WEAR CONTAMINATION **FLUID CONDITION** **NORMAL NORMAL NORMAL**

Machine Id

411019 Component Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the	Sample Number		Client Info		GFL0096776	GFL0096731	
component make and model with your next sample.	Sample Date		Client Info		15 Apr 2024	30 Jan 2024	
	Machine Age	kms	Client Info		11243	10413	
	Oil Age	kms	Client Info		0	0	
	Filter Age	kms	Client Info		600	600	
	Oil Changed		Client Info		N/A	N/A	
	Filter Changed		Client Info		N/A	N/A	
	Sample Status				NORMAL	NORMAL	
VEAR	Iron	ppm	ASTM D5185(m)	>100	23	17	
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185(m)	>20	1	<1	
	Nickel	ppm	ASTM D5185(m)	>4	0	<1	
	Titanium	ppm	ASTM D5185(m)		0	0	
	Silver	ppm	ASTM D5185(m)	>3	0	0	
	Aluminum	ppm	ASTM D5185(m)	>20	5	6	
	Lead	ppm	ASTM D5185(m)	>40	0	0	
	Copper	ppm	ASTM D5185(m)	>330	2	1	
	Tin	ppm	ASTM D5185(m)	>15	0	0	
	Vanadium	ppm	ASTM D5185(m)		0	0	
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	2	3	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)		5	6	
	Fuel	la la	WC Method		<1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method		NEG	0.0	
	Soot %	%	ASTM D7844*	>3	0.7	0.4	
	Nitration	Abs/cm	ASTM D7624*	>20	10.2	8.4	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	21.6	21.0	
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		6	5	
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	0	3	3	
	Barium	ppm	ASTM D5185(m)	0	0	0	
	Molybdenum	ppm	ASTM D5185(m)	60	62	58	
	Manganese	ppm	ASTM D5185(m)	0	<1	0	
	Magnesium	ppm	ASTM D5185(m)	1010	999	942	
	Calcium	ppm	ASTM D5185(m)	1070	1109	1058	
	Phosphorus	ppm	ASTM D5185(m)	1150	1010	984	
	Zinc	ppm	ASTM D5185(m)	1270	1225	1158	
	Sulfur	ppm	ASTM D5185(m)	2060	2459	2644	
	Oxidation	Abs/.1mm	ASTM D7414*	>25	18.2	16.7	
	Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.5	13.6	





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: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 574 - Vancouver Fleet Laboratory Sample No. : GFL0096776

Lab Number : 02632203 Unique Number : 5773356 Test Package : MOB 1

Received : 30 Apr 2024 **Tested** : 30 Apr 2024 Diagnosed

: 30 Apr 2024 - Wes Davis

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Validity of results and interpretation are based on the sample and information as supplied.