



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		GFL0125810	GFL0113179	GFL0104508
Sample Date		Client Info		11 Jun 2024	22 Feb 2024	11 Dec 2023
Machine Age	kms	Client Info		280123	275375	20453
Oil Age	kms	Client Info		0	0	269740
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>165	13	10	13
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	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	1	2	1
Lead	ppm	ASTM D5185(m)	>150	0	<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

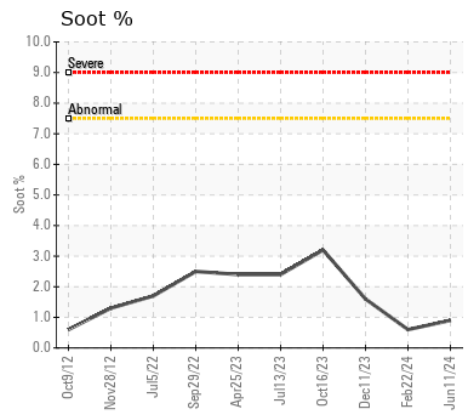
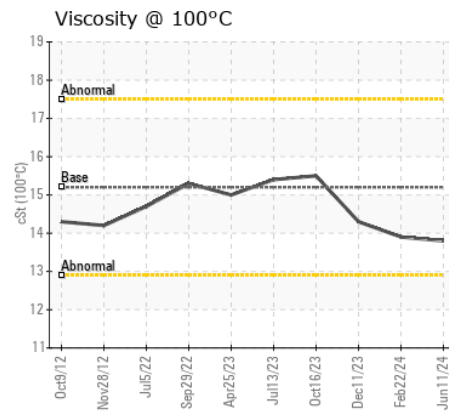
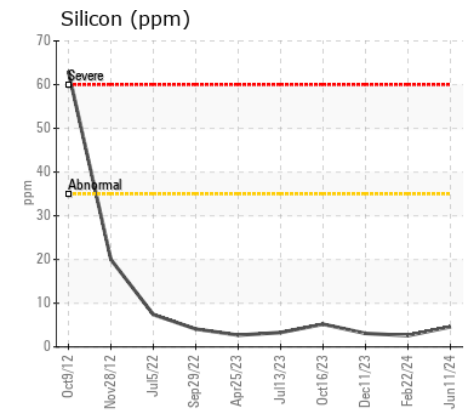
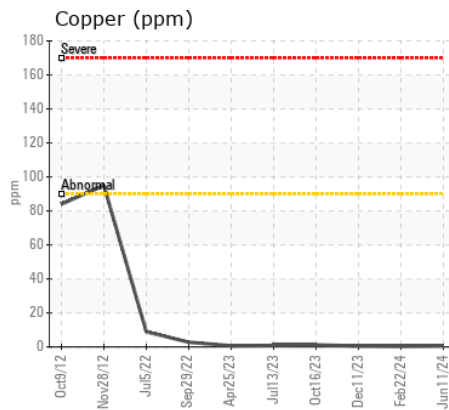
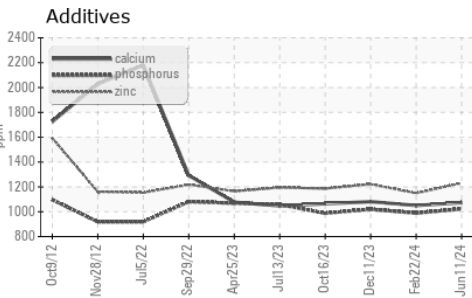
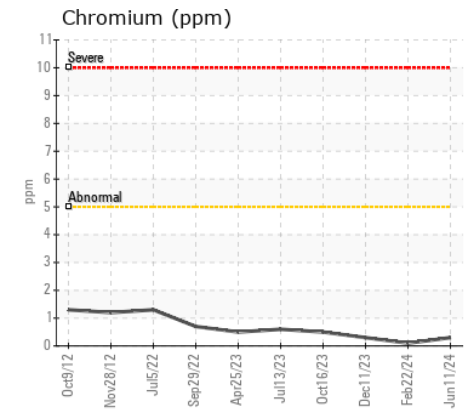
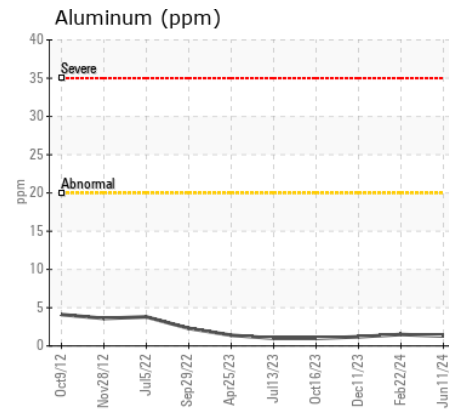
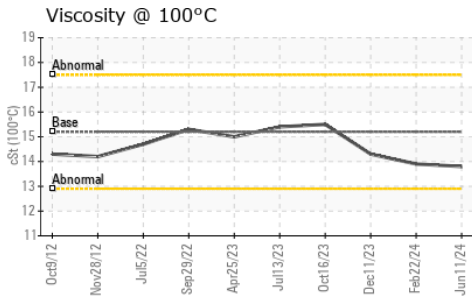
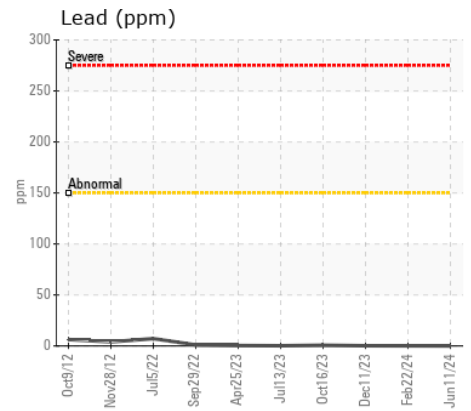
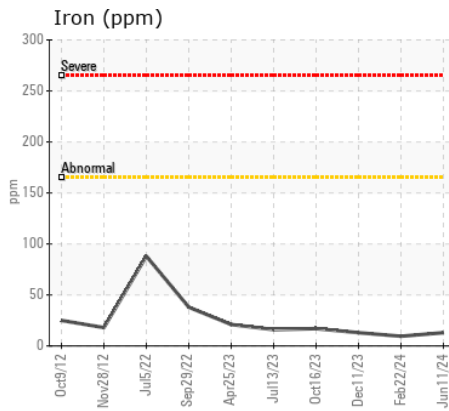
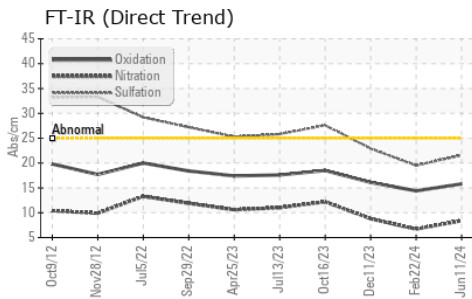
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>35	5	3	3
Potassium	ppm	ASTM D5185(m)	>20	4	2	1
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	0.9	0.6	1.6
Nitration	Abs/cm	ASTM D7624*	>20	8.4	6.7	8.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.6	19.5	22.9
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)		25	7	11
Boron	ppm	ASTM D5185(m)	30	4	6	2
Barium	ppm	ASTM D5185(m)		0	0	<1
Molybdenum	ppm	ASTM D5185(m)		62	58	62
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	110	998	932	978
Calcium	ppm	ASTM D5185(m)	2740	1073	1050	1081
Phosphorus	ppm	ASTM D5185(m)	1240	1023	989	1020
Zinc	ppm	ASTM D5185(m)	1350	1231	1149	1222
Sulfur	ppm	ASTM D5185(m)	3520	2580	2714	2576
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.8	14.4	16.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.2	13.8	13.9	14.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0125810
Lab Number : 02641572
Unique Number : 5799111
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.