



TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65672

Well Name & No. Rhonda #1 Test No. 1 Date 11 June 19
 Company Northern Lights Oil Company LLC Elevation _____ KB _____ GL _____
 Address 320 W Central Suite B Andover KS 67002-10164
 Co. Rep / Geo. Jeff Christian Rig Southwind Rig 8
 Location: Sec. 15 Twp 17S Rge. 20W Co. Rush State KS

Interval Tested 3965-3998 Zone Tested Cherokee Sand
 Anchor Length 33 Drill Pipe Run 3971 Mud Wt. 9.55
 Top Packer Depth 3960 Drill Collars Run - Vis 47
 Bottom Packer Depth 3965 Wt. Pipe Run - WL 9.6
 Total Depth 3998 Chlorides 5200 ppm System LCM Tr

Blow Description IF Few bubbles at open then dead
ISI No blowback
FF Dead / Flush tool no help
FSI No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>Mud</u>			<u>100</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 3 BHT 110 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2027 Test _____
 (B) First Initial Flow 22 Jars _____
 (C) First Final Flow 18 Safety Joint _____
 (D) Initial Shut-In 32 Circ Sub _____
 (E) Second Initial Flow 19 Hourly Standby _____
 (F) Second Final Flow 19 Mileage 80
 (G) Final Shut-In 26 Sampler _____
 (H) Final Hydrostatic 1961 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total _____

T-On Location 10:16 pm
 T-Started 11:02 pm
 T-Open 12:54 am
 T-Pulled 2:54 am
 T-Out 4:11 am
 Comments _____
 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total _____
 Total _____
 MP/DST Disc't _____

Approved By _____

Our Representative [Signature]

Tribolite 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.**

DRILL STEM TEST REPORT

Northern Lights Oil Company LLC

15/17S/20W/Rush

320 W Central
Suite B
Andover, KS 67002+0164
ATTN: Jeff Christian

Rhonda #1

Job Ticket: 65672

DST#: 1

Test Start: 2019.06.11 @ 23:02:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:54:02
Time Test Ended: 04:16:02

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 72 Hays 80

Interval: **3965.00 ft (KB) To 3998.00 ft (KB) (TVD)**
Total Depth: 3998.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Fair

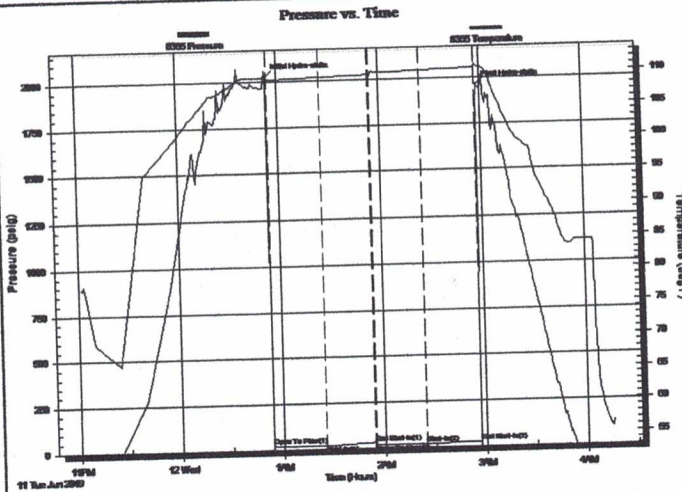
Reference Elevations: 2150.00 ft (KB)
2140.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8365

Press@RunDepth: 19.51 psig @ ft (KB)
Start Date: 2019.06.11 End Date: 2019.06.12
Start Time: 23:02:00 End Time: 04:16:02

Capacity: psig
Last Calib.: 2019.06.12
Time On Btm: 2019.06.12 @ 00:53:32
Time Off Btm: 2019.06.12 @ 02:57:47

TEST COMMENT: F 30 Minutes/ Few bubbles at open then dead
ISI 30 Minutes/ No blow back
FF 30 Minutes/ Dead/ Flush tool no help
FSI 30 Minutes/ No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2027.42	109.65	Initial Hydro-static
1	22.16	109.28	Open To Flow (1)
32	18.05	109.54	Shut-In(1)
61	32.08	109.80	End Shut-In(1)
61	19.21	109.82	Open To Flow (2)
91	19.51	110.29	Shut-In(2)
124	26.40	110.61	End Shut-In(2)
125	1961.09	110.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100%	0.04

