



DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Corp.**

88 Inverness Circle East
Unit F-104
Englewood CO 80112

ATTN: Randy Kilian

27-15-12w Russell KS

Pfister-Kaufman #2-27

Start Date: 2014.04.22 @ 08:45:38

End Date: 2014.04.22 @ 14:29:38

Job Ticket #: 54202 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.25 @ 10:13:21

Norstar Petroleum Corp.

Pfister-Kaufman #2-27

27-15-12w Russell KS

DST # 1

Plattsmouth - Toronto

2014.04.22



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Norstar Petroleum Corp.
 88 Inverness Circle East
 Unit F-104
 Englewood CO 80112
 ATTN: Randy Kilian

Pfister-Kaufman #2-27
27-15-12w Russell KS
 Job Ticket: 54202 **DST#: 1**
 Test Start: 2014.04.22 @ 08:45:38

GENERAL INFORMATION:

Formation: **Plattsmouth - Toront**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:57:53

Time Test Ended: 14:29:38

Interval: **2778.00 ft (KB) To 2875.00 ft (KB) (TVD)**

Total Depth: 2875.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 56

Reference Elevations: 1788.00 ft (KB)

1781.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8352 Outside

Press@RunDepth: 29.74 psig @ 2779.00 ft (KB)

Start Date: 2014.04.22 End Date: 2014.04.22

Start Time: 08:45:43 End Time: 14:29:37

Capacity: 8000.00 psig

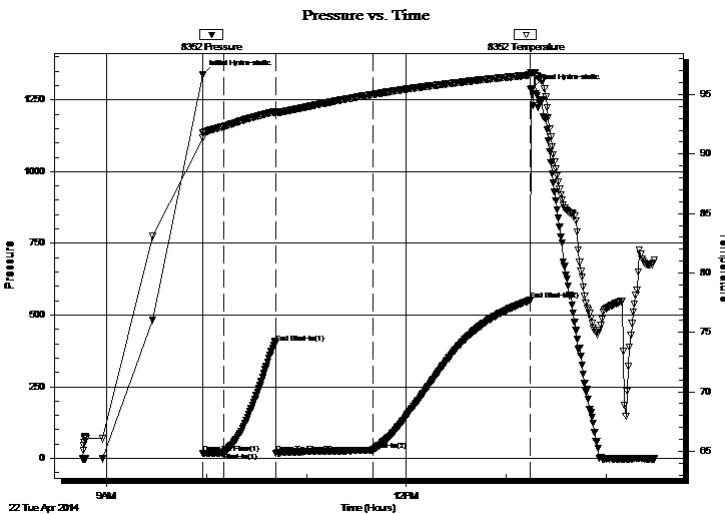
Last Calib.: 2014.04.22

Time On Btm: 2014.04.22 @ 09:57:38

Time Off Btm: 2014.04.22 @ 13:15:23

TEST COMMENT: IF:Weak blow . 1 - 3 1/2".
 IS:No blow .
 FF:Weak to fair blow . Increase to 7".
 FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1336.95	91.33	Initial Hydro-static
1	16.98	91.80	Open To Flow (1)
13	20.88	92.31	Shut-In(1)
44	401.41	93.57	End Shut-In(1)
44	17.42	93.43	Open To Flow (2)
103	29.74	95.00	Shut-In(2)
197	550.85	96.64	End Shut-In(2)
198	1290.17	96.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	95' GIP	0.00
30.00	SOCM 4%o 96%m	0.42

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Corp.
88 Inverness Circle East
Unit F-104
Englewood CO 80112
ATTN: Randy Kilian

Pfister-Kaufman #2-27
27-15-12w Russell KS
Job Ticket: 54202 **DST#: 1**
Test Start: 2014.04.22 @ 08:45:38

Tool Information

Drill Pipe:	Length: 2762.00 ft	Diameter: 3.80 inches	Volume: 38.74 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 53000.00 lb
		Total Volume: 38.74 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	2778.00 ft			Final 40500.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	97.00 ft			
Tool Length:	120.00 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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Change Over Sub	1.00			2756.00	
Shut In Tool	5.00			2761.00	
Hydraulic tool	5.00			2766.00	
Safety Joint	3.00			2769.00	
Packer	4.00			2773.00	23.00 Bottom Of Top Packer
Packer	5.00			2778.00	
Stubb	1.00			2779.00	
Recorder	0.00	8352	Outside	2779.00	
Recorder	0.00	8370	Inside	2779.00	
Perforations	6.00			2785.00	
Blank Spacing	64.00			2849.00	
Perforations	21.00			2870.00	
Bullnose	5.00			2875.00	97.00 Bottom Packers & Anchor

Total Tool Length: 120.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum Corp.
88 Inverness Circle East
Unit F-104
Englewood CO 80112
ATTN: Randy Kilian

Pfister-Kaufman #2-27
27-15-12w Russell KS
Job Ticket: 54202 **DST#: 1**
Test Start: 2014.04.22 @ 08:45:38

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:	5500 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 5500.00 ppm			
Filter Cake: 0.20 inches			

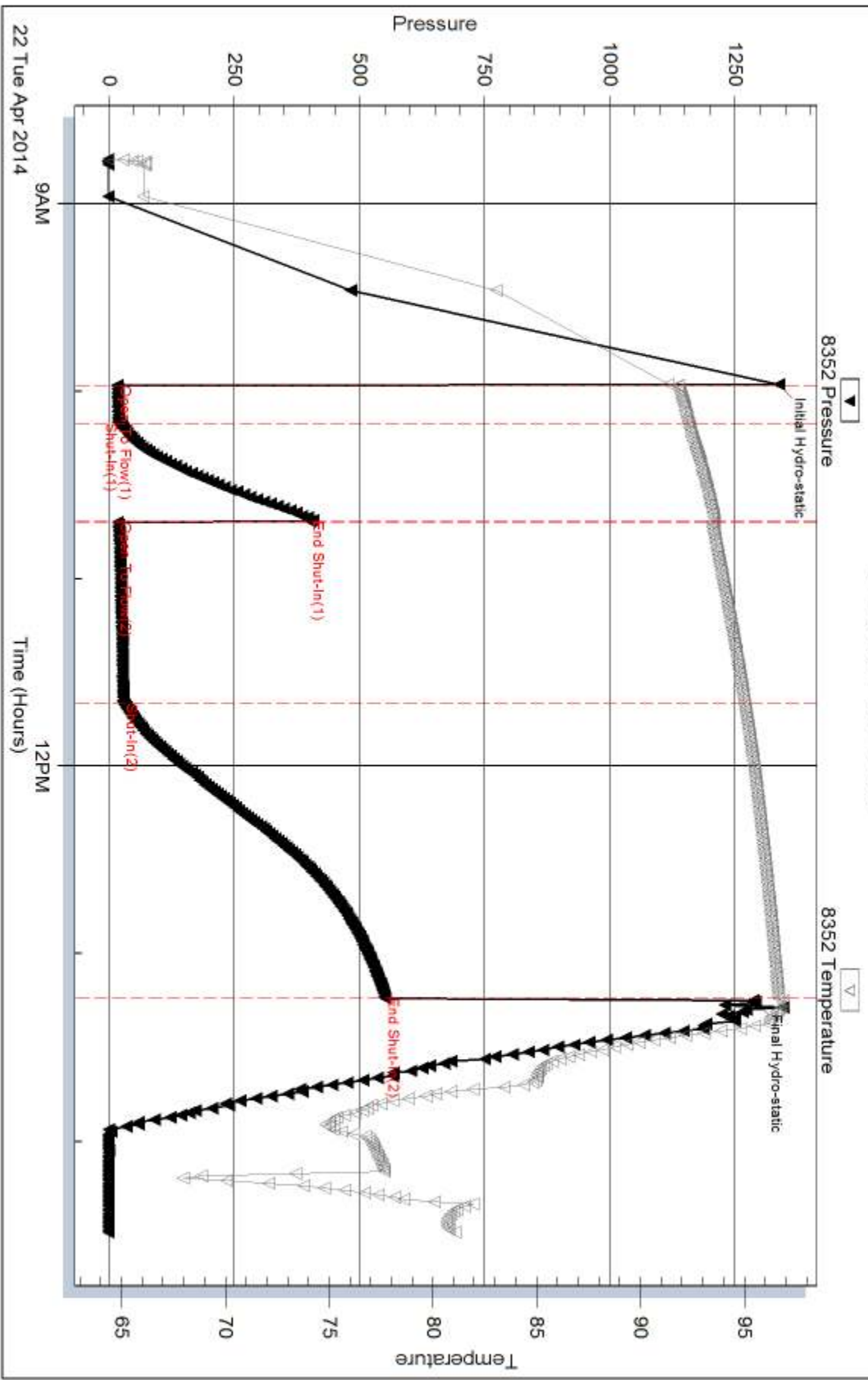
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	95' GIP	0.000
30.00	SOCM 4%o 96%m	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time



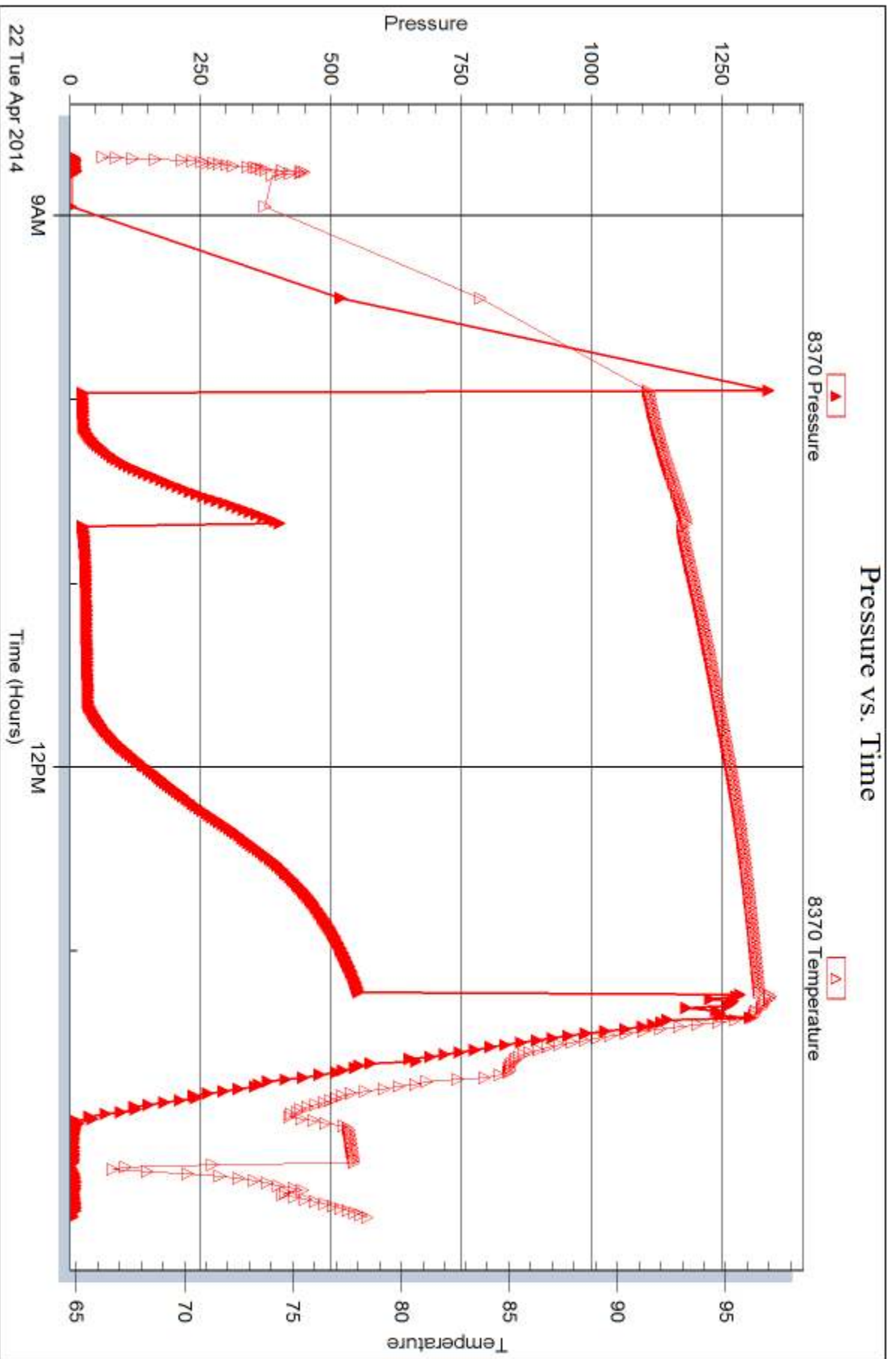
Serial #: 8370

Inside

Norstar Petroleum Corp.

27-15-12w Russell KS

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54202

Printed: 2014.04.25 @ 10:13:22



DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Corp.**

88 Inverness Circle East
Unit F-104
Englewood CO 80112

ATTN: Randy Kilian

27-15-12w Russell KS

Pfister-Kaufman #2-27

Start Date: 2014.04.23 @ 09:26:06

End Date: 2014.04.23 @ 14:29:51

Job Ticket #: 54203 DST #: 2

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

Printed: 2014.04.25 @ 10:11:45



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Norstar Petroleum Corp.
 88 Inverness Circle East
 Unit F-104
 Englewood CO 80112
 ATTN: Randy Kilian

Pfister-Kaufman #2-27
27-15-12w Russell KS
 Job Ticket: 54203 **DST#: 2**
 Test Start: 2014.04.23 @ 09:26:06

GENERAL INFORMATION:

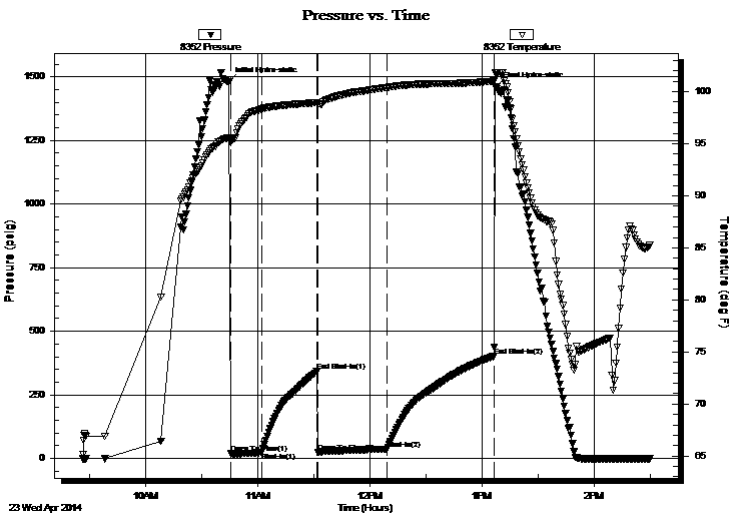
Formation: **LKC H - J**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 10:45:21
 Tester: Gary Pevoteaux
 Time Test Ended: 14:29:51
 Unit No: 56
 Interval: **3050.00 ft (KB) To 3132.00 ft (KB) (TVD)**
 Reference Elevations: 1788.00 ft (KB)
 Total Depth: 3132.00 ft (KB) (TVD)
 1781.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 7.00 ft

Serial #: 8352 Outside

Press@RunDepth: 37.43 psig @ 3051.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.23 End Date: 2014.04.23 Last Calib.: 2014.04.23
 Start Time: 09:26:11 End Time: 14:29:50 Time On Btm: 2014.04.23 @ 10:44:36
 Time Off Btm: 2014.04.23 @ 13:07:51

TEST COMMENT: IF: Strong blow . B.O.B. in 4 mins.
 IS: No blow .
 FF: Strong blow . B.O.B. in 30 secs.
 FS: Weak blow . 1/4"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1480.38	95.57	Initial Hydro-static
1	18.50	95.08	Open To Flow (1)
18	23.62	98.31	Shut-In(1)
47	342.17	98.94	End Shut-In(1)
48	23.31	98.82	Open To Flow (2)
85	37.43	100.40	Shut-In(2)
142	401.77	100.99	End Shut-In(2)
144	1461.47	101.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1190' GIP	0.00
55.00	Mud with oil specs	0.77

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Corp.
88 Inverness Circle East
Unit F-104
Englewood CO 80112
ATTN: Randy Kilian

Pfister-Kaufman #2-27
27-15-12w Russell KS
Job Ticket: 54203 **DST#: 2**
Test Start: 2014.04.23 @ 09:26:06

Tool Information

Drill Pipe:	Length: 3043.00 ft	Diameter: 3.80 inches	Volume: 42.69 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 51000.00 lb
			<u>Total Volume: 42.69 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3050.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	82.00 ft			
Tool Length:	102.00 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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Change Over Sub	1.00			3031.00	
Shut In Tool	5.00			3036.00	
Hydraulic tool	5.00			3041.00	
Packer	4.00			3045.00	20.00 Bottom Of Top Packer
Packer	5.00			3050.00	
Stubb	1.00			3051.00	
Recorder	0.00	8352	Outside	3051.00	
Recorder	0.00	8370	Inside	3051.00	
Perforations	6.00			3057.00	
Blank Spacing	64.00			3121.00	
Perforations	6.00			3127.00	
Bullnose	5.00			3132.00	82.00 Bottom Packers & Anchor

Total Tool Length: 102.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

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88 Inverness Circle East
Unit F-104
Englewood CO 80112
ATTN: Randy Kilian

Pfister-Kaufman #2-27
27-15-12w Russell KS
Job Ticket: 54203 **DST#: 2**
Test Start: 2014.04.23 @ 09:26:06

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:	7600 ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 7600.00 ppm			
Filter Cake: 0.20 inches			

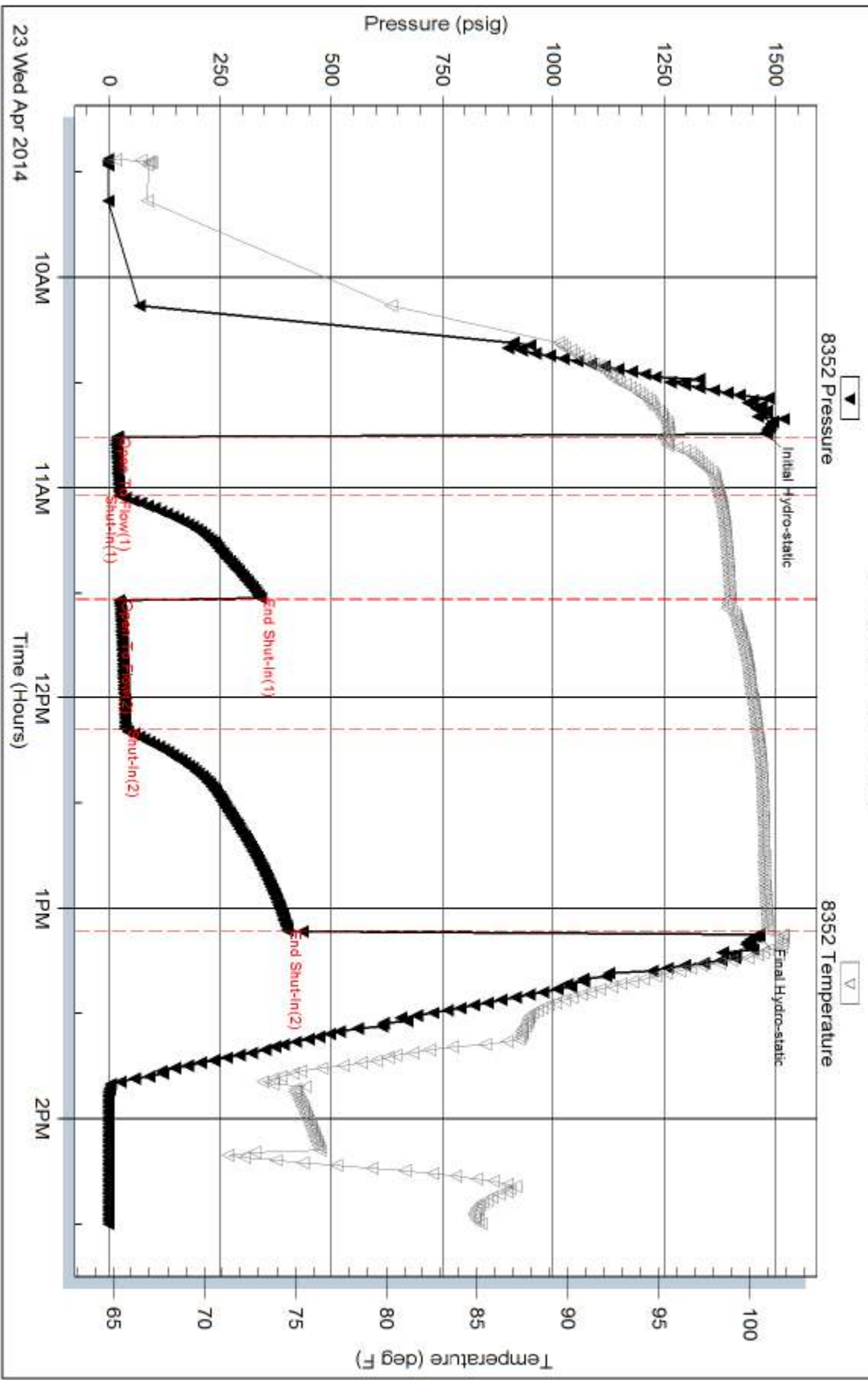
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1190' GIP	0.000
55.00	Mud with oil specs	0.772

Total Length: 55.00 ft Total Volume: 0.772 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time



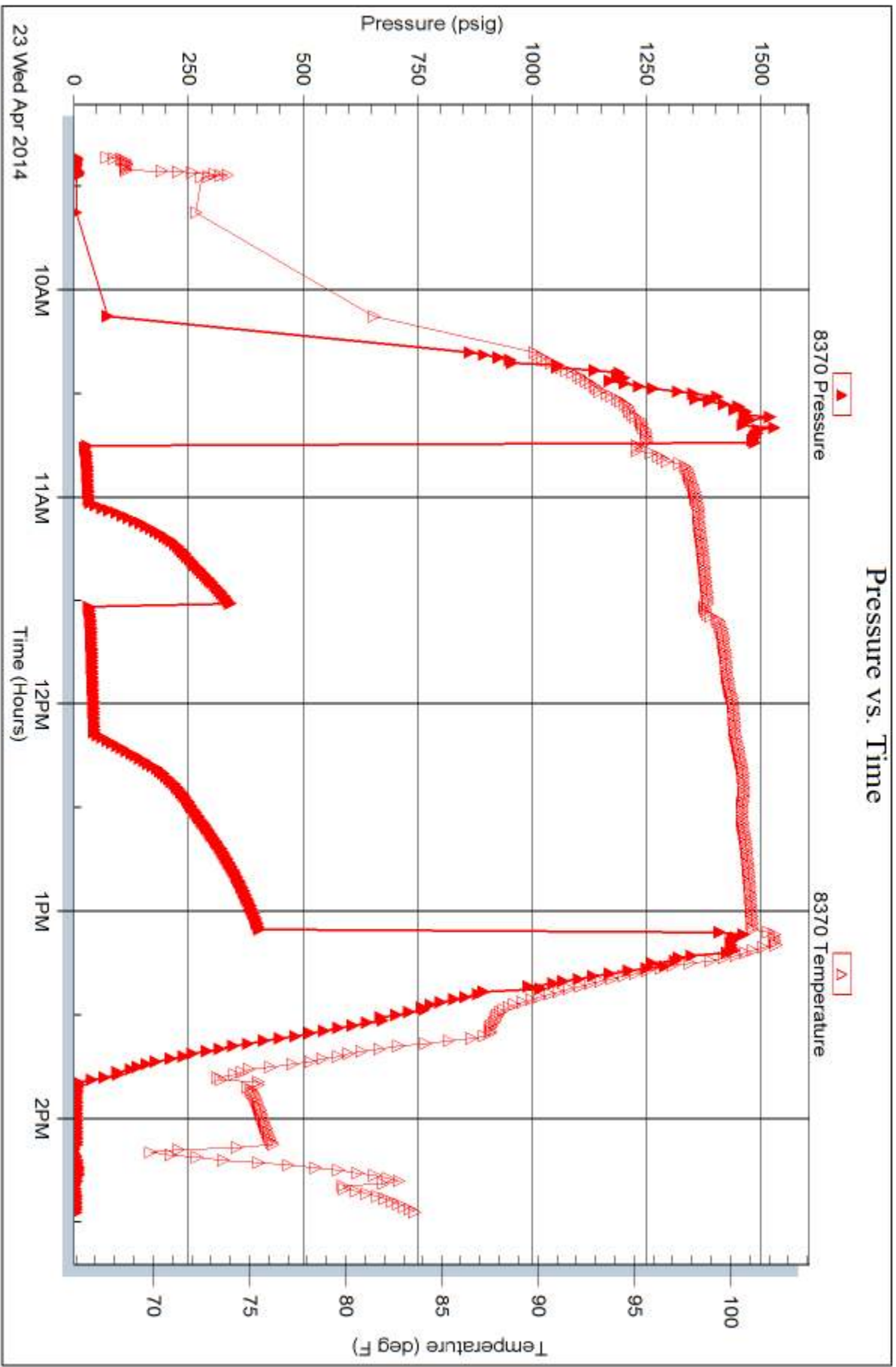
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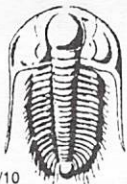
Inside

Norstar Petroleum Corp.

27-15-12w Russell KS

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54202

Well Name & No. PFISTER-KAUFMAN #2-27 Test No. 1 Date 4-22-14
 Company NORSTAR PETROLEUM CORP. Elevation 1788 KB 1781 GL
 Address 88 INVERNESS GER. E. UNIT F104, ENGLEWOOD CO. 80112
 Co. Rep / Geo. RANDY KIRWAN Rig ROYAL DRUG #2
 Location: Sec. 27 Twp. 15S Rge. 12W Co. RUSSELL State KS.

Interval Tested 2778 - 2875' Zone Tested PLATTSMOUTH / TORONTO
 Anchor Length 97' Drill Pipe Run 2762' Mud Wt. 9.0
 Top Packer Depth 2773' Drill Collars Run 0 Vis 52
 Bottom Packer Depth 2778' Wt. Pipe Run 0 WL 7.2cc
 Total Depth 2875' Chlorides 5500 ppm System LCM 1/2
 Blow Description IF: Weak blow. 1-3 1/2". ISI: No blow.

FF: Weak to fair blow. Increase to 7". FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>95</u>	<u>Gas in pipe</u>				
<u>30</u>	<u>SOCM</u>		<u>4</u>		<u>96</u>

Rec Total 30 BHT 97° Gravity N/A API RW N.C. @ ~ °F Chlorides 5500 ppm
 (A) Initial Hydrostatic 1337 Test 1150 T-On Location 0755
 (B) First Initial Flow 17 Jars _____ T-Started 0845
 (C) First Final Flow 21 Safety Joint 75 T-Open 0957
 (D) Initial Shut-In 401 Circ Sub _____ T-Pulled 1311
 (E) Second Initial Flow 17 Hourly Standby _____ T-Out 1429
 (F) Second Final Flow 30 Mileage 144 90rt 139.50 Comments _____
 (G) Final Shut-In 551 Sampler _____
 (H) Final Hydrostatic 1290 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Initial Open 15 Extra Packer _____ Extra Copies _____
 Initial Shut-In 30 Extra Recorder _____ Sub Total 0
 Final Flow 60 Day Standby _____ Total 1364.50
 Final Shut-In 90 Accessibility _____ MP/DST Disc't _____
 Sub Total 1364.50

Approved By _____ Our Representative Cory Kutz

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. 54203

Well Name & No. PEISTER - KAUFMAN #2-27 Test No. 2 Date 4-23-14
 Company NORSTAR PETROLEUM CORP. Elevation 1788 KB 1781 GL
 Address 88 INVERNESS CIR. E. UNIT F-104, ENGLEWOOD CO. 80112
 Co. Rep / Geo. RANDY KILIAN Rig ROYAL DRILL #2
 Location: Sec. 27 Twp. 15S Rge. 12W Co. RUSSELL State KS.

Interval Tested 3050 - 3132' Zone Tested LKC H-5
 Anchor Length 82' Drill Pipe Run 3043' Mud Wt. 9.2
 Top Packer Depth 3045' Drill Collars Run 0 Vis 58
 Bottom Packer Depth 3050' Wt. Pipe Run 0 WL 8.8
 Total Depth 3132' Chlorides 7,600 ppm System LCM 1/2#
 Blow Description IF: Strong blow. B.O.B. in 4 mins. ISI. No blow.

FF: Strong blow. B.O.B. in 30 secs. FSI. Weak blow. 1/4".

Rec	Feet of	%gas	%oil	%water	%mud
<u>1190</u>	<u>Gas in pipe</u>				
<u>55</u>	<u>Mud w/ oil spec.</u>				

Rec Total SS Fluid BHT 101° Gravity N/A API RW N.C. @ ~ °F Chlorides 7600 ppm

(A) Initial Hydrostatic <u>1480</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0907</u>
(B) First Initial Flow <u>19</u>	<input type="checkbox"/> Jars	T-Started <u>0926</u>
(C) First Final Flow <u>24</u>	<input type="checkbox"/> Safety Joint	T-Open <u>1045</u>
(D) Initial Shut-In <u>342</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1307</u>
(E) Second Initial Flow <u>23</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1429</u>
(F) Second Final Flow <u>37</u>	<input checked="" type="checkbox"/> Mileage <u>64</u> x 2 <u>279</u> ^{GT BEND} _{APT.}	Comments <u>STAYED 2 NITES</u>
(G) Final Shut-In <u>402</u>	<input type="checkbox"/> Sampler	<u>GT BEND APT.</u>
(H) Final Hydrostatic <u>1461</u>	<input type="checkbox"/> Straddle <u>EXTRA TRIP</u> <u>TO LOAD TOOLS</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>15</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>35</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1429</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1429</u>	

Approved By _____ Our Representative Craig Potvin

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.