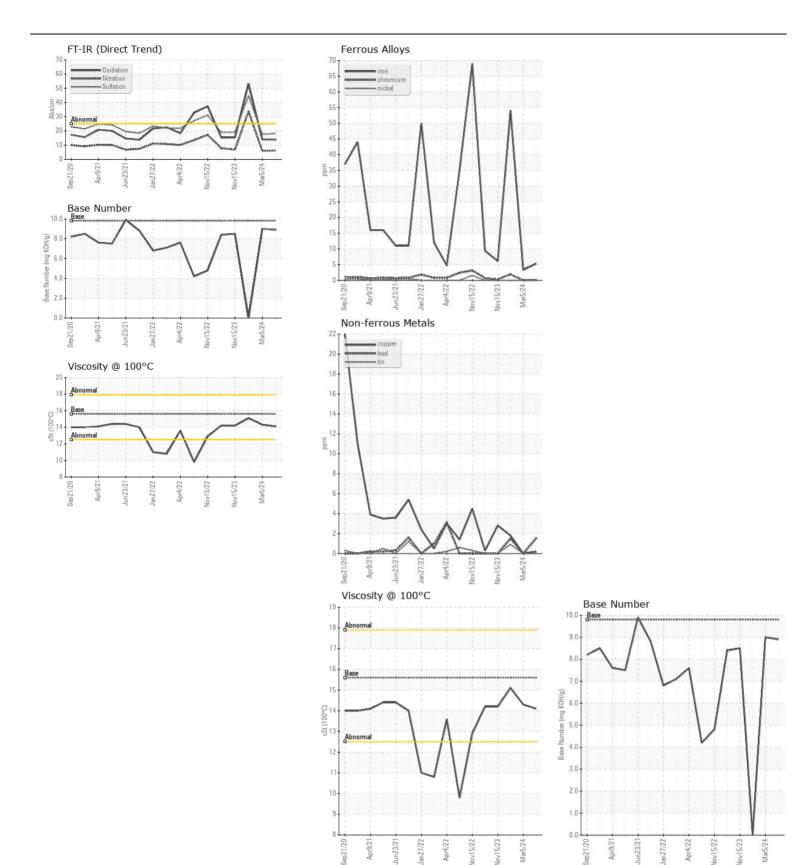
WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Machine Id **10951** 

## Component Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0116013	GFL0090011	GFL008997
	Sample Date		Client Info		18 Jun 2024	05 Mar 2024	23 Jan 202
	Machine Age	hrs	Client Info		42782	42782	42782
	Oil Age	hrs	Client Info		0	0	42782
	Filter Age	hrs	Client Info		0	0	712
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	MARGINAL	SEVERE
WEAR	Iron	nnm	ASTM D5185m	~9N	5	3	54
WEAR	Chromium	ppm	ASTM D5185m		ە <1	0	2
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	0	0
	Titanium	ppm	ASTM D5185m		0	0	<1
	Silver		ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m		2	2	2
	Lead	ppm	ASTM D5185m		2	0	2
	Copper	ppm	ASTM D5185m		<1	0	2
	Tin	ppm	ASTM D5185m		0	0	<1
	Vanadium	ppm	ASTM D5185m	710	0	0	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4	4	4
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	4	0	35
	Fuel		WC Method	>3.0	<1.0	<u> </u>	<u></u> 5.4
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>6	0.3	0.2	<b>8.1</b>
	Nitration	Abs/cm	*ASTM D7624	>20	6.2	5.9	33.7
	Sulfation	Abs/.1mm	*ASTM D7415		18.1	17.6	44.8
	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	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		3	2	6
	Boron	ppm	ASTM D5185m		3	4	2
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		56	56	55
	Manganese	ppm	ASTM D5185m		<1	0	<1
	Magnesium	ppm	ASTM D5185m		952	885	822
	Calcium	ppm	ASTM D5185m		1062	1041	965
	Phosphorus	ppm	ASTM D5185m		1063	1003	886
	Zinc	ppm	ASTM D5185m		1252	1154	1049
	Sulfur	ppm	ASTM D5185m		3619	2802	2135
	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8	14.0	53.2
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.9	9.0	<b>0.0</b>
	Visc @ 100°C	cSt	ASTM D445	1 E C	14.1	14.3	<u></u> 15.1







Certificate L2367

Laboratory Sample No.

: GFL0116013 Lab Number : 06214467 Unique Number : 11087331 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 19 Jun 2024 : 20 Jun 2024

**Tested** Diagnosed

: 20 Jun 2024 - Wes Davis

GFL Environmental - 018 - Fayetteville 4621 Marracco Drive

Hope Mills, NC US 28348

Contact: Robert Carter robert.carter@gflenv.com T: (910)596-1170

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

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

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

F: