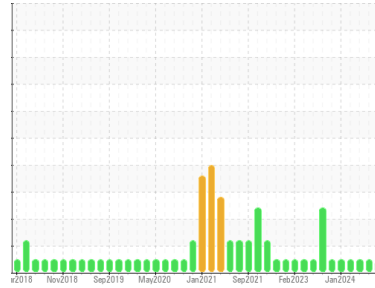




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
CUMMINS 10862

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0109052	GFL0109114	GFL0109112
Sample Date	Client Info	21 Feb 2024	25 Jan 2024	24 Jan 2024
Machine Age	hrs	15090	14940	14940
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ATTENTION	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >75	13	14	4
Chromium	ppm ASTM D5185m >5	<1	<1	0
Nickel	ppm ASTM D5185m >4	<1	0	0
Titanium	ppm ASTM D5185m >2	0	<1	<1
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >15	3	3	2
Lead	ppm ASTM D5185m >25	0	<1	0
Copper	ppm ASTM D5185m >100	1	<1	<1
Tin	ppm ASTM D5185m >4	<1	0	0
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	16	15	22
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	57	65	61
Manganese	ppm ASTM D5185m 0	<1	0	<1
Magnesium	ppm ASTM D5185m 1010	681	736	747
Calcium	ppm ASTM D5185m 1070	1017	1168	1133
Phosphorus	ppm ASTM D5185m 1150	861	992	983
Zinc	ppm ASTM D5185m 1270	1024	1110	1111
Sulfur	ppm ASTM D5185m 2060	2440	2815	2964

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	4	4	4
Sodium	ppm ASTM D5185m	5	2	4
Potassium	ppm ASTM D5185m >20	4	0	0
Fuel	% ASTM D3524 >3.0	<1.0	0.4	1.8

INFRA-RED

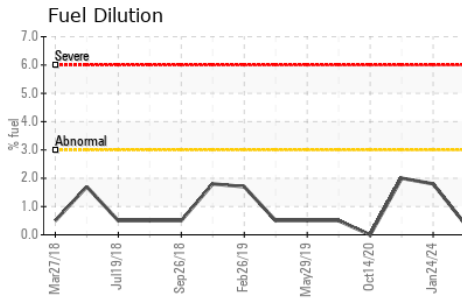
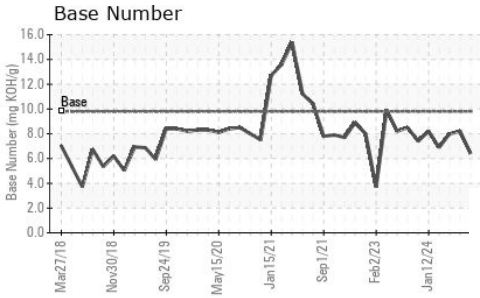
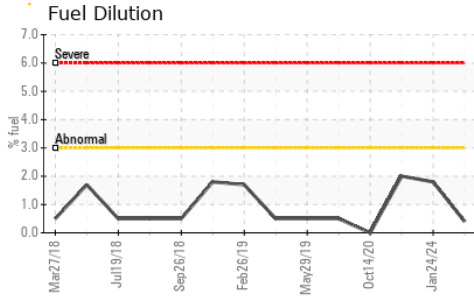
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	0.5	1.8	0.2
Nitration	Abs/cm *ASTM D7624 >20	9.3	8.8	5.9
Sulfation	Abs/.1mm *ASTM D7415 >30	19.4	20.3	17.1

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	15.8	13.4	12.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	6.4	8.2	8.0



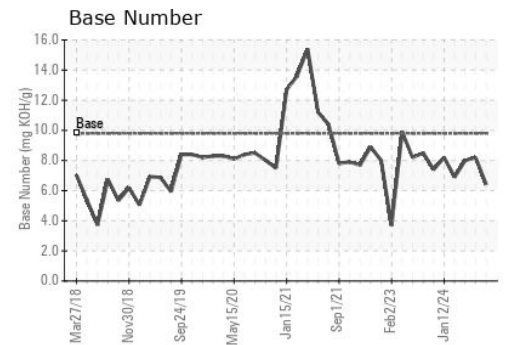
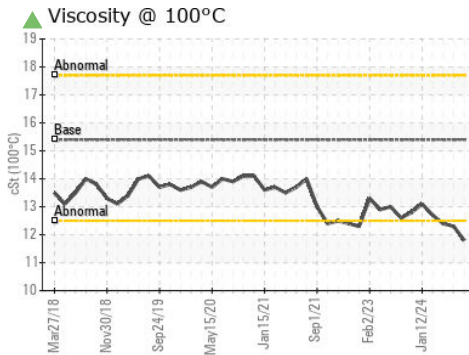
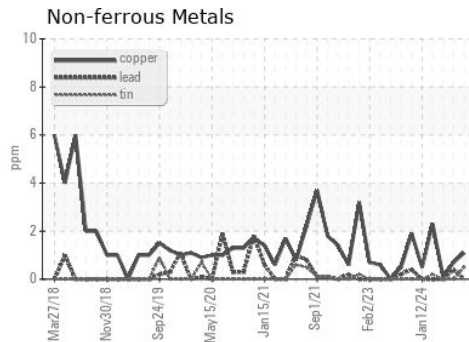
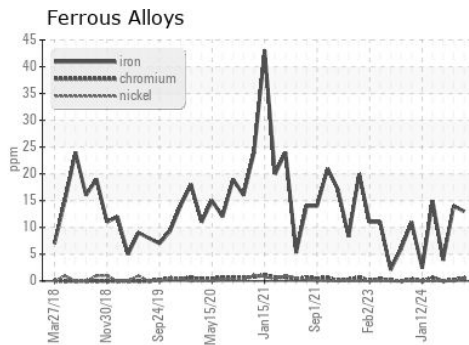
OIL ANALYSIS REPORT



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 ▲ 11.8	12.3	12.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0109052 Received : 23 Feb 2024
 Lab Number : 06098142 Tested : 26 Feb 2024
 Unique Number : 10896372 Diagnosed : 26 Feb 2024 - Don Baldrige
 Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 009 - Fairburn
 6905 Roosevelt Hwy
 Fairburn, GA
 US 30213
 Contact: Eric Jones
 erjones@gflenv.com
 T: (678)630-9927
 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)