



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
414022
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (36 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0086779	GFL0086778	---
Sample Date		Client Info		21 Feb 2024	22 Dec 2023	---
Machine Age	hrs	Client Info		792	622	---
Oil Age	hrs	Client Info		792	600	---
Filter Age	hrs	Client Info		792	600	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>120	10	29	---
Chromium	ppm	ASTM D5185(m)	>20	0	<1	---
Nickel	ppm	ASTM D5185(m)	>5	1	2	---
Titanium	ppm	ASTM D5185(m)	>2	<1	0	---
Silver	ppm	ASTM D5185(m)	>2	1	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	4	6	---
Lead	ppm	ASTM D5185(m)	>40	11	13	---
Copper	ppm	ASTM D5185(m)	>330	455	415	---
Tin	ppm	ASTM D5185(m)	>15	<1	3	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

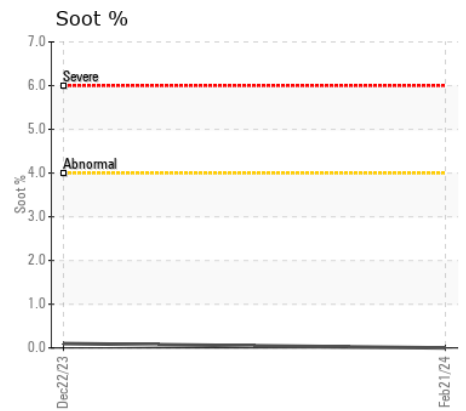
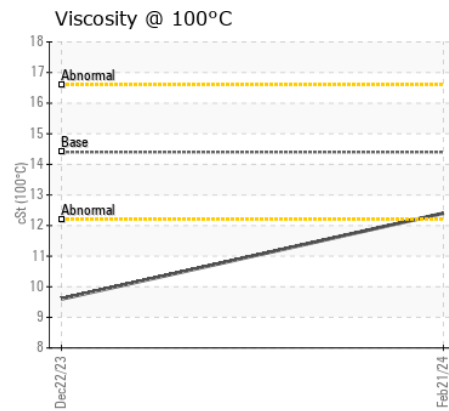
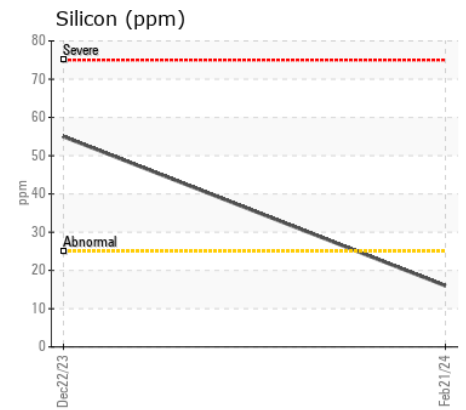
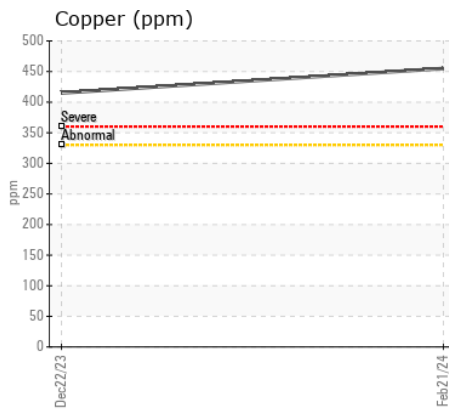
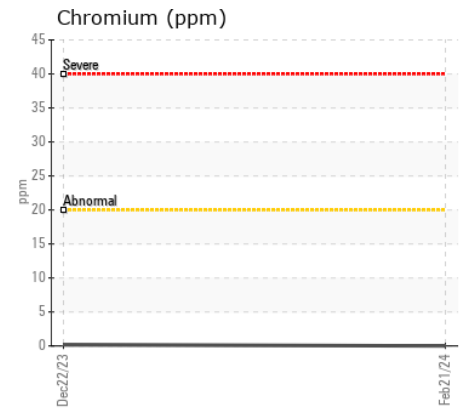
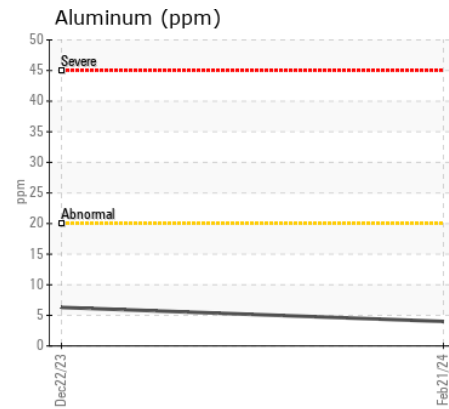
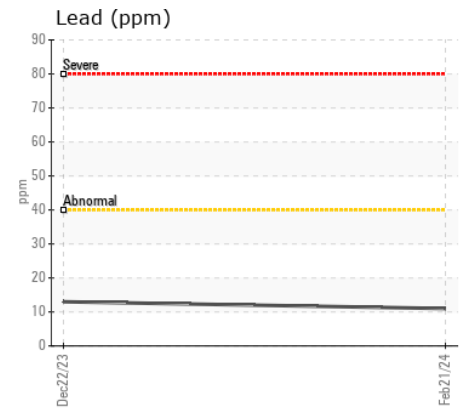
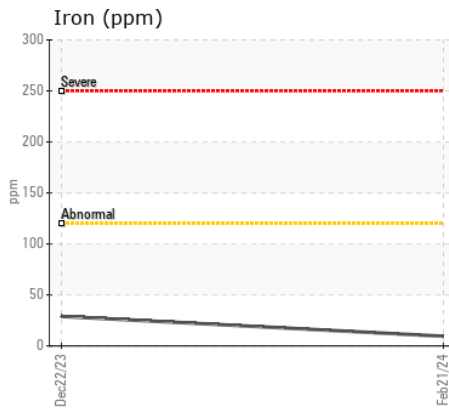
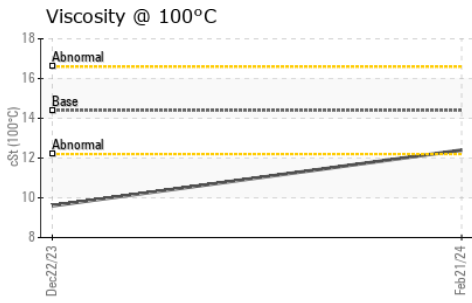
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	16	55	---
Potassium	ppm	ASTM D5185(m)	>20	7	10	---
Fuel		WC Method	>3.0	<1.0	1	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>4	0	0.1	---
Nitration	Abs/cm	ASTM D7624*	>20	9.9	10.2	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.9	24.3	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>158	2	3	---
Boron	ppm	ASTM D5185(m)	250	84	258	---
Barium	ppm	ASTM D5185(m)	10	0	<1	---
Molybdenum	ppm	ASTM D5185(m)	100	90	117	---
Manganese	ppm	ASTM D5185(m)		<1	4	---
Magnesium	ppm	ASTM D5185(m)	450	153	687	---
Calcium	ppm	ASTM D5185(m)	3000	2039	1421	---
Phosphorus	ppm	ASTM D5185(m)	1150	974	661	---
Zinc	ppm	ASTM D5185(m)	1350	1081	767	---
Sulfur	ppm	ASTM D5185(m)	4250	3129	2014	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.2	22.6	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	12.4	▲ 9.6	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0086779 **Received** : 22 Feb 2024
Lab Number : 02617340 **Tested** : 22 Feb 2024
Unique Number : 5734450 **Diagnosed** : 22 Feb 2024 - Wes Davis
Test Package : MOB 1

GFL Environmental - 222 - Sandhill
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 CA L9W 3X5
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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.