



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1192902
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	-----------------------------------------

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1192902

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
----------------	-------	---------	------------	---------------------------------------------------------------------

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
-------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------



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:

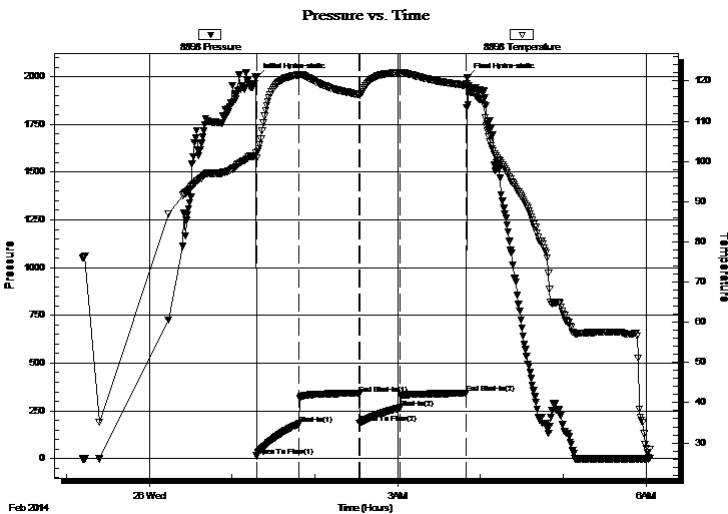
2014.02.26 @ 01:17:28

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	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
Total Tool Length:	41.00				



**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: 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 in³

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

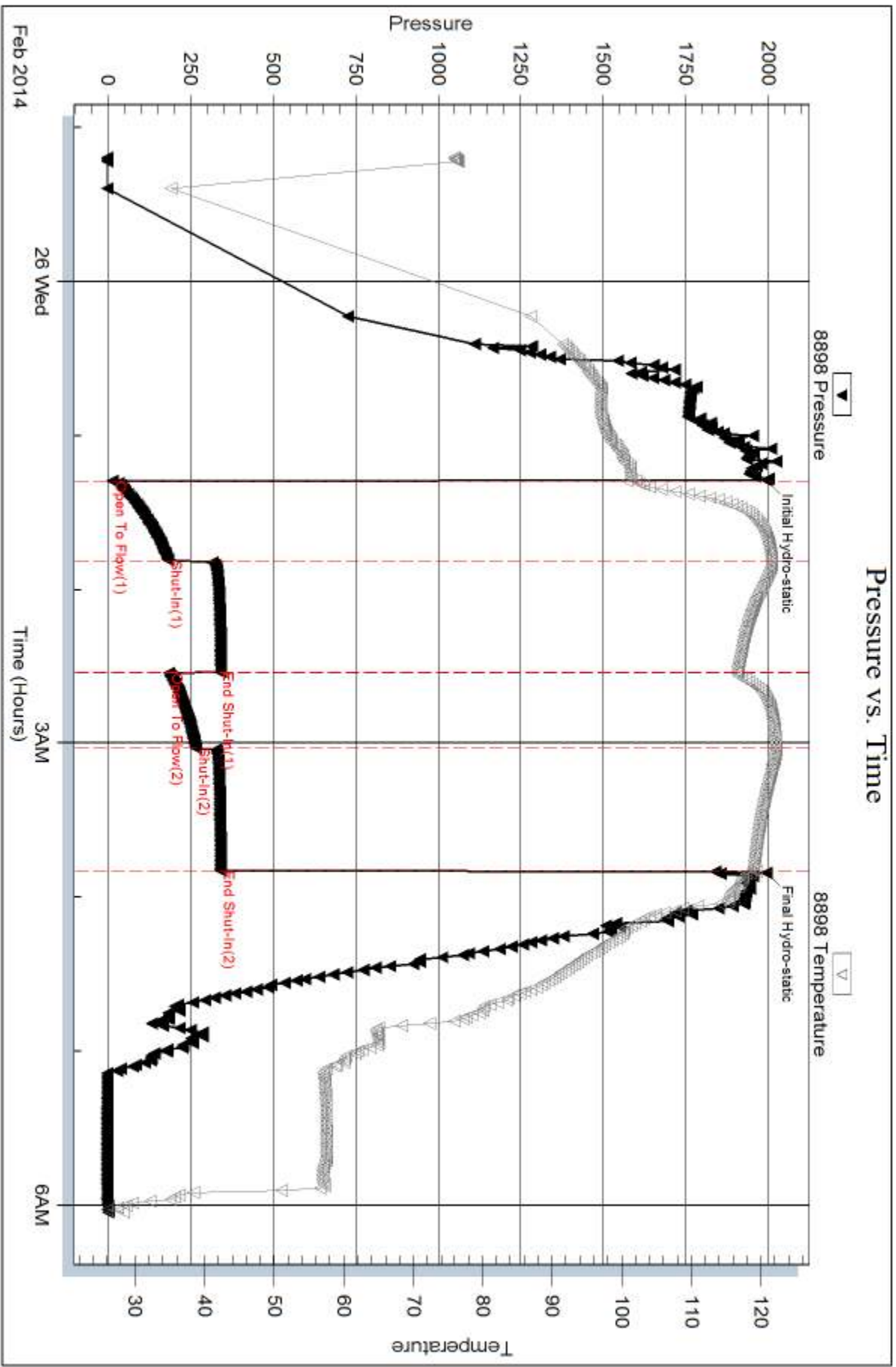
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



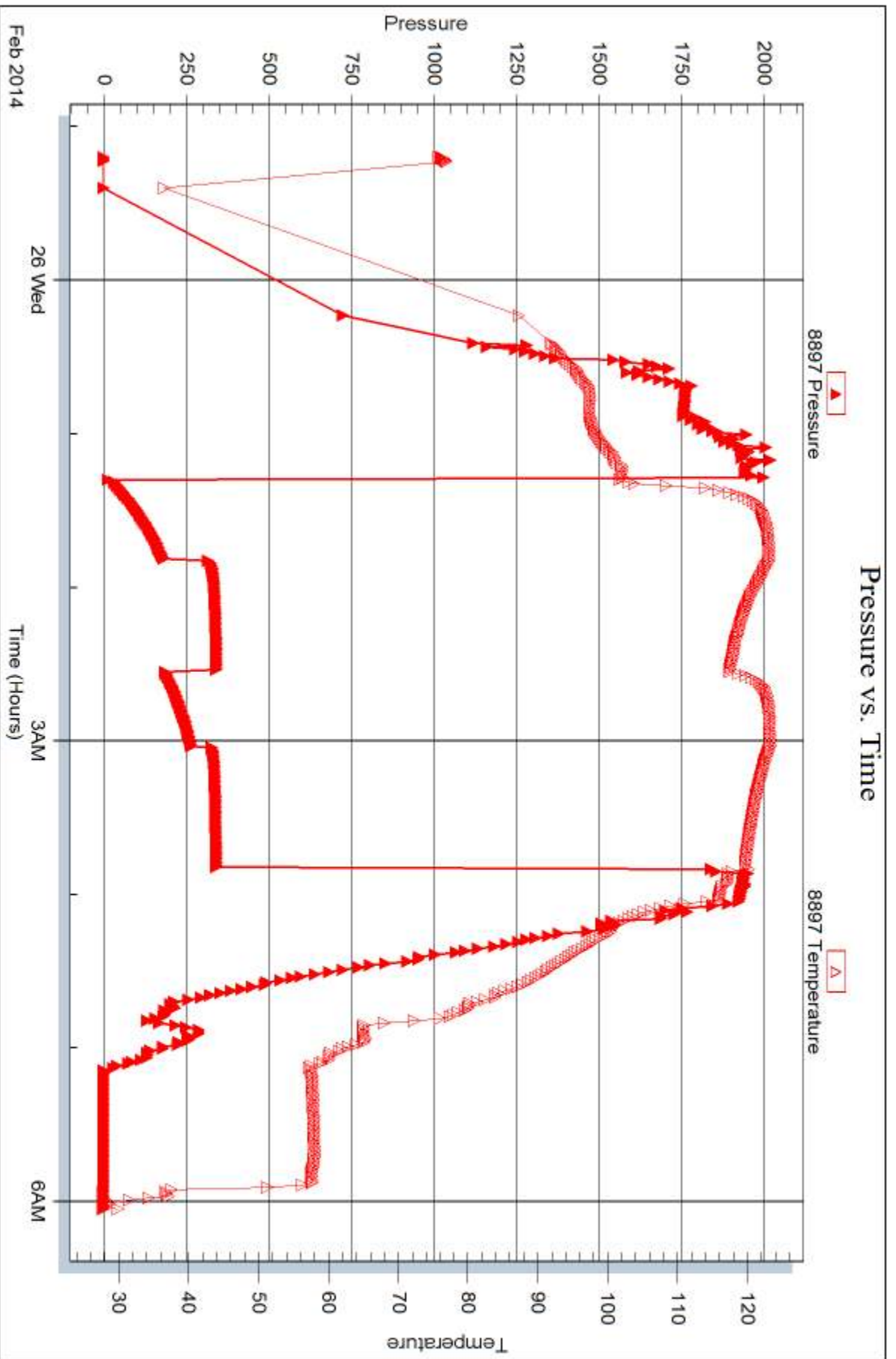
Serial #: 8897

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:

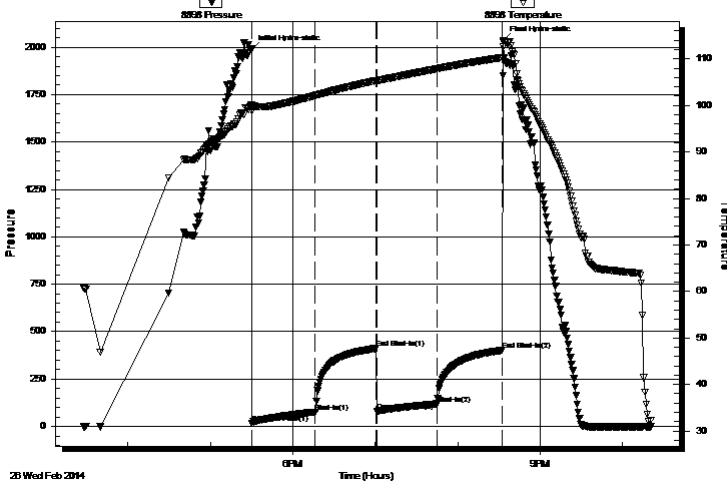
2014.02.26 @ 17:30:05

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
Total Tool Length:	44.00				



**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: 56116

DST#: 2

ATTN: Marc Downing

Test Start: 2014.02.26 @ 15:27:45

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 55.00 sec/qt

Water Loss: 5.99 in³

Resistivity: ohm.m

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

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

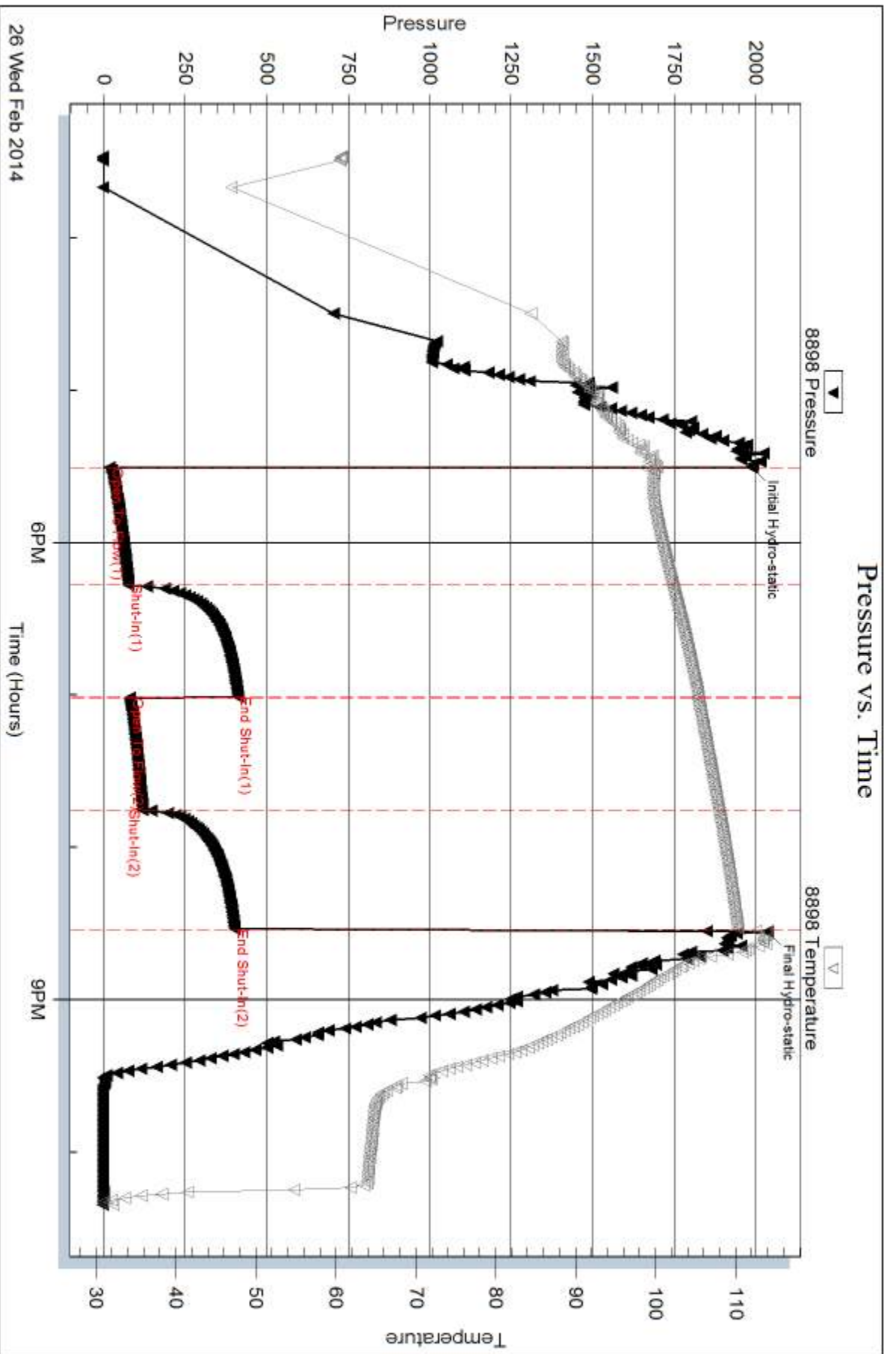
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



