



PROBLEM SUMMARY

Sample Rating Trend



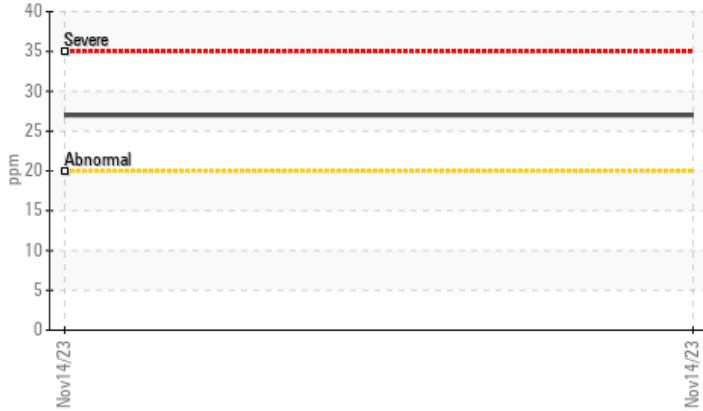
DIRT



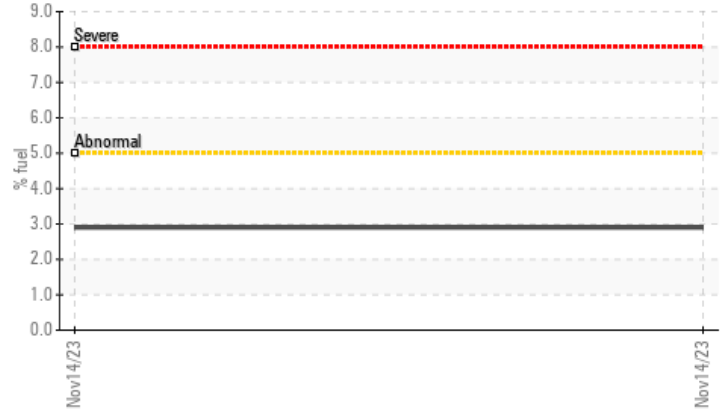
Machine Id
527073 FREIGHTLINER COLUMBIA 120
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Silicon (ppm)



▲ Fuel Dilution



RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Silicon	ppm	ASTM D5185m	>20	▲ 27	---	---
Fuel	%	ASTM D3524	>5	▲ 2.9	---	---

Customer Id: GFL642
 Sample No.: GFL0102205
 Lab Number: 06011262
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

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

RECOMMENDED ACTIONS

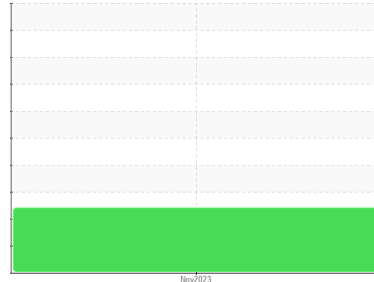
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
527073 FREIGHTLINER COLUMBIA 120
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

- Recommendation**
No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.
- Wear**
All component wear rates are normal.
- Contamination**
Elemental level of silicon (Si) above normal indicating ingress of seal material. Light fuel dilution occurring.
- Fluid Condition**
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0102205	---	---
Sample Date	Client Info	14 Nov 2023	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	600	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

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 D5185m >80	29	---	---
Chromium ppm	ASTM D5185m >5	3	---	---
Nickel ppm	ASTM D5185m >2	0	---	---
Titanium ppm	ASTM D5185m	1	---	---
Silver ppm	ASTM D5185m >3	0	---	---
Aluminum ppm	ASTM D5185m >30	3	---	---
Lead ppm	ASTM D5185m >30	4	---	---
Copper ppm	ASTM D5185m >150	6	---	---
Tin ppm	ASTM D5185m >5	0	---	---
Vanadium ppm	ASTM D5185m	0	---	---
Cadmium ppm	ASTM D5185m	<1	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 0	10	---	---
Barium ppm	ASTM D5185m 0	<1	---	---
Molybdenum ppm	ASTM D5185m 60	80	---	---
Manganese ppm	ASTM D5185m 0	0	---	---
Magnesium ppm	ASTM D5185m 1010	1185	---	---
Calcium ppm	ASTM D5185m 1070	1428	---	---
Phosphorus ppm	ASTM D5185m 1150	1293	---	---
Zinc ppm	ASTM D5185m 1270	1637	---	---
Sulfur ppm	ASTM D5185m 2060	4843	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >20	▲ 27	---	---
Sodium ppm	ASTM D5185m	3	---	---
Potassium ppm	ASTM D5185m >20	6	---	---
Fuel %	ASTM D3524 >5	▲ 2.9	---	---

INFRA-RED

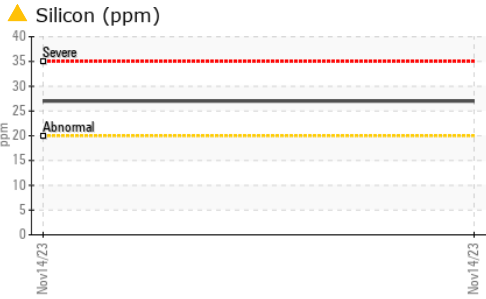
method	limit/base	current	history1	history2
Soot %	*ASTM D7844 >3	0.3	---	---
Nitration	*ASTM D7624 >20	9.6	---	---
Sulfation	*ASTM D7415 >30	21.4	---	---

FLUID DEGRADATION

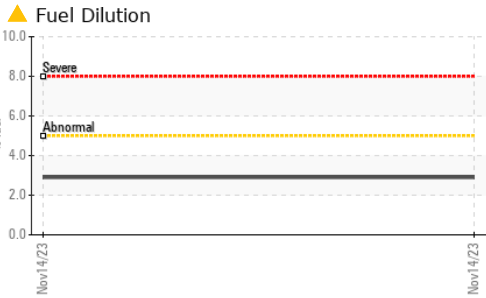
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	18.6	---	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.6	---	---



OIL ANALYSIS REPORT

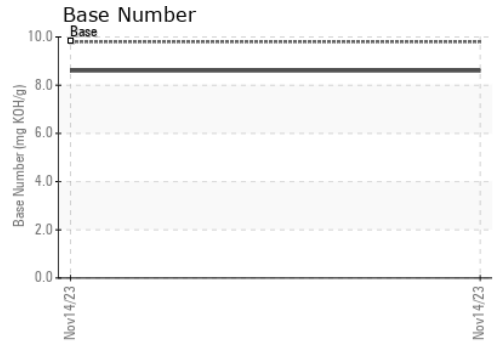
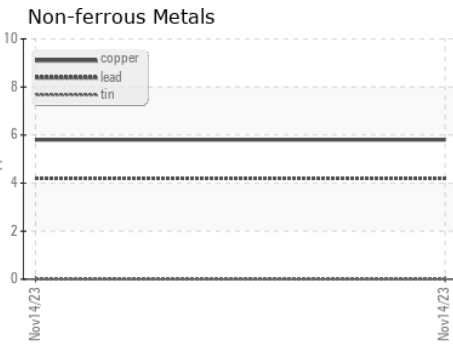
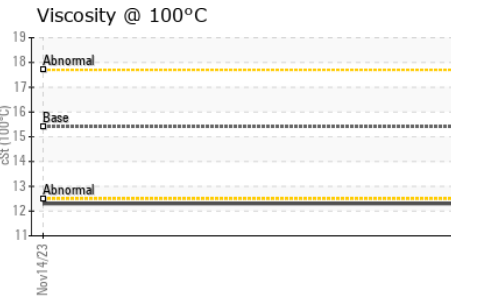
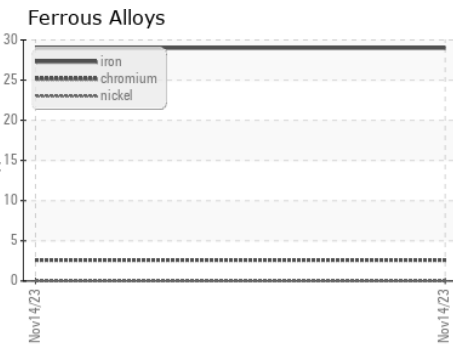
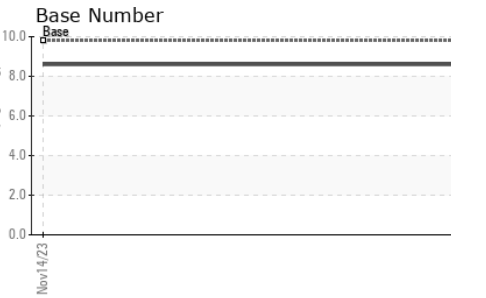


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
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 D445	15.4	12.3	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0102205 **Received** : 17 Nov 2023
Lab Number : 06011262 **Diagnosed** : 21 Nov 2023
Unique Number : 10750406 **Diagnostician** : Sean Felton
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 642- Grand Rapids Hauling
 5826 Alden Nash Ave SE
 Lowell, MI
 US 49331
 Contact: Josh Arnett
 joshuaarnett@gflenv.com

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)

T:
F: