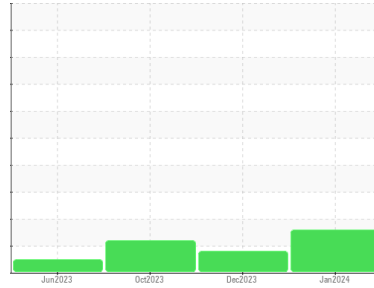




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
525144- SW7530 FREIGHTLINER CASCADIA 125

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0066584	GFL0066579	GFL0066576
Sample Date	Client Info	30 Jan 2024	28 Dec 2023	15 Oct 2023
Machine Age	mls	Client Info	0	0
Oil Age	mls	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	Changed
Sample Status		ATTENTION	ABNORMAL	ABNORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>80	5	4	66
Chromium	ppm	ASTM D5185m	>5	<1	0	2
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	3	1	6
Lead	ppm	ASTM D5185m	>30	<1	0	0
Copper	ppm	ASTM D5185m	>150	2	<1	4
Tin	ppm	ASTM D5185m	>5	0	0	2
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	0	21	16	22
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	60	48	52	57
Manganese	ppm	ASTM D5185m	0	0	0	<1
Magnesium	ppm	ASTM D5185m	1010	▲ 492	472	924
Calcium	ppm	ASTM D5185m	1070	▲ 1689	1738	1086
Phosphorus	ppm	ASTM D5185m	1150	1033	1023	1040
Zinc	ppm	ASTM D5185m	1270	1238	1278	1311
Sulfur	ppm	ASTM D5185m	2060	3072	3324	3625

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>20	6	5	9
Sodium	ppm	ASTM D5185m		<1	0	5
Potassium	ppm	ASTM D5185m	>20	2	2	16
Fuel	%	ASTM D3524	>5	▲ 4.4	▲ 6.1	▲ 6.6

INFRA-RED

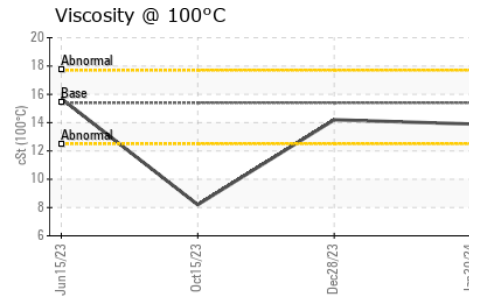
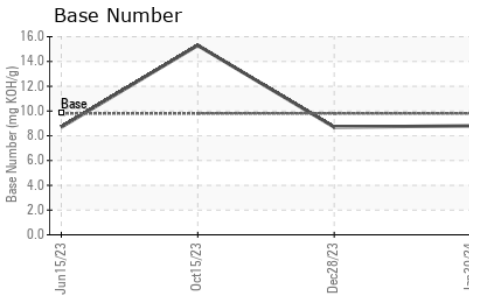
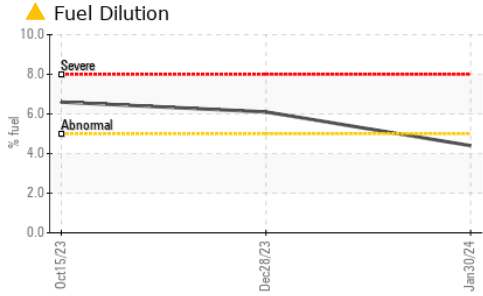
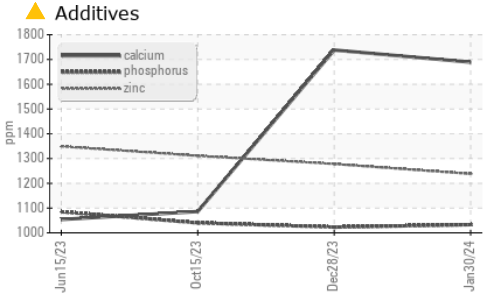
method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>3	0.3	0.3	1.3
Nitration	Abs/cm	*ASTM D7624	>20	5.9	5.3	19.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.1	17.0	16.4

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.3	11.0	26.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.8	8.7	15.3



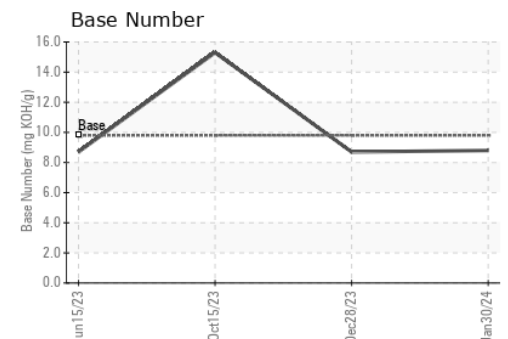
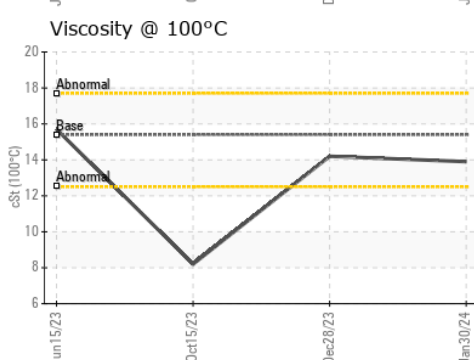
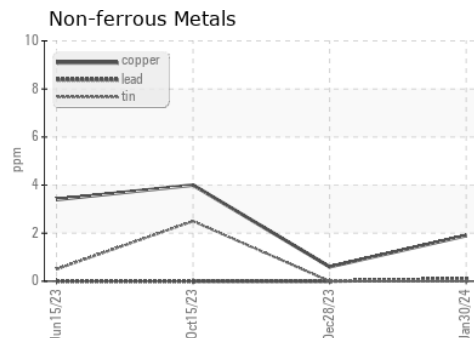
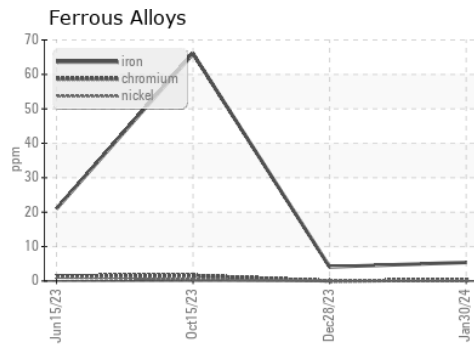
OIL ANALYSIS REPORT



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	15.4	13.9	14.2 ▲ 8.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0066584 **Received** : 19 Feb 2024
Lab Number : 06093553 **Tested** : 22 Feb 2024
Unique Number : 10886406 **Diagnosed** : 22 Feb 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 980 - Northside Hauling
 1820 Candle Ridge Park Dr
 Houston, TX
 US 77073
 Contact: Edwin Collins
 ecolins@gflenv.com

Certificate L2367
 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)