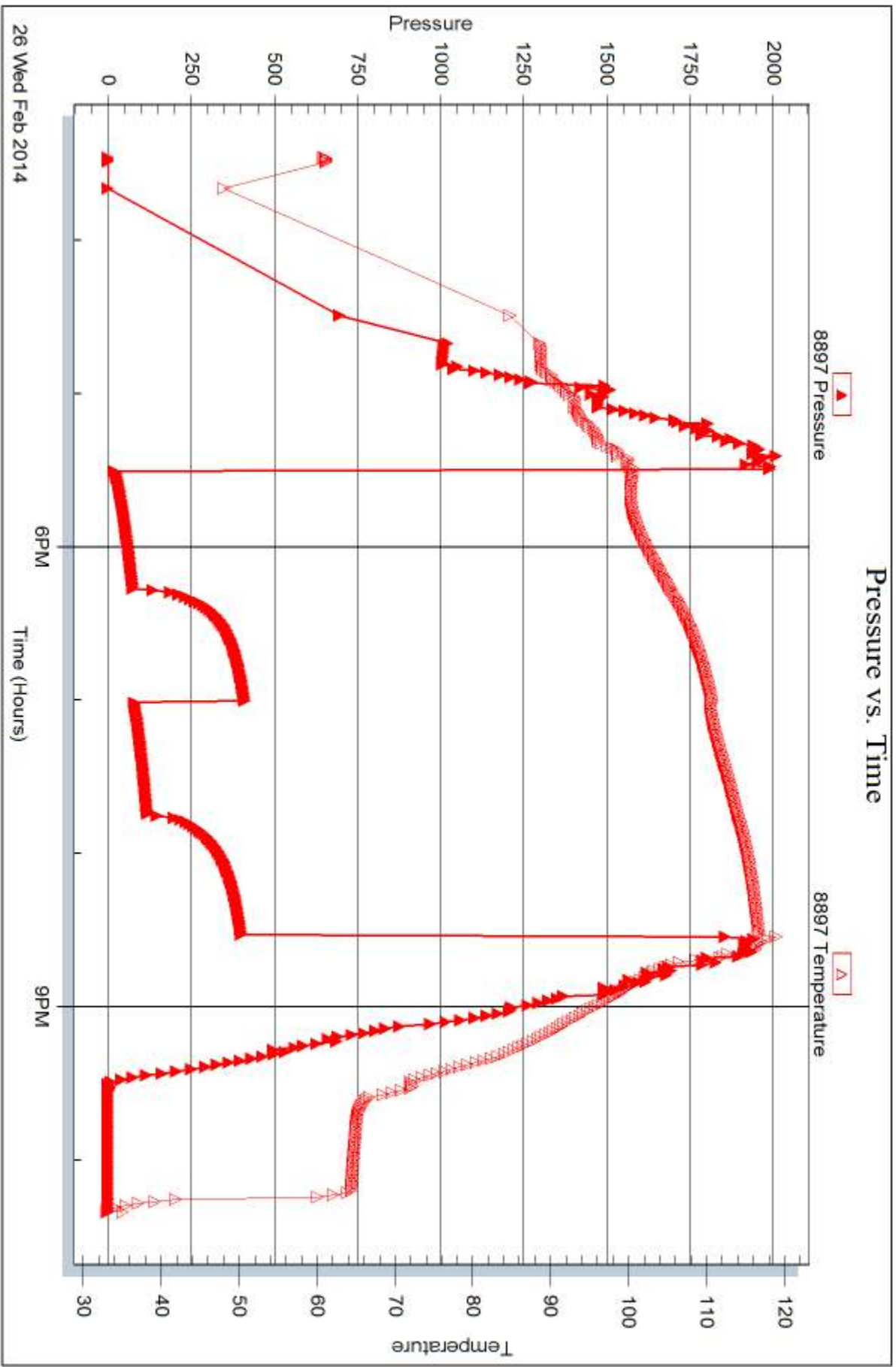
Serial #: 8897

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

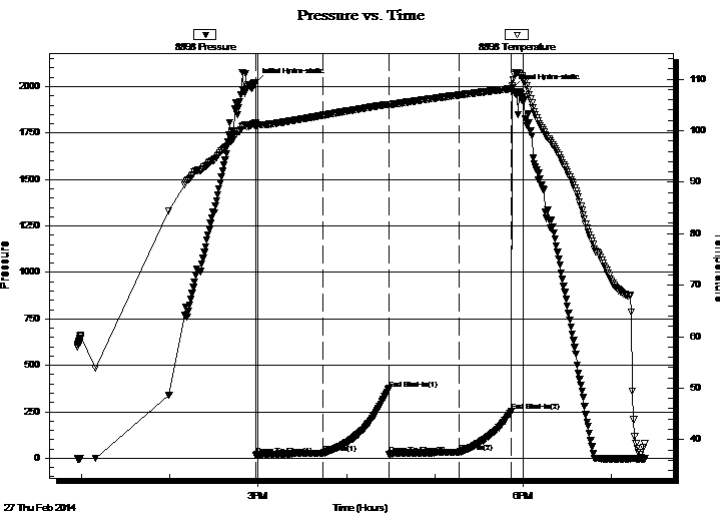
Time On Btm:

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
------------------	-------------	------------	----------	------------	----------------

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 in³

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:

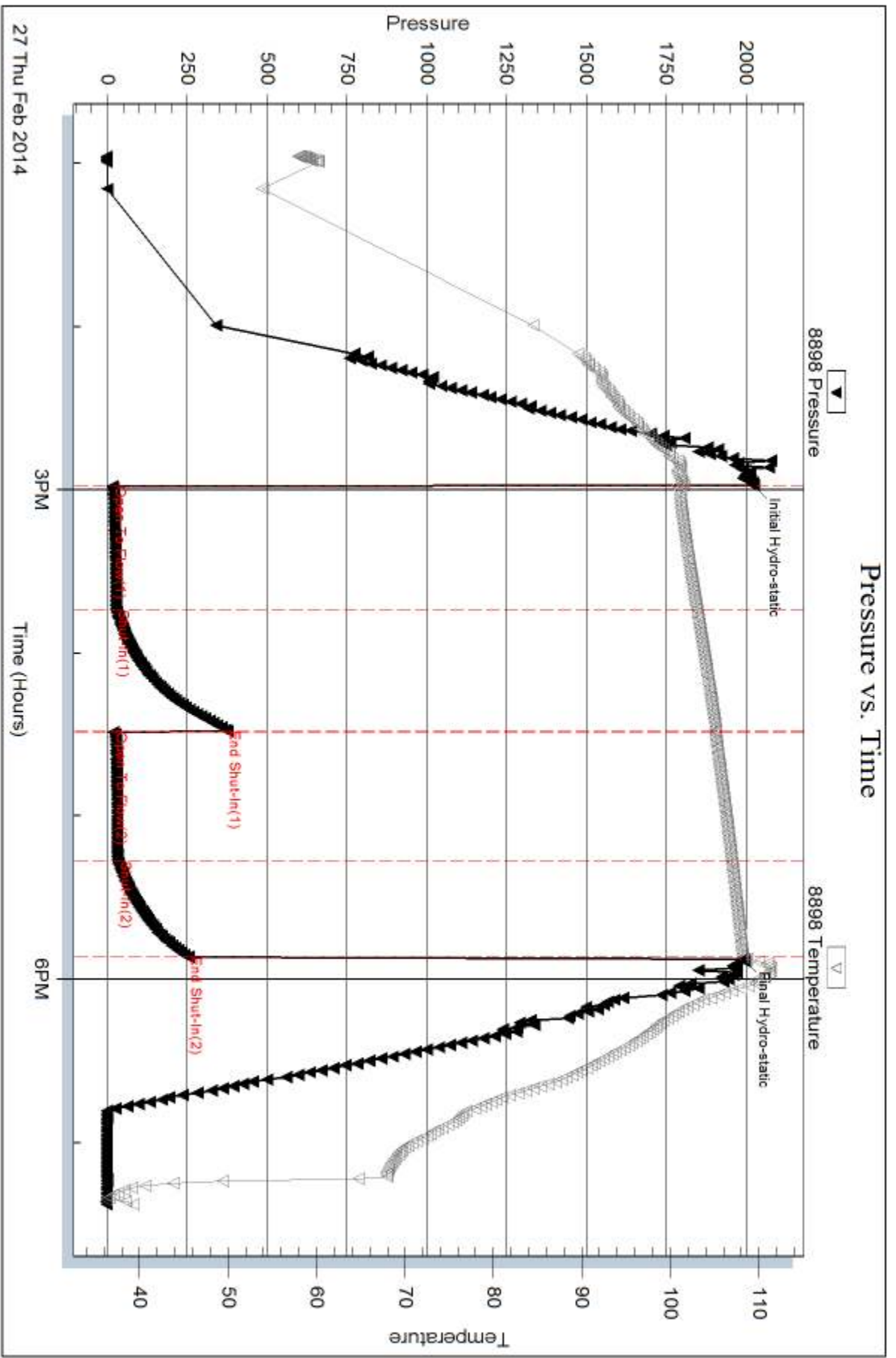
Recovery Comments:

Serial #: 8898

Outside H&C Oil Operating Inc.

Baker #30-2

DST Test Number: 3



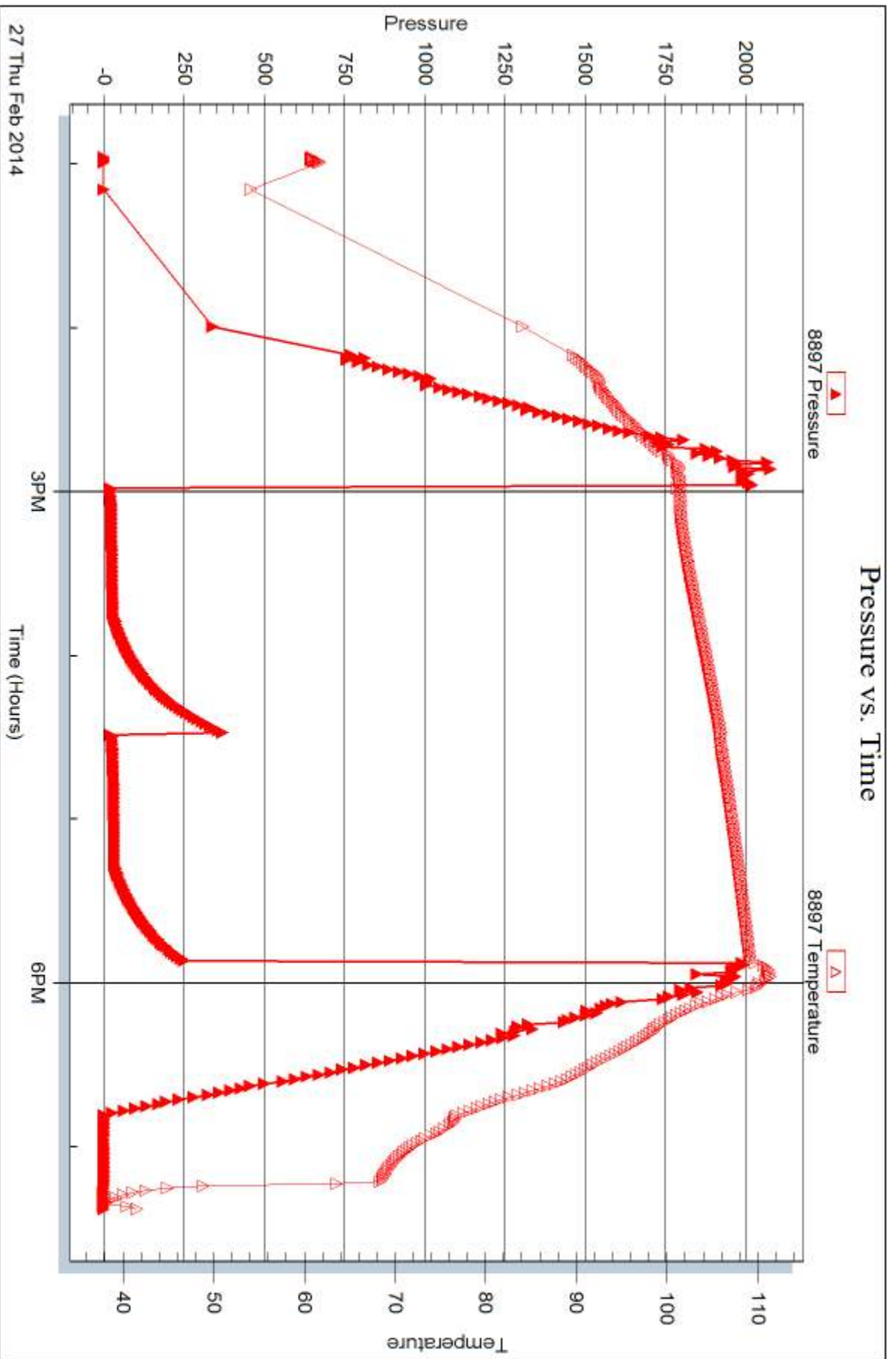
Serial #: 8897

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

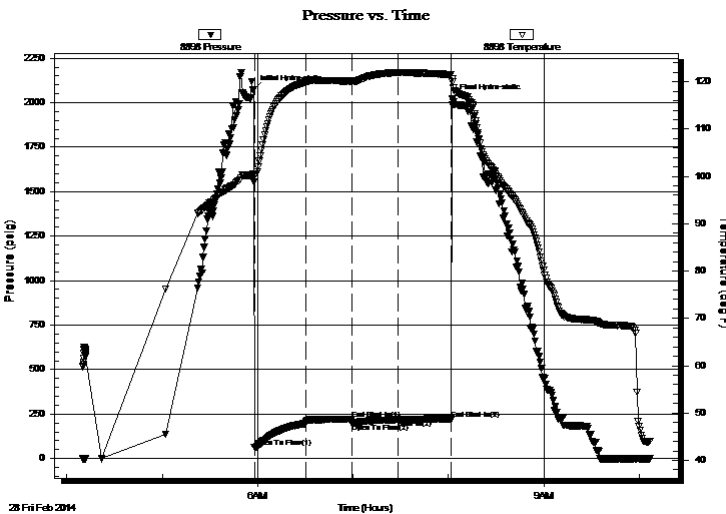
TEST COMMENT: Weak surface blow built to 1/2"

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
------------------	-------------	------------	----------	------------	----------------

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
Mud Weight: 9.00 lb/gal
Viscosity: 54.00 sec/qt
Water Loss: 5.99 in³
Resistivity: ohm.m
Salinity: 1500.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
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

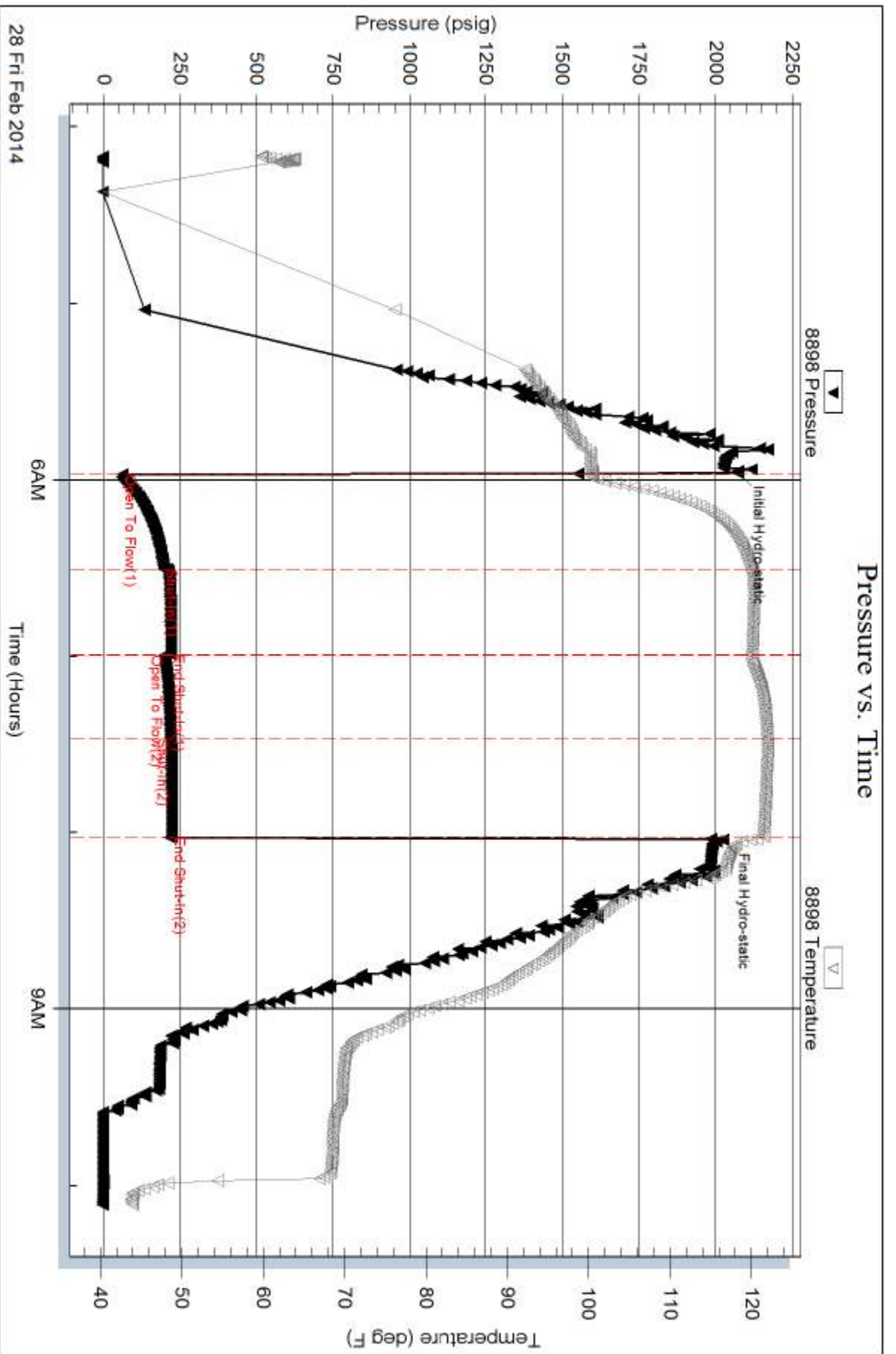
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



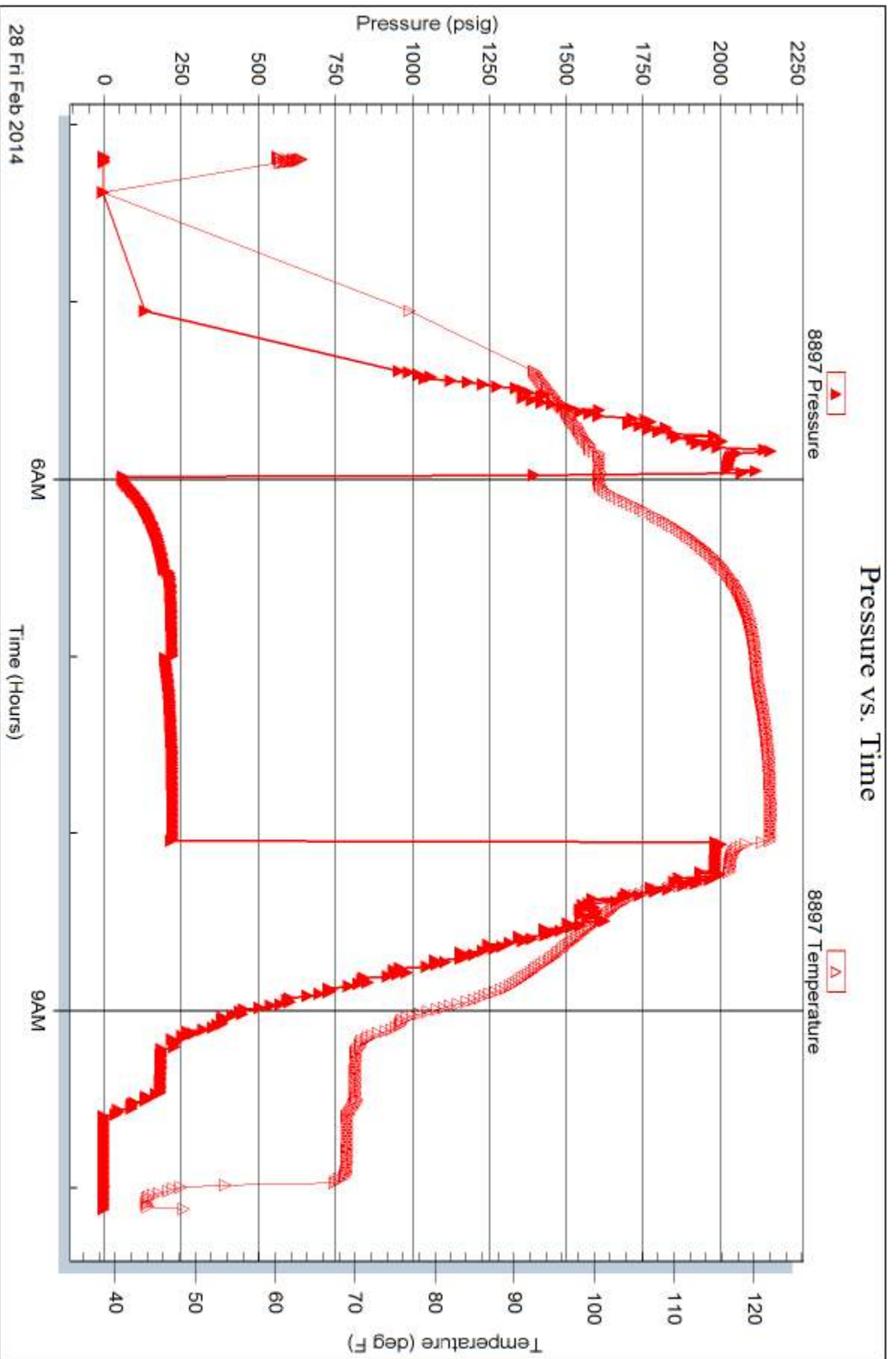
Serial #: 8897

Inside

H&C Oil Operating Inc.

Baker #30-2

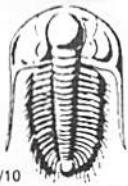
DST Test Number: 4



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

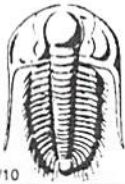
Well Name & No. Baker #30-2 Test No. 1 Date 2-25-14
 Company H&C Oil Operating Inc Elevation 2565 KB 2558 GL
 Address PO Box 86 Plainville KS 67228 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle #2
 Location: Sec. 30 Twp. 9W Rge. 24W Co. Graham State KS

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 156 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

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 2nd

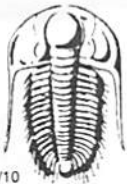
Blow Description B.O.B. IN 30 mins
Dead no blow back
Good blow built to 7 in
Dead no blow back

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 _____ Ruined Packer _____
 Initial Shut-In 45 Extra Packer _____ Extra Copies _____
 Final Flow 45 Extra Recorder _____ Sub Total 0
 Final Shut-In 45 Day Standby _____ Total 1336
 Accessibility _____ MP/DST Disc't _____
 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. 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

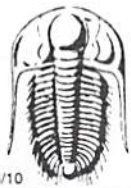
Rec	Feet of	%gas	%oil	%water	%mud
0	130 GIP				
50	OCM	40		60	

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]

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. 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 Walker Comments _____
 (G) Final Shut-In 224 Sampler 186 _____
 (H) Final Hydrostatic 2024 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

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

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.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

No. 7731

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

Date	2-22-14	Sec.	30	Twp.	9	Range	24	County	Graham	State	KS	On Location		Finish	2:45 Am
Lease	Baker														
Contractor	American Eagle #2														
Type Job	Sur face														
Hole Size	12 1/4														
Csg.	8 5/8														
Tbg. Size															
Tool															
Cement Left in Csg.	15														
Meas Line	Displace 15 3/4 BC														
Pumptrk	No.	Cemented	EQUIPMENT												
Bulktrk	No.	Helper													
Bulktrk	No.	Driver													
Bulktrk	No.	Driver													
Bulktrk	No.	Driver													
JOB SERVICES & REMARKS															
Remarks:															
Rat Hole															
Mouse Hole															
Centralizers															
Baskets															
DV or Port Collar															
	8 5/8 on bottom Est. Chulaten														
	Mix 1100 sk + Displace														
	Cement Circulation														
	FLOAT EQUIPMENT														
	Guide Shoe														
	Centralizer														
	Baskets														
	AFU Inserts														
	Float Shoe														
	Latch Down														
	Pumptrk Charge Sur face														
	Mileage 33														
	Tax														
	Discount														
	Total Charge														
Signature	Quayle Baker														

Well No. 30-2

Location Walsency Redline 10w 160 1/2 N Pinto

Owner
To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To H & C

T.D. 264

Depth 263

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 16000m 3/100 27.600

Common 160

Poz. Mix

Gel. 3

Calcium 3

Hulls

Salt

Flowseal

Kol-Seal

Mud CLR 48

CFL-117 or CD110 CAF 38

Sand

Handling 160

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Pumptrk Charge Sur face

Mileage 33

Tax

Discount

Total Charge

Signature Quayle Baker

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7165

Date	3-1-14	Sec.	30	Twp.	9	Range	24	County	Graham	State	Ks	On Location		Finish	6:00 AM		
Lease	Baked																
Contractor	American Eagle #2																
Type Job	Plug 17 3/8"																
Hole Size	T.D. 4175'																
Csg.	Depth 30.50'																
Tbg. Size	Depth																
Tool	Depth																
Cement Left in Csg.	Shoe Joint																
Meas Line	Displace 120 / mwd																
EQUIPMENT																	
Pumptrk	16	No.	Cementer	Bully												Helper	
Bulktrk	13	No.	Driver	Lannie												MA	
Bulktrk	p.u.	No.	Driver	Rick													
JOB SERVICES & REMARKS																	
Remarks:	The above was done to satisfaction and supervision of owner agent or contractor.																
Rat Hole	Flowseal 50 #																
Mouse Hole	Kol-Seal																
Centralizers	Mud CLR 48																
Baskets	CFL-117 or CD110 CAF 38																
DN or Port Collar	Sand																
2250' -	Handling 212																
1375' -	Mileage																
300' -	FLOAT EQUIPMENT																
40' -	Guide Shoe																
Rathole -	Centralizer																
	Baskets																
	AFU Inserts																
	Float Shoe																
	Latch Down																
	1 - Dog hole plug																
	Pumptrk Charge plug																
	Mileage 33																
	Tax																
	Discount																
	Total Charge																
X Signature	