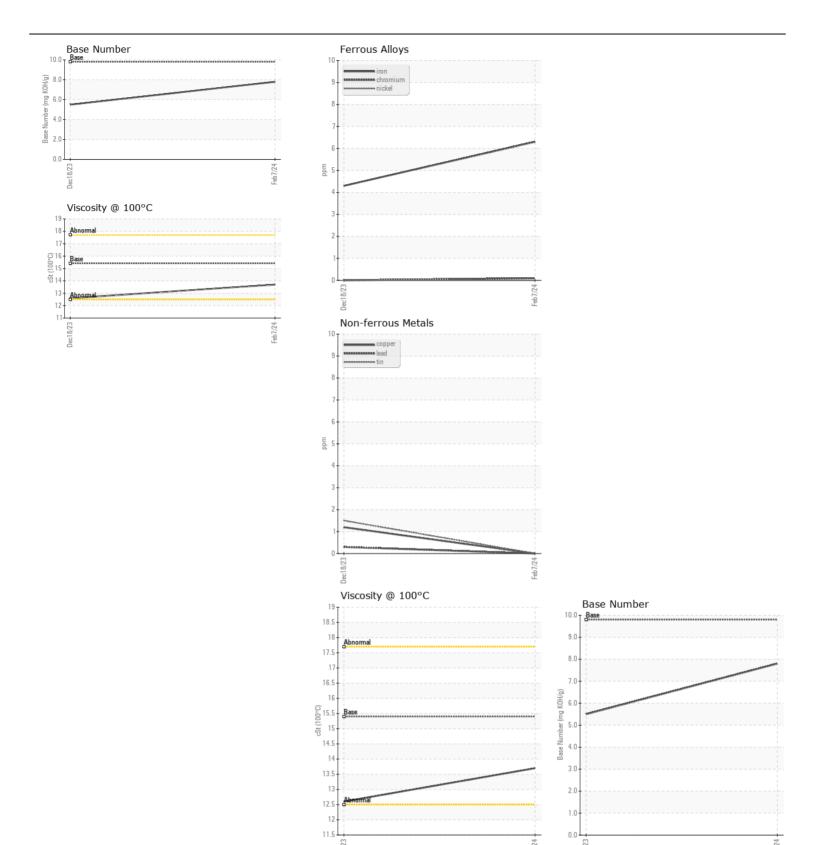


103M Component Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0110068	GFL0084919	
	Sample Date		Client Info		07 Feb 2024	18 Dec 2023	
	Machine Age	hrs	Client Info		17755	17622	
	Oil Age	hrs	Client Info		133	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Not Changd	Changed	
	Filter Changed		Client Info		Not Changd	Changed	
	Sample Status				NORMAL	NORMAL	
VEAR	Iron	ppm	ASTM D5185m	\120	6	4	
VEAIL	Chromium	ppm	ASTM D5185m		<1	0	
All component wear rates are normal.	Nickel		ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m		0	<1	
	Silver		ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m		2	<1	
		ppm			0		
	Lead	ppm	ASTM D5185m ASTM D5185m		0	<1	
	Copper Tin	ppm	ASTM D5185m			2	
	Vanadium	ppm		>10	0		
	White Metal	ppm	*Visual	NONE		<1 NONE	
		scalar		NONE	NONE		
<u></u>	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5	3	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	0	0	
	Fuel		WC Method	>3.0	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>4	0.2	0.1	
	Nitration	Abs/cm	*ASTM D7624	>20	6.7	8.3	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.2	19.2	
	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	
LUID CONDITION	Sodium	nnm	ΔSTM D5185m		2	6	
LOID CONDITION	Boron	ppm	ASTM D5185m	0	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	
	Molybdenum	ppm	ASTM D5185m		55	57	
	Manganese	ppm	ASTM D5185m		<1	<1	
	Magnesium	ppm	ASTM D5185m		900	859	
	Calcium	ppm	ASTM D5185m		1006	1000	
	Phosphorus	ppm	ASTM D5185m		1029	978	
	Zinc	ppm	ASTM D5185m		1208	1145	
	Sulfur	ppm	ASTM D5185m		2944	2650	
	Oxidation	Abs/.1mm	*ASTM D3163111		14.3	15.8	
	Base Number (BN)				7.8	5.5	
	Dase MUITIDE (DIV)	THY NUT/U	70 LINI D5020	0.0	7.0	0.0	







Laboratory Sample No.

: GFL0110068 Lab Number : 06085764 Unique Number : 10873209 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 12 Feb 2024 **Tested**

: 13 Feb 2024 Diagnosed : 13 Feb 2024 - Wes Davis

GFL Environmental - 468 - Dearborn 3051 Schaefer Rd Dearborn, MI US 48126

Contact:

T:

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)