downing

Test Start: 2014.02.10 @ 17:44:25

## Tool Information

Drill Pipe:	Length: 3401.00 ft	Diameter: 3.75 inches	Volume: 46.46 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 34000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 33000.00 lb
Depth to Top Packer:	3444.00 ft			Final 34000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	88.00 ft			
Tool Length:	108.00 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			3425.00	
Shut In Tool	5.00			3430.00	
Hydraulic tool	5.00			3435.00	
Packer	5.00			3440.00	20.00 Bottom Of Top Packer
Packer	4.00			3444.00	
Stubb	1.00			3445.00	
Perforations	19.00			3464.00	
Recorder	0.00	8372	Inside	3464.00	
Recorder	0.00	8321	Outside	3464.00	
Blank Spacing	65.00			3529.00	
Bullnose	3.00			3532.00	88.00 Bottom Packers & Anchor

**Total Tool Length: 108.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54002

**DST#: 2**

ATTN: Marc Downing

Test Start: 2014.02.10 @ 17:44:25

## 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: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	M	0.148

Total Length: 30.00 ft      Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

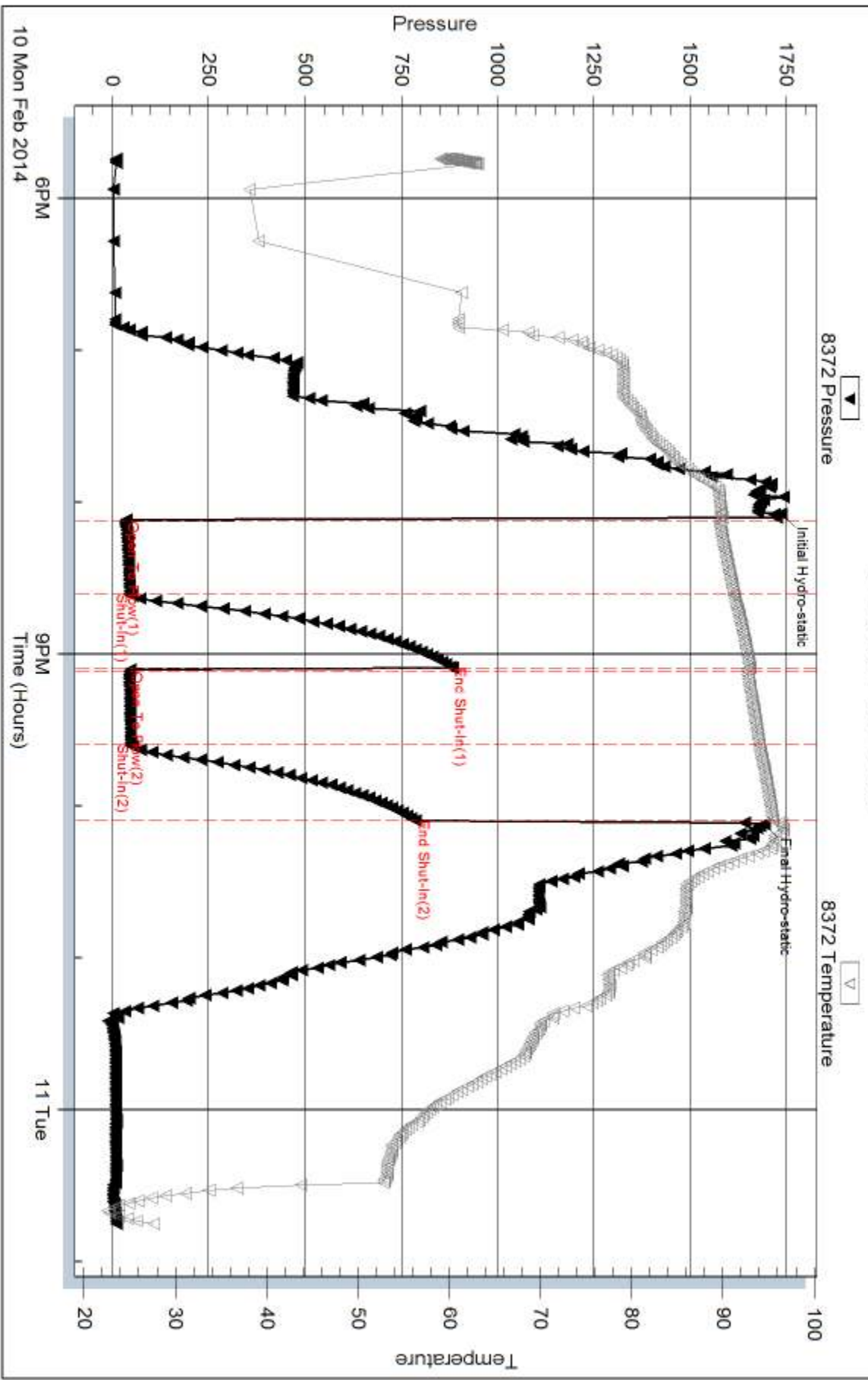
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

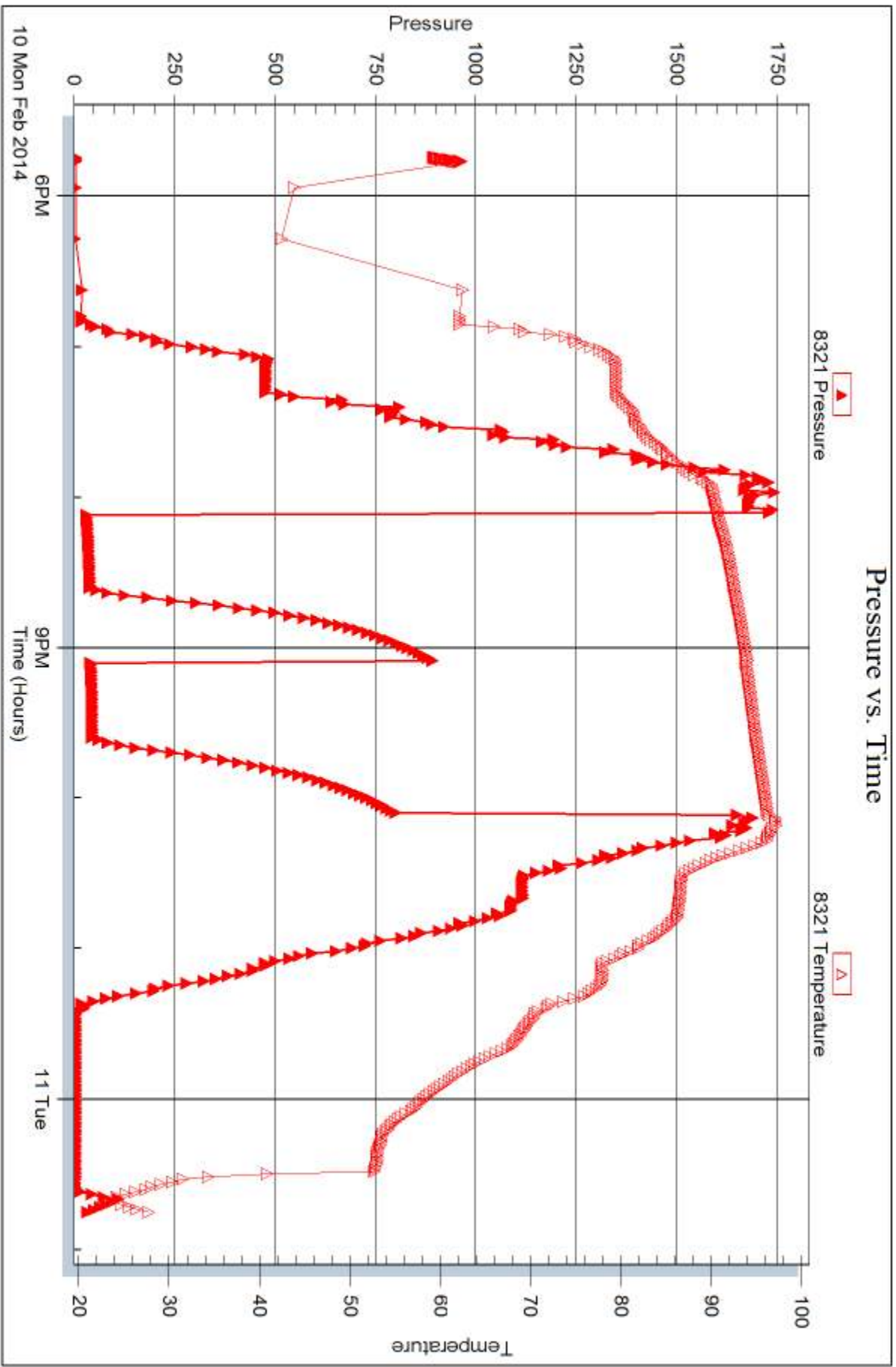


Serial #: 8321

Outside H&C Oil Operating, Inc.

New well #23-1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 54002

Printed: 2014.02.14 @ 14:45:11



## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating, Inc.**

PO Box 86  
Plainville, KS 67663

ATTN: Marc Downing

### **Newell #23-1**

### **23-8s-21w Graham, KS**

Start Date: 2014.02.11 @ 13:51:00

End Date: 2014.02.11 @ 21:38:00

Job Ticket #: 54003                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.14 @ 14:43:45



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54003

**DST#: 3**

ATTN: Marc Downing

Test Start: 2014.02.11 @ 13:51:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:47:30

Time Test Ended: 21:38:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan L

Unit No: 48

**Interval: 3611.00 ft (KB) To 3643.00 ft (KB) (TVD)**

Total Depth: 3643.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2098.00 ft (KB)

2091.00 ft (CF)

KB to GR/CF: 7.00 ft

**Serial #: 8372 Inside**

Press@RunDepth: 207.98 psig @ 3640.00 ft (KB)

Start Date: 2014.02.11

End Date:

2014.02.11

Start Time: 13:51:01

End Time:

21:38:00

Capacity: 8000.00 psig

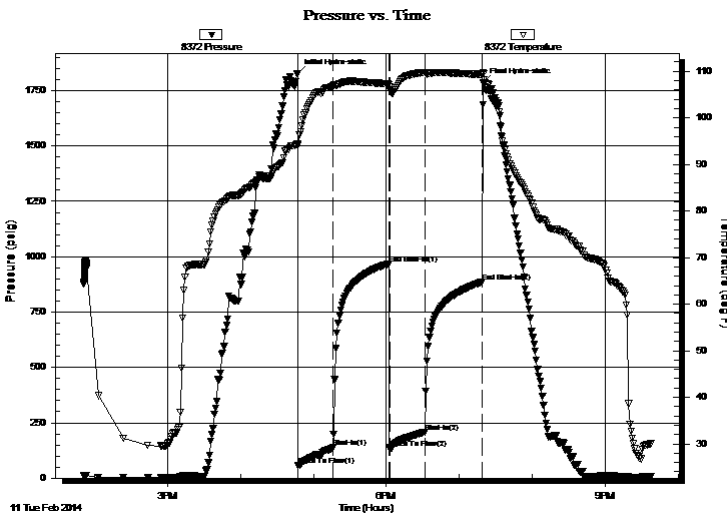
Last Calib.: 2014.02.11

Time On Btm: 2014.02.11 @ 16:47:00

Time Off Btm: 2014.02.11 @ 19:20:00

**TEST COMMENT:** 30- IF- BOB 4 mins  
45- IS- Steady surface blow  
30- FF- BOB 6 mins  
45- FS- Surface blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1827.85	94.40	Initial Hydro-static
1	56.90	94.14	Open To Flow (1)
29	137.35	106.78	Shut-In(1)
75	967.02	107.22	End Shut-In(1)
76	134.34	105.99	Open To Flow (2)
105	207.98	109.77	Shut-In(2)
152	885.94	109.31	End Shut-In(2)
153	1785.22	109.50	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
560.00	GO, 80%O	7.39

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

ATTN: Marc Downing

Job Ticket: 54003      **DST#: 3**  
Test Start: 2014.02.11 @ 13:51:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No    Whipstock:                      ft (KB)                      Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 16:47:30                      Tester: Brannan L  
 Time Test Ended: 21:38:00                      Unit No: 48  
 Interval: **3611.00 ft (KB) To 3643.00 ft (KB) (TVD)**                      Reference Elevations: 2098.00 ft (KB)  
 Total Depth: 3643.00 ft (KB) (TVD)                      2091.00 ft (CF)  
 Hole Diameter: 7.88 inches    Hole Condition: Fair                      KB to GR/CF: 7.00 ft

