



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Charles Ramsay, Marc

### **Cova Unit #27-1**

### **27-8s-22w Graham,KS**

Start Date: 2014.11.01 @ 20:51:04

End Date: 2014.11.02 @ 04:13:58

Job Ticket #: 60893                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.07 @ 09:23:11



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc

**27-8s-22w Graham,KS**

PO Box 86  
Plainville KS 67663

**Cova Unit #27-1**

Job Ticket: 60893

**DST#: 1**

ATTN: Charles Ramsay, Marc

Test Start: 2014.11.01 @ 20:51:04

## GENERAL INFORMATION:

Formation: **LKC C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:18:59

Time Test Ended: 04:13:58

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

**Interval: 3475.00 ft (KB) To 3519.00 ft (KB) (TVD)**

Reference Elevations: 2209.00 ft (KB)

Total Depth: 3519.00 ft (KB) (TVD)

2202.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8018**

**Inside**

Press@RunDepth: 172.87 psig @ 3483.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.01

End Date:

2014.11.02

Last Calib.: 2014.11.02

Start Time: 20:51:04

End Time:

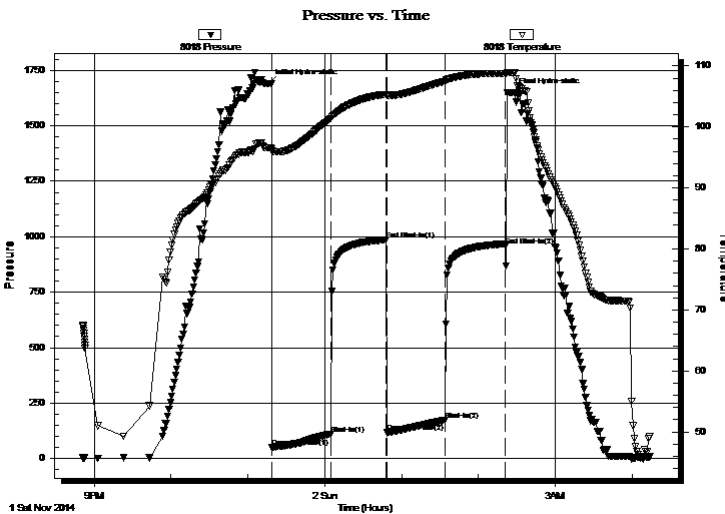
04:13:58

Time On Btm: 2014.11.01 @ 23:16:29

Time Off Btm: 2014.11.02 @ 02:26:28

**TEST COMMENT:** 45-IFP-w k to a gd bl 1/2"to 6"bl  
45-ISIP-no bl  
45-FFP-w k bl thru-out 1/4"to 3"bl  
45-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1689.65	96.57	Initial Hydro-static
3	50.10	96.01	Open To Flow (1)
48	111.24	101.41	Shut-In(1)
92	986.34	105.37	End Shut-In(1)
92	116.91	105.15	Open To Flow (2)
137	172.87	107.49	Shut-In(2)
185	960.96	108.77	End Shut-In(2)
190	1649.99	108.96	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
140.00	MW 20% mud 80% Water w /show of oil	1.69
180.00	Water	2.52

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating Inc

**27-8s-22w Graham,KS**

PO Box 86  
Plainville KS 67663

**Cova Unit #27-1**

Job Ticket: 60893

**DST#: 1**

ATTN: Charles Ramsay, Marc

Test Start: 2014.11.01 @ 20:51:04

## Tool Information

Drill Pipe:	Length: 3456.00 ft	Diameter: 3.80 inches	Volume: 48.48 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 48.63 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3475.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	65.00 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			3455.00	
Shut In Tool	5.00			3460.00	
Hydraulic tool	5.00			3465.00	
Packer	5.00			3470.00	21.00 Bottom Of Top Packer
Packer	5.00			3475.00	
Stubb	1.00			3476.00	
Perforations	7.00			3483.00	
Recorder	0.00	8018	Inside	3483.00	
Recorder	0.00	8700	Outside	3483.00	
Blank Spacing	33.00			3516.00	
Bullnose	3.00			3519.00	44.00 Bottom Packers & Anchor

**Total Tool Length: 65.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

H&C Oil Operating Inc

**27-8s-22w Graham,KS**

PO Box 86  
Plainville KS 67663

**Cova Unit #27-1**

Job Ticket: 60893

**DST#: 1**

ATTN: Charles Ramsay, Marc

Test Start: 2014.11.01 @ 20:51:04

### 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:

55000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.35 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
140.00	MW 20% mud 80% Water w / show of oil	1.691
180.00	Water	2.525

Total Length: 320.00 ft      Total Volume: 4.216 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .17@55F

Serial #: 8018

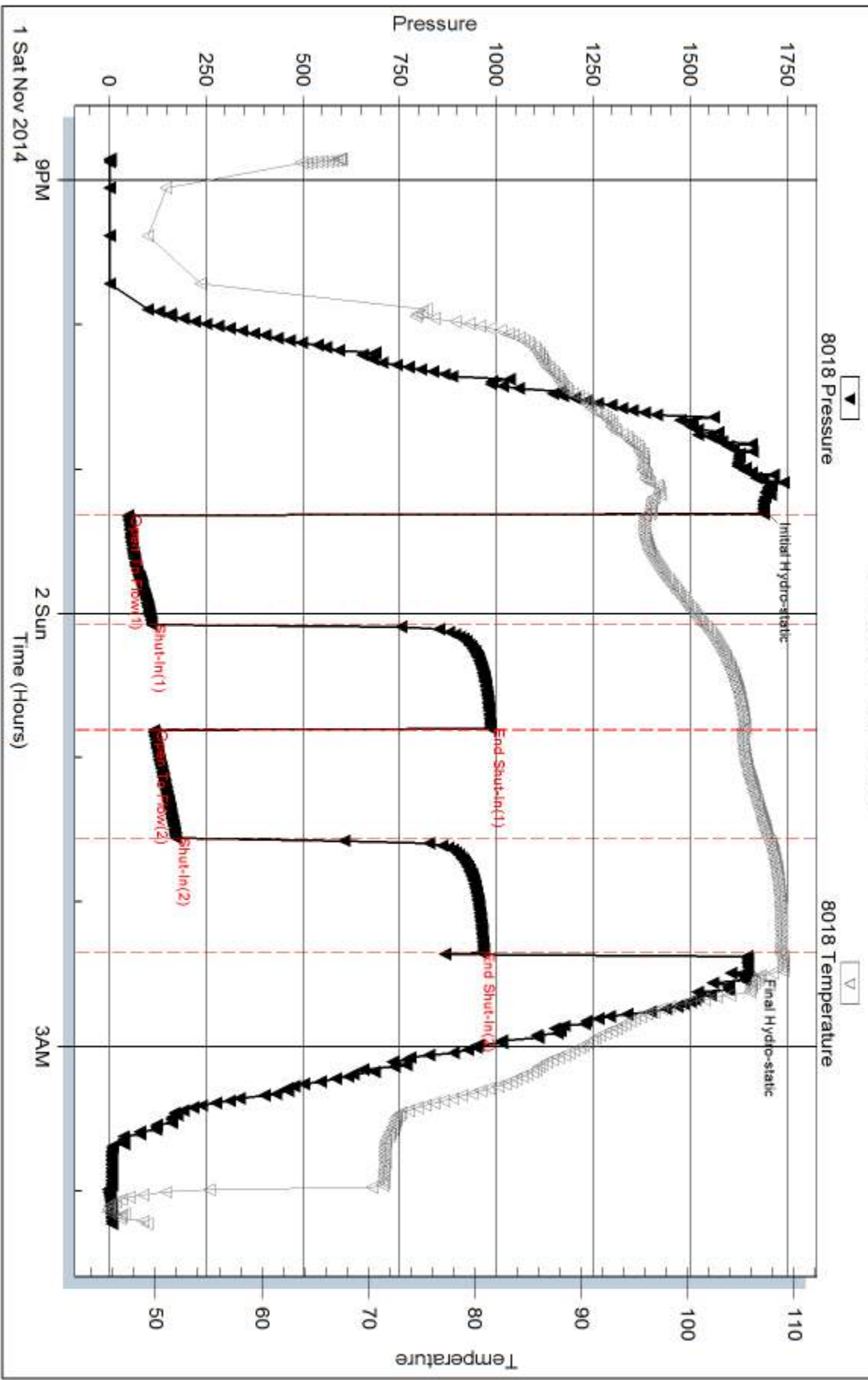
Inside

H&C Oil Operating Inc

Cova Unit #27-1

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 60893

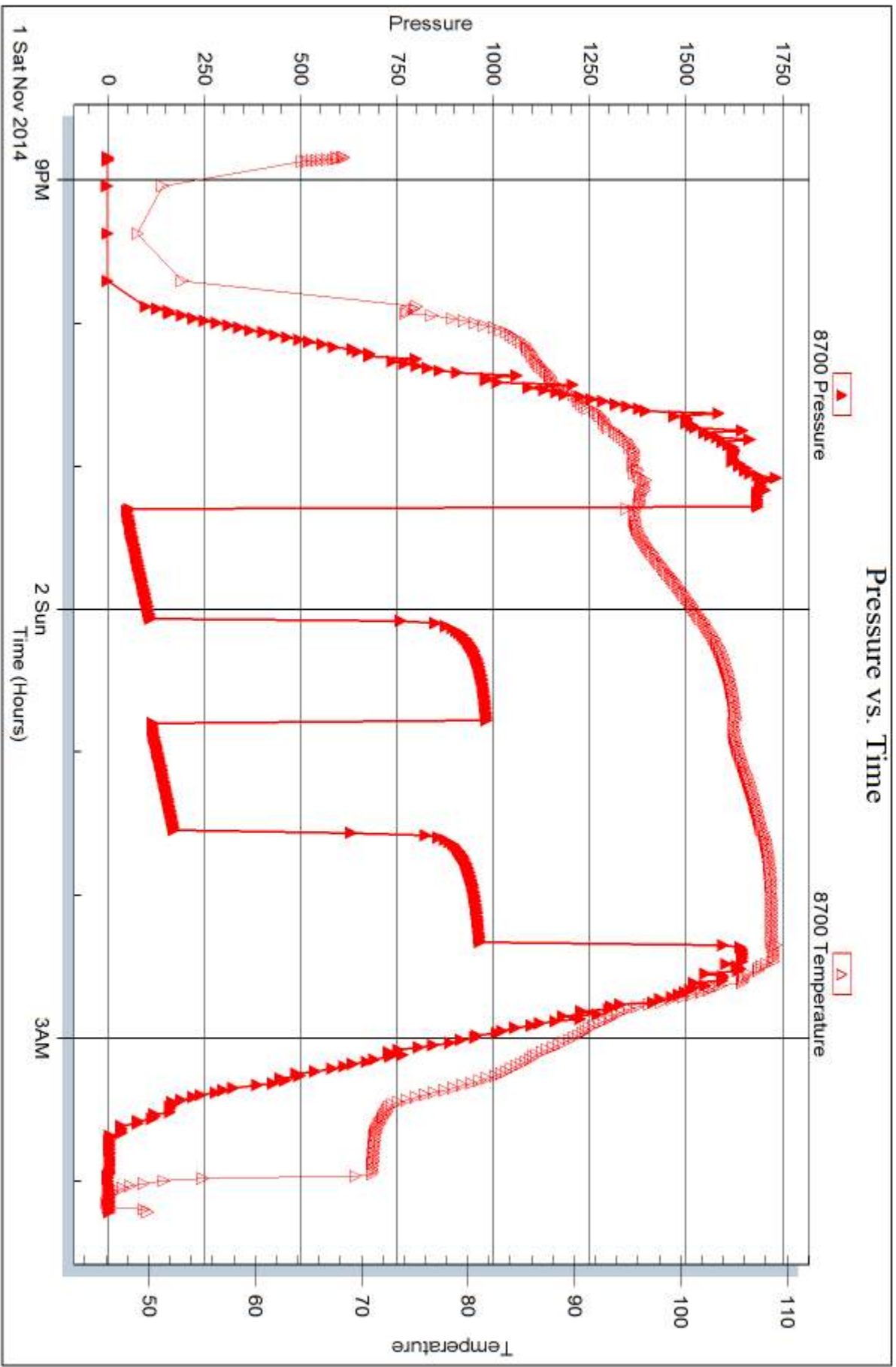
Printed: 2014.11.07 @ 09:23:12

Serial #: 8700

Outside H&C Oil Operating Inc

Cova Unit #27-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 60893

Printed: 2014.11.07 @ 09:23:12



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Charles Ramsay, Marc

### **Cova Unit #27-1**

### **27-8s-22w Graham,KS**

Start Date: 2014.11.02 @ 10:05:57

End Date: 2014.11.02 @ 17:05:51

Job Ticket #: 60894                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.07 @ 09:22:46





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc

**27-8s-22w Graham,KS**

PO Box 86  
Plainville KS 67663

**Cova Unit #27-1**

Job Ticket: 60894

**DST#: 2**

ATTN: Charles Ramsay, Marc

Test Start: 2014.11.02 @ 10:05:57

## GENERAL INFORMATION:

Formation: **LKC E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:58:52

Time Test Ended: 17:05:51

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3516.00 ft (KB) To 3544.00 ft (KB) (TVD)**

Reference Elevations: 2209.00 ft (KB)

Total Depth: 3544.00 ft (KB) (TVD)

2202.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

## Serial #: 8018

Inside

Press@RunDepth: 197.96 psig @ 3521.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.02

End Date:

2014.11.02

Last Calib.: 2014.11.02

Start Time: 10:05:57

End Time:

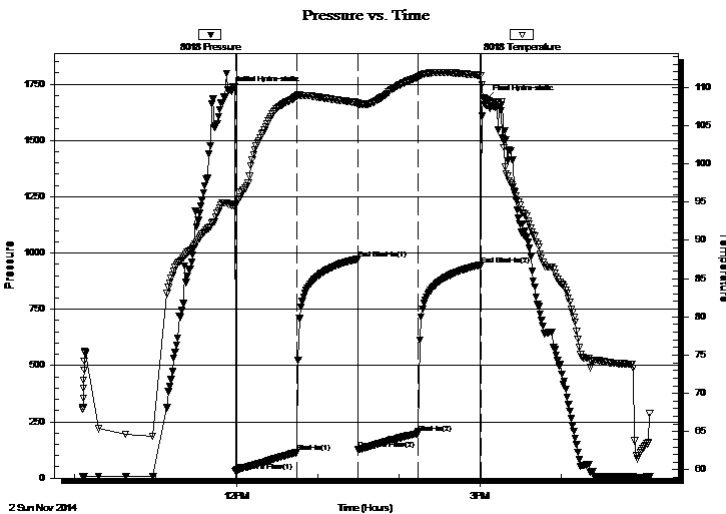
17:05:51

Time On Btm: 2014.11.02 @ 11:55:22

Time Off Btm: 2014.11.02 @ 15:04:21

TEST COMMENT: 45-IFP-w k to a gd bl 1/2"to 7" bl  
45-ISIP-no bl  
45-FFP-w k to a gd bl 1/4"to 6" bl  
45-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1720.96	94.60	Initial Hydro-static
4	29.25	94.51	Open To Flow (1)
49	114.84	108.86	Shut-In(1)
94	973.49	108.01	End Shut-In(1)
95	127.28	107.74	Open To Flow (2)
139	197.96	111.30	Shut-In(2)
185	947.00	111.56	End Shut-In(2)
189	1681.44	107.60	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	MW 15%M85%W w /slight show of oil	0.85
300.00	Water	4.21

\* 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

**27-8s-22w Graham,KS**

PO Box 86  
Plainville KS 67663

**Cova Unit #27-1**

Job Ticket: 60894

**DST#: 2**

ATTN: Charles Ramsay, Marc

Test Start: 2014.11.02 @ 10:05:57

## Tool Information

Drill Pipe:	Length: 3490.00 ft	Diameter: 3.80 inches	Volume: 48.96 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 49.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3516.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	49.00 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			3496.00	
Shut In Tool	5.00			3501.00	
Hydraulic tool	5.00			3506.00	
Packer	5.00			3511.00	21.00 Bottom Of Top Packer
Packer	5.00			3516.00	
Stubb	1.00			3517.00	
Perforations	4.00			3521.00	
Recorder	0.00	8018	Inside	3521.00	
Recorder	0.00	8700	Outside	3521.00	
Perforations	20.00			3541.00	
Bullnose	3.00			3544.00	28.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

H&C Oil Operating Inc

**27-8s-22w Graham,KS**

PO Box 86  
Plainville KS 67663

**Cova Unit #27-1**

Job Ticket: 60894

**DST#: 2**

ATTN: Charles Ramsay, Marc

Test Start: 2014.11.02 @ 10:05:57

### 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:

63000 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
80.00	MW 15%M85%W w /slight show of oil	0.849
300.00	Water	4.208

Total Length: 380.00 ft      Total Volume: 5.057 bbf

Num Fluid Samples: 0

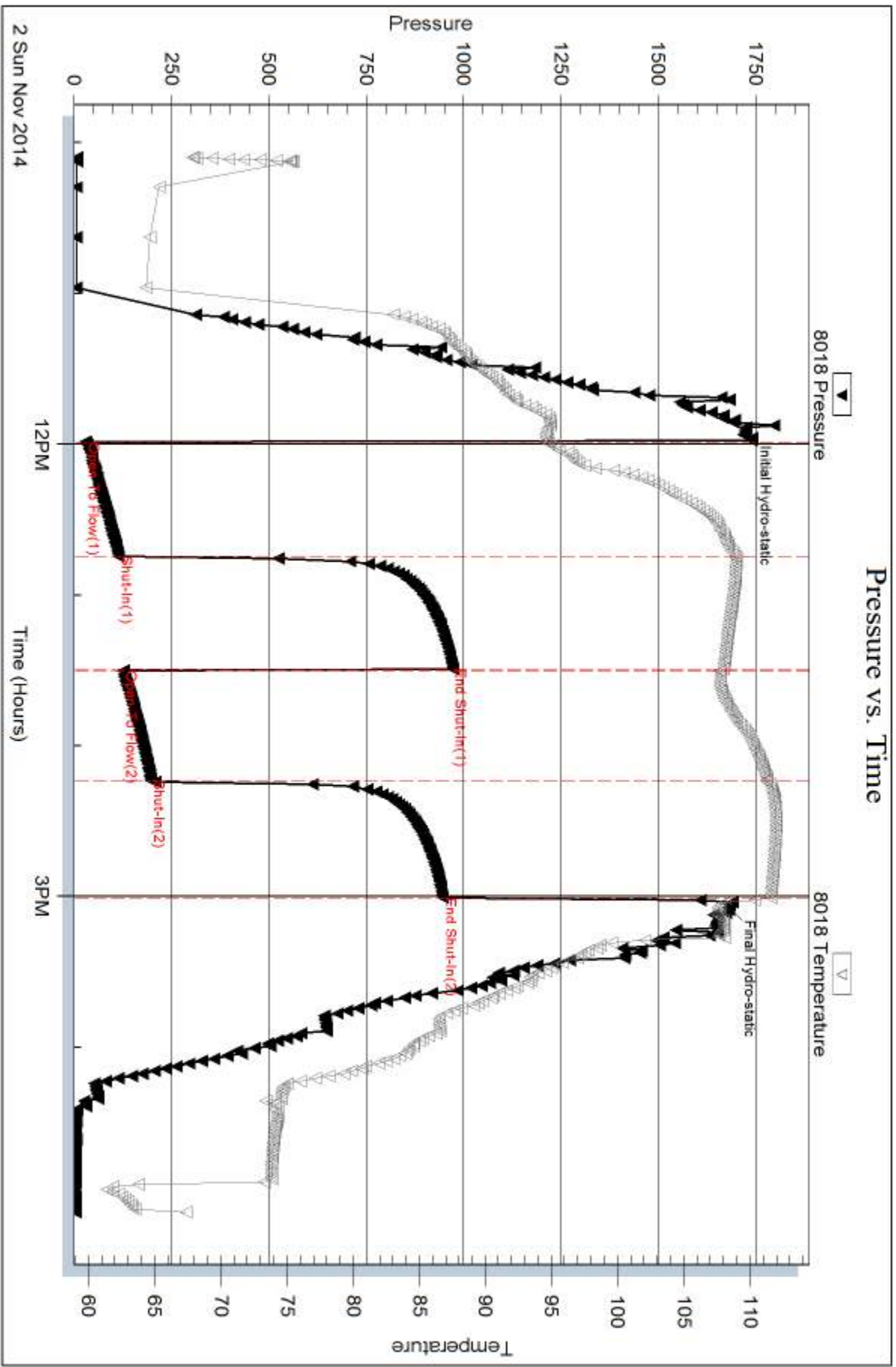
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .14@60F

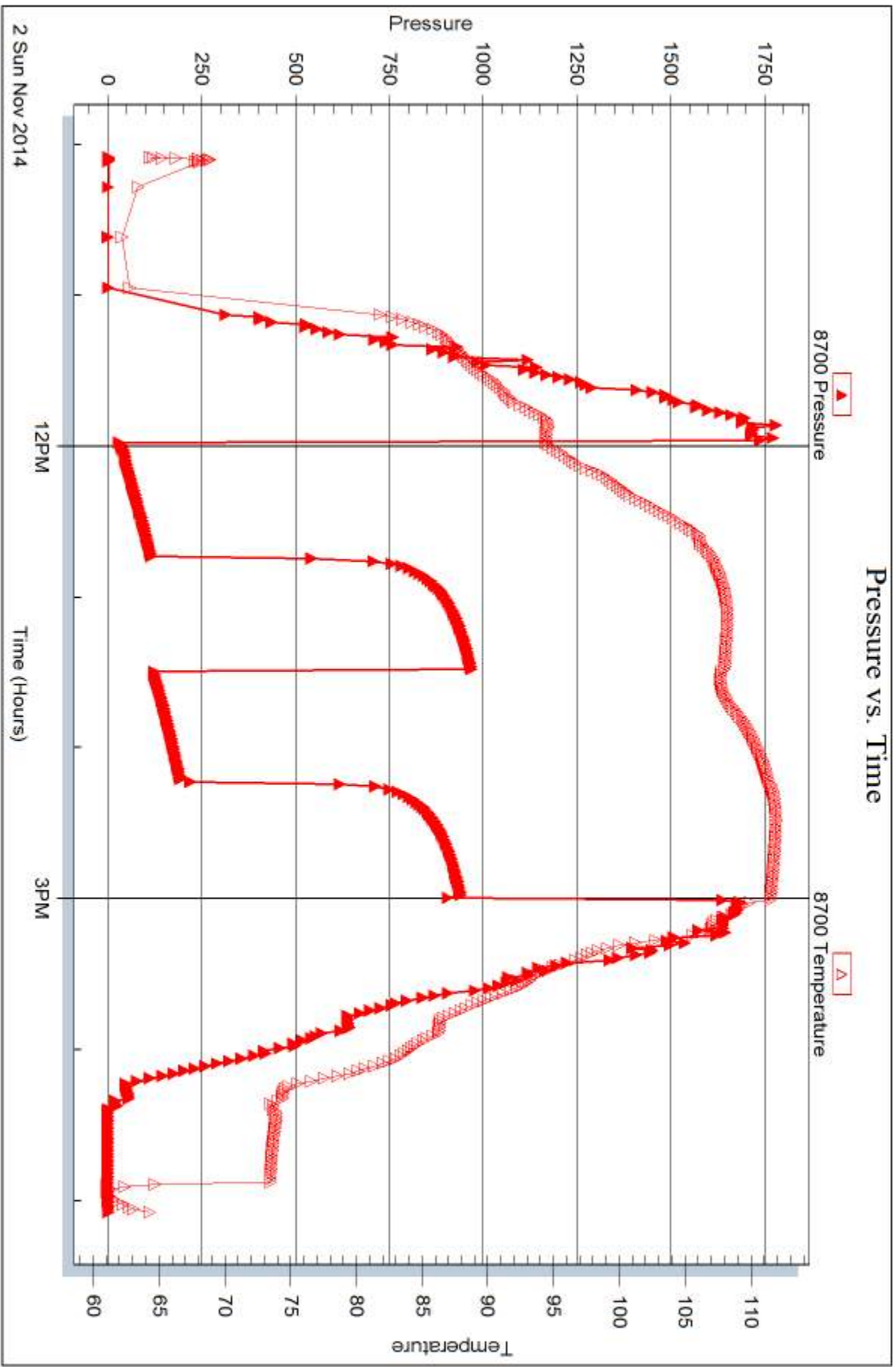


Serial #: 8700

Outside H&C Oil Operating Inc

Cova Unit #27-1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 60894

Printed: 2014.11.07 @ 09:22:48



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Charles Ramsay, Marc

### **Cova Unit #27-1**

### **27-8s-22w Graham,KS**

Start Date: 2014.11.03 @ 03:40:12

End Date: 2014.11.03 @ 08:53:42

Job Ticket #: 60895                      DST #: 3

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.07 @ 09:22:20



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc

**27-8s-22w Graham,KS**

PO Box 86  
Plainville KS 67663

**Cova Unit #27-1**

Job Ticket: 60895

**DST#: 3**

ATTN: Charles Ramsay, Marc

Test Start: 2014.11.03 @ 03:40:12

## GENERAL INFORMATION:

Formation: **LKC I-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:20:12

Time Test Ended: 08:53:42

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3598.00 ft (KB) To 3634.00 ft (KB) (TVD)**

Reference Elevations: 2209.00 ft (KB)

Total Depth: 3634.00 ft (KB) (TVD)

2202.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8018 Inside**

Press@RunDepth: 19.16 psig @ 3606.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.03

End Date:

2014.11.03

Last Calib.:

2014.11.03

Start Time: 03:40:17

End Time:

08:53:41

Time On Btm:

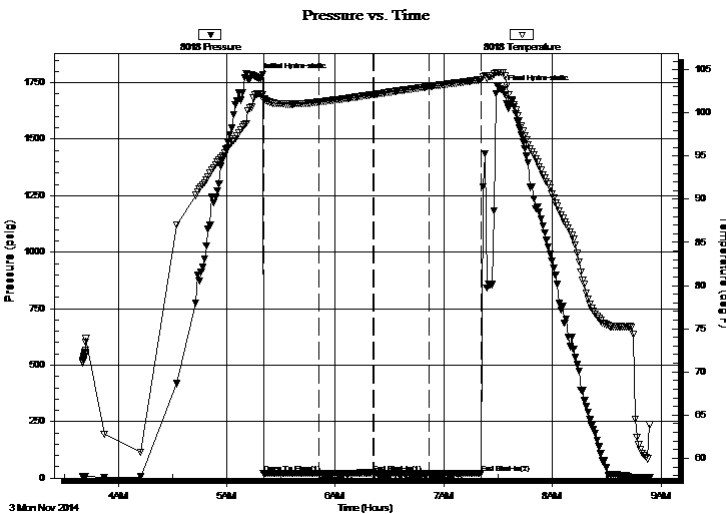
2014.11.03 @ 05:17:12

Time Off Btm:

2014.11.03 @ 07:31:42

**TEST COMMENT:** 30-IFP-very w k bl , died in 10 min  
30-ISIP-no bl  
30-FFP-no bl  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1772.17	102.21	Initial Hydro-static
3	21.07	101.56	Open To Flow (1)
34	20.79	101.25	Shut-In(1)
64	22.99	102.11	End Shut-In(1)
64	20.96	102.13	Open To Flow (2)
95	19.16	103.04	Shut-In(2)
124	20.63	103.84	End Shut-In(2)
135	1720.14	104.67	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud	0.00

## 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

**27-8s-22w Graham,KS**

PO Box 86  
Plainville KS 67663

**Cova Unit #27-1**

Job Ticket: 60895

**DST#: 3**

ATTN: Charles Ramsay, Marc

Test Start: 2014.11.03 @ 03:40:12

## Tool Information

Drill Pipe:	Length: 3579.00 ft	Diameter: 3.80 inches	Volume: 50.20 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 50.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3598.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3578.00	
Shut In Tool	5.00			3583.00	
Hydraulic tool	5.00			3588.00	
Packer	5.00			3593.00	21.00 Bottom Of Top Packer
Packer	5.00			3598.00	
Stubb	1.00			3599.00	
Perforations	7.00			3606.00	
Recorder	0.00	8018	Inside	3606.00	
Recorder	0.00	8700	Outside	3606.00	
Perforations	25.00			3631.00	
Bullnose	3.00			3634.00	36.00 Bottom Packers & Anchor

**Total Tool Length: 57.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**27-8s-22w Graham,KS**

PO Box 86  
Plainville KS 67663

**Cova Unit #27-1**

Job Ticket: 60895

**DST#: 3**

ATTN: Charles Ramsay, Marc

Test Start: 2014.11.03 @ 03:40:12

## 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: 6.35 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud	0.005

Total Length: 1.00 ft      Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

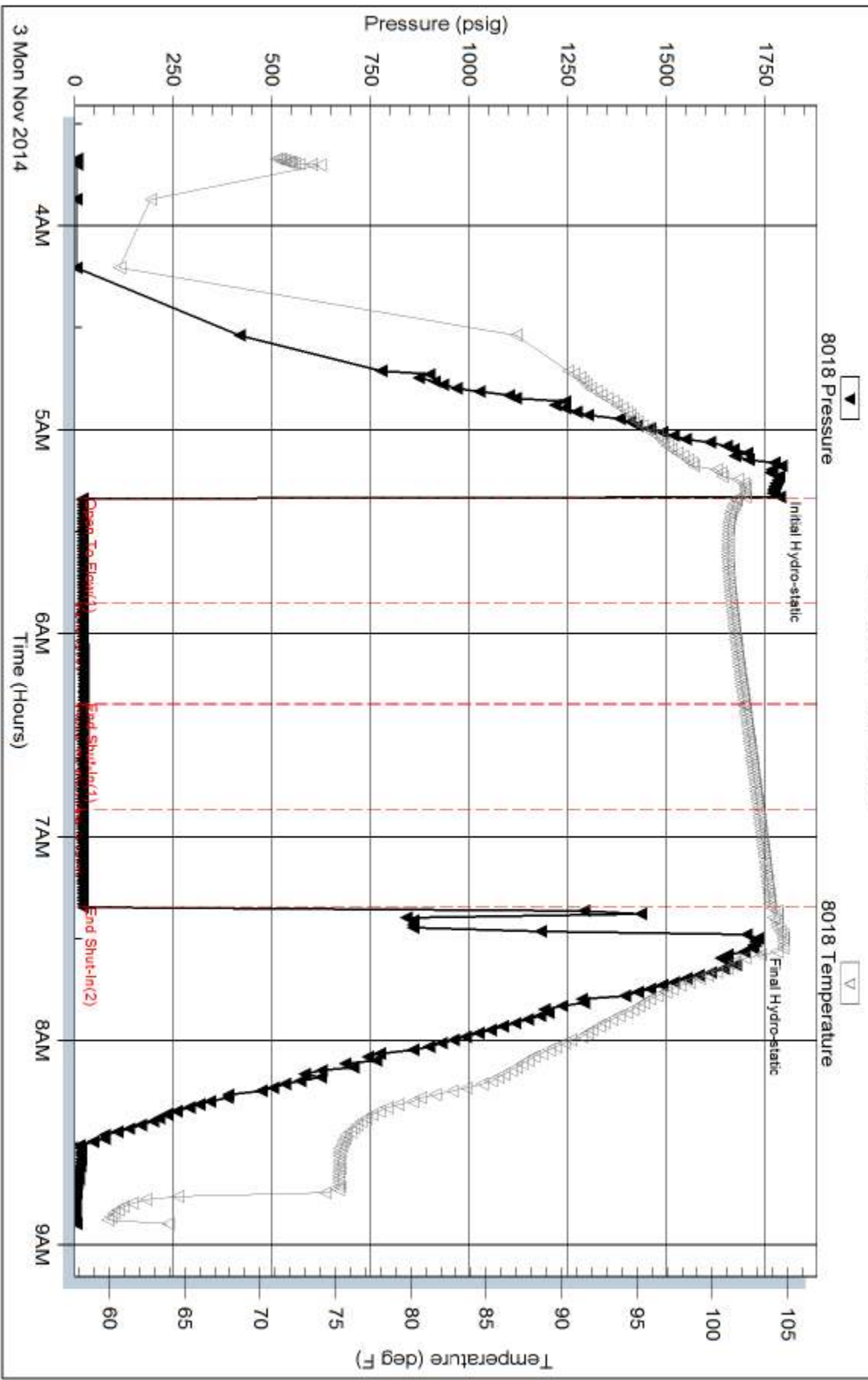
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

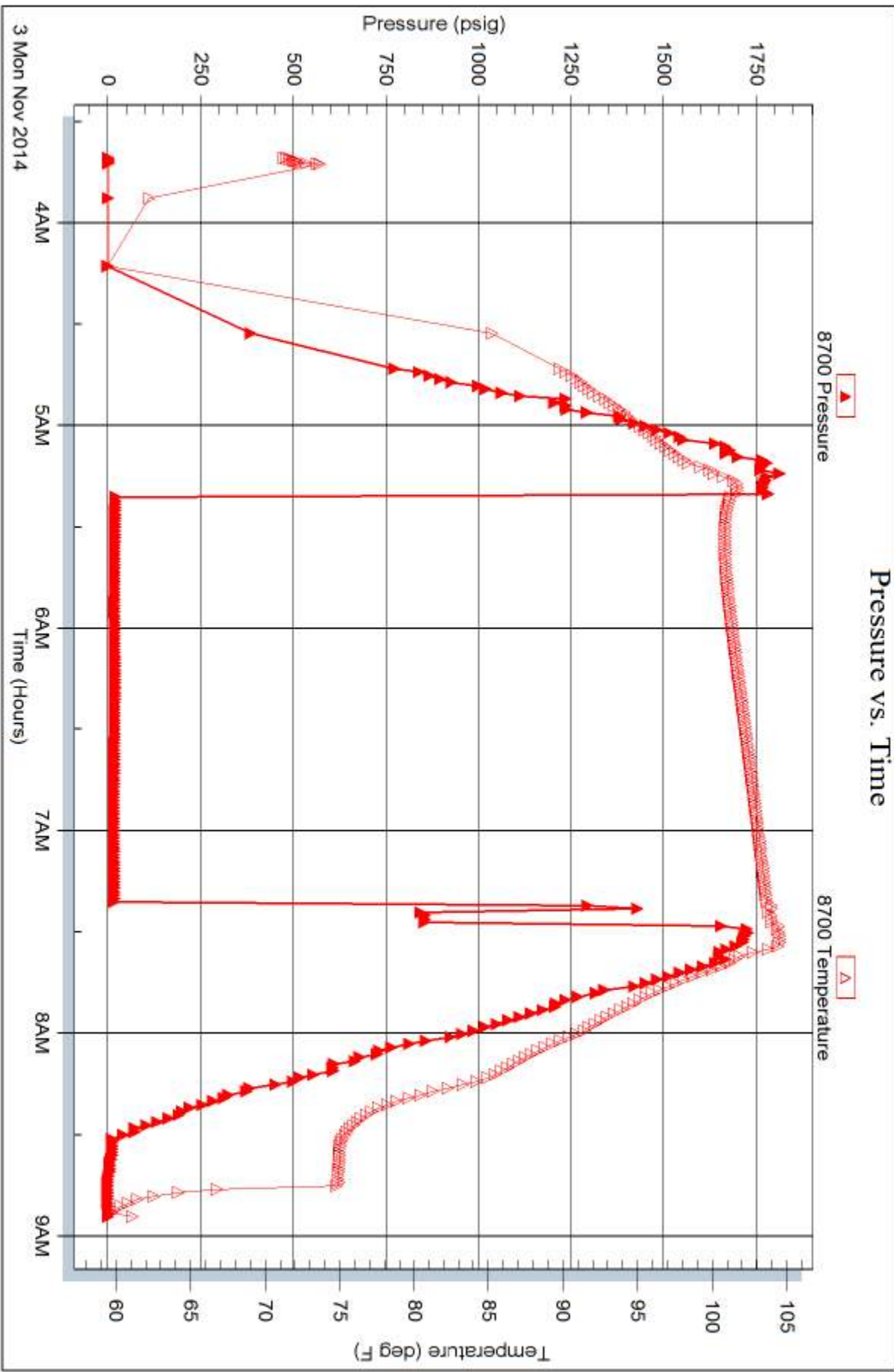


Serial #: 8700

Outside H&C Oil Operating Inc

Cova Unit #27-1

DST Test Number: 3





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 60893

Well Name & No. COVA Unit 27-1 Test No. 1 Date 11-1-14  
 Company H+C Oil Operating Inc Elevation 2209 KB 2202 GL  
 Address Po Box 86 Plainville Ko 67663  
 Co. Rep / Geo. MARC Downing, Charles Ramsay Rig Am Eagle rig 2  
 Location: Sec. 27 Twp. 8<sup>s</sup> Rge. 22<sup>w</sup> Co. GRAHAM State Ko

