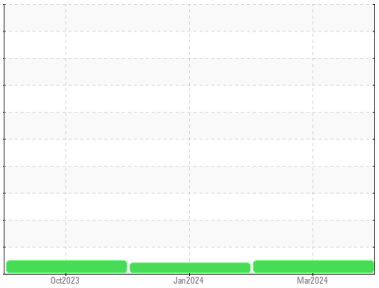
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
413151
Component
Diesel Engine
Fluid
PETRO CANADA DURON SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0112544**	GFL0101700	GFL0097594
Sample Date		Client Info		**26 Mar 2024**	01 Jan 2024	26 Oct 2023
Machine Age	hrs	Client Info		**2474**	0	1556
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	N/A	N/A
Sample Status				**NORMAL**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	0.6	<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 D5185(m)	>120	**20**	10	19
Chromium	ppm	ASTM D5185(m)	>20	**<1**	0	<1
Nickel	ppm	ASTM D5185(m)	>5	**4**	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**0**	<1	1
Aluminum	ppm	ASTM D5185(m)	>20	**3**	2	3
Lead	ppm	ASTM D5185(m)	>40	**<1**	1	4
Copper	ppm	ASTM D5185(m)	>330	**24**	22	146
Tin	ppm	ASTM D5185(m)	>15	**<1**	<1	1
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

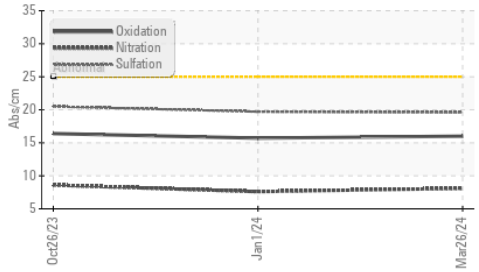
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	**4**	2	4
Barium	ppm	ASTM D5185(m)	1	**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)	1	**59**	59	66
Manganese	ppm	ASTM D5185(m)	1	**0**	0	<1
Magnesium	ppm	ASTM D5185(m)	10	**972**	980	1046
Calcium	ppm	ASTM D5185(m)	2942	**1071**	1079	1172
Phosphorus	ppm	ASTM D5185(m)	1102	**999**	1023	1050
Zinc	ppm	ASTM D5185(m)	1351	**1174**	1188	1291
Sulfur	ppm	ASTM D5185(m)	3903	**2477**	2641	2474
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**2**	2	4
Sodium	ppm	ASTM D5185(m)		**1**	1	2
Potassium	ppm	ASTM D5185(m)	>20	**8**	4	5

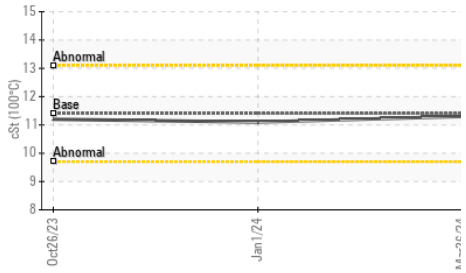
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	**0.2**	0.2	0.3
Nitration	Abs/cm	ASTM D7624*	>20	**8.1**	7.6	8.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	**19.6**	19.7	20.5

OIL ANALYSIS REPORT

FT-IR (Direct Trend)



Viscosity @ 100°C



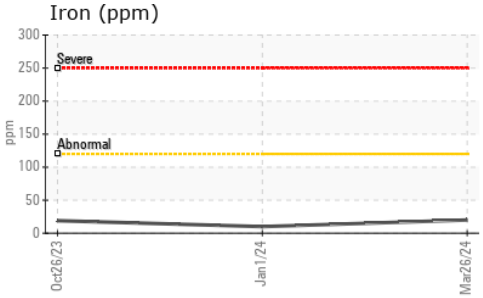
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**16.0**	15.7	16.4

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

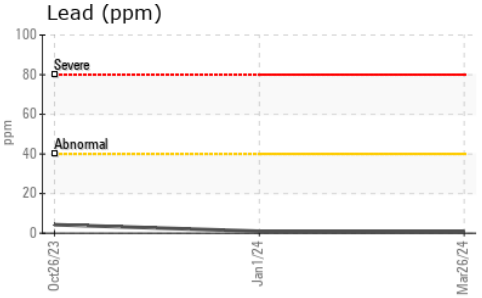
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	11.4	**11.3**	▲ 11.1	11.2

GRAPHS

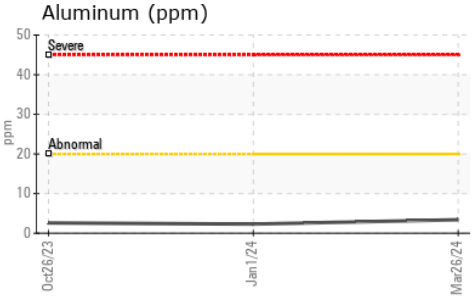
Iron (ppm)



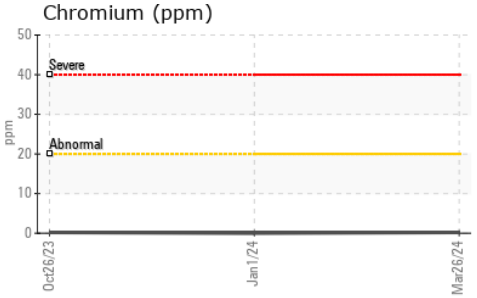
Lead (ppm)



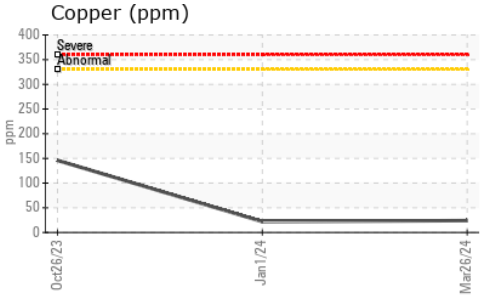
Aluminum (ppm)



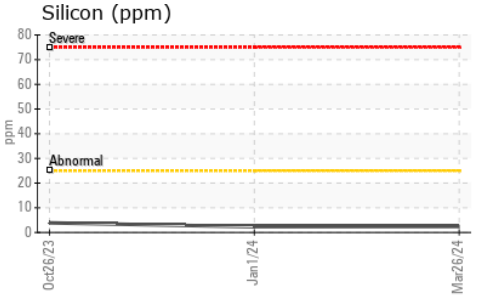
Chromium (ppm)



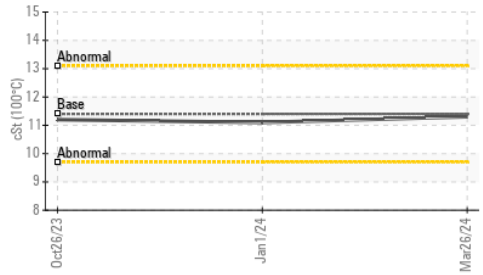
Copper (ppm)



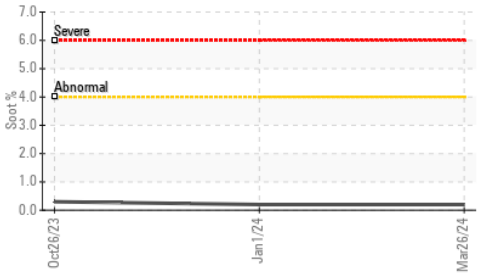
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112544
Lab Number : 02626537
Unique Number : 5759669
Test Package : MOB 1

Received : 04 Apr 2024
Tested : 04 Apr 2024
Diagnosed : 04 Apr 2024 - Wes Davis

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

GFL Environmental - 554 - Edmonton SW
8409 -15th Street NW
Edmonton, AB
CA T6P 0B8
Contact: Tim Greig
tgreig@gflenv.com
T: (780)231-0521
F: