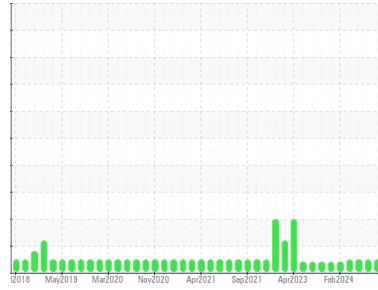




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
(EMN589)
 Machine Id
AUTOCAR 10861
 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 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	GFL0116773	GFL0116806	GFL0116795
Sample Date	Client Info	24 May 2024	06 May 2024	11 Apr 2024
Machine Age	hrs	15592	15489	14437
Oil Age	hrs	1358	1255	203
Oil Changed	Client Info	Not Chngd	Not Chngd	N/A
Sample Status		NORMAL	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	17	13	11
Chromium	ppm ASTM D5185m >5	<1	<1	<1
Nickel	ppm ASTM D5185m >4	0	0	0
Titanium	ppm ASTM D5185m >2	0	<1	0
Silver	ppm ASTM D5185m >2	<1	0	0
Aluminum	ppm ASTM D5185m >15	3	2	2
Lead	ppm ASTM D5185m >25	<1	<1	<1
Copper	ppm ASTM D5185m >100	2	3	3
Tin	ppm ASTM D5185m >4	<1	<1	<1
Vanadium	ppm ASTM D5185m	0	<1	<1
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	10	8	4
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	58	61	60
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 1010	834	837	855
Calcium	ppm ASTM D5185m 1070	1072	1128	1156
Phosphorus	ppm ASTM D5185m 1150	983	1065	996
Zinc	ppm ASTM D5185m 1270	1143	1197	1145
Sulfur	ppm ASTM D5185m 2060	3166	3196	3435

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	6	5	4
Sodium	ppm ASTM D5185m	4	3	2
Potassium	ppm ASTM D5185m >20	3	3	0
Fuel	% ASTM D3524 >3.0	<1.0	<1.0	<1.0

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	0.8	0.6	0.6
Nitration	Abs/cm *ASTM D7624 >20	9.5	8.0	8.0
Sulfation	Abs/.1mm *ASTM D7415 >30	20.4	19.2	18.8

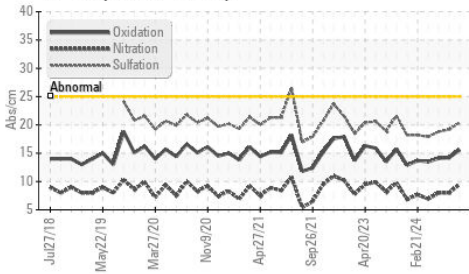
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	15.6	14.2	14.1
Base Number (BN)	mg KOH/g ASTM D2896 9.8	6.8	7.4	7.7

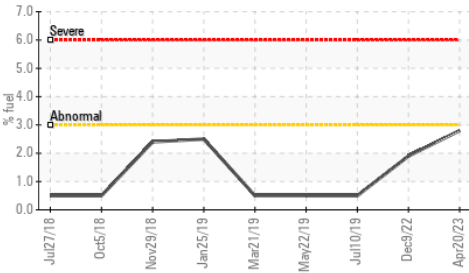


OIL ANALYSIS REPORT

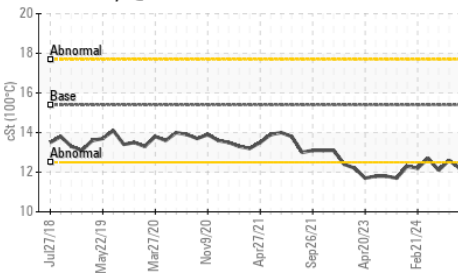
FT-IR (Direct Trend)



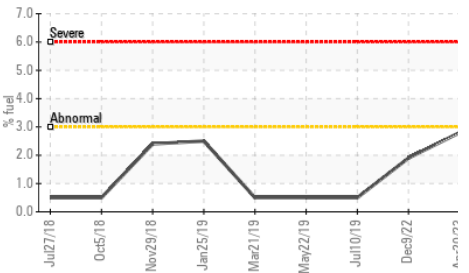
Fuel Dilution



Viscosity @ 100°C



Fuel Dilution



Viscosity @ 100°C

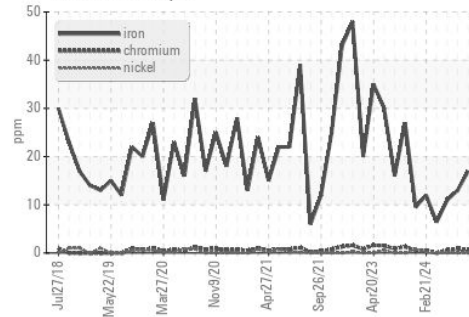


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

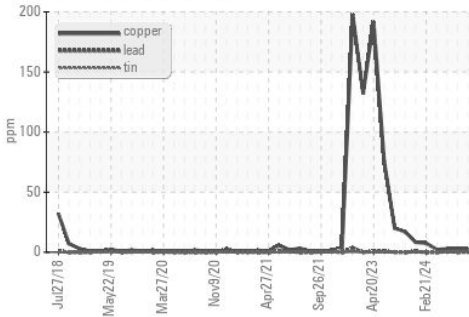
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.2	12.6

GRAPHS

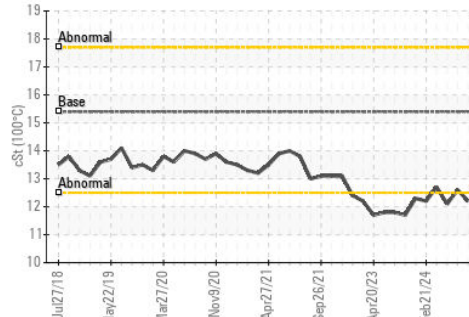
Ferrous Alloys



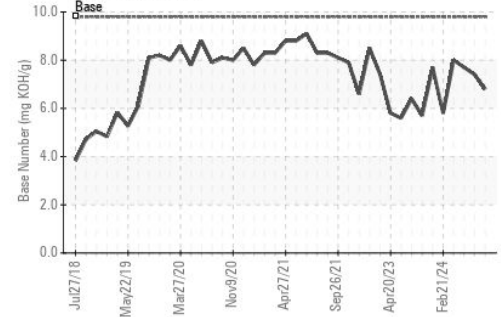
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0116773

Lab Number : 06193719

Unique Number : 11050471

Test Package : FLEET (Additional Tests : FuelDilution)

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)

Received : 29 May 2024

Tested : 30 May 2024

Diagnosed : 30 May 2024 - Jonathan Hester

GFL Environmental - 009 - Fairburn

6905 Roosevelt Hwy

Fairburn, GA

US 30213

Contact: Eric Jones

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T: (678)630-9927

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