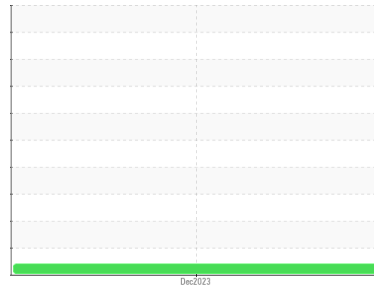




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
525143- SW7521 FREIGHTLINER CASCADIA 125

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: Engine)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

▲ Fluid Condition

The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0105534	---	---
Sample Date	Client Info		13 Dec 2023	---	---
Machine Age	mls	Client Info	114240	---	---
Oil Age	mls	Client Info	0	---	---
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	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	7	---	---
Chromium	ppm	ASTM D5185m >5	<1	---	---
Nickel	ppm	ASTM D5185m >2	0	---	---
Titanium	ppm	ASTM D5185m	0	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >30	2	---	---
Lead	ppm	ASTM D5185m >30	1	---	---
Copper	ppm	ASTM D5185m >150	2	---	---
Tin	ppm	ASTM D5185m >5	0	---	---
Vanadium	ppm	ASTM D5185m	<1	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	---	---
Barium	ppm	ASTM D5185m 0	0	---	---
Molybdenum	ppm	ASTM D5185m 60	20	---	---
Manganese	ppm	ASTM D5185m 0	0	---	---
Magnesium	ppm	ASTM D5185m 1010	92	---	---
Calcium	ppm	ASTM D5185m 1070	2422	---	---
Phosphorus	ppm	ASTM D5185m 1150	882	---	---
Zinc	ppm	ASTM D5185m 1270	1119	---	---
Sulfur	ppm	ASTM D5185m 2060	2976	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	9	---	---
Sodium	ppm	ASTM D5185m	0	---	---
Potassium	ppm	ASTM D5185m >20	<1	---	---

INFRA-RED

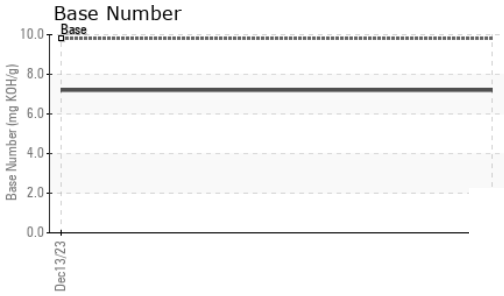
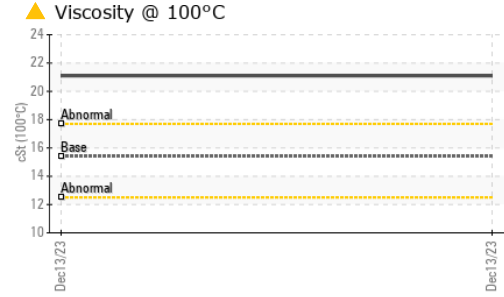
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.3	---	---
Nitration	Abs/cm	*ASTM D7624 >20	7.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	16.6	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	8.9	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	7.2	---	---



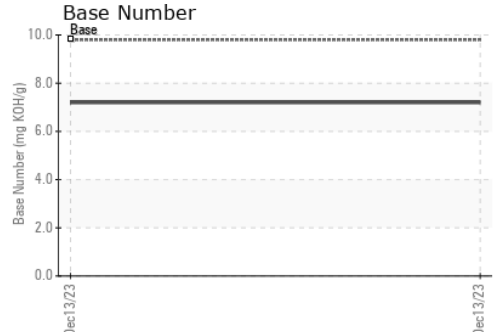
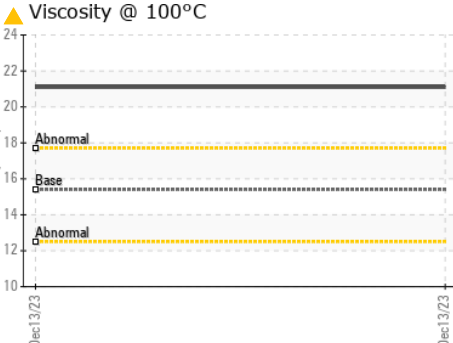
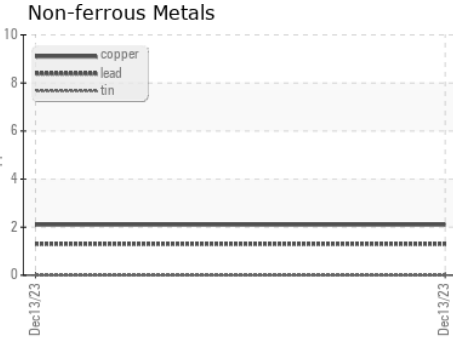
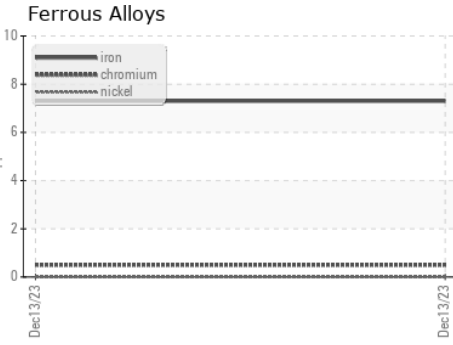
OIL ANALYSIS REPORT



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	▲ 21.1	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0105534 **Received** : 20 Dec 2023
Lab Number : 06040331 **Diagnosed** : 27 Dec 2023
Unique Number : 10795560 **Diagnostician** : Jonathan Hester
Test Package : FLEET

GFL Environmental - 980 - Northside Hauling
 1820 Candle Ridge Park Dr
 Houston, TX
 US 77073
 Contact: CHRIS YOUNG
 christophery@gflenv.com
 T:
 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)