



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

### **Bakel #30-2**

### **30-9n-24w Graham,KS**

Start Date: 2014.02.25 @ 23:11:38

End Date: 2014.02.26 @ 06:02:47

Job Ticket #: 56115                      DST #: 1

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

Printed: 2014.03.04 @ 10:30:19



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56115

**DST#: 1**

ATTN: Marc Downing

Test Start: 2014.02.25 @ 23:11:38

## GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:17:38

Time Test Ended: 06:02:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Tate Lang

Unit No: 49

**Interval: 3910.00 ft (KB) To 3931.00 ft (KB) (TVD)**

Reference Elevations: 2565.00 ft (KB)

Total Depth: 3931.00 ft (KB) (TVD)

2558.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

**Serial #: 8898 Outside**

Press@RunDepth: 265.98 psig @ 3913.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.25

End Date:

2014.02.26

Last Calib.:

2014.02.26

Start Time: 23:11:39

End Time:

06:02:48

Time On Btm:

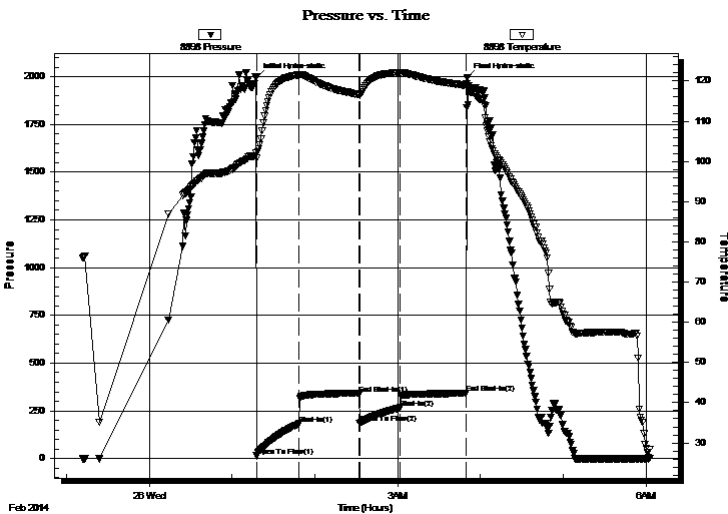
2014.02.26 @ 01:17:28

Time Off Btm:

2014.02.26 @ 03:50:38

**TEST COMMENT:** B.O.B. In 7 mins  
Dead no blow back  
B.O.B. In 12 mins  
Dead no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1993.92	102.05	Initial Hydro-static
1	13.70	100.80	Open To Flow (1)
32	182.40	121.54	Shut-In(1)
75	339.67	116.60	End Shut-In(1)
75	185.78	116.50	Open To Flow (2)
105	265.98	122.12	Shut-In(2)
153	341.27	118.90	End Shut-In(2)
154	1994.12	118.36	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
360.00	5%M 95%W Show of free oil on top	4.78
75.00	40%M 60%W	1.05

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56115

**DST#: 1**

ATTN: Marc Downing

Test Start: 2014.02.25 @ 23:11:38

## Tool Information

Drill Pipe:	Length: 3864.00 ft	Diameter: 3.80 inches	Volume: 54.20 bbl	Tool Weight: 2000.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: 54.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3910.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	41.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3895.00	
Hydraulic tool	5.00			3900.00	
Packer	5.00			3905.00	20.00 Bottom Of Top Packer
Packer	5.00			3910.00	
Stubb	1.00			3911.00	
Perforations	2.00			3913.00	
Recorder	0.00	8897	Inside	3913.00	
Recorder	0.00	8898	Outside	3913.00	
Perforations	15.00			3928.00	
Bullnose	3.00			3931.00	21.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>41.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56115

**DST#: 1**

ATTN: Marc Downing

Test Start: 2014.02.25 @ 23:11:38

## 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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
360.00	5%M 95%W Show of free oil on top	4.777
75.00	40%M 60%W	1.052

Total Length: 435.00 ft      Total Volume: 5.829 bbl

Num Fluid Samples: 0

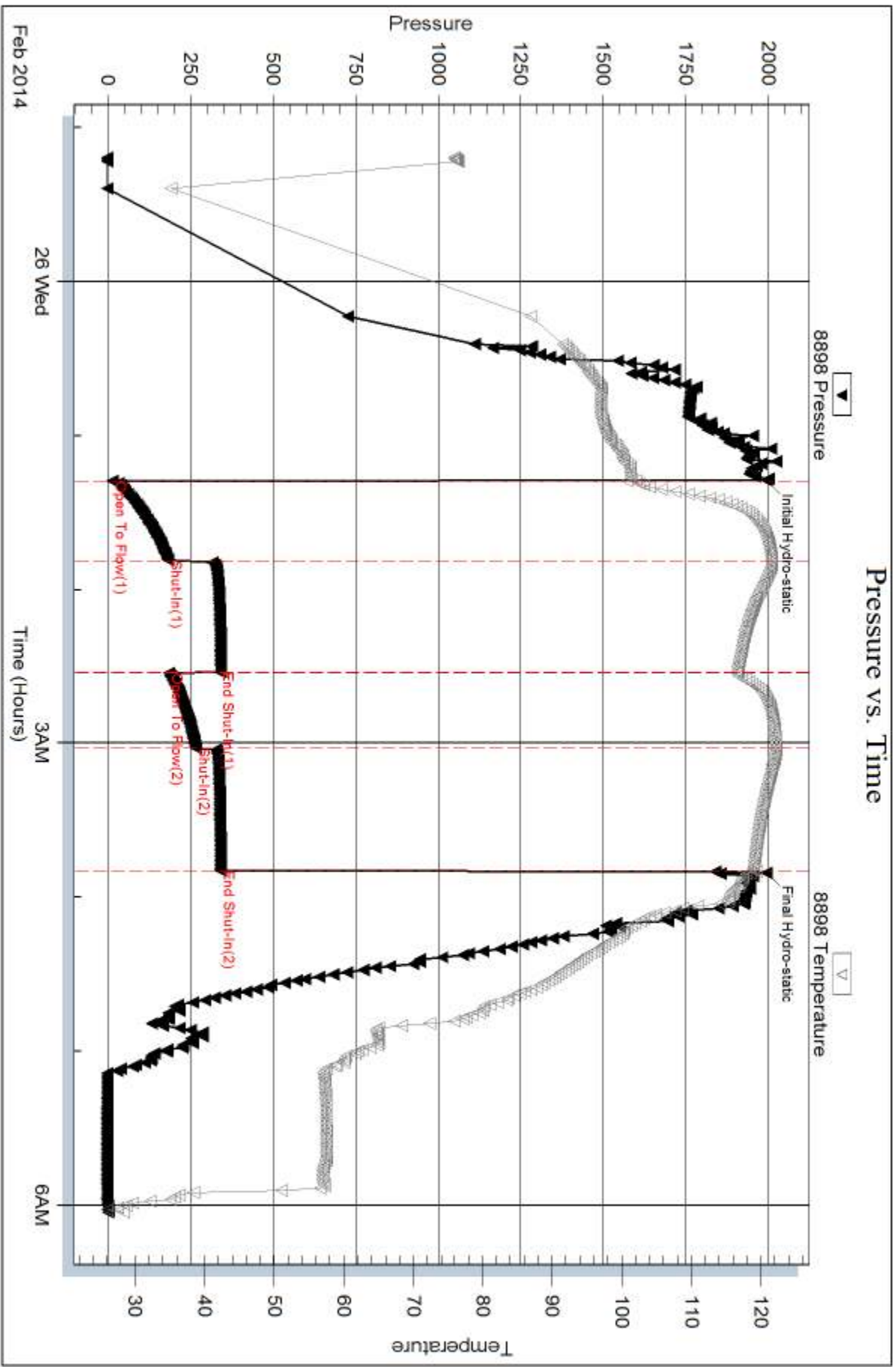
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



