



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
NEWFLYER 1923
Component
Diesel Engine
Fluid
{not provided} (28 QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 40 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

WEAR

All component wear rates are normal.

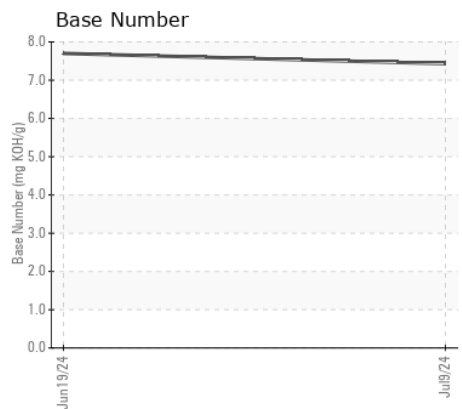
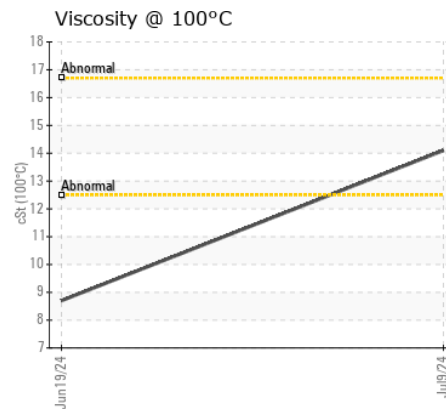
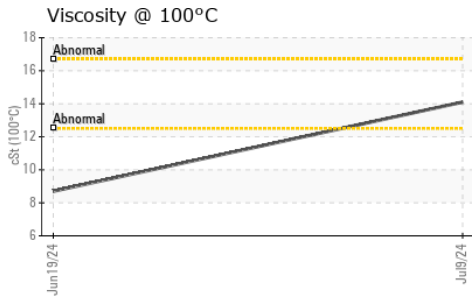
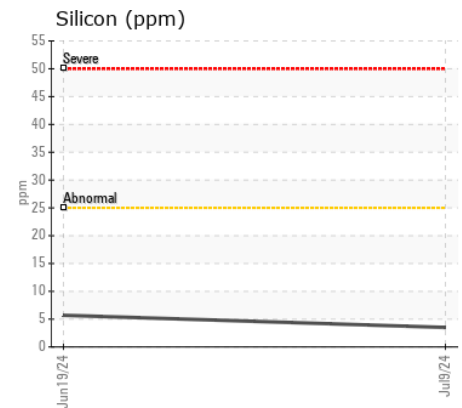
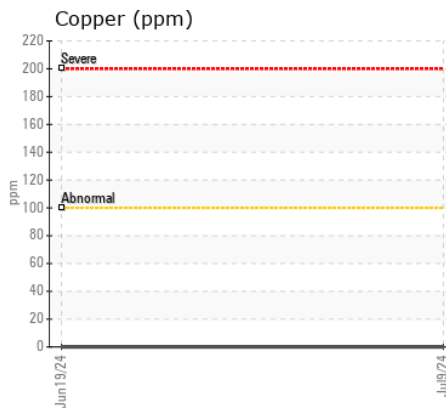
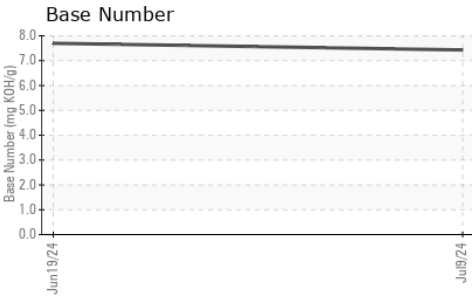
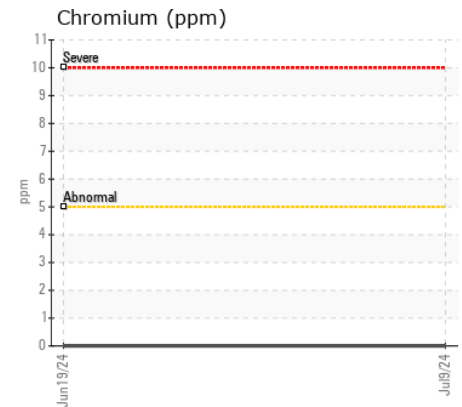
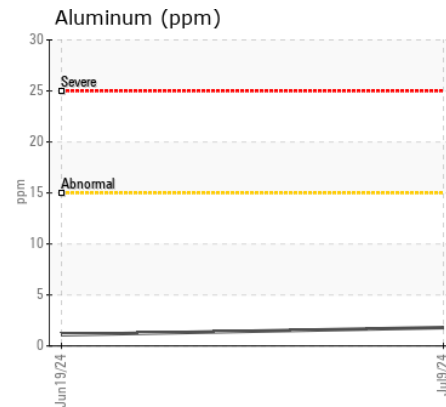
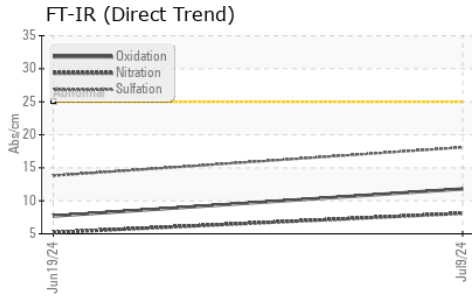
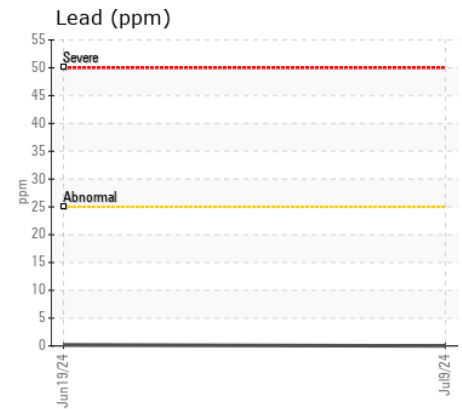
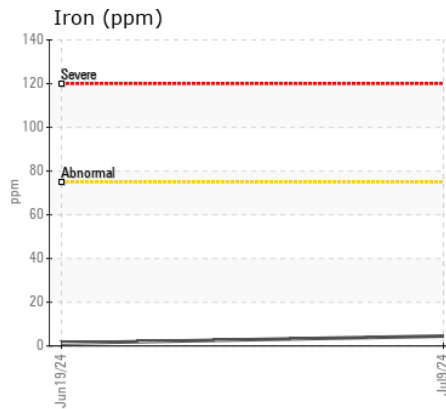
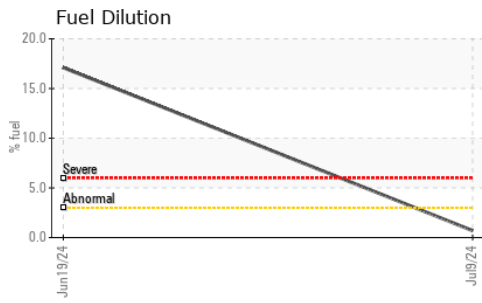
CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil.

