



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id

7792

Component

Diesel Engine

Fluid

CASTROL TECTION EXTRA SAE 15W-40 (40 GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113179	GFL0104508	GFL0097012
Sample Date		Client Info		22 Feb 2024	11 Dec 2023	16 Oct 2023
Machine Age	kms	Client Info		275375	20453	269740
Oil Age	kms	Client Info		0	269740	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>165	10	13	17
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	1	1
Lead	ppm	ASTM D5185(m)	>150	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>90	<1	<1	1
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

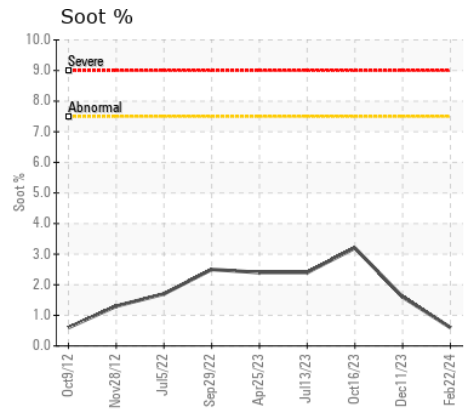
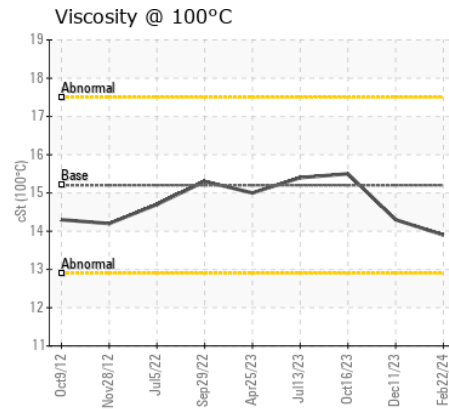
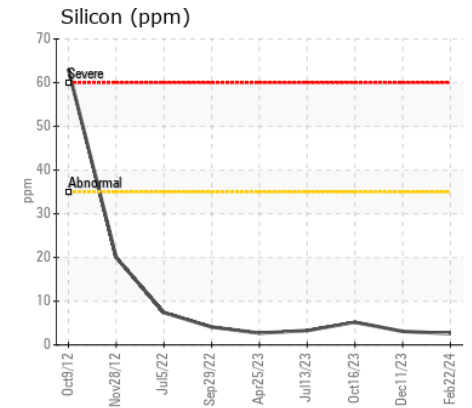
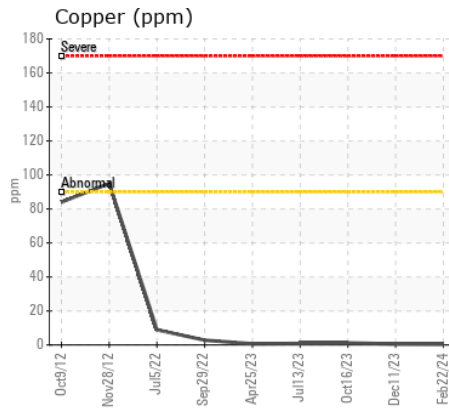
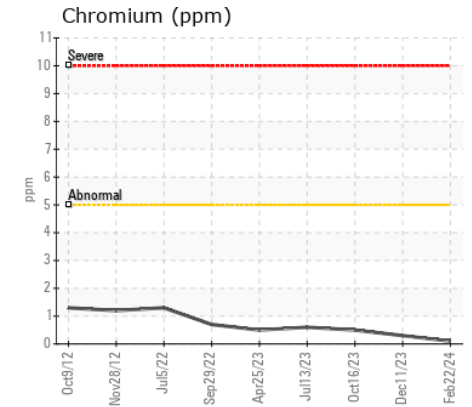
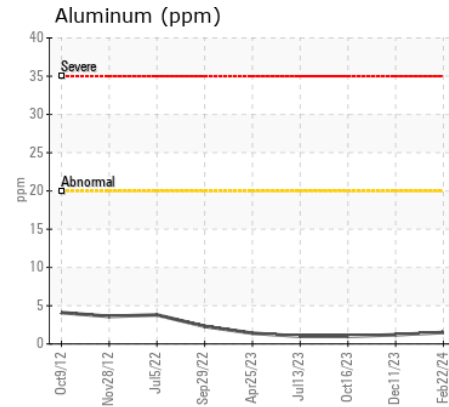
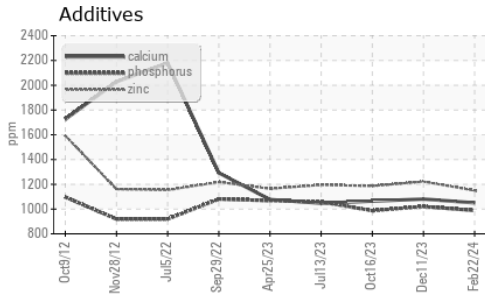
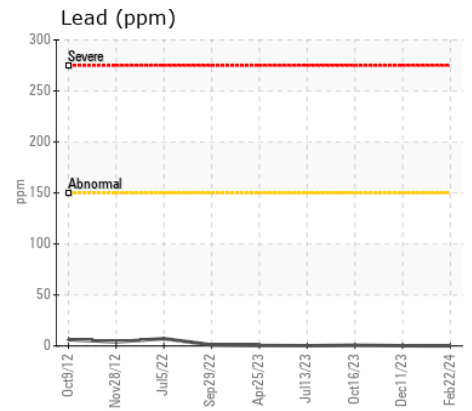
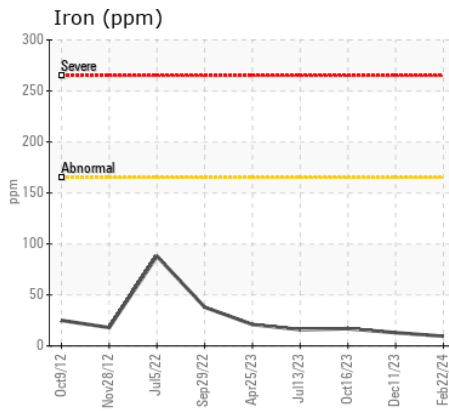
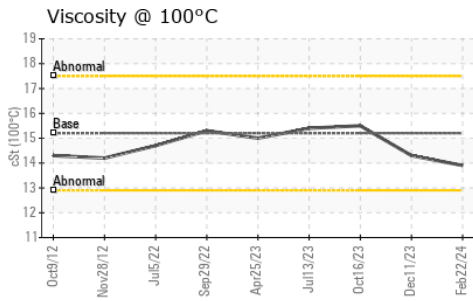
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>35	3	3	5
Potassium	ppm	ASTM D5185(m)	>20	2	1	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>7.5	0.6	1.6	3.2
Nitration	Abs/cm	ASTM D7624*	>20	6.7	8.8	12.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.5	22.9	27.6
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		7	11	20
Boron	ppm	ASTM D5185(m)	30	6	2	2
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		58	62	59
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	110	932	978	947
Calcium	ppm	ASTM D5185(m)	2740	1050	1081	1064
Phosphorus	ppm	ASTM D5185(m)	1240	989	1020	987
Zinc	ppm	ASTM D5185(m)	1350	1149	1222	1186
Sulfur	ppm	ASTM D5185(m)	3520	2714	2576	2395
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.4	16.1	18.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.2	13.9	14.3	15.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113179
Lab Number : 02618564
Unique Number : 5735674
Test Package : MOB 1

GFL Environmental - 225 - COT(D2)
 20 Brydon Drive
 Etobicoke, ON
 CA M9W 5R6
 Contact: Rick Philip
 rphilip@gflenv.com
 T: (416)745-8080
 F:

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.