



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**NEWFLYER 2030**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 40 (28 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LP0001883</b>	LP0001972	---
Sample Date		Client Info		<b>20 Jun 2024</b>	10 May 2024	---
Machine Age	mls	Client Info		<b>168773</b>	0	---
Oil Age	mls	Client Info		<b>168773</b>	0	---
Filter Age	mls	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	N/A	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>9</b>	8	---
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	1	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185m	>15	<b>3</b>	3	---
Lead	ppm	ASTM D5185m	>25	<b>2</b>	<1	---
Copper	ppm	ASTM D5185m	>100	<b>1</b>	2	---
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

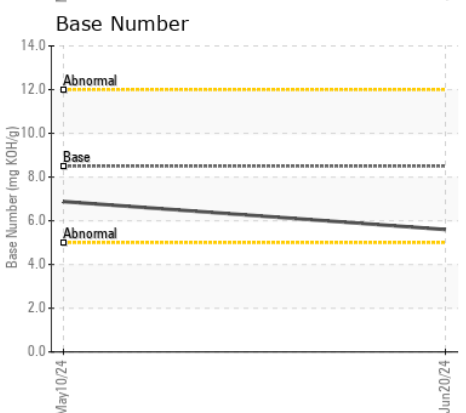
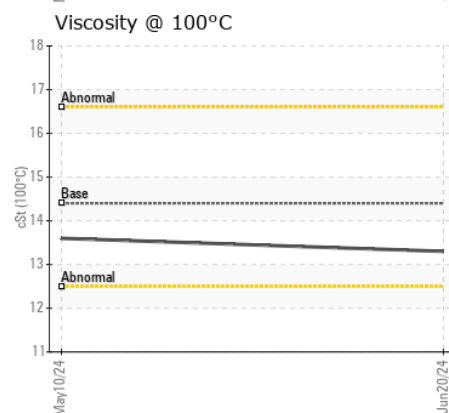
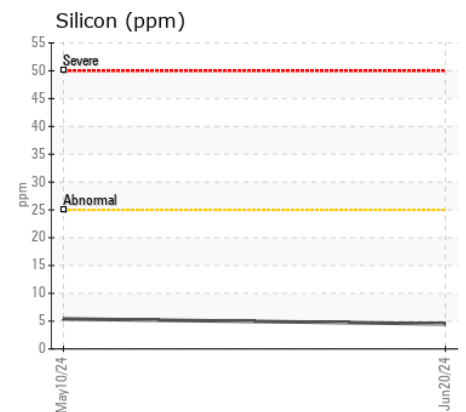
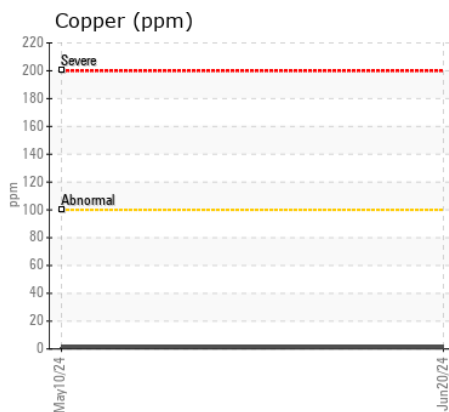
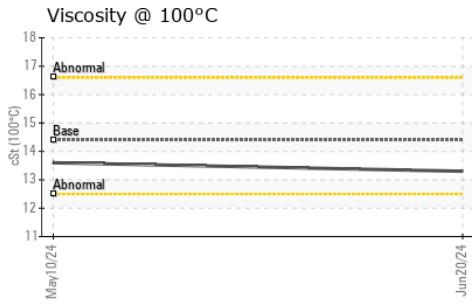
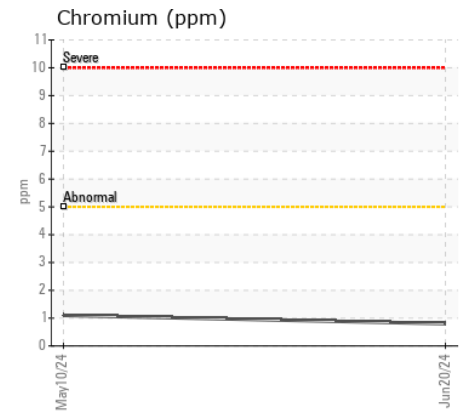
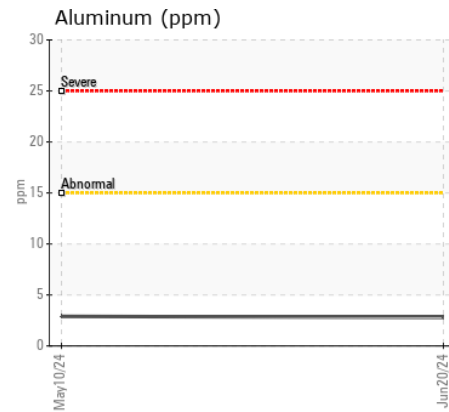
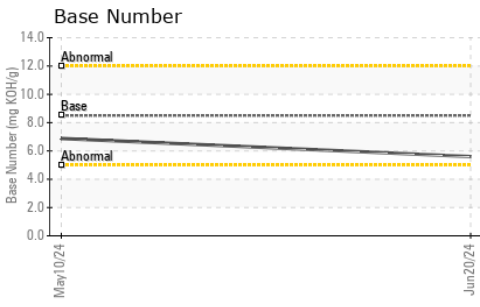
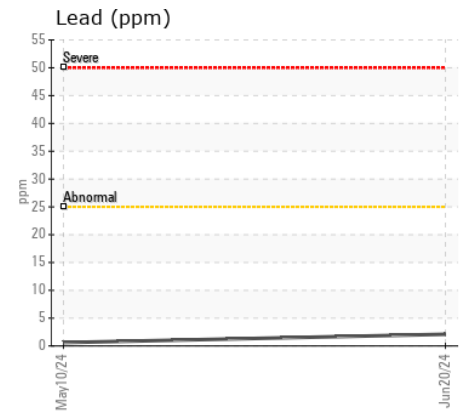
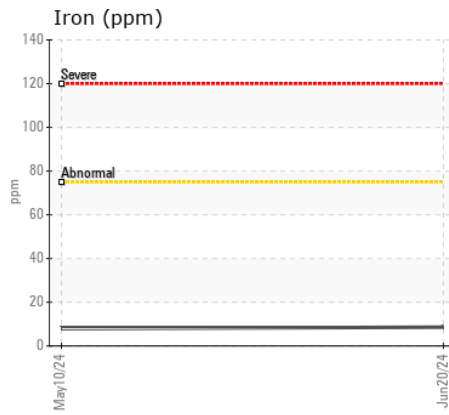
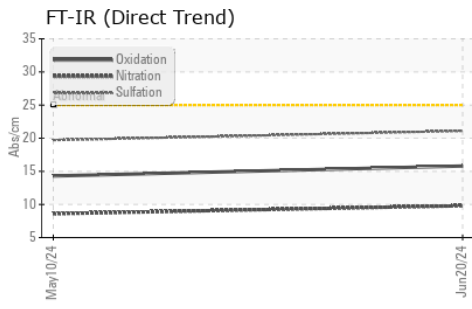
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	---
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	3	---
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>6	<b>0.7</b>	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.8</b>	8.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.1</b>	19.7	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	<b>4</b>	10	---
Boron	ppm	ASTM D5185m	250	<b>10</b>	14	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	100	<b>27</b>	30	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	450	<b>42</b>	30	---
Calcium	ppm	ASTM D5185m	3000	<b>2473</b>	2274	---
Phosphorus	ppm	ASTM D5185m	1150	<b>980</b>	917	---
Zinc	ppm	ASTM D5185m	1350	<b>1236</b>	1094	---
Sulfur	ppm	ASTM D5185m	4250	<b>4409</b>	3753	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.8</b>	14.3	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.6</b>	6.88	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.6	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LP0001883  
**Lab Number** : 06219031  
**Unique Number** : 11097228  
**Test Package** : MOB 2

**GREATER PORTLAND TRANSIT DISTRICT**  
 114 VALLEY STREET  
 PORTLAND, ME  
 US 04102-3039  
 Contact: JOHN JACQUES  
 jjacques@gpmetro.org

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: