



DRILL STEM TEST REPORT

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

PO Box 86
Plainville, KS 67663

ATTN: Marc Downing

Berland Trust #35-1

35-8s-21w Graham,KS

Start Date: 2015.01.13 @ 14:12:06

End Date: 2015.01.13 @ 21:56:36

Job Ticket #: 61151 DST #: 1

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

Printed: 2015.01.15 @ 13:19:45

H&C Oil Operating Inc.

35-8s-21w Graham,KS

Berland Trust #35-1

DST # 1

KC "H-K"

2015.01.13



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

35-8s-21w Graham,KS

PO Box 86
Plainville, KS 67663

Berland Trust #35-1

ATTN: Marc Downing

Job Ticket: 61151

DST#: 1

Test Start: 2015.01.13 @ 14:12:06

GENERAL INFORMATION:

Formation: **KC "H-K"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 17:57:06
 Tester: Brannan Lonsdale
 Time Test Ended: 21:56:36
 Unit No: 62
 Interval: **3495.00 ft (KB) To 3582.00 ft (KB) (TVD)**
 Reference Elevations: 2130.00 ft (KB)
 Total Depth: 3582.00 ft (KB) (TVD)
 2122.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 8.00 ft

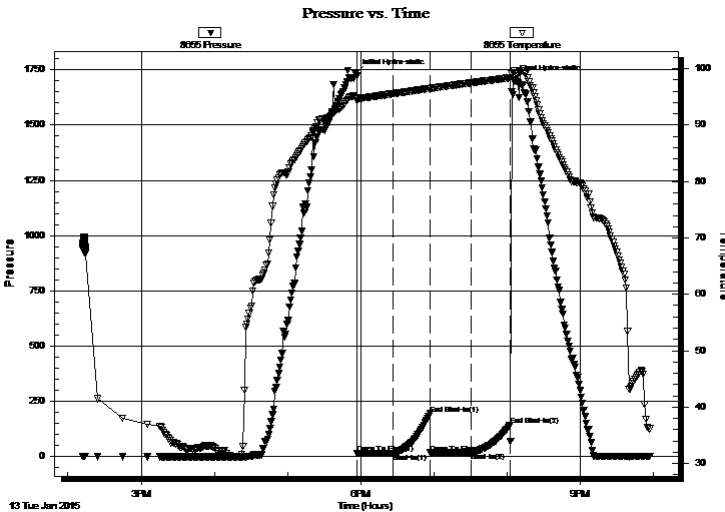
Serial #: 8655

Outside

Press@RunDepth: 17.60 psig @ 3496.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.01.13 End Date: 2015.01.13 Last Calib.: 2015.01.13
 Start Time: 14:12:07 End Time: 21:56:36 Time On Btm: 2015.01.13 @ 17:55:36
 Time Off Btm: 2015.01.13 @ 20:05:06

TEST COMMENT: 30- IF- Slowly built to 3/4"
 30- IS- No blow
 30- FF- No blow
 30- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1734.39	94.91	Initial Hydro-static
2	14.61	94.36	Open To Flow (1)
31	15.55	95.54	Shut-In(1)
61	193.61	96.52	End Shut-In(1)
62	16.62	96.47	Open To Flow (2)
95	17.60	97.50	Shut-In(2)
127	141.64	98.37	End Shut-In(2)
130	1705.39	99.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	0.02

Gas Rates

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



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DRILL STEM TEST REPORT

H&C Oil Operating Inc.

35-8s-21w Graham, KS

PO Box 86
Plainville, KS 67663

Berland Trust #35-1

ATTN: Marc Downing

Job Ticket: 61151

DST#: 1

Test Start: 2015.01.13 @ 14:12:06

GENERAL INFORMATION:

Formation: **KC "H-K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:57:06

Time Test Ended: 21:56:36

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 62

Interval: 3495.00 ft (KB) To 3582.00 ft (KB) (TVD)

Total Depth: 3582.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2130.00 ft (KB)

2122.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8651

Inside

Press@RunDepth: psig @ 3496.00 ft (KB)

Start Date: 2015.01.13

End Date:

2015.01.13

Start Time: 14:12:06

End Time:

21:58:35

Capacity: 8000.00 psig

Last Calib.:

2015.01.13

Time On Btm:

Time Off Btm:

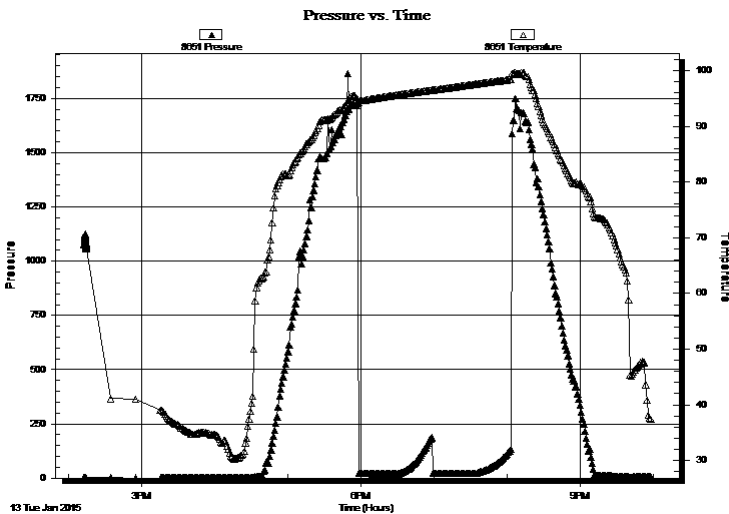
TEST COMMENT: 30- IF- Slowly built to 3/4"

30- IS- No blow

30- FF- No blow

30- FSI- No blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating Inc.

35-8s-21w Graham,KS

PO Box 86
Plainville, KS 67663

Berland Trust #35-1

Job Ticket: 61151

DST#: 1

ATTN: Marc Downing

Test Start: 2015.01.13 @ 14:12:06

Tool Information

Drill Pipe:	Length: 3460.00 ft	Diameter: 3.75 inches	Volume: 47.27 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3495.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	87.00 ft			
Tool Length:	107.00 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			3476.00	
Shut In Tool	5.00			3481.00	
Hydraulic tool	5.00			3486.00	
Packer	5.00			3491.00	20.00 Bottom Of Top Packer
Packer	4.00			3495.00	
Stubb	1.00			3496.00	
Recorder	0.00	8651	Inside	3496.00	
Recorder	0.00	8655	Outside	3496.00	
Perforations	18.00			3514.00	
Change Over Sub	1.00			3515.00	
Drill Pipe	63.00			3578.00	
Change Over Sub	1.00			3579.00	
Bullnose	3.00			3582.00	87.00 Bottom Packers & Anchor

Total Tool Length: 107.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc.

35-8s-21w Graham,KS

PO Box 86
Plainville, KS 67663

Berland Trust #35-1

Job Ticket: 61151

DST#: 1

ATTN: Marc Downing

Test Start: 2015.01.13 @ 14:12:06

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

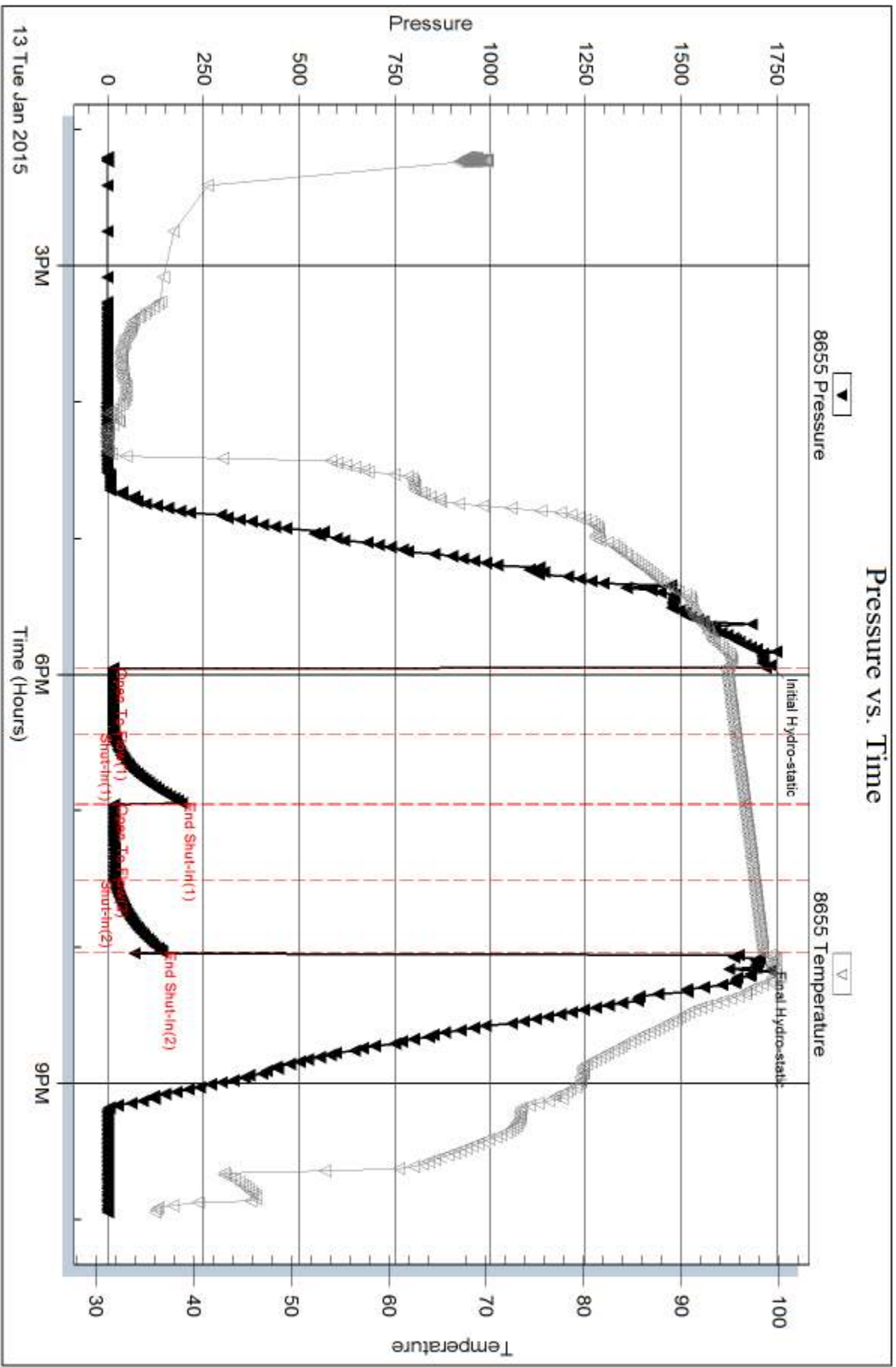
Recovery Comments:

