



OIL ANALYSIS REPORT

Sample Rating Trend

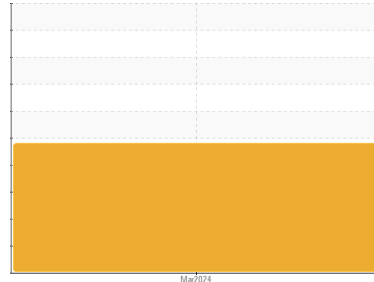
GLYCOL



Machine Id
STERLING 223076

Component
Diesel Engine

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



DIAGNOSIS

▲ 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.

Wear

All component wear rates are normal.

▲ Contamination

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

● Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	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	---	---
Oil Changed	Client Info			Changed	---	---
Sample Status				ABNORMAL	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	---	---
Water	WC Method	>0.2		NEG	---	---

WEAR METALS		method	limit/base	current	history1	history2
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	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

ADDITIVES		method	limit/base	current	history1	history2
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	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

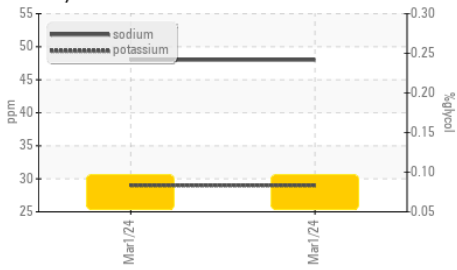
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5	---	---
Sodium	ppm	ASTM D5185(m)		48	---	---
Potassium	ppm	ASTM D5185(m)	>20	29	---	---
Glycol	%	ASTM D7922*		0.096	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	7.9	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.5	---	---



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▲ Glycol Contamination



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs:1mm ASTM D7414*	>25	17.7	---

VISUAL

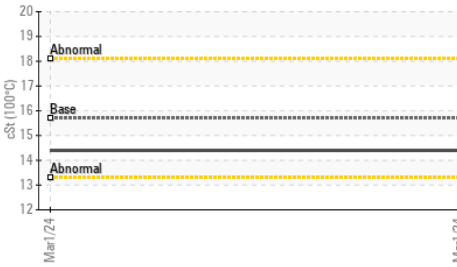
method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2	NEG	---
Free Water	scalar Visual*		NEG	---

FLUID PROPERTIES

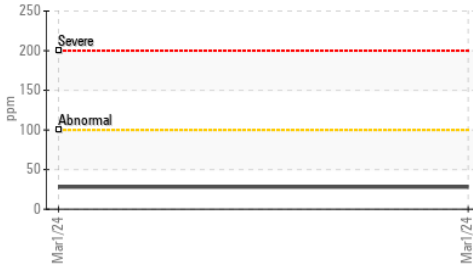
method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D7279(m)	15.7	14.4	---

GRAPHS

Viscosity @ 100°C



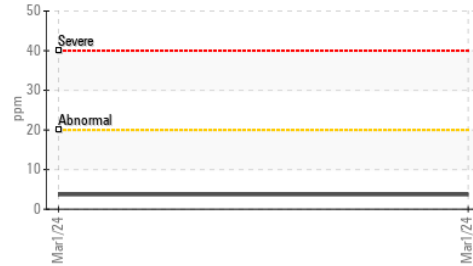
Iron (ppm)



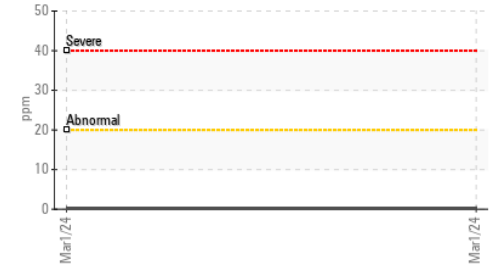
Lead (ppm)



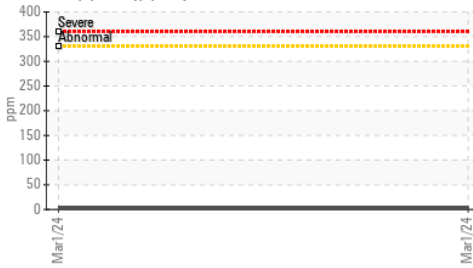
Aluminum (ppm)



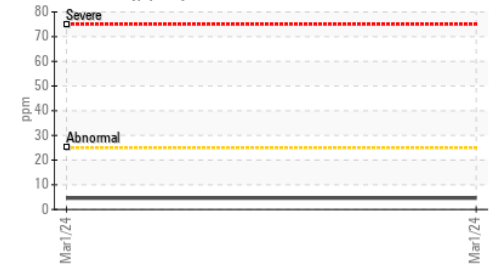
Chromium (ppm)



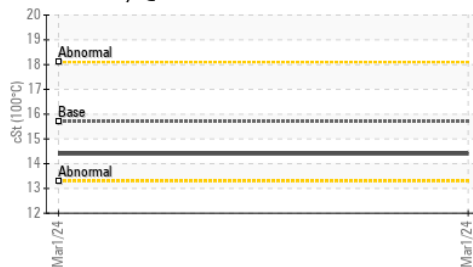
Copper (ppm)



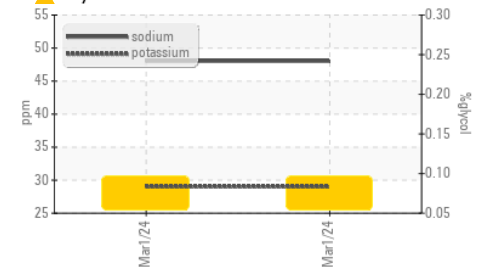
Silicon (ppm)



Viscosity @ 100°C



▲ Glycol Contamination



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0109558
Lab Number : 02620422
Unique Number : 5737532
Test Package : MOB 1 (Additional Tests: Glycol)

GFL Environmental Inc. - 536 - Fort frances
 Fire #174 Hwy 11/71
 Fort Frances, ON
 CA P9A 3M2
 Contact: Jodi Holden
 jholden@gflenv.com
 T: (807)274-6255
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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.