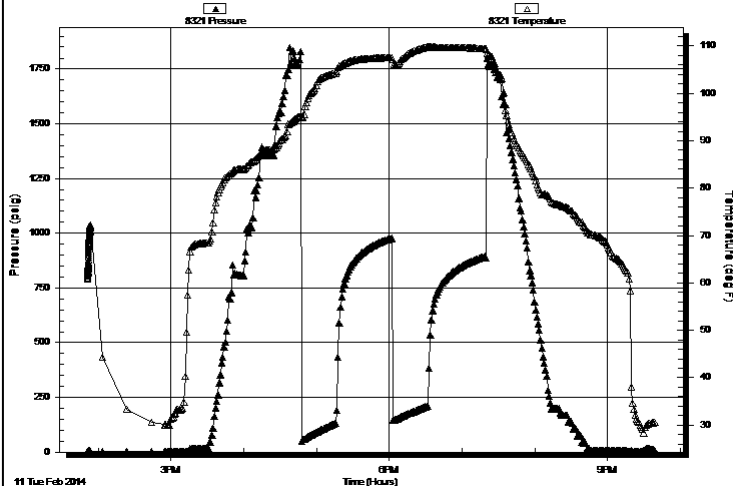
### Serial #: 8321

Outside

Press@RunDepth:                      psig @    3640.00 ft (KB)                      Capacity: 8000.00 psig  
 Start Date: 2014.02.11                      End Date: 2014.02.11                      Last Calib.: 2014.02.11  
 Start Time: 13:51:15                      End Time: 21:38:44                      Time On Btm:                      Time Off Btm:

TEST COMMENT: 30- IF- BOB 4 mins  
                           45- IS- Steady surface blow  
                           30- FF- BOB 6 mins  
                           45- FS- Surface blow

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
560.00	GO, 80%O	7.39

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54003

**DST#: 3**

ATTN: Marc Downing

Test Start: 2014.02.11 @ 13:51:00

## Tool Information

Drill Pipe:	Length: 3590.00 ft	Diameter: 3.75 inches	Volume: 49.04 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 37000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3611.00 ft			Final 36000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	52.00 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			3592.00	
Shut In Tool	5.00			3597.00	
Hydraulic tool	5.00			3602.00	
Packer	5.00			3607.00	20.00 Bottom Of Top Packer
Packer	4.00			3611.00	
Stubb	1.00			3612.00	
Perforations	28.00			3640.00	
Recorder	0.00	8372	Inside	3640.00	
Recorder	0.00	8321	Outside	3640.00	
Bullnose	3.00			3643.00	32.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>52.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating, Inc.

**23-8s-21w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Newell #23-1**

Job Ticket: 54003

**DST#: 3**

ATTN: Marc Downing

Test Start: 2014.02.11 @ 13:51:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
560.00	GO, 80%O	7.388

Total Length: 560.00 ft      Total Volume: 7.388 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8372

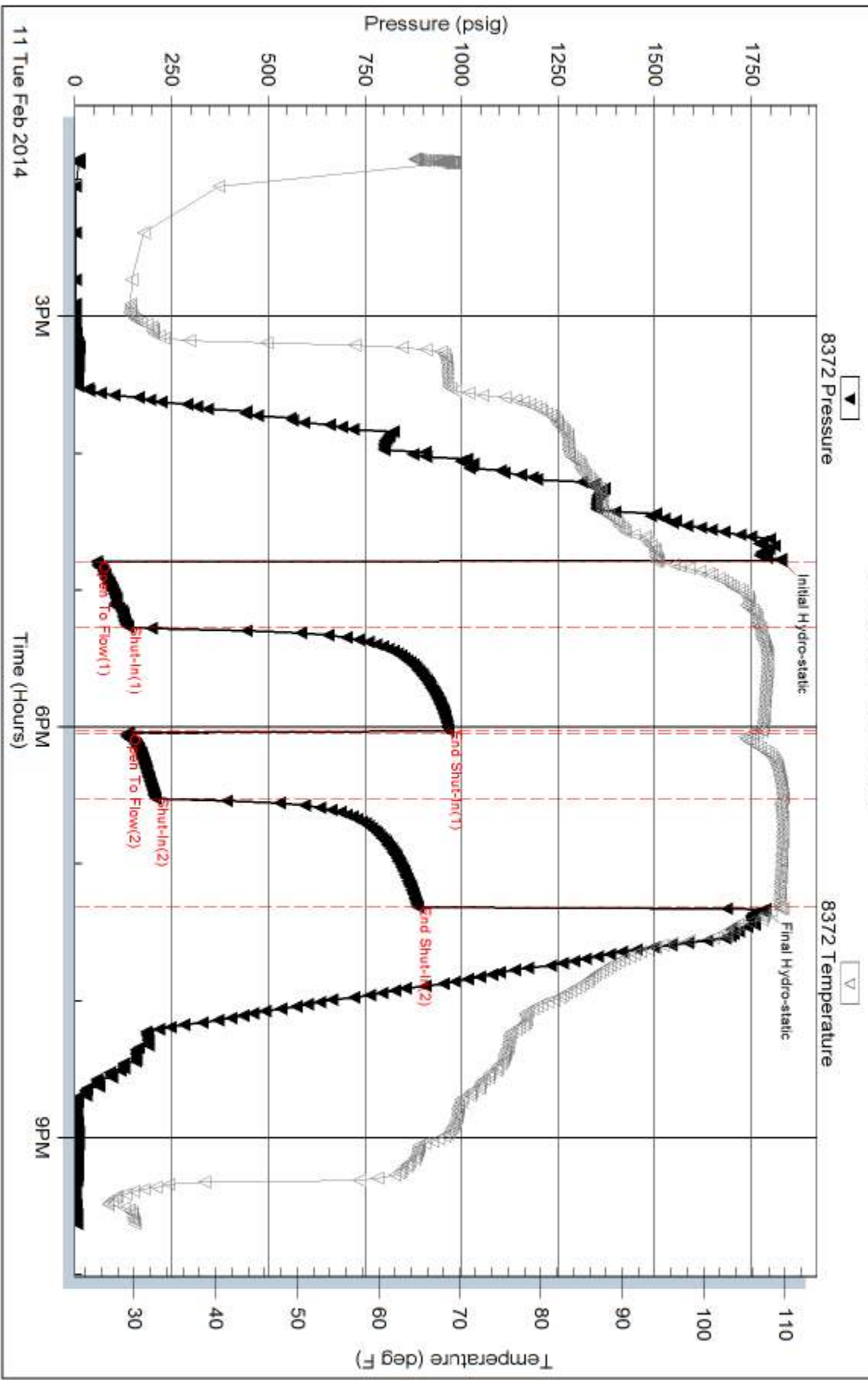
Inside

H&C Oil Operating, Inc.

New ell #23-1

DST Test Number: 3

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 54003

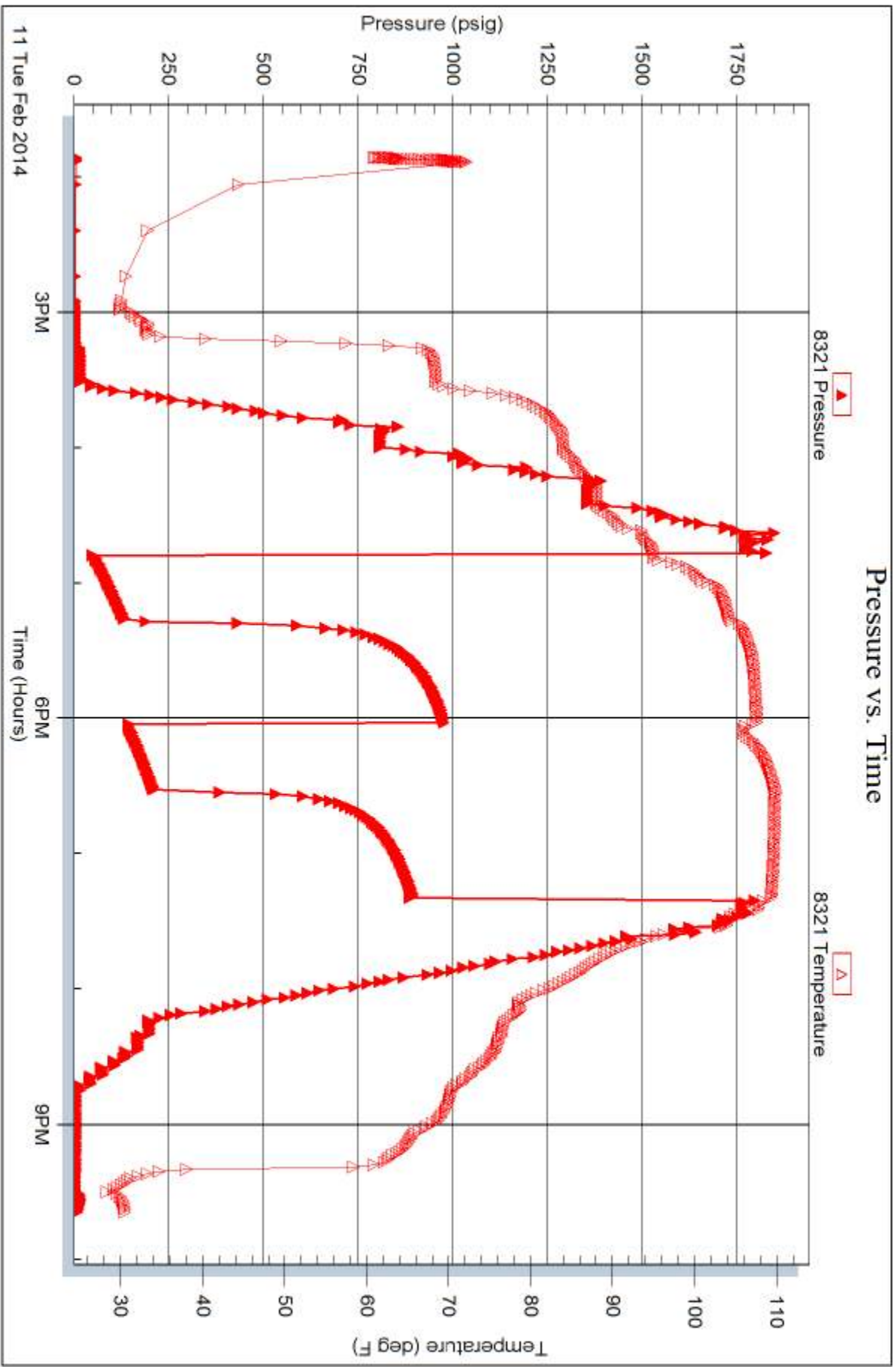
Printed: 2014.02.14 @ 14:43:47

Serial #: 8321

Outside H&C Oil Operating, Inc.

New ell #23-1

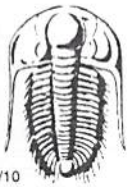
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 54003

Printed: 2014.02.14 @ 14:43:48



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54001

Well Name & No. Newell #23-1 Test No. 1 Date 2/9/14  
 Company HOC Oil Operating, Inc. Elevation 2098 KB 2091 GL  
 Address PO Box 86 Plainville, KS 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #3  
 Location: Sec. 23 Twp. 8S Rge. 21w Co. Graham State KS

Interval Tested 3354-3400 Zone Tested LKC "C-D"  
 Anchor Length 46' Drill Pipe Run 3308 Mud Wt. 9.0  
 Top Packer Depth 3349 Drill Collars Run 30 Vis 47  
 Bottom Packer Depth 3354 Wt. Pipe Run --- WL 5.8  
 Total Depth 3400 Chlorides 1,000 ppm System LCM 2#

Blow Description IF - BOB 1 1/2 mins  
ISI - No blow  
FF - BOB 1 1/2 mins  
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1375</u>	<u>MW</u>			<u>90</u>	<u>10</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 1375 BHT 109° Gravity --- API RW .18 @ 13 °F Chlorides 100,000 ppm

(A) Initial Hydrostatic 1656  Test 1150 T-On Location 1130  
 (B) First Initial Flow 27  Jars --- T-Started 1149  
 (C) First Final Flow 425  Safety Joint --- T-Open 1547  
 (D) Initial Shut-In 1197  Circ Sub --- T-Pulled 1817  
 (E) Second Initial Flow 438  Hourly Standby --- T-Out 2050  
 (F) Second Final Flow 665  Mileage 106 RT 164.30  
 (G) Final Shut-In 1179  Sampler ---  
 (H) Final Hydrostatic 1617  Straddle ---  Ruined Shale Packer ---

Initial Open 30  Shale Packer ---  Ruined Packer ---  
 Initial Shut-In 45  Extra Packer ---  Extra Copies ---  
 Final Flow 30  Extra Recorder --- Sub Total 0  
 Final Shut-In 45  Day Standby --- Total 1314.30  
 Accessibility --- MP/DST Disc't ---  
 Sub Total 1314.30

Approved By \_\_\_\_\_ Our Representative Brennan L

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. 54002

Well Name & No. Newell #23-1 Test No. 2 Date 2/10/14  
 Company A+C Oil Operating, Inc. Elevation 2098 KB 2091 GL  
 Address PO Box 86 Plainville, KS 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle 3  
 Location: Sec. 23 Twp. 8S Rge. 21W Co. Graham State KS

Interval Tested 3444-3532 Zone Tested LKC "H-K"  
 Anchor Length 88' Drill Pipe Run 3401 Mud Wt. 9.1  
 Top Packer Depth 3439 Drill Collars Run 30 Vis 47  
 Bottom Packer Depth 3444 Wt. Pipe Run --- WL 5.8  
 Total Depth 3532 Chlorides 1,500 ppm System LCM 2#

Blow Description IF-Built slowly to 2"  
ISI- No Blow  
FF-Built to 1/2"  
FSI- No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>M</u>				

Rec Total 30' BHT 96° Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic <u>1737</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1715</u>
(B) First Initial Flow <u>34</u>	<input type="checkbox"/> Jars <u>---</u>	T-Started <u>1744</u>
(C) First Final Flow <u>46</u>	<input type="checkbox"/> Safety Joint <u>---</u>	T-Open <u>2006</u>
(D) Initial Shut-In <u>884</u>	<input type="checkbox"/> Circ Sub <u>---</u>	T-Pulled <u>2206</u>
(E) Second Initial Flow <u>44</u>	<input type="checkbox"/> Hourly Standby <u>---</u>	T-Out <u>0045</u>
(F) Second Final Flow <u>47</u>	<input checked="" type="checkbox"/> Mileage <u>106 RT</u> 164.30	Comments <u>---</u>
(G) Final Shut-In <u>786</u>	<input type="checkbox"/> Sampler <u>---</u>	
(H) Final Hydrostatic <u>1693</u>	<input type="checkbox"/> Straddle <u>---</u>	<input type="checkbox"/> Ruined Shale Packer <u>---</u>

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

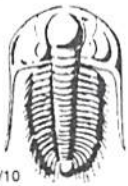
Shale Packer ---  
 Extra Packer ---  
 Extra Recorder ---  
 Day Standby ---  
 Accessibility ---

Sub Total 1314.30

Sub Total 1314.30

Approved By \_\_\_\_\_ Our Representative Bramman L

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. 54003

Well Name & No. Newell # 23-1 Test No. 3 Date 2/11/14  
 Company A+C Oil Operations, Inc. Elevation 2098 KB 2091 GL  
 Address PO Box 86 Plainville, KS 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle 3  
 Location: Sec. 23 Twp. 8s Rge. 21w Co. Graham State KS

Interval Tested 3611-3643 Zone Tested Arbuckle  
 Anchor Length 32' Drill Pipe Run 3590 Mud Wt. 9.2  
 Top Packer Depth 3606 Drill Collars Run 30 Vis 52  
 Bottom Packer Depth 3611 Wt. Pipe Run --- WL 6.0  
 Total Depth 3643 Chlorides 1400 ppm System LCM 2#

Blow Description IF-BOB 4mins  
ISI - Steady surface blow  
FF-BOB 6mins  
FSI - Surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>560</u>	<u>60</u>	<u>20</u>	<u>80</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 560' BHT 109° Gravity 34 API RW --- @ ---° F Chlorides --- ppm

(A) Initial Hydrostatic <u>1828</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1334</u>
(B) First Initial Flow <u>57</u>	<input type="checkbox"/> Jars	T-Started <u>1351</u>
(C) First Final Flow <u>137</u>	<input type="checkbox"/> Safety Joint	T-Open <u>1647</u>
(D) Initial Shut-In <u>967</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1917</u>
(E) Second Initial Flow <u>134</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2138</u>
(F) Second Final Flow <u>208</u>	<input checked="" type="checkbox"/> Mileage <u>106 RT</u> 328.60	Comments <u>loaded tools 2/12 17:30</u>
(G) Final Shut-In <u>886</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1785</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

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

Sub Total 1478.60

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

Approved By \_\_\_\_\_ Our Representative Brannan L

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