Serial #: 8655

Outside H&C Oil Operating Inc.

Berland Trust #35-1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 61151

Printed: 2015.01.15 @ 13:19:46

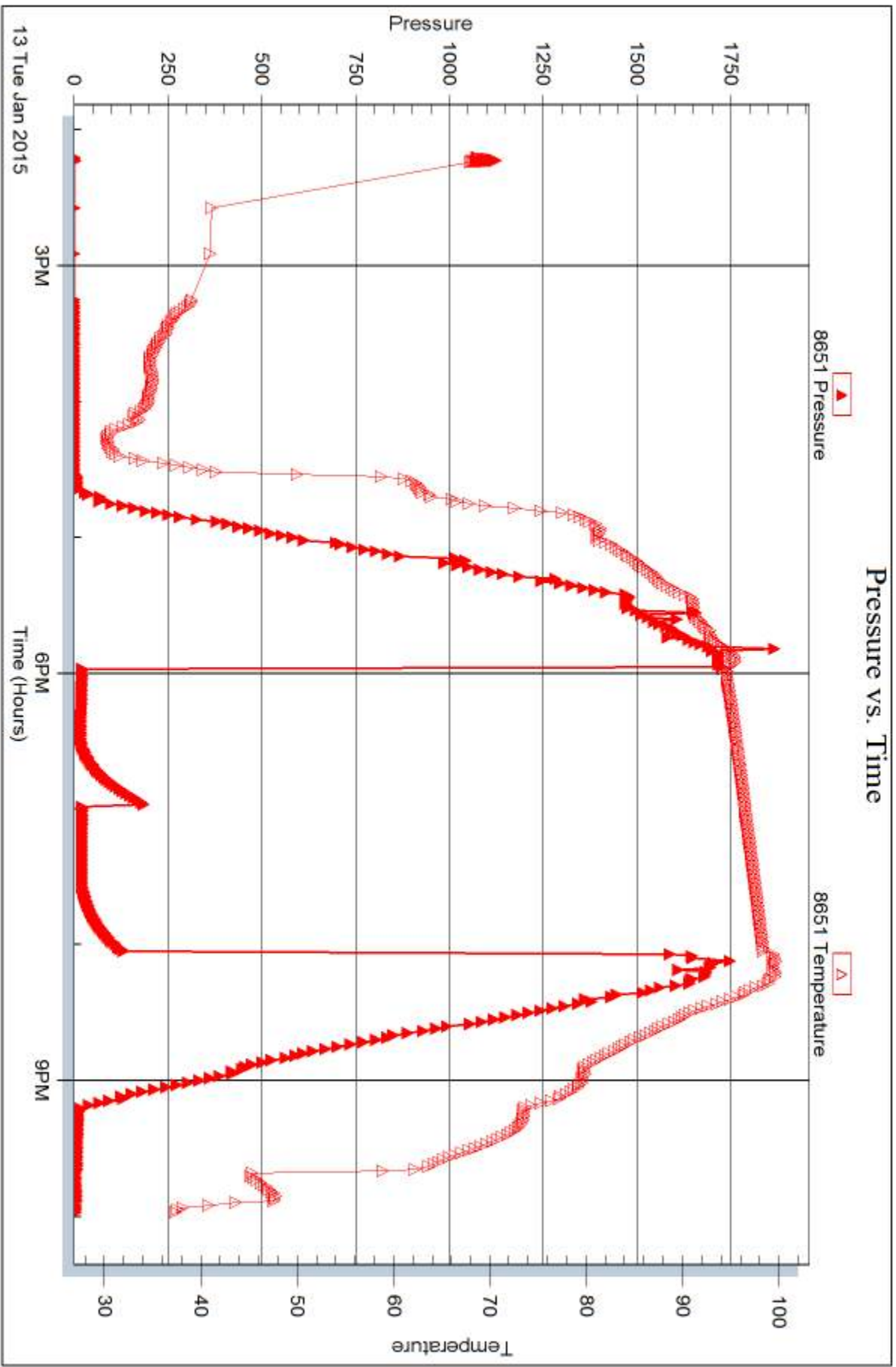
Serial #: 8651

Inside

H&C Oil Operating Inc.

Berland Trust #35-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 61151

Printed: 2015.01.15 @ 13:19:46



DRILL STEM TEST REPORT

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

PO Box 86
Plainville, KS 67663

ATTN: Marc Downing

Berland Trust #35-1

35-8s-21w Graham,KS

Start Date: 2015.01.15 @ 02:48:59

End Date: 2015.01.15 @ 09:13:29

Job Ticket #: 61152 DST #: 2

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

Printed: 2015.01.15 @ 13:18:31



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

35-8s-21w Graham,KS

PO Box 86
Plainville, KS 67663

Berland Trust #35-1

ATTN: Marc Downing

Job Ticket: 61152

DST#: 2

Test Start: 2015.01.15 @ 02:48:59

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:23:59
 Time Test Ended: 09:13:29
 Interval: **3674.00 ft (KB) To 3727.00 ft (KB) (TVD)**
 Total Depth: 3813.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Brannan Lonsdale
 Unit No: 62
 Reference Elevations: 2130.00 ft (KB)
 2122.00 ft (CF)
 KB to GR/CF: 8.00 ft

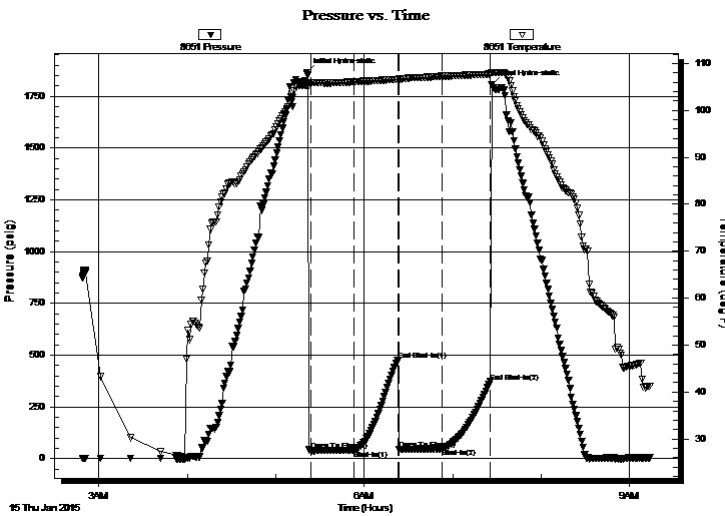
Serial #: 8651

Inside

Press@RunDepth: 48.27 psig @ 3675.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.01.15 End Date: 2015.01.15 Last Calib.: 2015.01.15
 Start Time: 02:49:00 End Time: 09:13:29 Time On Btm: 2015.01.15 @ 05:20:59
 Time Off Btm: 2015.01.15 @ 07:26:29

TEST COMMENT: 30- IF- Slowly built to 1 1/4"
 30- IS- No blow
 30- FF- No blow
 30- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1865.38	105.30	Initial Hydro-static
3	38.71	105.92	Open To Flow (1)
32	40.93	106.11	Shut-In(1)
62	474.53	106.63	End Shut-In(1)
63	46.86	106.67	Open To Flow (2)
92	48.27	107.30	Shut-In(2)
125	371.42	107.74	End Shut-In(2)
126	1806.18	108.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	M w/ few oil spots	0.05

* 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.

35-8s-21w Graham,KS

PO Box 86
Plainville, KS 67663

Berland Trust #35-1

Job Ticket: 61152

DST#: 2

ATTN: Marc Downing

Test Start: 2015.01.15 @ 02:48:59

Tool Information

Drill Pipe:	Length: 3646.00 ft	Diameter: 3.75 inches	Volume: 49.81 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 57000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3674.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	3727.00 ft			
Interval between Packers:	53.00 ft			
Tool Length:	159.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Change Over Sub	1.00			3655.00	
Shut In Tool	5.00			3660.00	
Hydraulic tool	5.00			3665.00	
Packer	5.00			3670.00	20.00 Bottom Of Top Packer
Packer	4.00			3674.00	
Stubb	1.00			3675.00	
Recorder	0.00	8651	Inside	3675.00	
Recorder	0.00	8655	Outside	3675.00	
Change Over Sub	1.00			3676.00	
Drill Pipe	31.00			3707.00	
Change Over Sub	1.00			3708.00	
Perforations	15.00			3723.00	
Blank Off Sub	1.00			3724.00	
Blank Spacing	3.00			3727.00	53.00 Tool Interval
Packer	1.00			3728.00	
Stubb	1.00			3729.00	
Perforations	16.00			3745.00	
Change Over Sub	1.00			3746.00	
Recorder	0.00	8673	Below	3746.00	
Drill Pipe	63.00			3809.00	
Change Over Sub	1.00			3810.00	
Bullnose	3.00			3813.00	86.00 Bottom Packers & Anchor

Total Tool Length: 159.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc.

35-8s-21w Graham,KS

PO Box 86
Plainville, KS 67663

Berland Trust #35-1

Job Ticket: 61152

DST#: 2

ATTN: Marc Downing

Test Start: 2015.01.15 @ 02:48:59

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mw / few oil spots	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

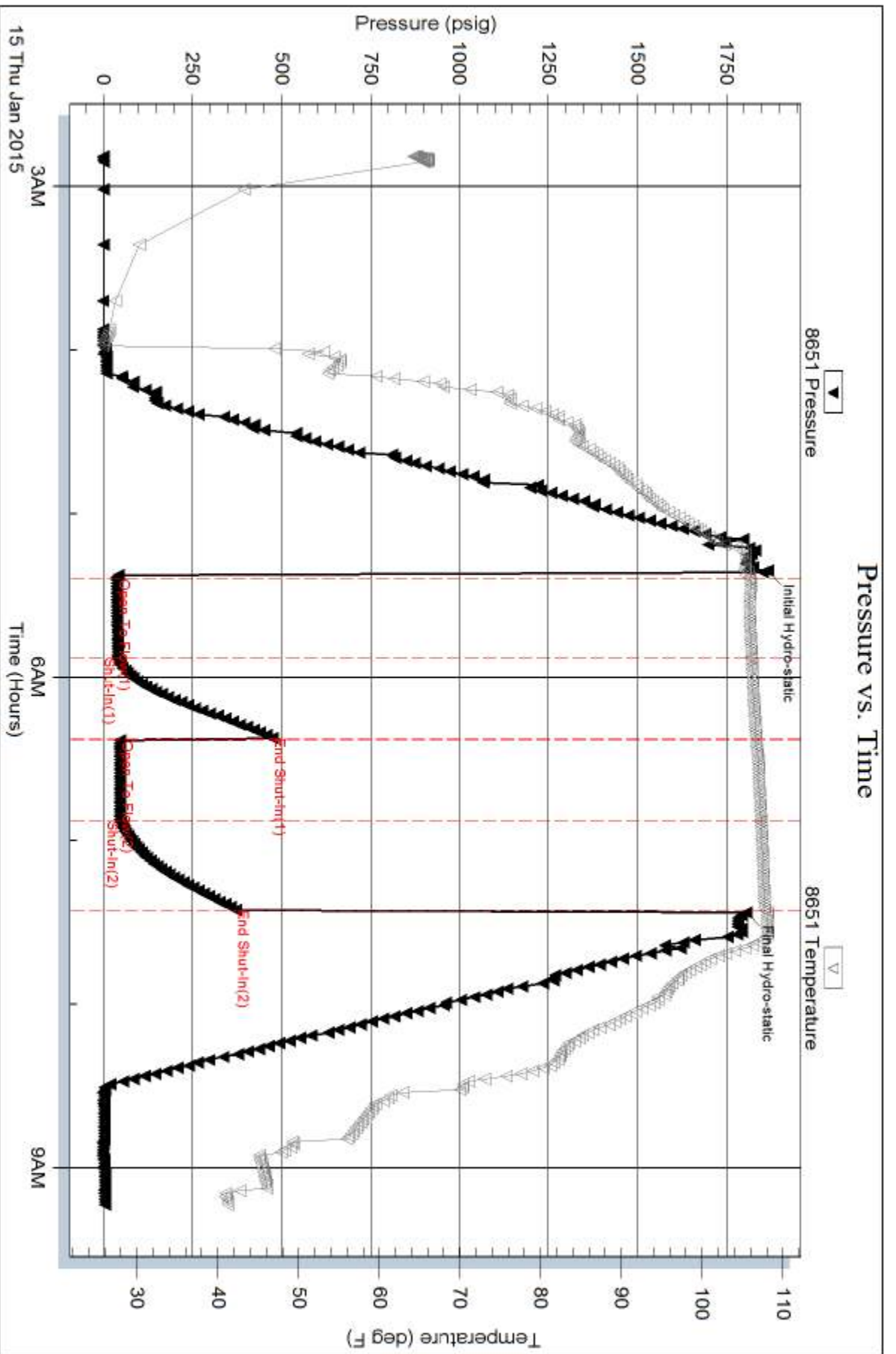
Serial #: 8651

Inside

H&C Oil Operating Inc.

Berland Trust #35-1

DST Test Number: 2

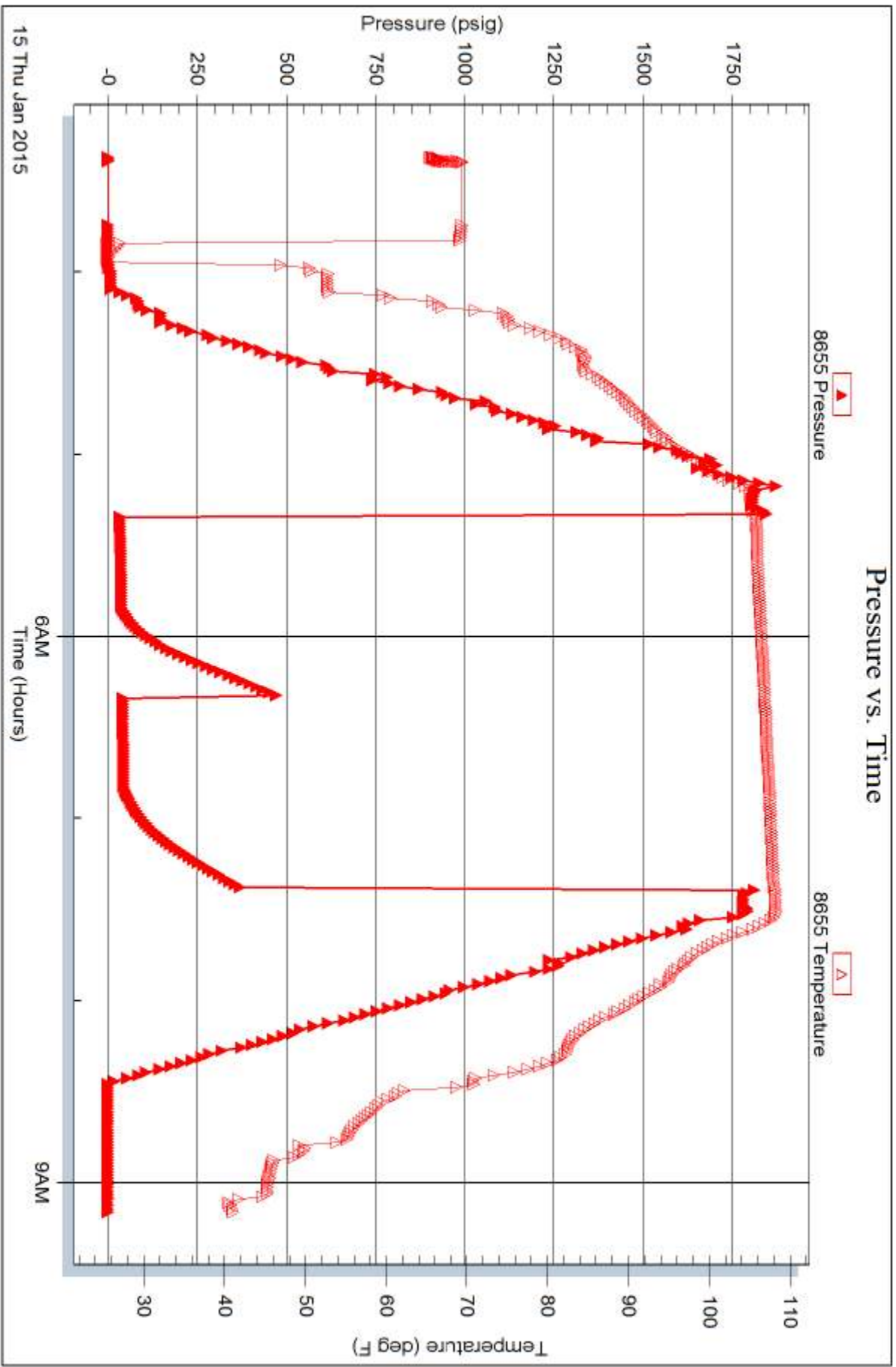


Serial #: 8655

Outside H&C Oil Operating Inc.

Berland Trust #35-1

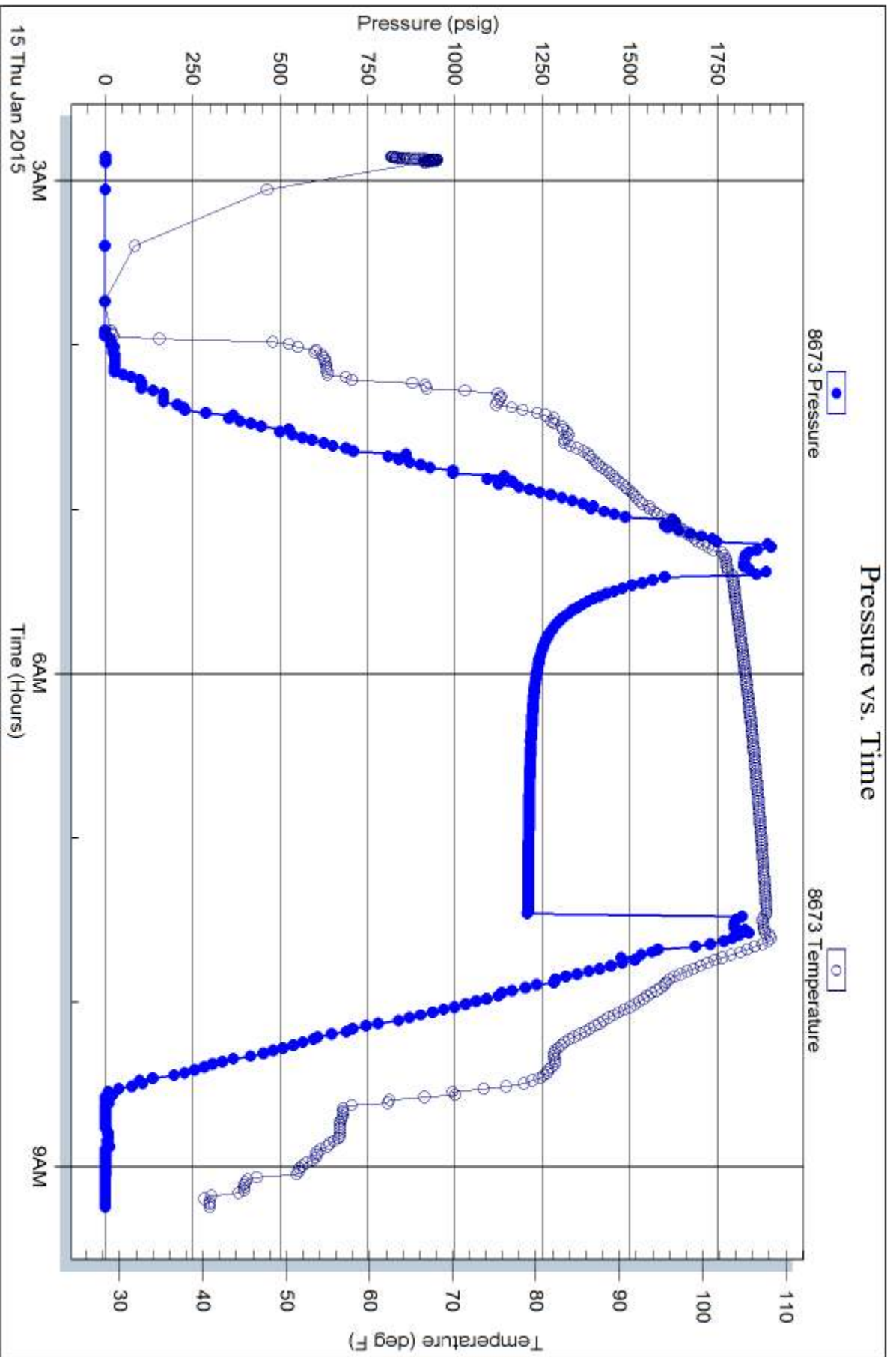
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 61152

Printed: 2015.01.15 @ 13:18:33





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61151

Well Name & No. Berland Trust #35-1 Test No. 1 Date 1/13/15
 Company H&C Oil Operating Inc. Elevation 2130 KB 2122 GL
 Address PO Box 86 Plainville, KS 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle #2
 Location: Sec. 35 Twp. 8 S Rge. 21 W Co. Graham State KS

Interval Tested 3495 - 3582 Zone Tested KC "H-K"
 Anchor Length 87' Drill Pipe Run 3460 Mud Wt. 9.1
 Top Packer Depth 3490 Drill Collars Run 31 Vis 60
 Bottom Packer Depth 3495 Wt. Pipe Run WL 6.4
 Total Depth 3582 Chlorides 1,600 ppm System LCM 2⁺

Blow Description IF - slowly built to 3/4"
ISI - No blow
PF - No blow
PSI - No blow

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

Rec Total 5' BHT 98° Gravity API RW @ °F Chlorides ppm

(A) Initial Hydrostatic <u>1734</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>1331</u>
(B) First Initial Flow <u>15</u>	<input type="checkbox"/> Jars <u> </u>	T-Started <u>1412</u>
(C) First Final Flow <u>16</u>	<input type="checkbox"/> Safety Joint <u> </u>	T-Open <u>1758</u>
(D) Initial Shut-In <u>194</u>	<input type="checkbox"/> Circ Sub <u> </u>	T-Pulled <u>1958</u>
(E) Second Initial Flow <u>17</u>	<input type="checkbox"/> Hourly Standby <u> </u>	T-Out <u>2159</u>
(F) Second Final Flow <u>18</u>	<input checked="" type="checkbox"/> Mileage <u>102 102 RT</u>	Comments <u> </u>
(G) Final Shut-In <u>142</u>	<input type="checkbox"/> Sampler <u> </u>	<u> </u>
(H) Final Hydrostatic <u>1705</u>	<input type="checkbox"/> Straddle <u> </u>	<input type="checkbox"/> Ruined Shale Packer <u> </u>

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

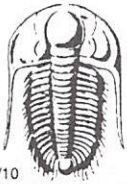
Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1152

Total 1152
 MP/DST Disc't

Approved By Our Representative Brannan Lonsdale

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. 61152

Well Name & No. Berland Trust #35-1 Test No. 2 Date 1/15/15
 Company H+C Oil Operating Inc. Elevation 2130 KB 2122 GL
 Address PO Box 86 Plainville, KS 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle #2
 Location: Sec. 35 Twp. 8 S Rge. 21 W Co. Araham State KS

Interval Tested 3674-3727 Zone Tested Arbuckle
 Anchor Length 53' Tail 86' Drill Pipe Run 3646 Mud Wt. 9.1
 Top Packer Depth 3669-3674 Drill Collars Run 31 Vis 60
 Bottom Packer Depth 3727 Wt. Pipe Run WL 6.4
 Total Depth 3813 Chlorides 6600 ppm System LCM 2[#]

Blow Description IF - Slowly built to 1 1/4"
ISI - No blow
PF - No blow
FSE - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>M w/ few oil spots</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 10' BHT 108° Gravity API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic <u>1865</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>0216</u>
(B) First Initial Flow <u>39</u>	<input type="checkbox"/> Jars <u> </u>	T-Started <u>0249</u>
(C) First Final Flow <u>41</u>	<input type="checkbox"/> Safety Joint <u> </u>	T-Open <u>0522</u>
(D) Initial Shut-In <u>475</u>	<input type="checkbox"/> Circ Sub <u> </u>	T-Pulled <u>0722</u>
(E) Second Initial Flow <u>47</u>	<input type="checkbox"/> Hourly Standby <u> </u>	T-Out <u>0913</u>
(F) Second Final Flow <u>48</u>	<input checked="" type="checkbox"/> Mileage <u>102 RT</u> 102	Comments <u> </u>
(G) Final Shut-In <u>371</u>	<input type="checkbox"/> Sampler <u> </u>	
(H) Final Hydrostatic <u>1806</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> Ruined Shale Packer <u> </u>
	<input type="checkbox"/> Shale Packer <u> </u>	<input type="checkbox"/> Ruined Packer <u> </u>
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer <u> </u>	<input type="checkbox"/> Extra Copies <u> </u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder <u> </u>	Sub Total <u>0</u>
Final Flow <u>30</u>	<input checked="" type="checkbox"/> Day Standby <u> </u>	Total <u>1752</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility <u> </u>	MP/DST Disc't <u> </u>
	Sub Total <u>1752</u>	

Approved By Our Representative Brannan Lonsdale

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.