Interval Tested 3475-3519 Zone Tested LKC C-D  
 Anchor Length 44 Drill Pipe Run 3456 Mud Wt. 9.2  
 Top Packer Depth 3470 Drill Collars Run 30 Vis 58  
 Bottom Packer Depth 3475 Wt. Pipe Run - WL 6.4  
 Total Depth 3519 Chlorides 1200 ppm System LCM TR.  
 Blow Description IFP - WEAK TO A GOOD BLOW 1/2" TO 6" BLOW  
ISIP - NO BLOW  
FFP -  
FSIP - NO

Rec	Feet of	%gas	%oil	%water	%mud
<u>140</u>	<u>MW w/show foil</u>		<u>80</u>	<u>20</u>	
<u>180</u>	<u>WATER</u>				

Rec Total 320 BHT 108 Gravity - API RW .17 @ 55 °F Chlorides 55000 ppm

(A) Initial Hydrostatic 1689  Test 1150 T-On Location 1100  
 (B) First Initial Flow 50  Jars \_\_\_\_\_ T-Started 2050  
 (C) First Final Flow 111  Safety Joint \_\_\_\_\_ T-Open 2320  
 (D) Initial Shut-In 986  Circ Sub \_\_\_\_\_ T-Pulled 0220  
 (E) Second Initial Flow 116  Hourly Standby \_\_\_\_\_ T-Out 0413  
 (F) Second Final Flow 172  Mileage 120 RT 186 Comments made 2<sup>nd</sup> short tript  
 (G) Final Shut-In 960  Sampler \_\_\_\_\_ down for rig repairs  
 (H) Final Hydrostatic 1649  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_

Initial Open 45  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 45  
 Sub Total 1336  
 Total 1336  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative RAY SCHWAGER thank you

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. 60894

Well Name & No. COVA Unit 27-1 Test No. 2 Date 11-2-14  
 Company H+C OIL OPERATING Inc Elevation 2209 KB 2202 GL  
 Address PO Box 86 Plainville, Ks 67663  
 Co. Rep / Geo. MARC Downing, Charles Ramsay Rig Am Eagle rig 2  
 Location: Sec. 27 Twp. 8<sup>s</sup> Rge. 22<sup>w</sup> Co. GRAHAM State Ks

Interval Tested 3516-3544 Zone Tested LKC E, F  
 Anchor Length 28 Drill Pipe Run 3490 Mud Wt. 9.4  
 Top Packer Depth 3511 Drill Collars Run 30 Vis 61  
 Bottom Packer Depth 3516 Wt. Pipe Run - WL 6.4  
 Total Depth 3544 Chlorides 2100 ppm System LCM -  
 Blow Description IFP - WEAK TO A Good Blow 1/2" TO 7" Blow  
ISIP - NO Blow  
FFP - WEAK TO A Good Blow 1/4" TO 6" Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>mw w/slight show of oil</u>		<u>85</u>	<u>15</u>	
<u>300</u>	<u>WATER</u>				

Rec Total 380 BHT 111 Gravity - API RW .14 @ 60 ° F Chlorides 63000 ppm  
 Test 1150 T-On Location 0945  
 Jars \_\_\_\_\_ T-Started 1005  
 Safety Joint \_\_\_\_\_ T-Open 1200  
 Circ Sub \_\_\_\_\_ T-Pulled 1500  
 Hourly Standby \_\_\_\_\_ T-Out 1705  
 Mileage 186 Comments \_\_\_\_\_  
 Sampler \_\_\_\_\_  
 Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1336 MP/DST Disc't \_\_\_\_\_

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

Approved By \_\_\_\_\_ Our Representative RAY Schwager Thank you

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. 60895

4/10

Well Name & No. COVA UNIT 27-1 Test No. 3 Date 11-3-14  
 Company H+C OIL OPERATING INC Elevation 2209 KB 2202 GL  
 Address PO Box 86 Plainville, Ks 67663  
 Co. Rep / Geo. MARC DOWNING, CHARLES RAMSAY Rig Am. Eagle rig 2  
 Location: Sec. 27 Twp. 8<sup>s</sup> Rge. 22 Co. GRAHAM State Ks

Interval Tested 3598 - 3634 Zone Tested LKC I-J  
 Anchor Length 36 Drill Pipe Run 3579 Mud Wt. 9.3  
 Top Packer Depth 3593 Drill Collars Run 30 Vis 54  
 Bottom Packer Depth 3598 Wt. Pipe Run - WL 6.4  
 Total Depth 3634 Chlorides 2100 ppm System LCM ~~2100~~  
 Blow Description TFP - Very Weak Blow, died in 10 min  
TSIP - NO Blow  
FFP - NO Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Mud</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 1 BHT 104 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1772</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0245</u>
(B) First Initial Flow <u>21</u>	<input type="checkbox"/> Jars	T-Started <u>0340</u>
(C) First Final Flow <u>20</u>	<input type="checkbox"/> Safety Joint	T-Open <u>0520</u>
(D) Initial Shut-In <u>22</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>0720</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0853</u>
(F) Second Final Flow <u>19</u>	<input checked="" type="checkbox"/> Mileage <u>186 186</u>	Comments <u>Loaded Tool 0930</u>
(G) Final Shut-In <u>20</u>	<input type="checkbox"/> Sampler	<u>11-4-14</u>
(H) Final Hydrostatic <u>1720</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1522</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1522</u>	

Approved By \_\_\_\_\_ Our Representative RAY SCHWAGER Thank you

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