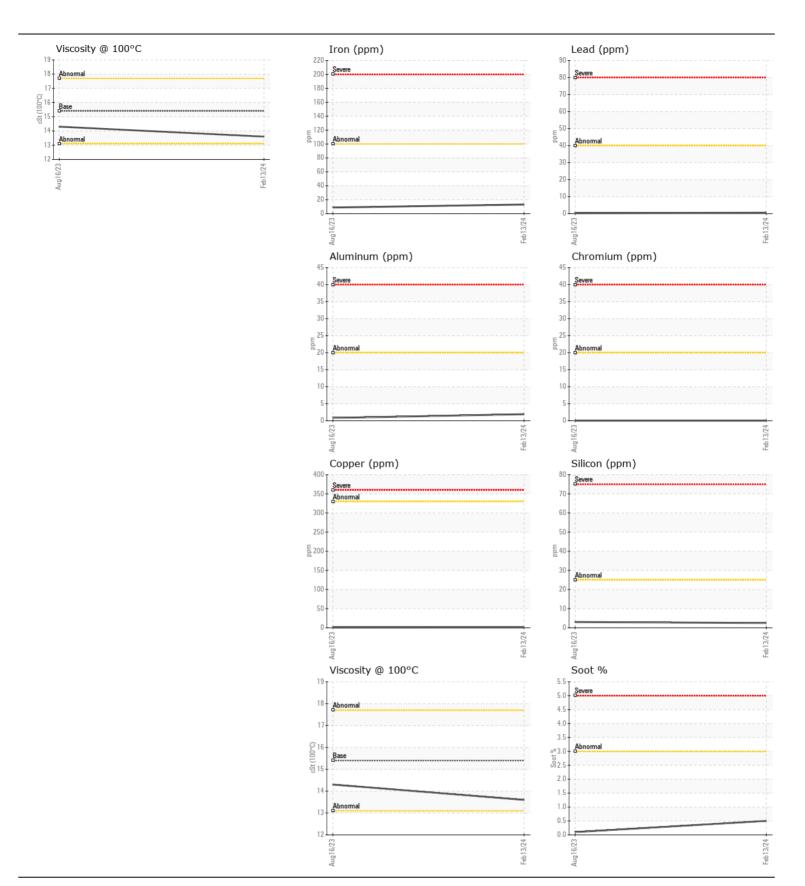
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

Machine Id 801096

Component Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info	2.111071011	GFL0097982	GFL0082137	
	Sample Date		Client Info		13 Feb 2024	16 Aug 2023	
	Machine Age	hrs	Client Info		8863	8530	
	Oil Age	hrs	Client Info		333	0	
	Filter Age	hrs	Client Info		333	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
VEAR	Iron	ppm	ASTM D5185(m)	>100	13	9	
	Chromium	ppm	ASTM D5185(m)		0	0	
All component wear rates are normal.	Nickel	ppm	ASTM D5185(m)		<1	0	
	Titanium	ppm	ASTM D5185(m)		0	0	
	Silver	ppm	ASTM D5185(m)	>3	0	0	
	Aluminum	ppm	ASTM D5185(m)		2	<1	
	Lead	ppm	ASTM D5185(m)		<1	<1	
	Copper	ppm	ASTM D5185(m)	>330	1	<1	
	Tin	ppm	ASTM D5185(m)		0	0	
	Vanadium	ppm	ASTM D5185(m)		0	0	
CONTAMINATION	Silicon	ppm	ASTM D5185(m)		2	3	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)		<1	<1	
	Fuel		WC Method		<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	ASTM D7844*		0.5	0.1	
	Nitration	Abs/cm	ASTM D7624*		7.8	5.8	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	19.4	19.2	
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		1	2	
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	0	1	2	
	Barium	ppm	ASTM D5185(m)	0	0	0	
	Molybdenum	ppm	ASTM D5185(m)	60	58	58	
	Manganese	ppm	ASTM D5185(m)	0	0	<1	
	Magnesium	ppm	ASTM D5185(m)	1010	952	977	
	Calcium	ppm	ASTM D5185(m)	1070	1021	1023	
	Phosphorus	ppm	ASTM D5185(m)	1150	1015	1086	
	Zinc	ppm	ASTM D5185(m)		1161	1168	
	Sulfur	ppm	ASTM D5185(m)		2749	2633	
	Oxidation	Abs/.1mm	ASTM D7414*		15.5	13.5	
	Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.6	14.3	





CALA ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Sample No. Received : 26 Feb 2024

: GFL0097982 Lab Number : 02617941 **Tested** : 26 Feb 2024 Diagnosed Unique Number : 5735051 : 26 Feb 2024 - Wes Davis

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test Package : MOB 1

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.

GFL Environmental - 593 4421 Boban Drive Nanaimo, BC **CA V9T 6A6** Contact: Patrick Rutti prutti@gflenv.com T: (250)739-3345