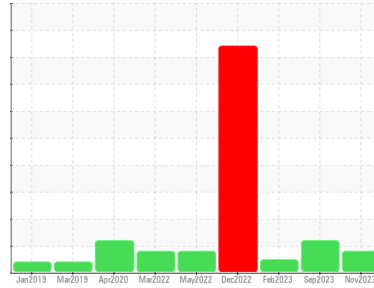




PROBLEM SUMMARY

Sample Rating Trend



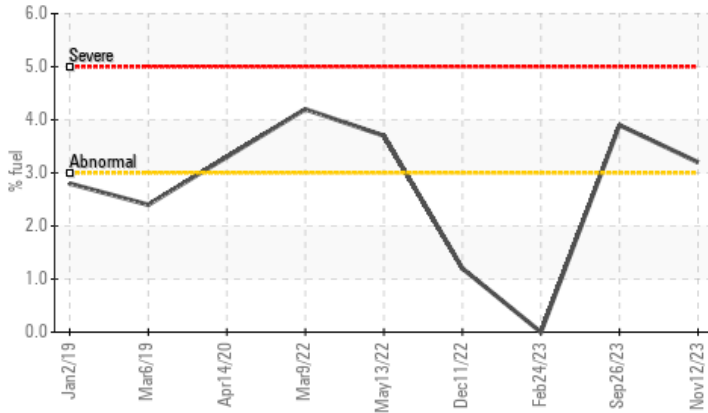
FUEL



Machine Id
722015-305154
 Component
Diesel Engine
 Fluid
MFA 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	NORMAL
Fuel	%	ASTM D3524	>3.0	▲ 3.2	▲ 3.9	<1.0

Customer Id: GFL834
 Sample No.: GFL0046117
 Lab Number: 06005168
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

26 Sep 2023 Diag: Wes Davis

FUEL



The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Metal levels are typical for a new component breaking in. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

[view report](#)



24 Feb 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Test for glycol is negative. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



11 Dec 2022 Diag: Wes Davis

GLYCOL



We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time. All component wear rates are normal. Test for glycol is positive. Light fuel dilution occurring. There is a high concentration of glycol present in the oil. No other contaminants were detected in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

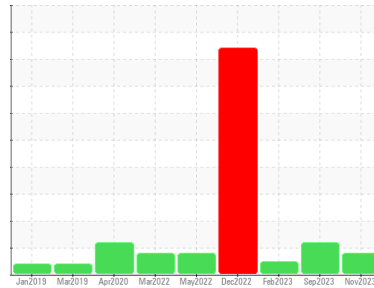
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
722015-305154
 Component
Diesel Engine
 Fluid
MFA 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0046117	GFL0046115	GFL0039534
Sample Date	Client Info	12 Nov 2023	26 Sep 2023	24 Feb 2023
Machine Age	hrs	250	600	450
Oil Age	hrs	250	600	450
Oil Changed	Client Info	Not Changed	Changed	Changed
Sample Status		ABNORMAL	ABNORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	0.0

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >120	4	6	2
Chromium	ppm	ASTM D5185m >20	<1	0	0
Nickel	ppm	ASTM D5185m >5	<1	0	<1
Titanium	ppm	ASTM D5185m >2	<1	0	0
Silver	ppm	ASTM D5185m >2	<1	0	0
Aluminum	ppm	ASTM D5185m >20	2	2	1
Lead	ppm	ASTM D5185m >40	<1	<1	0
Copper	ppm	ASTM D5185m >330	<1	<1	<1
Tin	ppm	ASTM D5185m >15	<1	<1	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	6	0	5
Barium	ppm	ASTM D5185m	<1	0	0
Molybdenum	ppm	ASTM D5185m	62	62	60
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	891	833	802
Calcium	ppm	ASTM D5185m	1081	1058	1123
Phosphorus	ppm	ASTM D5185m	1027	963	985
Zinc	ppm	ASTM D5185m	1212	1197	1183
Sulfur	ppm	ASTM D5185m	3243	3289	3014

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	4	3	2
Sodium	ppm	ASTM D5185m	2	4	1
Potassium	ppm	ASTM D5185m >20	2	2	2
Fuel	%	ASTM D3524 >3.0	▲ 3.2	▲ 3.9	<1.0

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >4	0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624 >20	7.4	9.2	6.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.9	20.5	18.0

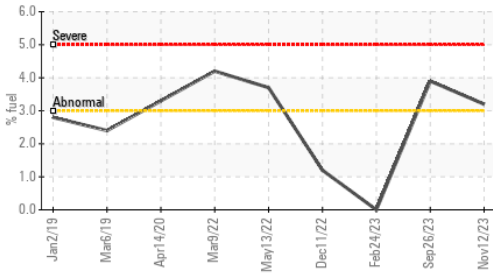
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.3	17.8	14.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.0	6.6	8.6

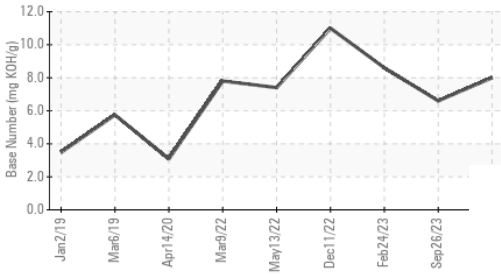


OIL ANALYSIS REPORT

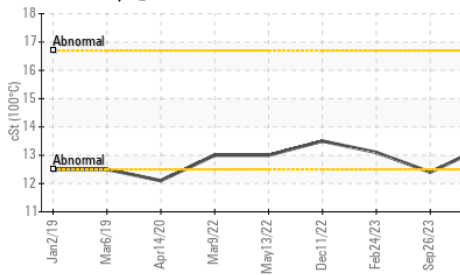
▲ Fuel Dilution



Base Number



Viscosity @ 100°C

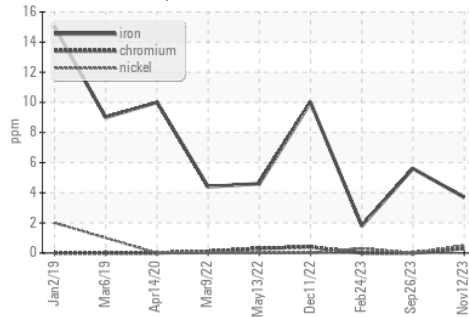


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

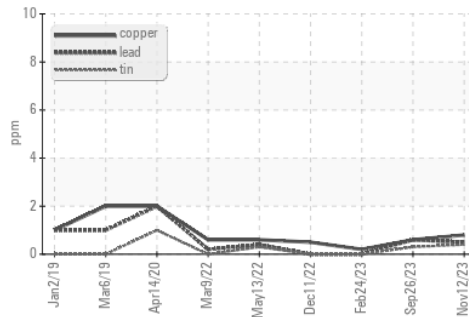
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.3	▲ 12.4	13.1

GRAPHS

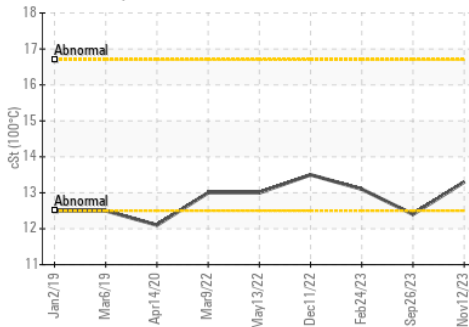
Ferrous Alloys



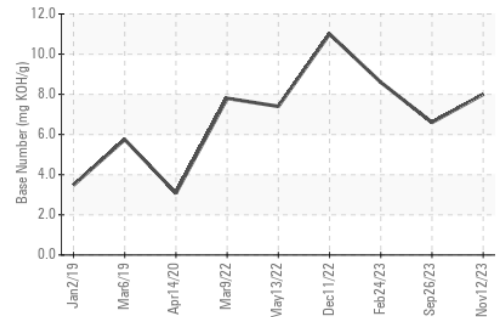
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0046117 **Received** : 13 Nov 2023
Lab Number : 06005168 **Diagnosed** : 15 Nov 2023
Unique Number : 10738930 **Diagnostician** : Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 834 - Chillicothe Hauling
 201 Mitchell Road
 Chillicothe, MO
 US 64601
 Contact: Terry McKiddy
 tmckiddy@gflenv.com
 T: (816)225-6699
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)