Gas Rates

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

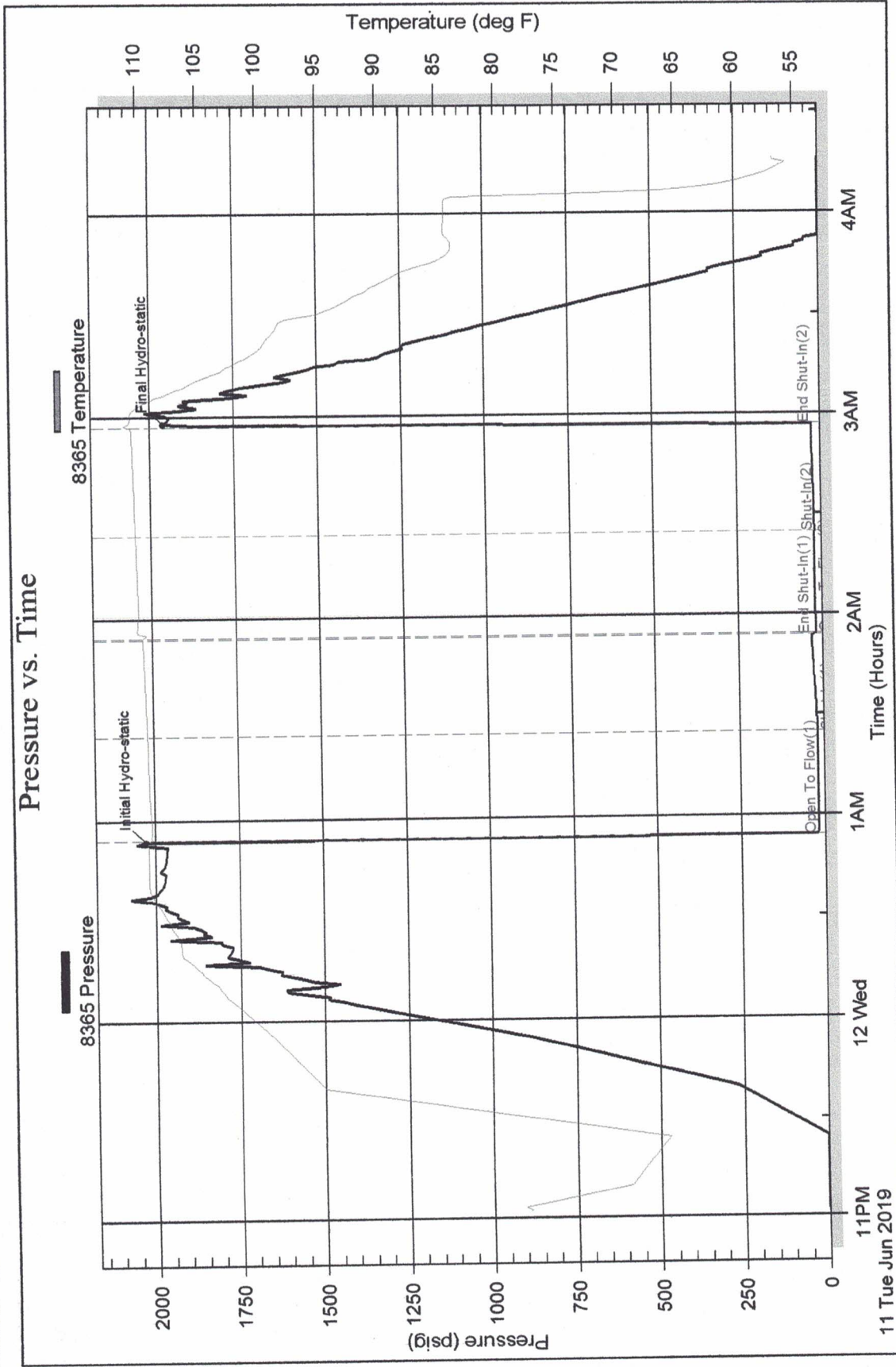
DST Test Number: 1

Rhonda #1

Northern Lights Oil Company LLC

Serial #: 8365

Pressure vs. Time



Printed: 2019.06.12 @ 04:28:46

Ref. No: 65672

Trilobite Testing, Inc

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65673

Well Name & No. Rhonda #1 Test No. 2 Date 12 June 19
 Company Northern Lights O.Y. Company LLC Elevation 2150 KB 2140 GL
 Address 320 W Central Suite B Andover KS 67007+0164
 Co. Rep / Geo. Jeff Christian Rig Southwind Rig 8
 Location: Sec. 15 Twp 17S Rge. 20W Co. Rush State KS

Interval Tested 3966-4003 Zone Tested Cherokee Sand
 Anchor Length 37 Drill Pipe Run 3971 Mud Wt. 9.45
 Top Packer Depth 3961 Drill Collars Run - Vis 60
 Bottom Packer Depth 3966 Wt. Pipe Run - WL 9.2
 Total Depth 4003 Chlorides 5000 ppm System LCM 2#

Blow Description IF Blow built to 9 3/4 inches
ISE No blow back
FF Blow to BOB in 31 1/2 minutes Total build 16 inches
FSI 1 inch blow back

Rec	Feet of		%gas	%oil	%water	%mud
62	60	62'	10	90		
62	6WOCM	6.2'	35	10	5	80
62	OCWM	6.2'	18	10	30	60
62	GIP	2'				
			%gas	%oil	%water	%mud

Rec Total 186 BHT 109 Gravity _____ API RW .361 @ 67 °F Chlorides 19000 ppm

- (A) Initial Hydrostatic 2049
- (B) First Initial Flow 21
- (C) First Final Flow 56
- (D) Initial Shut-In 651
- (E) Second Initial Flow 63
- (F) Second Final Flow 98
- (G) Final Shut-In 656
- (H) Final Hydrostatic 2035

- Test _____
- Jars _____
- Safety Joint _____
- Circ Sub _____
- Hourly Standby _____
- Mileage 80
- Sampler _____
- Straddle _____
- Shale Packer _____
- Extra Packer _____
- Extra Recorder _____
- Day Standby _____
- Accessibility _____

T-On Location 11:30
 T-Started 12:11 pm
 T-Open 1:50 pm
 T-Pulled 4:50 pm
 T-Out 6:44 pm

Comments _____

 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total _____
 Total _____
 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60

Approved By _____ Our Representative [Signature]
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TESTING, INC.**

DRILL STEM TEST REPORT

Northern Lights Oil Company LLC

15/17S/20W/Rush

320 W Central
Suite B
Andover, KS 67002+0164
ATTN: Jeff Christian

Rhonda #1

Job Ticket: 65673

DST#: 2

Test Start: 2019.06.12 @ 12:11:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:50:47

Time Test Ended: 18:43:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72 Hays/80

Interval: **3966.00 ft (KB) To 4003.00 ft (KB) (TVD)**

Total Depth: 4003.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Fair

Reference Elevations: 2150.00 ft (KB)

2140.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8365

Inside

Press@RunDepth: 98.75 psig @ 3999.00 ft (KB)

Capacity:

psig

Start Date: 2019.06.12

End Date:

2019.06.12

Last Calib.:

2019.06.12

Start Time: 12:11:00

End Time:

18:43:02

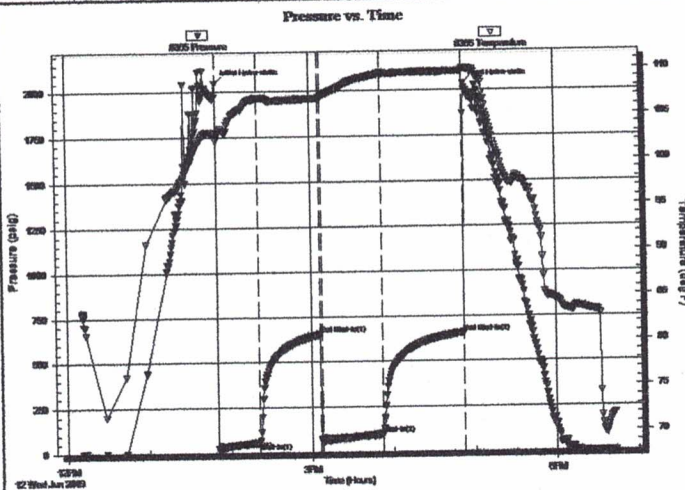
Time On Btm:

2019.06.12 @ 13:50:17

Time Off Btm:

2019.06.12 @ 16:53:17

TEST COMMENT: IF 30 Minutes/ Blow built to 9 3/4 inches
 ISI 45 Minutes/ No blow back
 FF 45 Minutes/ Blow to BOB in 31 1/2 minutes/ Total build 16 inches
 FSI 60 Minutes/ 1 inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2049.07	103.00	Initial Hydro-static
1	21.64	102.17	Open To Flow (1)
31	56.74	106.84	Shut-In(1)
76	651.95	106.75	End Shut-In(1)
77	63.00	106.77	Open To Flow (2)
122	98.75	109.48	Shut-In(2)
182	656.49	109.70	End Shut-In(2)
183	2035.11	109.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	GO /G 10% O 90%	0.87
62.00	GWOCM G 5% W 5% O 10% M 80%	0.87
62.00	OCWM O 10% W 30% M 60%	0.87
0.00	62 feet GIP	0.00

Gas Rates

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

Serial #: 8365

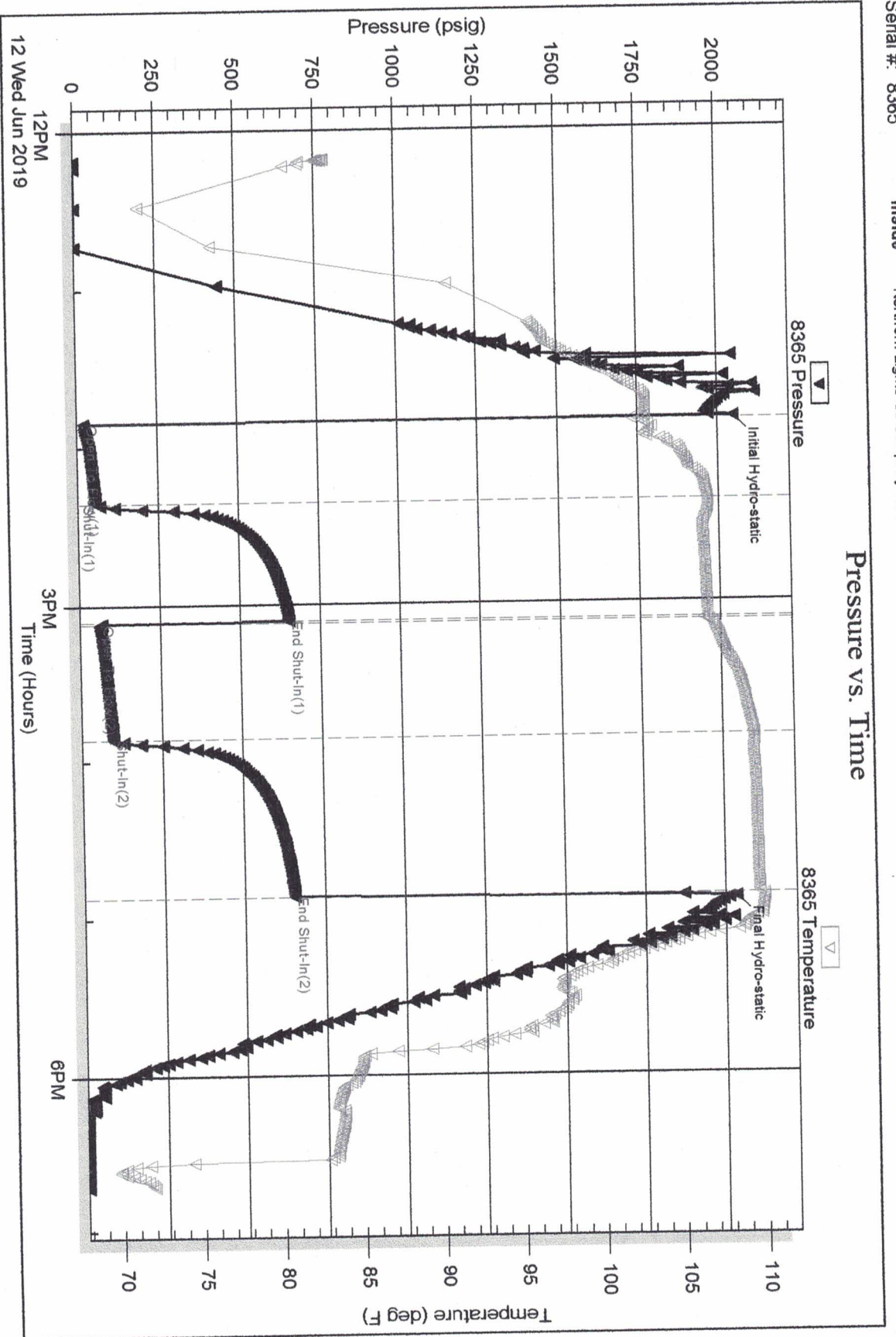
Inside

Northern Lights Oil Company LLC

Rhonda #1

DST Test Number: 2

Pressure vs. Time



12 PM
12 Wed Jun 2019

3 PM
Time (Hours)

6 PM

Triobite Testing, Inc

Ref. No: 65673

Printed: 2019.06.12 @ 19:06:03