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001876	LP0001886	---
Sample Date		Client Info		09 Jul 2024	19 Jun 2024	---
Machine Age	mls	Client Info		231310	228727	---
Oil Age	mls	Client Info		231310	228727	---
Filter Age	mls	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	SEVERE	---
Iron	ppm	ASTM D5185m	>75	4	1	---
Chromium	ppm	ASTM D5185m	>5	0	0	---
Nickel	ppm	ASTM D5185m	>4	0	0	---
Titanium	ppm	ASTM D5185m	>2	<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>15	2	1	---
Lead	ppm	ASTM D5185m	>25	0	<1	---
Copper	ppm	ASTM D5185m	>100	0	0	---
Tin	ppm	ASTM D5185m	>4	<1	0	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	4	6	---
Potassium	ppm	ASTM D5185m	>20	2	2	---
Fuel	%	ASTM D3524	>3.0	0.7	▲ 17.1	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>6	0.3	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	8.1	5.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	13.8	---
Silt	scalar	*Visual	NONE	NONE	▲ MODER	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185m		6	<1	---
Boron	ppm	ASTM D5185m		10	8	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		14	8	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		26	25	---
Calcium	ppm	ASTM D5185m		2291	2054	---
Phosphorus	ppm	ASTM D5185m		929	788	---
Zinc	ppm	ASTM D5185m		1138	907	---
Sulfur	ppm	ASTM D5185m		4339	3698	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.8	7.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		7.43	7.70	---
Visc @ 100°C	cSt	ASTM D445		14.1	▲ 8.7	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0001876
Lab Number : 06235125
Unique Number : 11123959
Test Package : MOB 2 (Additional Tests: PercentFuel)

Received : 12 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 16 Jul 2024 - Wes Davis

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: