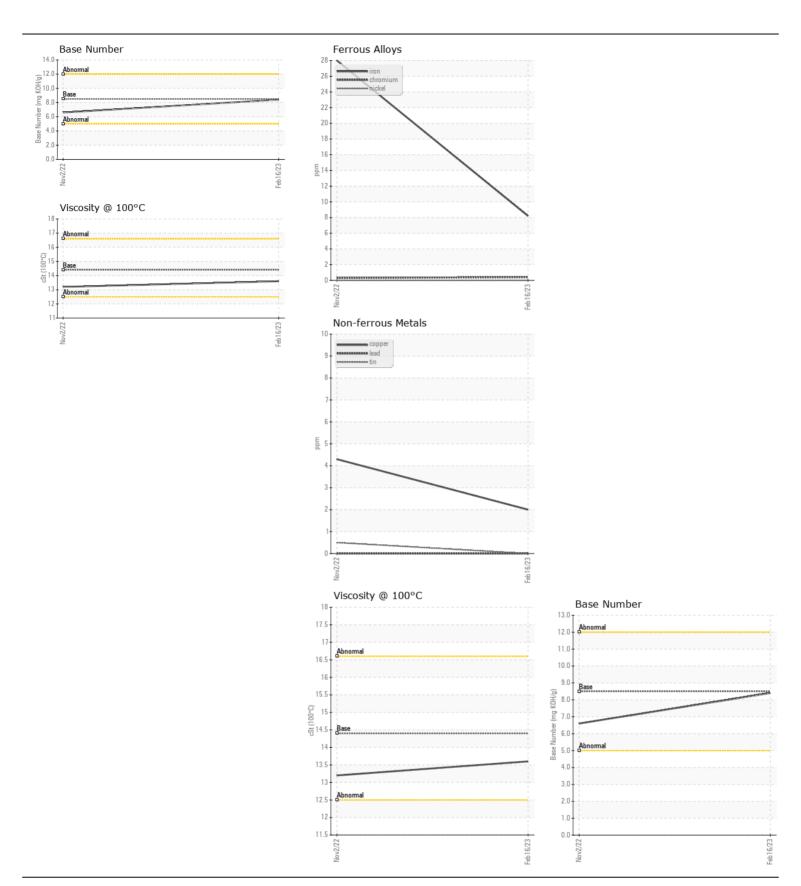
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

420020-402465

Component Diesel Engine

DIESEL ENGINE OIL SAE 40 (LTR)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		GFL0064687		
Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample.	Sample Date		Client Info		16 Feb 2023	02 Nov 2022	
	Machine Age	hrs	Client Info		4723	1125	
	Oil Age	hrs	Client Info		4723	1125	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Not Changd	
	Filter Changed		Client Info		Changed	Not Changd	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	8	28	
	Chromium	ppm	ASTM D5185m	>20	<1	<1	
Metal levels are typical for a components first oil change.	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m		4	9	
	Lead	ppm	ASTM D5185m		0	0	
	Copper	ppm	ASTM D5185m		2	4	
	Tin	ppm	ASTM D5185m		0	<1	
	Vanadium	ppm	ASTM D5185m	7.0	0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTANUNATION							
CONTAMINATION	Silicon	ppm	ASTM D5185m		4	4	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		6	15	
	Fuel		WC Method		<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol	21	WC Method	0	NEG	NEG	
	Soot %	%	*ASTM D7844		0.2	0.6	
	Nitration	Abs/cm	*ASTM D7624	>20	6.9	10.1	
	Sulfation	Abs/.1mm	*ASTM D7415		18.6	24.4	
	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	Sodium	ppm	ASTM D5185m	>216	2	<1	
	Boron	ppm	ASTM D5185m		0	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	
	Molybdenum	ppm	ASTM D5185m		60	66	
	Manganese	ppm	ASTM D5185m	100	<1	<1	
	Magnesium	ppm	ASTM D5185m	450	873	972	
	Calcium	ppm		3000	1044	1134	
	Phosphorus	ppm	ASTM D5185m		929	1046	
	Zinc	ppm	ASTM D5185m		1120	1295	
	Sulfur	ppm	ASTM D5185m		3336	3303	
	Oxidation	Abs/.1mm	*ASTM D7414		14.2	20.2	
	Base Number (BN)				8.4	6.6	
	Visc @ 100°C	cSt	ASTM D445		13.6	13.2	
	•						







Certificate L2367

Laboratory Sample No.

: GFL0064687 Lab Number : 05773353 : 10347970 **Unique Number** Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 21 Feb 2023 : 22 Feb 2023 Diagnosed

Diagnostician : Wes Davis

GFL Environmental - 814 - Little Rock Hauling 4005 Hwy 161 N. Little Rock, AR

US 72117 Contact: Brad Koenig bkoenig@gflenv.com

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) T:

F: