



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
{UNASSIGNED}
Machine Id
814041
Component
1 Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W30 (12 GAL)

RECOMMENDATION

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		GFL0109130	GFL0109217	---
Sample Date		Client Info		13 Mar 2024	28 Jan 2024	---
Machine Age	hrs	Client Info		609	302	---
Oil Age	hrs	Client Info		600	302	---
Filter Age	hrs	Client Info		600	0	---
Oil Changed		Client Info		Changed	Not Changed	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	41	31	---
Chromium	ppm	ASTM D5185m	>20	<1	1	---
Nickel	ppm	ASTM D5185m	>5	13	10	---
Titanium	ppm	ASTM D5185m	>2	0	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	5	6	---
Lead	ppm	ASTM D5185m	>40	2	<1	---
Copper	ppm	ASTM D5185m	>330	276	41	---
Tin	ppm	ASTM D5185m	>15	1	2	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

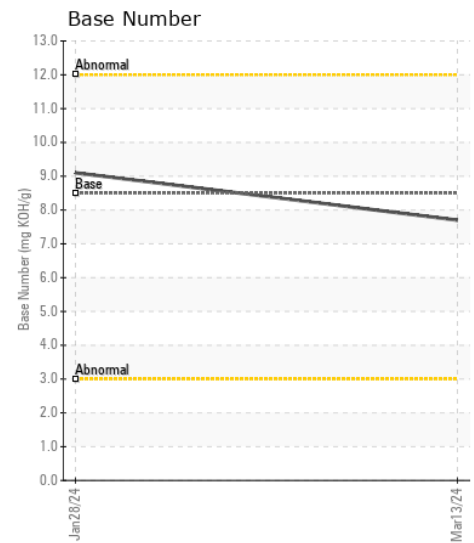
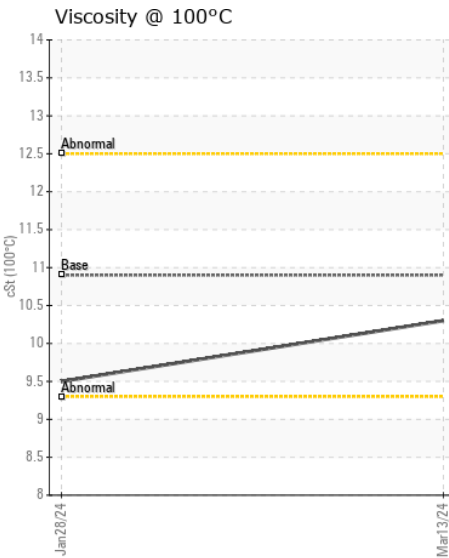
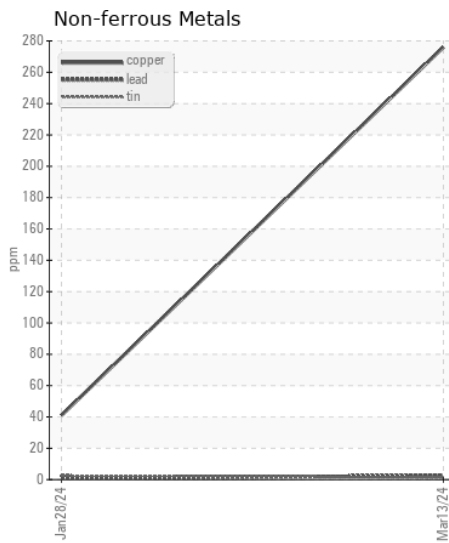
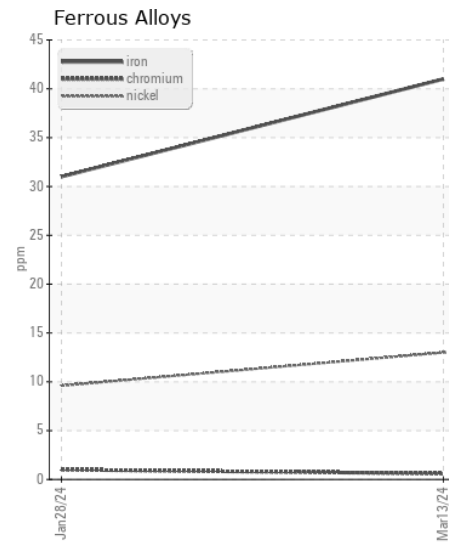
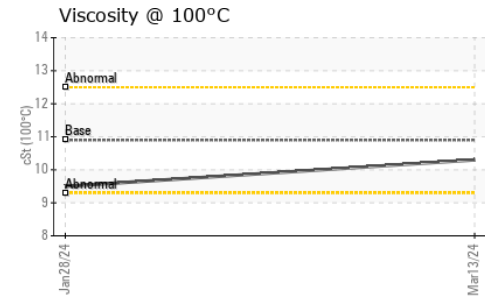
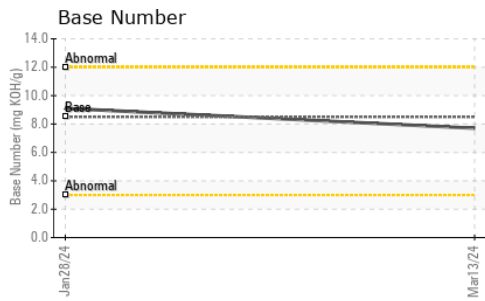
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	70	70	---
Potassium	ppm	ASTM D5185m	>20	4	7	---
Fuel		WC Method	>3.0	<1.0	0.4	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>4	0.5	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	10.1	8.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.4	25.7	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
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	---

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		3	4	---
Boron	ppm	ASTM D5185m	250	200	359	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	117	125	---
Manganese	ppm	ASTM D5185m		4	4	---
Magnesium	ppm	ASTM D5185m	450	748	687	---
Calcium	ppm	ASTM D5185m	3000	1515	1434	---
Phosphorus	ppm	ASTM D5185m	1150	761	694	---
Zinc	ppm	ASTM D5185m	1350	903	837	---
Sulfur	ppm	ASTM D5185m	4250	2731	2394	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.7	21.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.7	9.1	---
Visc @ 100°C	cSt	ASTM D445	10.9	10.3	9.5	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0109130
Lab Number : 06123388
Unique Number : 10937539
Test Package : FLEET

Received : 20 Mar 2024
Tested : 21 Mar 2024
Diagnosed : 21 Mar 2024 - Wes Davis

GFL Environmental - 822 - Springfield Hauling
 2120 West Bennett Street
 Springfield, MO
 US 65807

Contact: Dennis Moore
 dennis.moore@gflenv.com

T: (417)403-3641

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)

F: