



Machine Id
STERLING 223076

Component
Diesel Engine

Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0109558	---	---
Sample Date		Client Info		01 Mar 2024	---	---
Machine Age	hrs	Client Info		3175	---	---
Oil Age	hrs	Client Info		600	---	---
Filter Age	hrs	Client Info		600	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	28	---	---
Chromium	ppm	ASTM D5185(m)	>20	<1	---	---
Nickel	ppm	ASTM D5185(m)	>4	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	4	---	---
Lead	ppm	ASTM D5185(m)	>40	<1	---	---
Copper	ppm	ASTM D5185(m)	>330	2	---	---
Tin	ppm	ASTM D5185(m)	>15	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

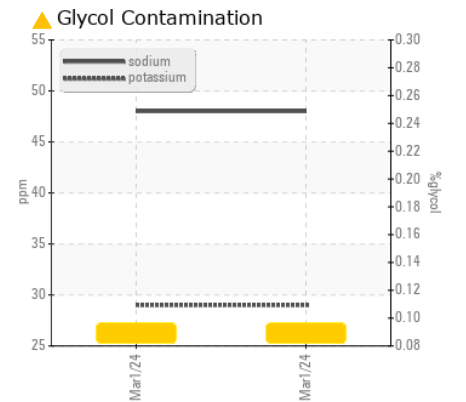
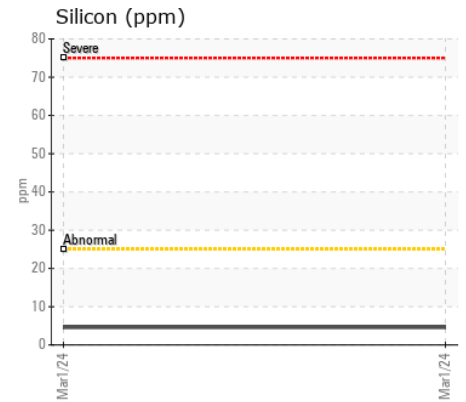
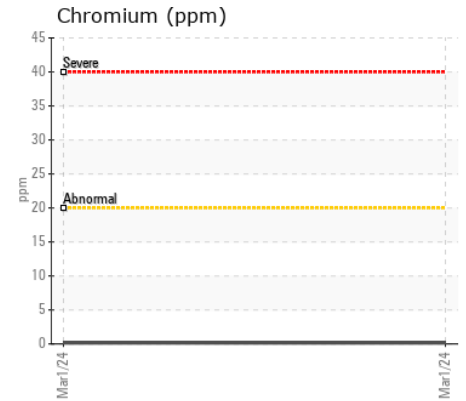
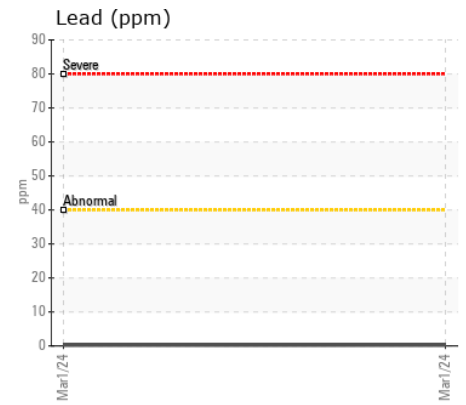
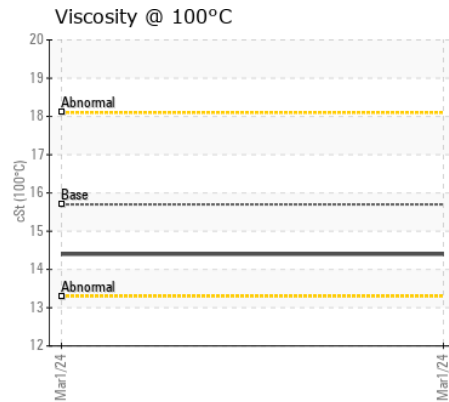
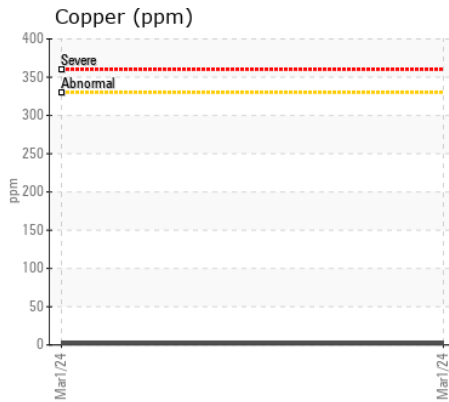
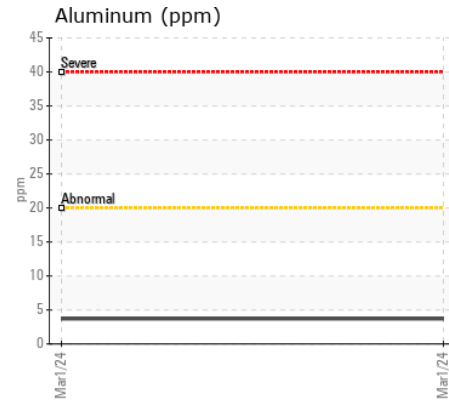
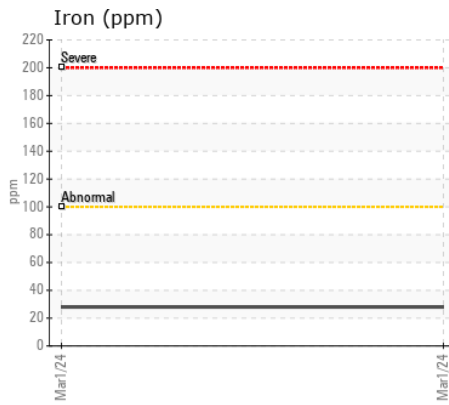
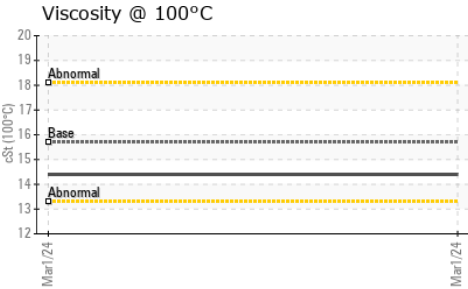
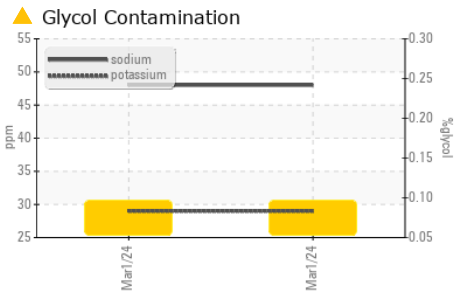
Test for glycol is positive. There is a moderate concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	---	---
Potassium	ppm	ASTM D5185(m)	>20	▲ 29	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	ASTM D7922*		▲ 0.096	---	---
Soot %	%	ASTM D7844*	>3	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	7.9	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.5	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		● 48	---	---
Boron	ppm	ASTM D5185(m)	35	113	---	---
Barium	ppm	ASTM D5185(m)	0	0	---	---
Molybdenum	ppm	ASTM D5185(m)	0	5	---	---
Manganese	ppm	ASTM D5185(m)	0	0	---	---
Magnesium	ppm	ASTM D5185(m)	10	13	---	---
Calcium	ppm	ASTM D5185(m)	2340	2190	---	---
Phosphorus	ppm	ASTM D5185(m)	1110	972	---	---
Zinc	ppm	ASTM D5185(m)	1210	1116	---	---
Sulfur	ppm	ASTM D5185(m)	3890	3115	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.7	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	14.4	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0109558 **Received** : 07 Mar 2024
Lab Number : 02620422 **Tested** : 07 Mar 2024
Unique Number : 5737532 **Diagnosed** : 07 Mar 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol)

GFL Environmental Inc. - 536 - Fort frances
 Fire #174 Hwy 11/71
 Fort Frances, ON
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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.