

Machine Id
111010
Component
Diesel Engine
Fluid
PETRO CANADA 10W30 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	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
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

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
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

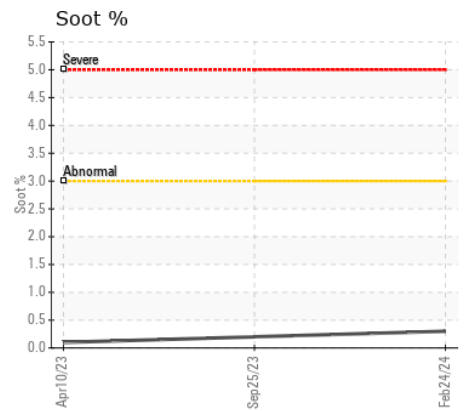
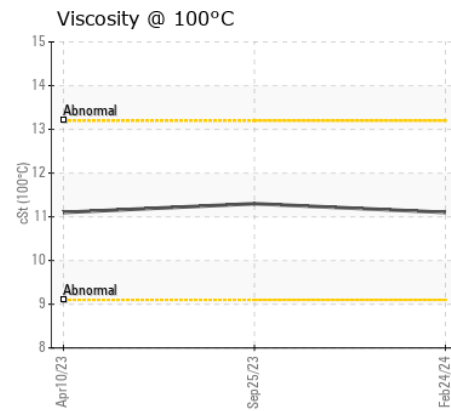
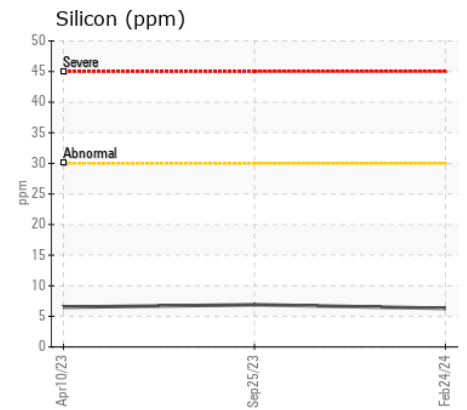
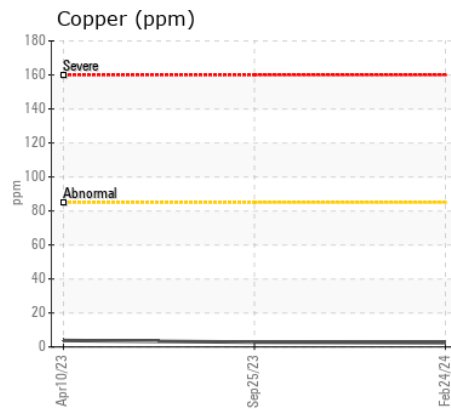
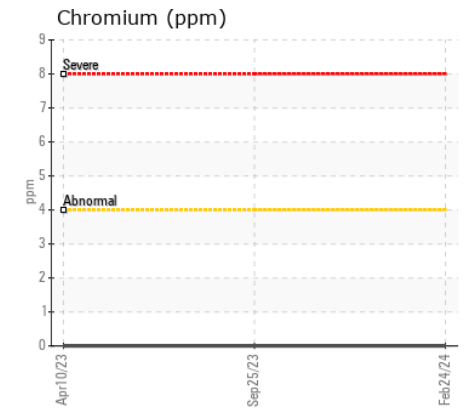
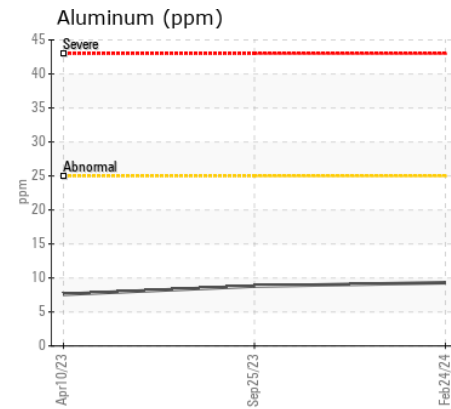
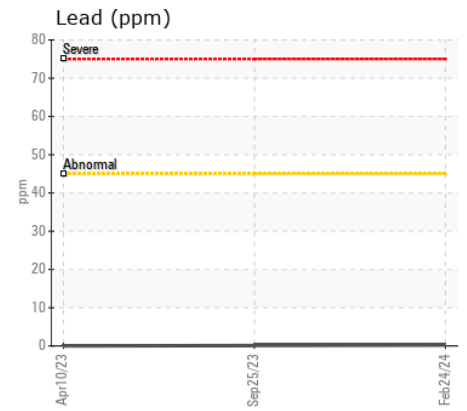
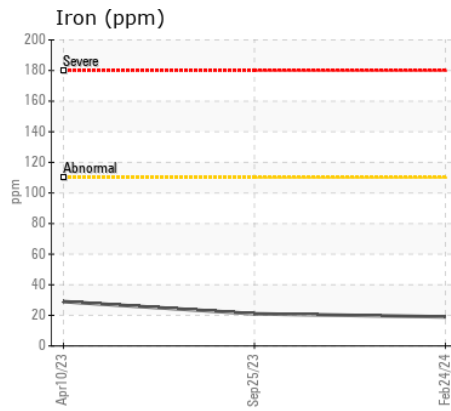
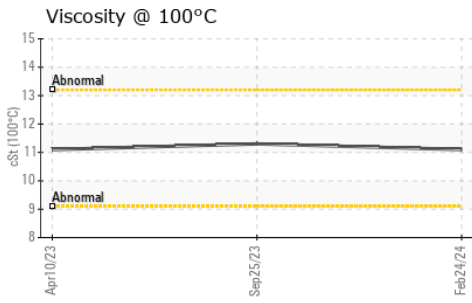
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	6	7	6
Potassium	ppm	ASTM D5185(m)	>20	18	20	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
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
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<1	2	2
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
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.6	15.4	16.3
Visc @ 100°C	cSt	ASTM D7279(m)		11.1	11.3	11.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0090751
Lab Number : 02620404
Unique Number : 5737514
Test Package : MOB 1
Received : 07 Mar 2024
Tested : 07 Mar 2024
Diagnosed : 07 Mar 2024 - Wes Davis

GFL Environmental - 504 - Edmonton
 12015 28 Street NE
 Edmonton, AB
 CA T6S 1E2
 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.

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F: