WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

Machine Id

0557

Component
Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0119004	GFL0101708	
	Sample Date		Client Info		23 May 2024	20 Nov 2023	
	Machine Age	kms	Client Info		201437	193641	
	Oil Age	kms	Client Info		0	0	
	Filter Age	kms	Client Info		0	0	
	Oil Changed		Client Info		Changed	N/A	
	Filter Changed		Client Info		Changed	N/A	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185(m)	>100	32	23	
WLAN	Chromium	ppm	ASTM D5185(m)		2	2	
All component wear rates are normal.	Nickel	ppm	ASTM D5185(m)		<1	<1	
	Titanium	ppm	ASTM D5185(m)		0	0	
	Silver	ppm	ASTM D5185(m)		0	0	
	Aluminum	ppm	ASTM D5185(m)		16	12	
	Lead	ppm	ASTM D5185(m)		0	0	
	Copper	ppm	ASTM D5185(m)		2	2	
	Tin	ppm	ASTM D5185(m)		0	0	
	Vanadium	ppm	ASTM D5185(m)		0	0	
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)		12	12	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)		<1	0	
	Fuel		WC Method		<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method	-	NEG	NEG	
	Soot %	%	ASTM D7844*		0.2	0.3	
	Nitration	Abs/cm	ASTM D7624*	>20	11.9	11.2	
	Sulfation	Abs/.1mm			20.3	20.5	
	Silt	scalar	Visual*	NONE	VLITE		
	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML	NORML	
	Odor Emulsified Water	scalar	Visual*	NORML	NORML NEG		
	Emuisilled water	Scalar	Visual*	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		4	4	
	Boron	ppm	ASTM D5185(m)	2	5	2	
The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185(m)	0	0	0	
	Molybdenum	ppm	ASTM D5185(m)	50	59	57	
	Manganese	ppm	ASTM D5185(m)		<1	0	
	Magnesium	ppm	ASTM D5185(m)		932	925	
	Calcium	ppm	ASTM D5185(m)		1035	1011	
	Phosphorus	ppm	ASTM D5185(m)	995	1001	978	
	Zinc	ppm	ASTM D5185(m)		1143	1160	
	Sulfur	ppm	ASTM D5185(m)	2600	2441	2470	
	Oxidation	Abs/.1mm	ASTM D7414*	>25	19.7	20.6	
	Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.0	10.8	





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: GFL0119004 Lab Number : 02638400

Unique Number : 5787562

Received **Tested** Diagnosed Test Package : MOB 1 (Additional Tests: Visual)

: 29 May 2024 : 29 May 2024

: 29 May 2024 - Wes Davis

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW 8409 -15th Street NW Edmonton, AB CA T6P 0B8 Contact: Tim Greig tgreig@gflenv.com T: (780)231-0521

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

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