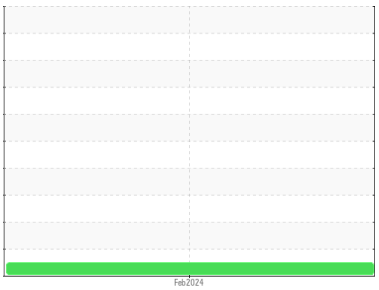
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
NO UNIT GFL0107915
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample. Please specify the component make and model with your next sample.

Wear
All component wear rates are normal.

Contamination
Fuel content negligible. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0107915**	---	---
Sample Date		Client Info		**26 Feb 2024**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**NORMAL**	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	---	---
Glycol		WC Method		**NEG**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**26**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**2**	---	---
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	**6**	---	---
Lead	ppm	ASTM D5185(m)	>40	**1**	---	---
Copper	ppm	ASTM D5185(m)	>330	**2**	---	---
Tin	ppm	ASTM D5185(m)	>15	**<1**	---	---
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)		**2**	---	---
Barium	ppm	ASTM D5185(m)		**0**	---	---
Molybdenum	ppm	ASTM D5185(m)		**67**	---	---
Manganese	ppm	ASTM D5185(m)		**0**	---	---
Magnesium	ppm	ASTM D5185(m)		**1054**	---	---
Calcium	ppm	ASTM D5185(m)		**1205**	---	---
Phosphorus	ppm	ASTM D5185(m)		**1126**	---	---
Zinc	ppm	ASTM D5185(m)		**1297**	---	---
Sulfur	ppm	ASTM D5185(m)		**2878**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**8**	---	---
Sodium	ppm	ASTM D5185(m)		**4**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**9**	---	---
Fuel	%	ASTM D7593*	>5	**0.9**	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.4**	---	---
Nitration	Abs/cm	ASTM D7624*	>20	**10.7**	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**23.7**	---	---

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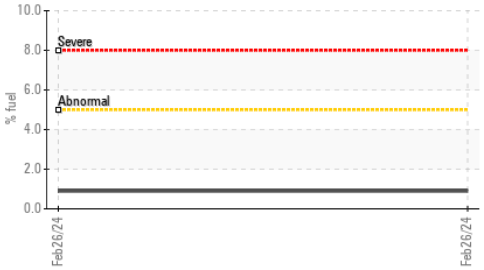
Fuel Dilution



Viscosity @ 100°C

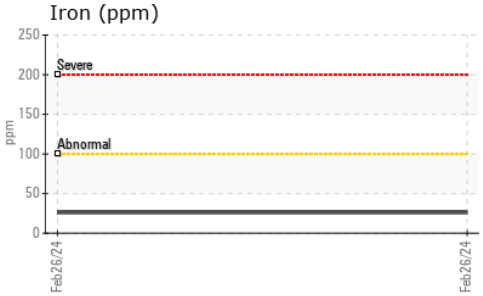
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**20.0**	---	---

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

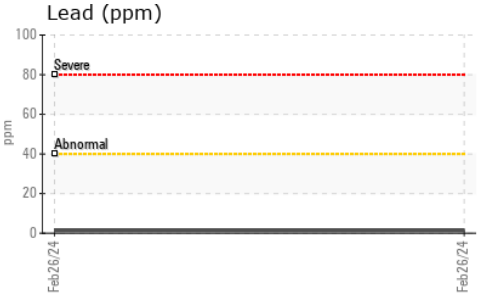
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		**11.8**	---	---

GRAPHS

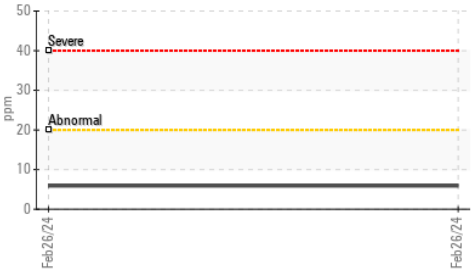
Iron (ppm)



Lead (ppm)



Aluminum (ppm)



Chromium (ppm)

Copper (ppm)

Silicon (ppm)

Viscosity @ 100°C

Soot %

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0107915
Lab Number : 02618245
Unique Number : 5735355
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

Received : 27 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 28 Feb 2024 - Kevin Marson

GFL Environmental - 350 - Emeral Park Regina
2B Industrial Drive,, Great Plains Industrial Park,
Emerald Park, SK
CA S4L 1B6
Contact: David Klein
dklein@gflenv.com
T:
F:

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.