



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(YA163859) 020
Machine Id
810040
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (40 QTS)

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		GFL0126042	GFL0117863	GFL0103788
Sample Date		Client Info		25 Jun 2024	03 Apr 2024	08 Feb 2024
Machine Age	hrs	Client Info		8489	7827	7377
Oil Age	hrs	Client Info		662	450	583
Filter Age	hrs	Client Info		662	450	583
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	6	9	13
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	2	<1
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	<1	2	6
Tin	ppm	ASTM D5185m	>15	<1	1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

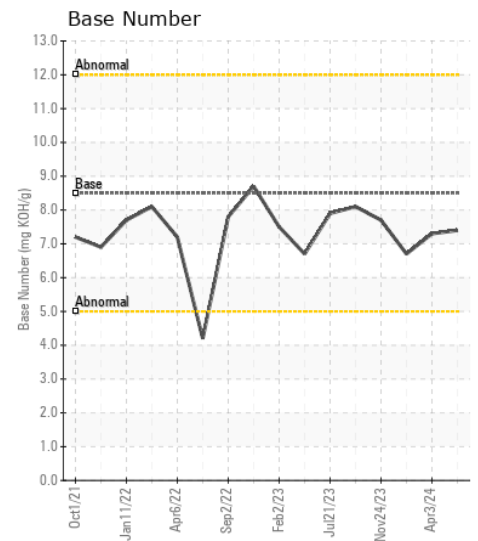
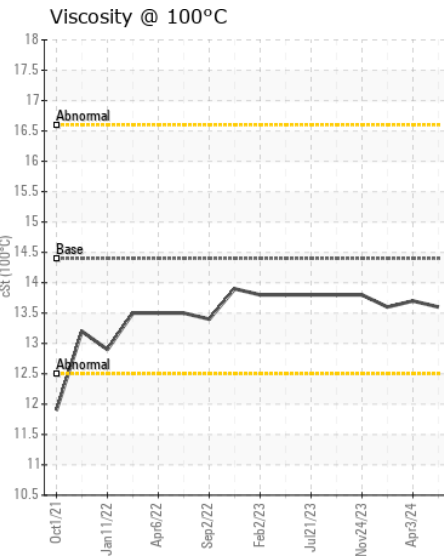
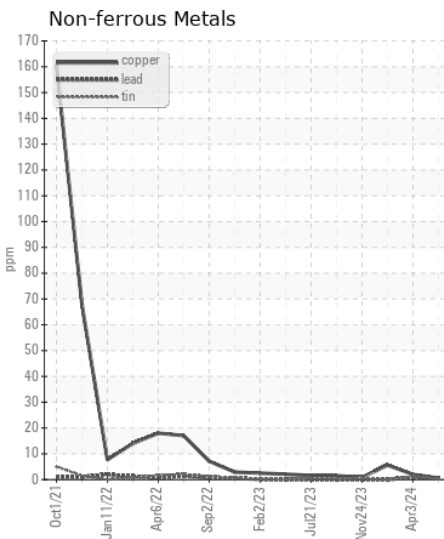
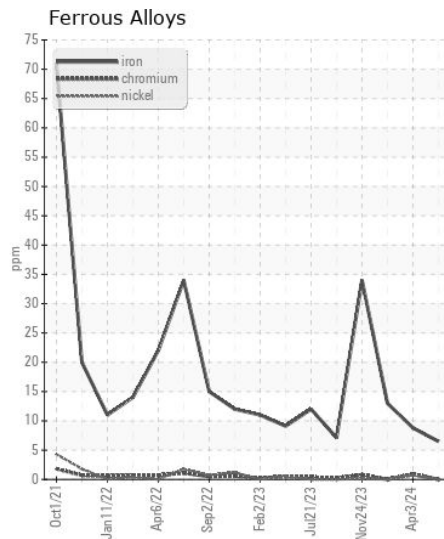
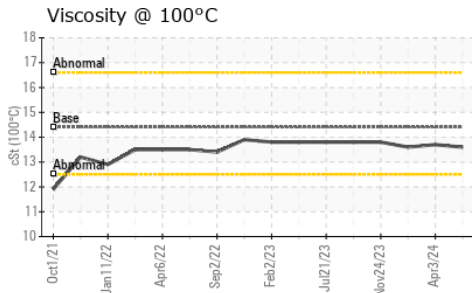
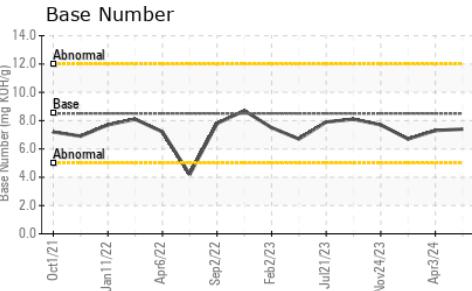
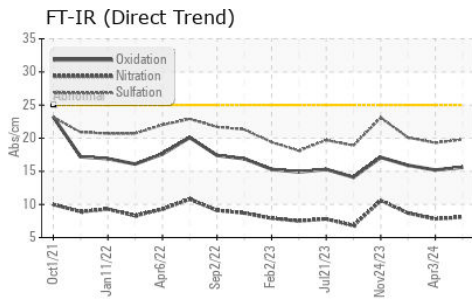
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	8	3
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.5	0.5	0.7
Nitration	Abs/cm	*ASTM D7624	>20	8.1	7.8	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	19.3	20.1
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	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	>216	4	3	4
Boron	ppm	ASTM D5185m	250	8	3	6
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	61	61	62
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	966	924	953
Calcium	ppm	ASTM D5185m	3000	1119	1094	1155
Phosphorus	ppm	ASTM D5185m	1150	857	951	993
Zinc	ppm	ASTM D5185m	1350	1268	1212	1304
Sulfur	ppm	ASTM D5185m	4250	3190	2815	2792
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	15.2	15.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.4	7.3	6.7
Visc @ 100°C	cSt	ASTM D445	14.4	13.6	13.7	13.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0126042
Lab Number : 06222078
Unique Number : 11100275
Test Package : FLEET

Received : 27 Jun 2024
Tested : 28 Jun 2024
Diagnosed : 28 Jun 2024 - Wes Davis

GFL Environmental - 020 - Alamance
 703 East Gilbreath St
 Graham, NC
 US 27253

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)

Contact: richard.belcher@gflenv.com

T: (800)207-6618

F: (336)229-0526