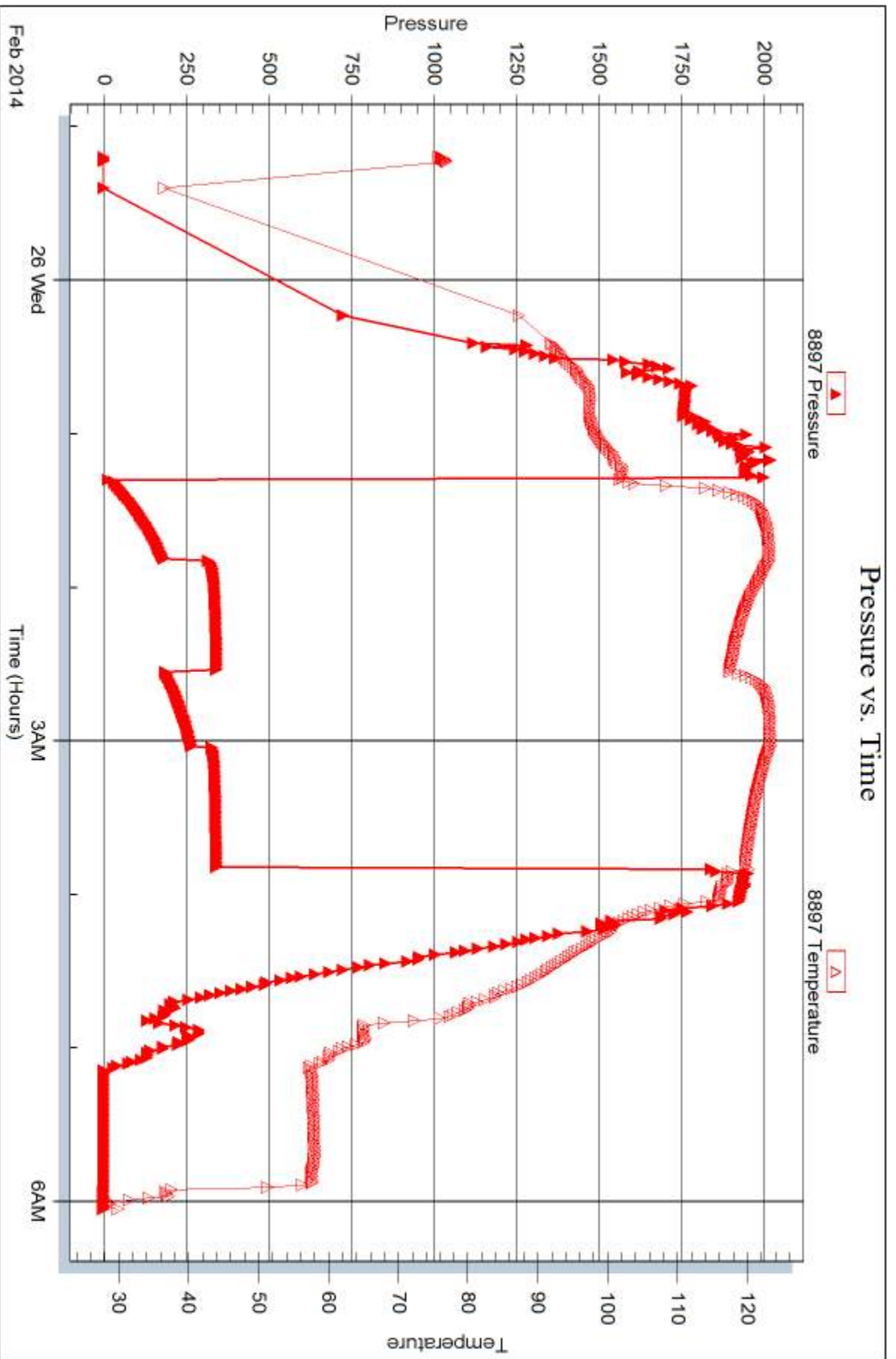
Serial #: 8897

Inside

H&C Oil Operating Inc.

Baker #30-2

DST Test Number: 1





## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

### **Bakel #30-2**

### **30-9n-24w Graham,KS**

Start Date: 2014.02.26 @ 15:27:45

End Date: 2014.02.26 @ 22:20:54

Job Ticket #: 56116                      DST #: 2

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

Printed: 2014.03.04 @ 10:29:55





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56116

**DST#: 2**

ATTN: Marc Downing

Test Start: 2014.02.26 @ 15:27:45

## GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:30:15

Time Test Ended: 22:20:54

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

**Interval: 3932.00 ft (KB) To 3956.00 ft (KB) (TVD)**

Reference Elevations: 2565.00 ft (KB)

Total Depth: 3956.00 ft (KB) (TVD)

2558.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

**Serial #: 8898 Outside**

Press@RunDepth: 119.11 psig @ 3938.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.26

End Date:

2014.02.26

Last Calib.:

2014.02.26

Start Time: 15:27:46

End Time:

22:20:55

Time On Btm:

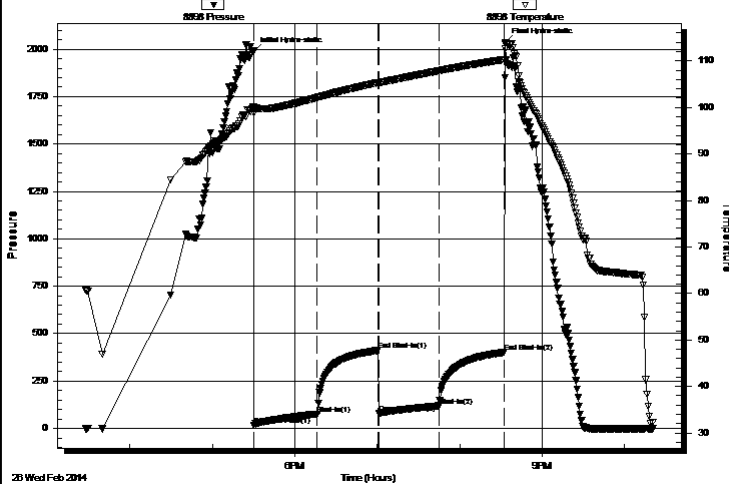
2014.02.26 @ 17:30:05

Time Off Btm:

2014.02.26 @ 20:33:05

**TEST COMMENT:** B.O.B. In 30 mins  
Dead no blow back  
Good blow built to 7"  
Dead no blow back

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1988.33	100.09	Initial Hydro-static
1	18.02	98.73	Open To Flow (1)
47	76.28	102.12	Shut-In(1)
91	411.13	105.36	End Shut-In(1)
91	79.79	105.24	Open To Flow (2)
135	119.11	107.87	Shut-In(2)
183	401.13	110.27	End Shut-In(2)
183	2036.07	113.81	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
210.00	5%M 95%W Free oil on top	2.67

## 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.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56116

**DST#: 2**

ATTN: Marc Downing

Test Start: 2014.02.26 @ 15:27:45

## Tool Information

Drill Pipe:	Length: 3896.00 ft	Diameter: 3.80 inches	Volume: 54.65 bbl	Tool Weight: 2000.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 54.80 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3932.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3917.00	
Hydraulic tool	5.00			3922.00	
Packer	5.00			3927.00	20.00 Bottom Of Top Packer
Packer	5.00			3932.00	
Stubb	1.00			3933.00	
Perforations	5.00			3938.00	
Recorder	0.00	8897	Inside	3938.00	
Recorder	0.00	8898	Outside	3938.00	
Perforations	15.00			3953.00	
Bullnose	3.00			3956.00	24.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>44.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56116

**DST#: 2**

ATTN: Marc Downing

Test Start: 2014.02.26 @ 15:27:45

## 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: 55.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
210.00	5%M 95%W Free oil on top	2.672

Total Length: 210.00 ft      Total Volume: 2.672 bbl

Num Fluid Samples: 0

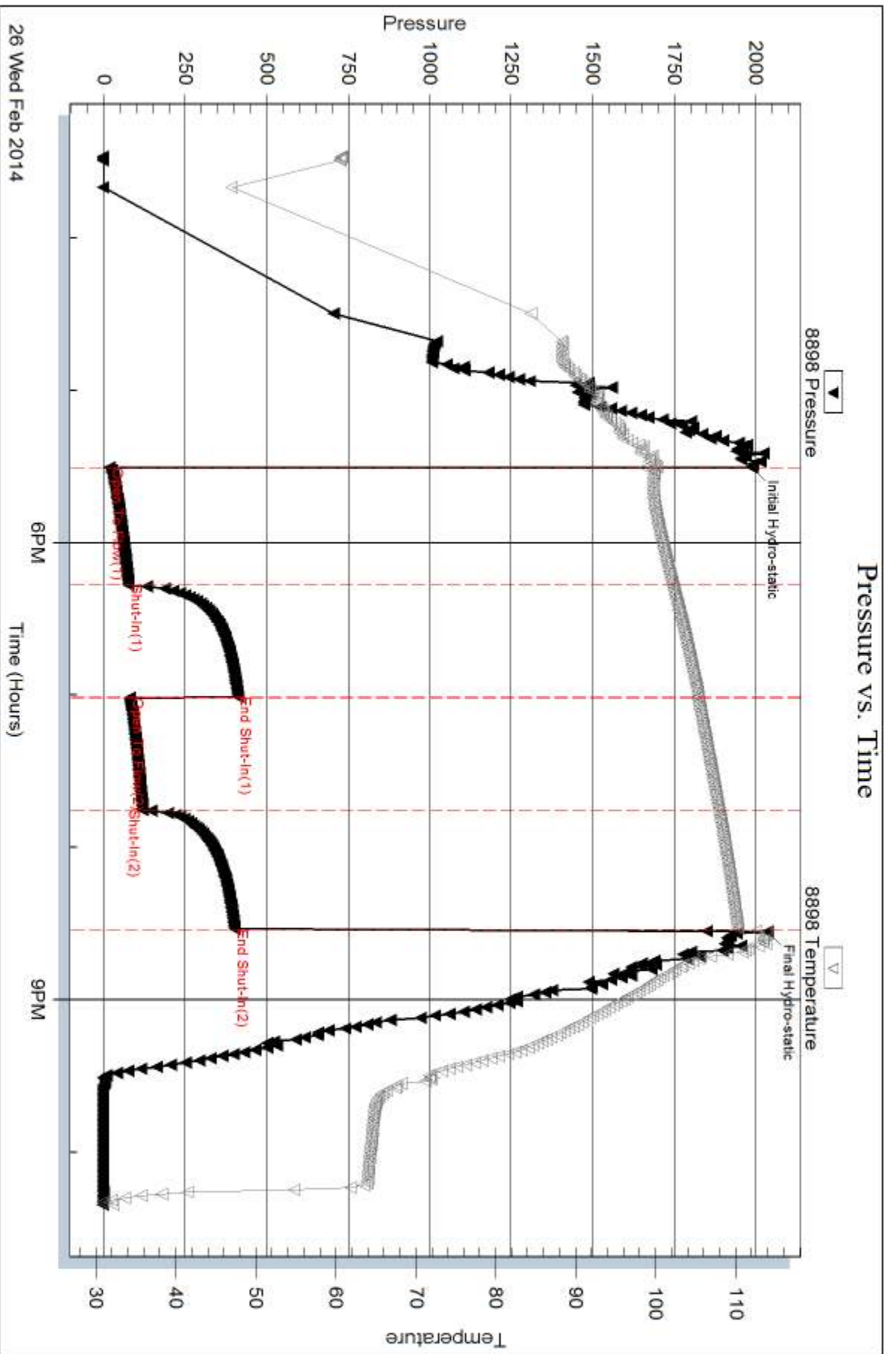
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



26 Wed Feb 2014

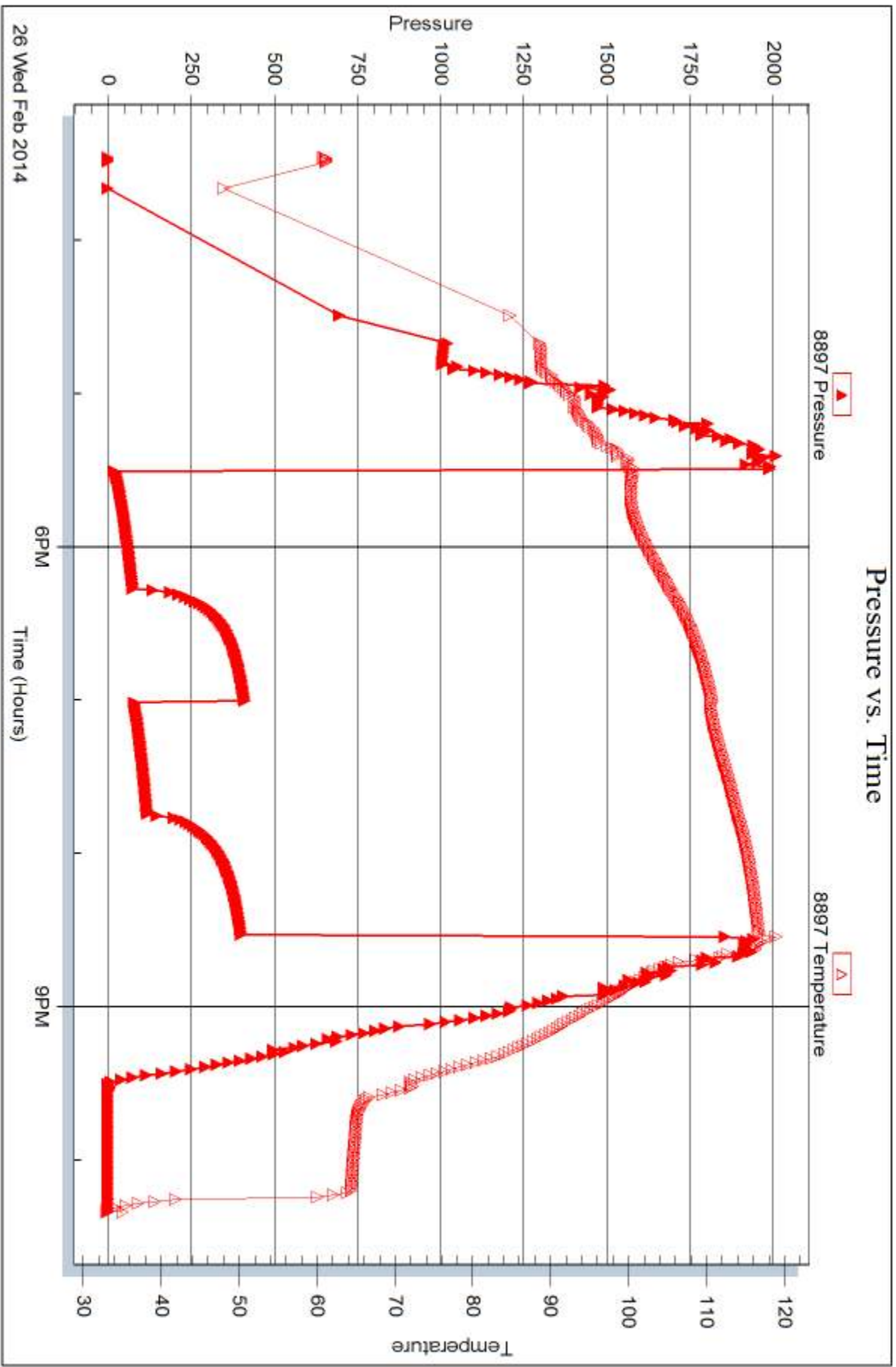
Serial #: 8897

Inside

H&C Oil Operating Inc.

Bakel #30-2

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56116

Printed: 2014.03.04 @ 10:29:57



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

### **Bakel #30-2**

### **30-9n-24w Graham,KS**

Start Date: 2014.02.27 @ 12:57:23

End Date: 2014.02.27 @ 19:23:02

Job Ticket #: 56117                      DST #: 3

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

Printed: 2014.03.04 @ 10:29:28



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56117

**DST#: 3**

ATTN: Marc Downing

Test Start: 2014.02.27 @ 12:57:23

## GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:58:23

Time Test Ended: 19:23:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

**Interval: 4014.00 ft (KB) To 4090.00 ft (KB) (TVD)**

Reference Elevations: 2565.00 ft (KB)

Total Depth: 4090.00 ft (KB) (TVD)

2558.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

**Serial #: 8898**

**Outside**

Press@RunDepth: 32.36 psig @ 4022.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.27

End Date:

2014.02.27

Last Calib.:

2014.02.27

Start Time: 12:57:24

End Time:

19:23:03

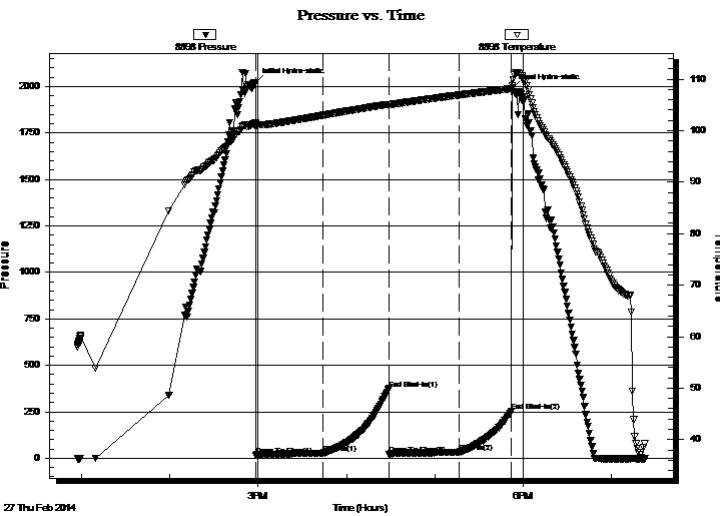
Time On Btm:

2014.02.27 @ 14:58:13

Time Off Btm:

2014.02.27 @ 17:52:32

**TEST COMMENT:** Fair blow built to 6 1/2"  
Dead no blow back  
Strong blow built to 10"  
Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2023.53	101.46	Initial Hydro-static
1	16.83	100.70	Open To Flow (1)
46	27.02	102.98	Shut-In(1)
91	374.69	105.12	End Shut-In(1)
91	19.55	105.05	Open To Flow (2)
139	32.36	106.92	Shut-In(2)
174	253.31	108.16	End Shut-In(2)
175	1990.77	108.63	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	40% 0 60%M	0.43
0.00	130 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**

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56117

**DST#: 3**

ATTN: Marc Downing

Test Start: 2014.02.27 @ 12:57:23

## Tool Information

Drill Pipe:	Length: 3990.00 ft	Diameter: 3.80 inches	Volume: 55.97 bbl	Tool Weight:	2000.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 56.12 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	56000.00 lb
Depth to Top Packer:	4014.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	76.00 ft				
Tool Length:	96.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3999.00	
Hydraulic tool	5.00			4004.00	
Packer	5.00			4009.00	20.00 Bottom Of Top Packer
Packer	5.00			4014.00	
Stubb	1.00			4015.00	
Perforations	7.00			4022.00	
Recorder	0.00	8897	Inside	4022.00	
Recorder	0.00	8898	Outside	4022.00	
Change Over Sub	1.00			4023.00	
Drill Pipe	63.00			4086.00	
Change Over Sub	1.00			4087.00	
Bullnose	3.00			4090.00	76.00 Bottom Packers & Anchor

**Total Tool Length: 96.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56117

**DST#: 3**

ATTN: Marc Downing

Test Start: 2014.02.27 @ 12:57:23

## 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:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	40%O 60%M	0.428
0.00	130 GIP	0.000

Total Length: 50.00 ft      Total Volume: 0.428 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

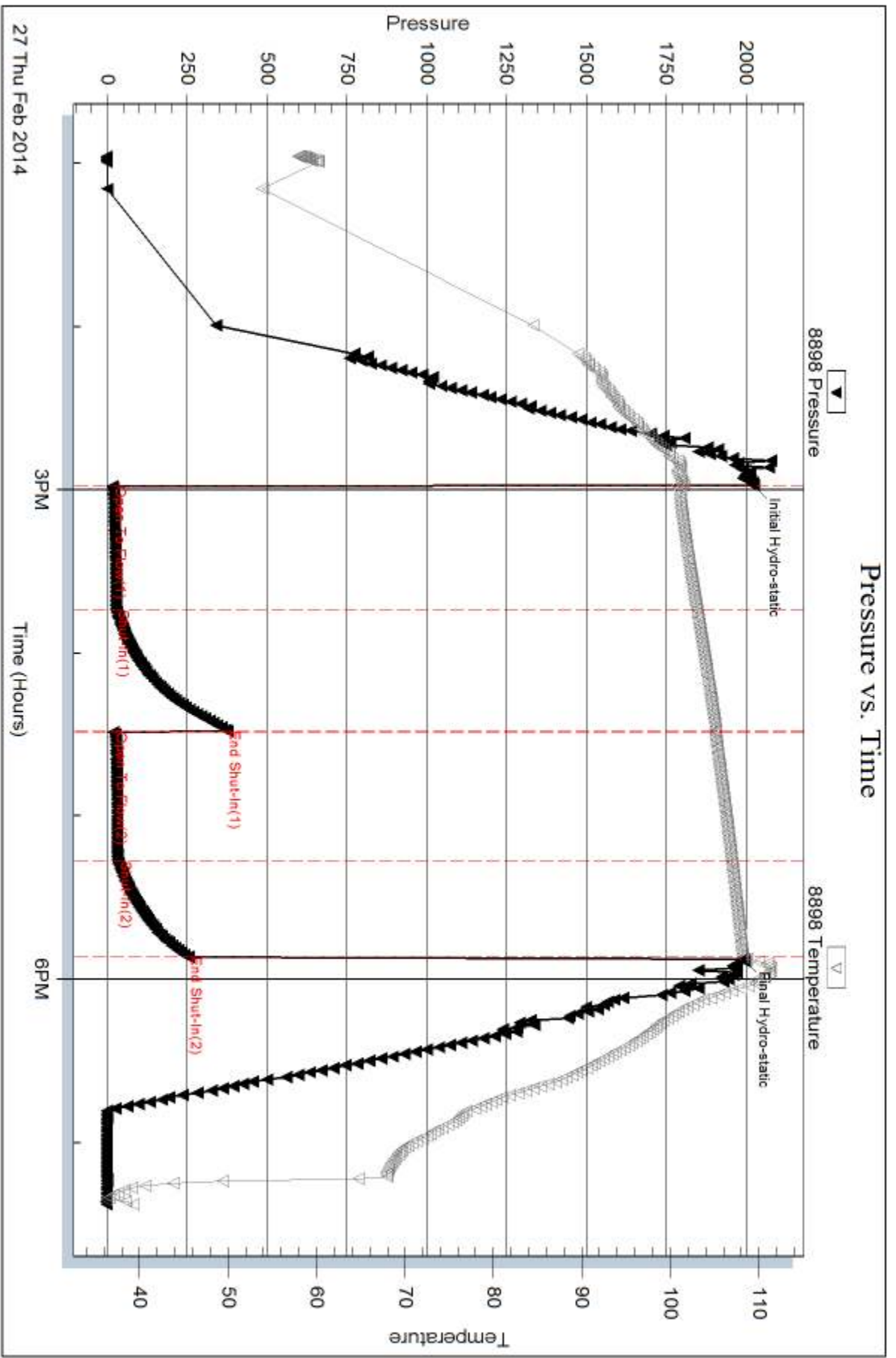
Recovery Comments:

Serial #: 8898

Outside H&C Oil Operating Inc.

Baker #30-2

DST Test Number: 3



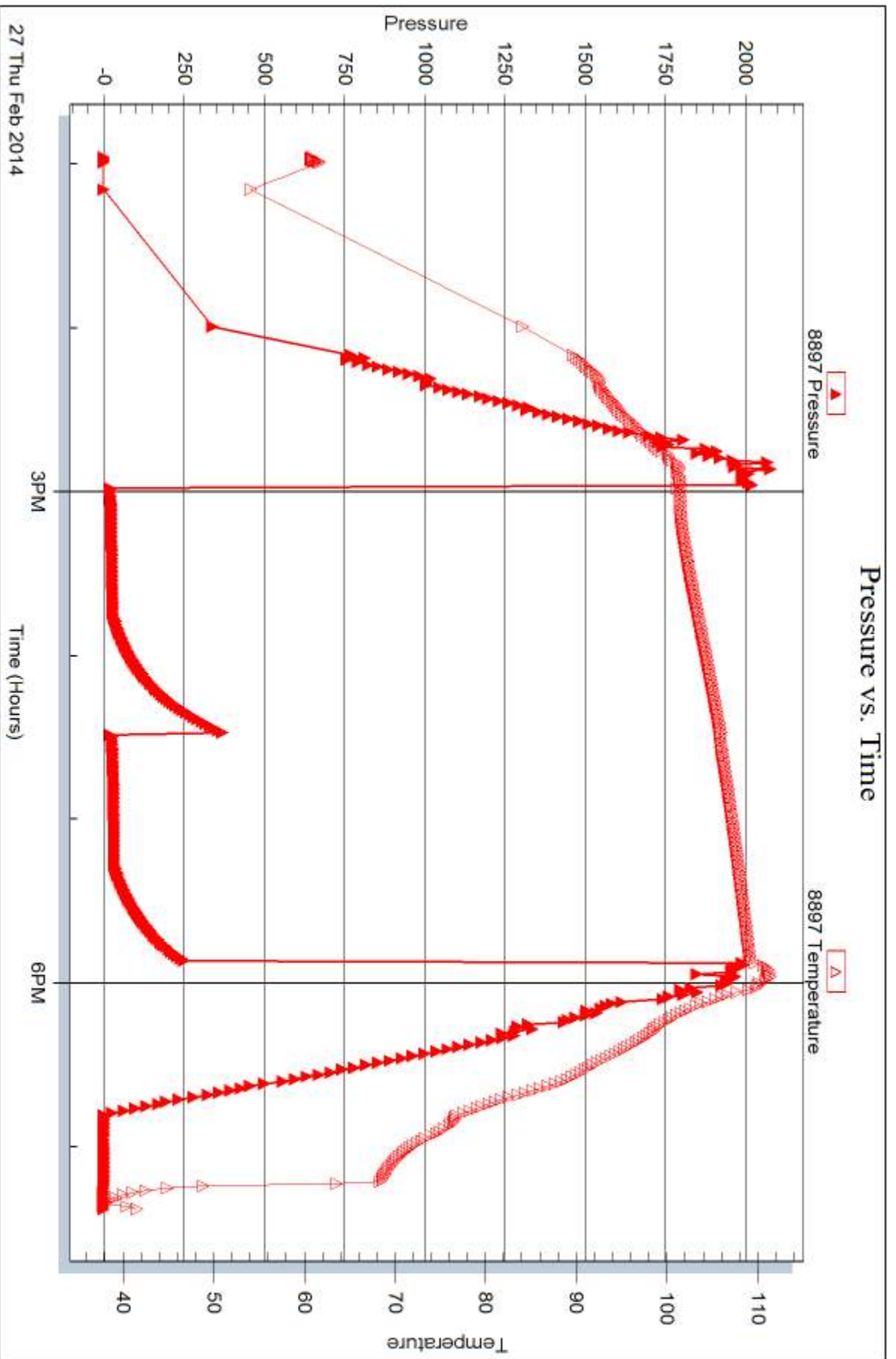
Serial #: 8897

Inside

H&C Oil Operating Inc.

