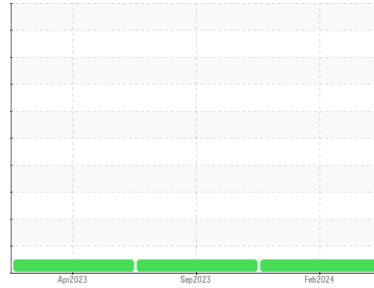




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
111010

Component
Diesel Engine

Fluid
PETRO CANADA 10W30 (--- LTR)

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		GFL0090751	GFL0090738	GFL0069683
Sample Date	Client Info		24 Feb 2024	25 Sep 2023	10 Apr 2023
Machine Age	hrs	Client Info	2616	1801	1468
Oil Age	hrs	Client Info	600	600	600
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

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 D5185(m) >110	19	21	29
Chromium	ppm	ASTM D5185(m) >4	0	0	0
Nickel	ppm	ASTM D5185(m) >2	0	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	<1
Silver	ppm	ASTM D5185(m) >2	<1	<1	0
Aluminum	ppm	ASTM D5185(m) >25	9	9	8
Lead	ppm	ASTM D5185(m) >45	<1	<1	0
Copper	ppm	ASTM D5185(m) >85	2	3	4
Tin	ppm	ASTM D5185(m) >4	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	0	0	<1
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	2	5
Barium	ppm	ASTM D5185(m)	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	61	58
Manganese	ppm	ASTM D5185(m)	0	0	<1
Magnesium	ppm	ASTM D5185(m)	967	993	950
Calcium	ppm	ASTM D5185(m)	1069	1079	1186
Phosphorus	ppm	ASTM D5185(m)	995	993	1073
Zinc	ppm	ASTM D5185(m)	1169	1207	1194
Sulfur	ppm	ASTM D5185(m)	2555	2520	2670
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

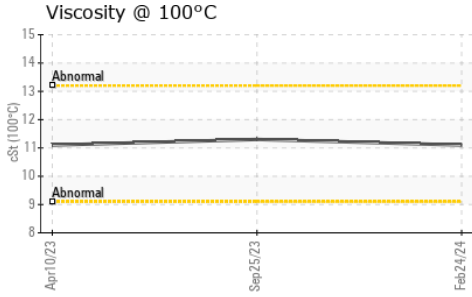
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >30	6	7	6
Sodium	ppm	ASTM D5185(m)	<1	2	2
Potassium	ppm	ASTM D5185(m) >20	18	20	4

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.3	0.2	0.1
Nitration	Abs/cm	ASTM D7624* >20	8.5	7.7	9.0
Sulfation	Abs./1mm	ASTM D7415* >30	19.7	19.5	22.6



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	15.4	16.3

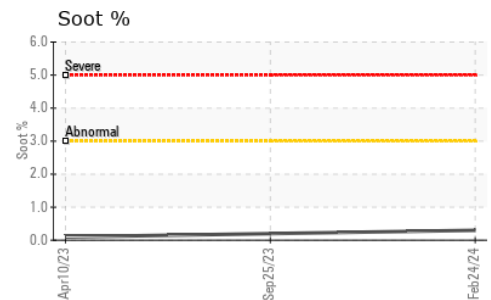
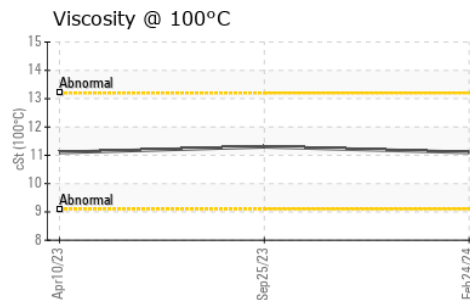
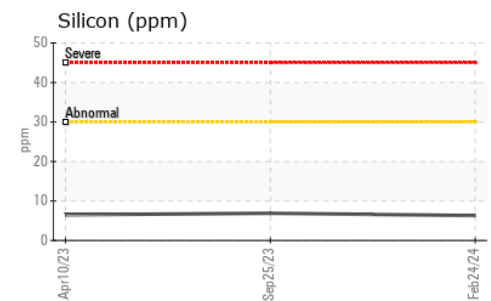
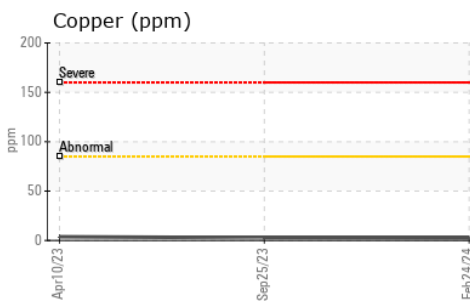
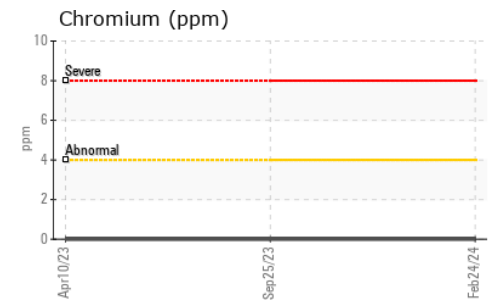
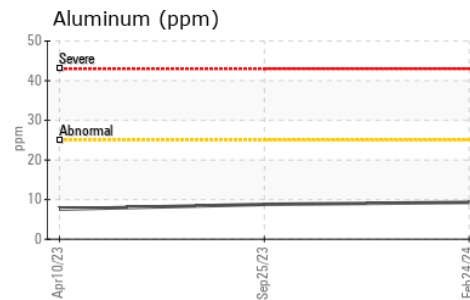
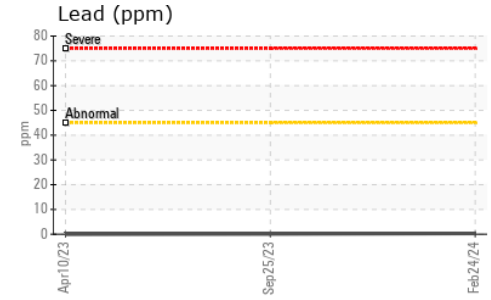
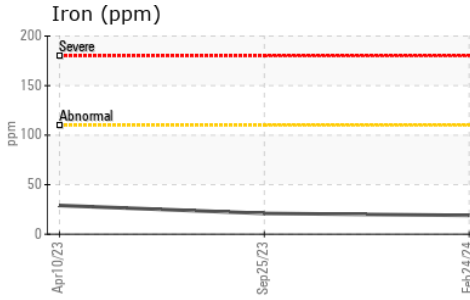
VISUAL

method	limit/base	current	history1	history2
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 D7279(m)	11.1	11.3	11.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 504 - Edmonton**
Sample No. : GFL0090751 **Received** : 07 Mar 2024 **12015 28 Street NE**
Lab Number : 02620404 **Tested** : 07 Mar 2024 **Edmonton, AB**
Unique Number : 5737514 **Diagnosed** : 07 Mar 2024 - Wes Davis **CA T6S 1E2**
Test Package : MOB 1 **Contact:** Jerrod Adair
jerrodadair@gflenv.com

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.