



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
414086
 Component
1 Diesel Engine
 Fluid
{not provided} (40 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0108419	---	---
Sample Date		Client Info		07 Feb 2024	---	---
Machine Age	hrs	Client Info		550	---	---
Oil Age	hrs	Client Info		550	---	---
Filter Age	hrs	Client Info		550	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	45	---	---
Chromium	ppm	ASTM D5185m	>20	2	---	---
Nickel	ppm	ASTM D5185m	>5	9	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	1	---	---
Aluminum	ppm	ASTM D5185m	>20	10	---	---
Lead	ppm	ASTM D5185m	>40	<1	---	---
Copper	ppm	ASTM D5185m	>330	119	---	---
Tin	ppm	ASTM D5185m	>15	3	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

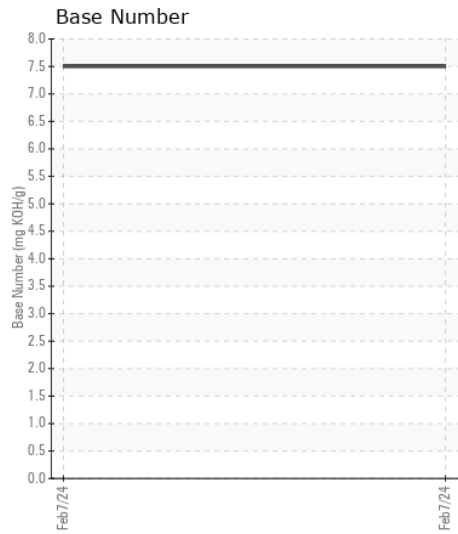
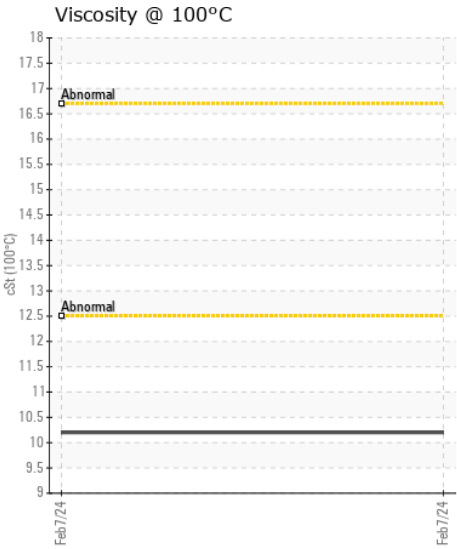
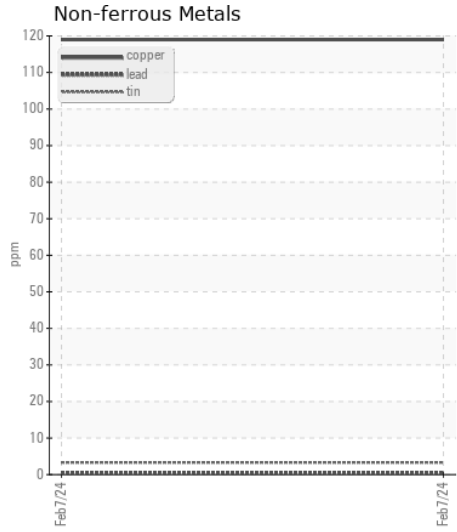
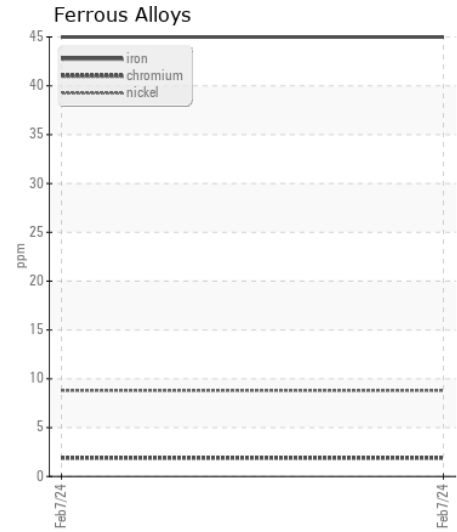
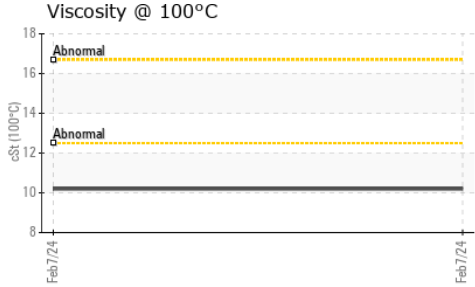
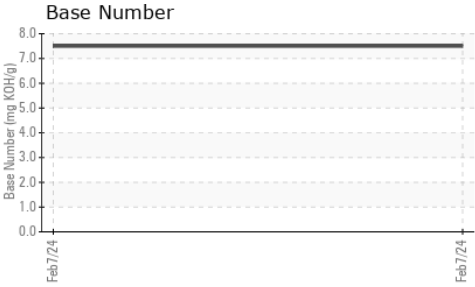
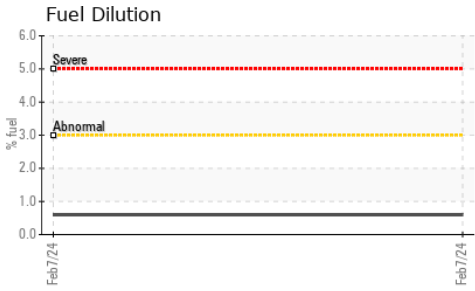
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	73	---	---
Potassium	ppm	ASTM D5185m	>20	28	---	---
Fuel	%	ASTM D3524	>3.0	0.6	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>4	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	9.3	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	---	---
Boron	ppm	ASTM D5185m		240	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		126	---	---
Manganese	ppm	ASTM D5185m		4	---	---
Magnesium	ppm	ASTM D5185m		769	---	---
Calcium	ppm	ASTM D5185m		1478	---	---
Phosphorus	ppm	ASTM D5185m		778	---	---
Zinc	ppm	ASTM D5185m		966	---	---
Sulfur	ppm	ASTM D5185m		2440	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		7.5	---	---
Visc @ 100°C	cSt	ASTM D445		10.2	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0108419 **Received** : 09 Feb 2024
Lab Number : 06085258 **Tested** : 13 Feb 2024
Unique Number : 10872703 **Diagnosed** : 13 Feb 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 918 - Hartland HC
 630 E Industrial Drive
 Hartland, WI
 US 53029
 Contact: David McCall
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 T: (262)369-3069
 F:

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)