Bakel #30-2

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 56117

Printed: 2014.03.04 @ 10:29:30



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

### **Bakel #30-2**

### **30-9n-24w Graham,KS**

Start Date: 2014.02.28 @ 04:10:00

End Date: 2014.02.28 @ 10:06:50

Job Ticket #: 56118                      DST #: 4

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

Printed: 2014.03.04 @ 10:09:25



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56118

**DST#: 4**

ATTN: Marc Downing

Test Start: 2014.02.28 @ 04:10:00

## GENERAL INFORMATION:

Formation: **LKC "K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:58:00

Time Test Ended: 10:06:50

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

**Interval: 4086.00 ft (KB) To 4127.00 ft (KB) (TVD)**

Reference Elevations: 2565.00 ft (KB)

Total Depth: 4127.00 ft (KB) (TVD)

2558.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

**Serial #: 8898 Outside**

Press@RunDepth: 218.64 psig @ 4091.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.28

End Date:

2014.02.28

Last Calib.:

2014.02.28

Start Time: 04:10:01

End Time:

10:06:50

Time On Btm:

2014.02.28 @ 05:57:30

Time Off Btm:

2014.02.28 @ 08:02:30

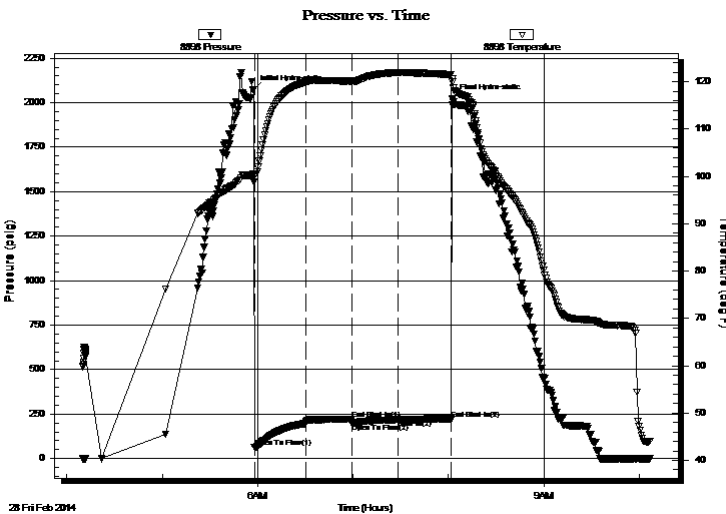
**TEST COMMENT:** Weak surface blow built to 1/2"

Dead no blow back

Weak surface blow

Dead no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2073.77	100.54	Initial Hydro-static
1	62.49	100.18	Open To Flow (1)
33	197.05	119.98	Shut-In(1)
62	220.84	120.08	End Shut-In(1)
62	199.30	120.07	Open To Flow (2)
91	218.64	121.95	Shut-In(2)
124	223.54	121.52	End Shut-In(2)
125	2024.12	119.90	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
360.00	10%M 90%W	4.78
120.00	10%O 40%M 50%W	1.68
0.00	240 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**

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56118

**DST#: 4**

ATTN: Marc Downing

Test Start: 2014.02.28 @ 04:10:00

## Tool Information

Drill Pipe:	Length: 4054.00 ft	Diameter: 3.80 inches	Volume: 56.87 bbl	Tool Weight: 2000.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 57.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4086.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4071.00	
Hydraulic tool	5.00			4076.00	
Packer	5.00			4081.00	20.00 Bottom Of Top Packer
Packer	5.00			4086.00	
Stubb	1.00			4087.00	
Perforations	4.00			4091.00	
Recorder	0.00	8897	Inside	4091.00	
Recorder	0.00	8898	Outside	4091.00	
Change Over Sub	1.00			4092.00	
Drill Pipe	31.00			4123.00	
Change Over Sub	1.00			4124.00	
Bullnose	3.00			4127.00	41.00 Bottom Packers & Anchor

**Total Tool Length: 61.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc.

**30-9n-24w Graham,KS**

PO Box 86  
Plainville KS 67663

**Bakel #30-2**

Job Ticket: 56118

**DST#: 4**

ATTN: Marc Downing

Test Start: 2014.02.28 @ 04:10:00

## 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:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
360.00	10%M 90%W	4.777
120.00	10%O 40%M 50%W	1.683
0.00	240 GIP	0.000

Total Length: 480.00 ft      Total Volume: 6.460 bbl

Num Fluid Samples: 0

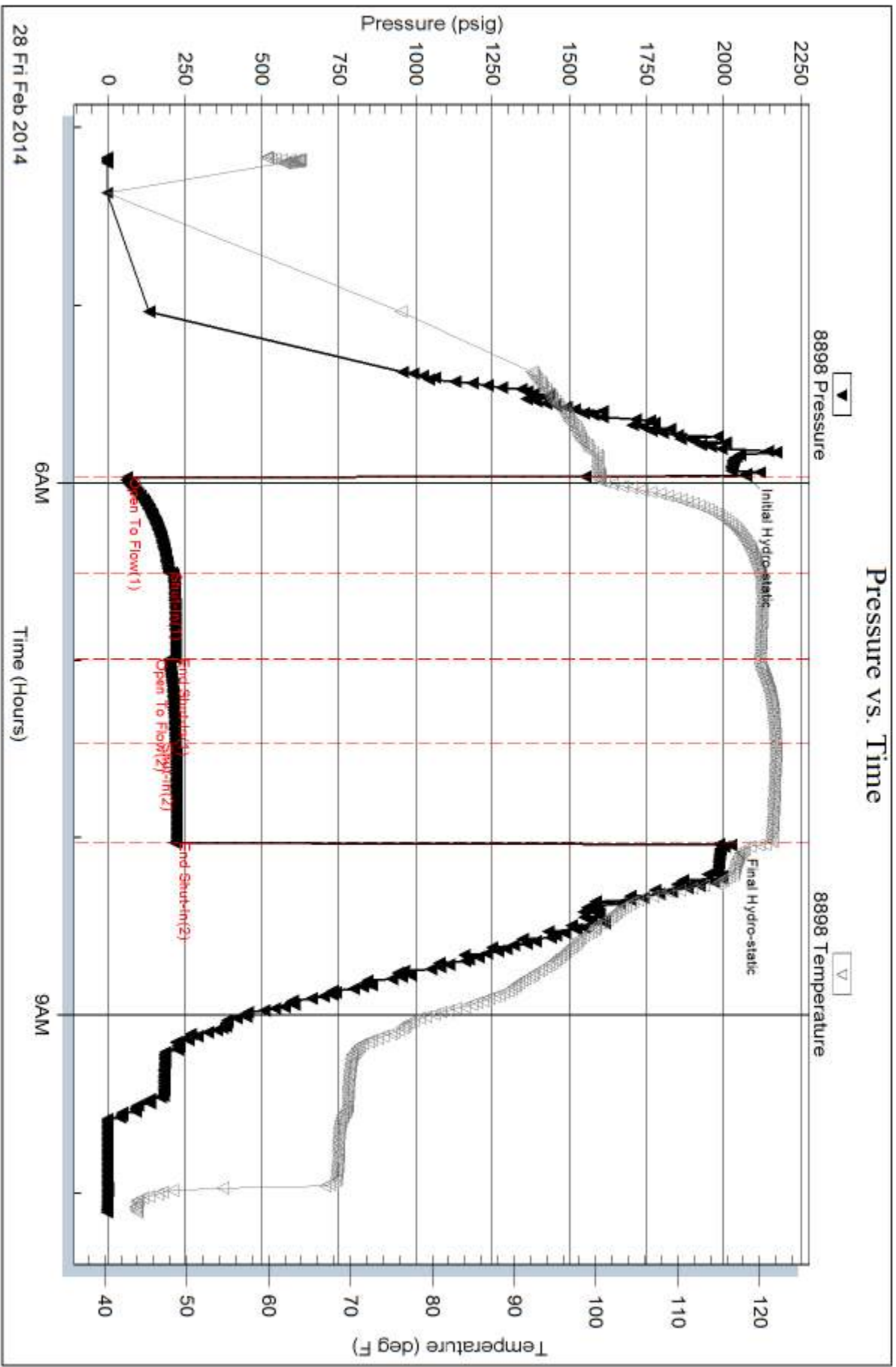
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



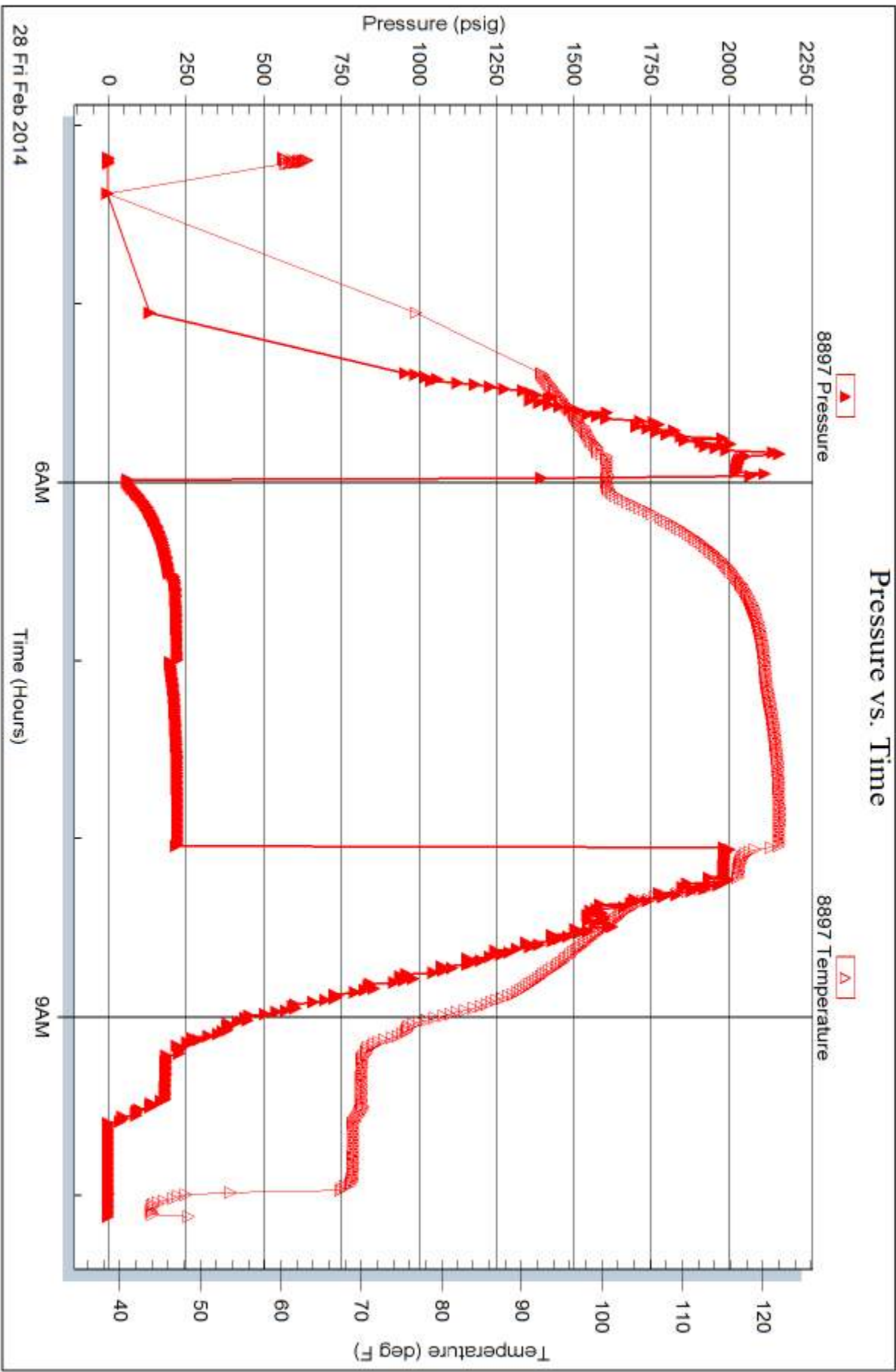
Serial #: 8897

Inside

H&C Oil Operating Inc.

Bakel #30-2

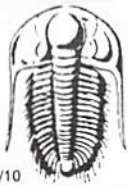
DST Test Number: 4



Tribble Testing, Inc

Ref. No: 56118

Printed: 2014.03.04 @ 10:09:27



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56115

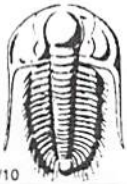
Well Name & No. Baker #30-2 Test No. 1 Date 2-25-14  
 Company H&C Oil Operating Inc Elevation 2565 KB 2538 GL  
 Address PO Box 86 Plainville KS 67228 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 30 Twp. 9W Rge. 24W Co. Graham State KS

Interval Tested 3910 3931 Zone Tested LKC 11C 11  
 Anchor Length 21 Drill Pipe Run 3864 Mud Wt. 9.0  
 Top Packer Depth 3906 Drill Collars Run 30 Vis 58  
 Bottom Packer Depth 3910 Wt. Pipe Run 0 WL 60  
 Total Depth 3931 Chlorides 1100 ppm System LCM 2#  
 Blow Description B.O.B. In 7mias  
Dead No blow  
B.O.B. In 12mias  
Dead No blow

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>75</u>	Feet of <u>MLW Free Oil On top</u>			<u>60</u>	<u>40</u>
Rec <u>3600</u>	Feet of <u>SMCW</u>			<u>95</u>	<u>5</u>
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 435 BHT 122 Gravity \_\_\_\_\_ API RW 41 @ 20 ° F Chlorides 65000 ppm  
 (A) Initial Hydrostatic 1994  Test 1150 T-On Location 21:00  
 (B) First Initial Flow 14  Jars \_\_\_\_\_ T-Started 23:11  
 (C) First Final Flow 182  Safety Joint \_\_\_\_\_ T-Open 01:17  
 (D) Initial Shut-In 340  Circ Sub \_\_\_\_\_ T-Pulled 02:47  
 (E) Second Initial Flow 186  Hourly Standby \_\_\_\_\_ T-Out 06:03  
 (F) Second Final Flow 266  Mileage 20 R/T 186 Comments \_\_\_\_\_  
 (G) Final Shut-In 341  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1994  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1336  
 Final Flow 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 45 Sub Total 1336

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. **56116**

4/10

Well Name & No. Baker #30-2 Test No. 2 Date 2-26-14  
 Company H+C Oil Operating Inc Elevation 2565 KB 2558 GL  
 Address PO Box 86 Plainville KS 67128 (67126)  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 30 Twp. 9N Rge. 24W Co. Graham State KS

Interval Tested 3932 3956 Zone Tested LKC "D" "  
 Anchor Length 24 Drill Pipe Run 3896 Mud Wt. 9.1  
 Top Packer Depth 3928 Drill Collars Run 30 Vis 55  
 Bottom Packer Depth 3932 Wt. Pipe Run 0 WL 6.0  
 Total Depth 3956 Chlorides 1500 ppm System LCM 2#

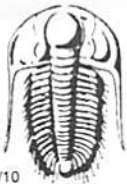
Blow Description B.O.B. IN 30 mins  
Dead no blow back  
Good blow built to 7 in  
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>210</u>	Feet of <u>SMCW</u>			<u>95</u>	<u>5</u>

Rec Total 210 BHT 113 Gravity \_\_\_\_\_ API RW 200 @ 40° F Chlorides 55000 ppm  
 (A) Initial Hydrostatic 1988  Test 1150 T-On Location 14:45  
 (B) First Initial Flow 18  Jars \_\_\_\_\_ T-Started 15:27  
 (C) First Final Flow 76  Safety Joint \_\_\_\_\_ T-Open 17:30  
 (D) Initial Shut-In 411  Circ Sub \_\_\_\_\_ T-Pulled 20:30  
 (E) Second Initial Flow 80  Hourly Standby \_\_\_\_\_ T-Out 22:20  
 (F) Second Final Flow 169  Mileage 40 RT Wellcenter Comments \_\_\_\_\_  
 (G) Final Shut-In 401  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2036  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_

Initial Open 45  Shale Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Packer \_\_\_\_\_  
 Final Flow 45  Extra Recorder \_\_\_\_\_  
 Final Shut-In 45  Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1336

Approved By \_\_\_\_\_ Our Representative [Signature]  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56117

4/10

Well Name & No. Bakel #30-2 Test No. 3 Date 2-27-14  
 Company H+C Oil Operating Inc Elevation 2565 KB 2558 GL  
 Address PO Box 86 Plainville KS ~~67663~~ 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 30 Twp. 9N Rge. 24W Co. Graham State KS

Interval Tested 4014 4090 Zone Tested LHC H-5  
 Anchor Length 76 Drill Pipe Run 3890 Mud Wt. 9.2  
 Top Packer Depth 4010 Drill Collars Run 30 Vis 54  
 Bottom Packer Depth 4014 Wt. Pipe Run 0 WL 610  
 Total Depth 4090 Chlorides 1500 ppm System LCM 2#

Blow Description Fair blow built to 10in  
Dead No blow back  
Strong Blow built to 10in  
Dead No blow back

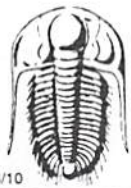
Rec	Feet of	%gas	%oil	%water	%mud
0	130 GIP				
50	OCM	40		60	

Rec Total 50 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2024  Test 1250 T-On Location 12:00  
 (B) First Initial Flow 17  Jars \_\_\_\_\_ T-Started 12:57  
 (C) First Final Flow 27  Safety Joint \_\_\_\_\_ T-Open 14:58  
 (D) Initial Shut-In 375  Circ Sub \_\_\_\_\_ T-Pulled 17:58  
 (E) Second Initial Flow 28  Hourly Standby \_\_\_\_\_ T-Out 19:23  
 (F) Second Final Flow 32  Mileage 40 R/H W. Keeney Comments \_\_\_\_\_  
 (G) Final Shut-In 253  Sampler 186 \_\_\_\_\_  
 (H) Final Hydrostatic 1991  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1436  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1436

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

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56118

Well Name & No. Bakel #30-2 Test No. 4 Date 2-28-14  
 Company HTC Oil Operating Elevation 2565 KB 2558 GL  
 Address PO Box 86 Plainville KS 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 30 Twp. 9.0 Rge. 24W Co. Graham State KS

Interval Tested 4086 4127 Zone Tested LHC "K"  
 Anchor Length 41 Drill Pipe Run 4054 Mud Wt. 9.2  
 Top Packer Depth 4082 Drill Collars Run 30 Vis 54  
 Bottom Packer Depth 4086 Wt. Pipe Run 0 WL 6.0  
 Total Depth 4127 Chlorides 1500 ppm System LCM 2#

Blow Description Weak surface flow built to 1/2 in  
Dead no blow back  
Weak surface blow  
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>OCMW</u>		<u>10</u>	<u>50</u>	<u>40</u>
<u>360</u>	<u>MCMW</u>			<u>90</u>	<u>10</u>
<u>0</u>	<u>240 GIP</u>	<u>100</u>			

Rec Total 480 BHT 122 Gravity \_\_\_\_\_ API RW 201 @ 50 °F Chlorides 53000 ppm

(A) Initial Hydrostatic 2074  Test 1250 T-On Location 03:25  
 (B) First Initial Flow 62  Jars \_\_\_\_\_ T-Started 04:10  
 (C) First Final Flow 197  Safety Joint \_\_\_\_\_ T-Open 05:58  
 (D) Initial Shut-In 221  Circ Sub \_\_\_\_\_ T-Pulled 07:58  
 (E) Second Initial Flow 199  Hourly Standby \_\_\_\_\_ T-Out 10:07  
 (F) Second Final Flow 219  Mileage 40 R/T Walkerway Comments \_\_\_\_\_  
 (G) Final Shut-In 224  Sampler 186 \_\_\_\_\_  
 (H) Final Hydrostatic 2024  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 30  Day Standby \_\_\_\_\_ Total 1436  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1436

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