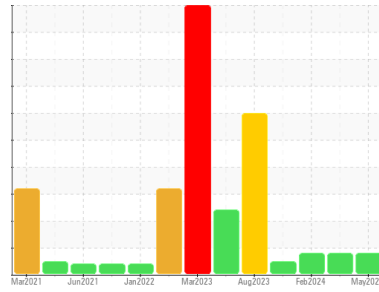




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
725014-584

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: Sample only, out of service)

Wear

Cylinder, crank, or cam shaft wear is indicated.

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	GFL0116295	GFL0101658	GFL0101628
Sample Date	Client Info	21 May 2024	14 Mar 2024	29 Feb 2024
Machine Age	hrs	10209	10209	10209
Oil Age	hrs	236	236	236
Oil Changed	Client Info	Not Chngd	Not Chngd	Not Chngd
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
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 >100	▲ 105	▲ 103	▲ 105
Chromium	ppm ASTM D5185m >20	6	6	6
Nickel	ppm ASTM D5185m >4	0	0	0
Titanium	ppm ASTM D5185m	0	<1	<1
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >20	10	9	10
Lead	ppm ASTM D5185m >40	8	7	9
Copper	ppm ASTM D5185m >330	2	3	3
Tin	ppm ASTM D5185m >15	<1	0	<1
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	7	6	4
Barium	ppm ASTM D5185m	0	0	0
Molybdenum	ppm ASTM D5185m	70	70	69
Manganese	ppm ASTM D5185m	1	<1	<1
Magnesium	ppm ASTM D5185m	988	987	1134
Calcium	ppm ASTM D5185m	1416	1402	1566
Phosphorus	ppm ASTM D5185m	1146	1092	1222
Zinc	ppm ASTM D5185m	1371	1316	1505
Sulfur	ppm ASTM D5185m	3330	3400	3347

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	8	7	8
Sodium	ppm ASTM D5185m	4	5	4
Potassium	ppm ASTM D5185m >20	<1	0	<1

INFRA-RED

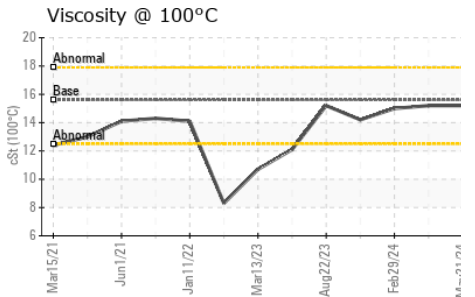
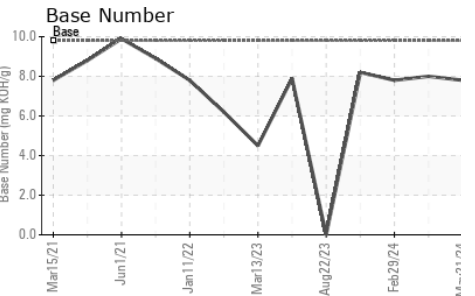
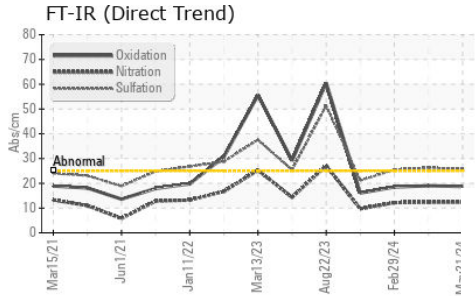
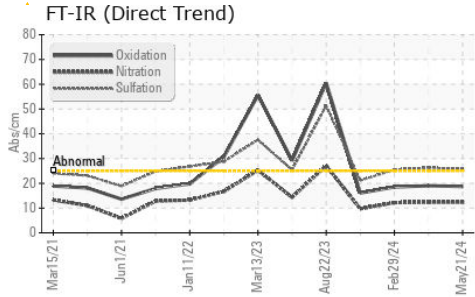
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	2.9	2.9	2.9
Nitration	Abs/cm *ASTM D7624 >20	12.4	12.4	12.2
Sulfation	Abs/.1mm *ASTM D7415 >30	25.7	26.3	25.5

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	18.7	19.0	18.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	7.8	8.0	7.8



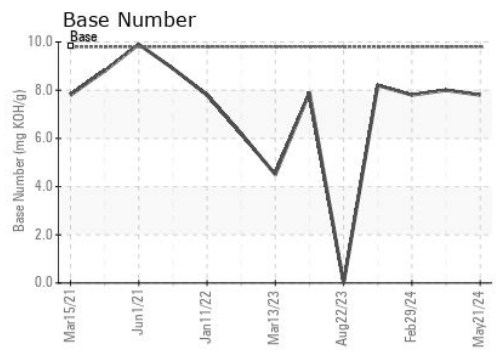
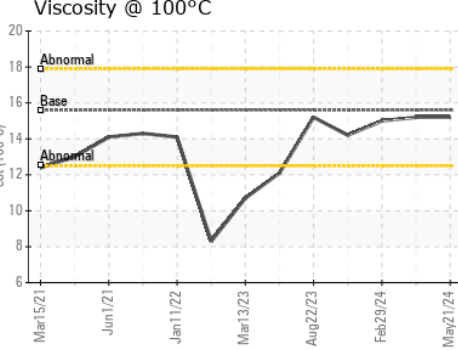
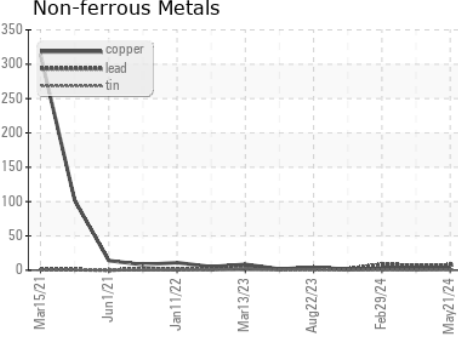
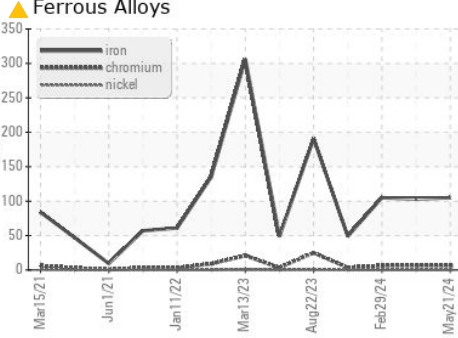
OIL ANALYSIS REPORT



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	15.6	15.2	15.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116295 **Received** : 24 May 2024
Lab Number : 06191700 **Tested** : 29 May 2024
Unique Number : 11048452 **Diagnosed** : 29 May 2024 - Angela Borella
Test Package : FLEET

GFL Environmental - 626 - Cadillac Hauling
 1501 Ron Wilson St
 Cadillac, MI
 US 49601
 Contact: GARY BREWER
 gbrewerjr@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)