



Machine Id
410011
Component
Diesel Engine
Fluid
CASTROL 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100705	GFL0093120	GFL0093123
Sample Date		Client Info		10 Apr 2024	24 Jan 2024	02 Nov 2023
Machine Age	kms	Client Info		285298	265149	243345
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
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)	>120	11	11	12
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	3	2	3
Lead	ppm	ASTM D5185(m)	>40	0	0	<1
Copper	ppm	ASTM D5185(m)	>330	2	2	2
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

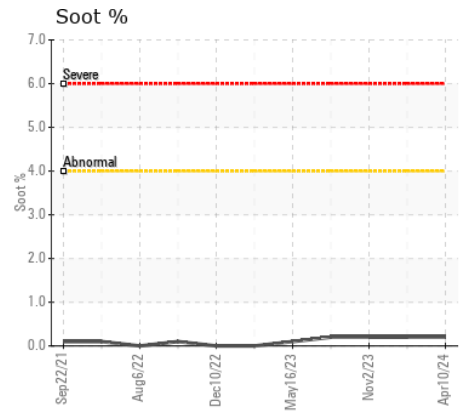
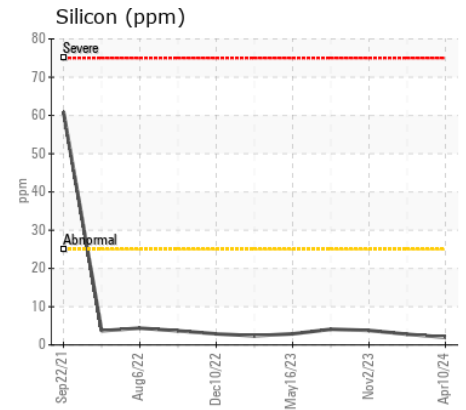
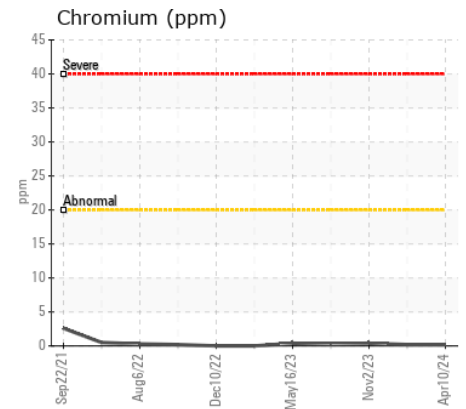
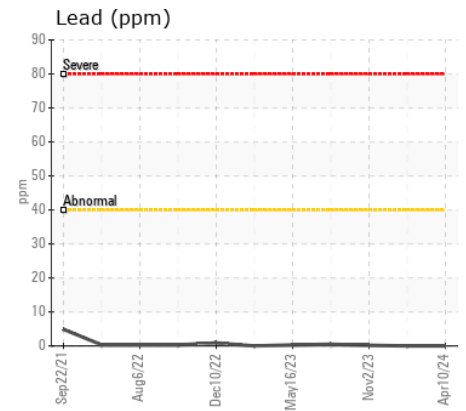
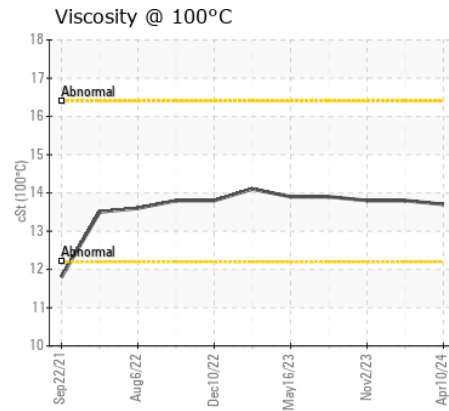
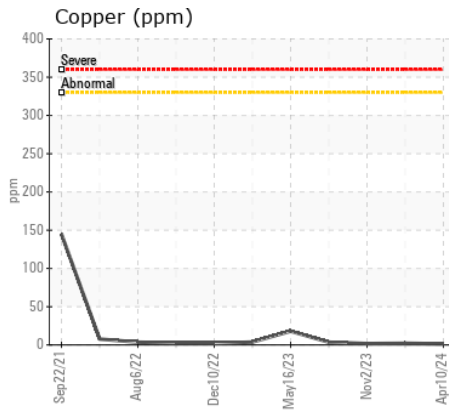
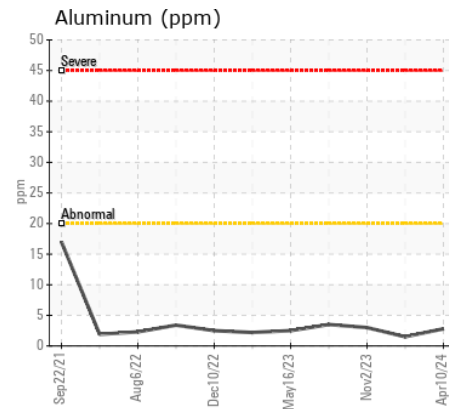
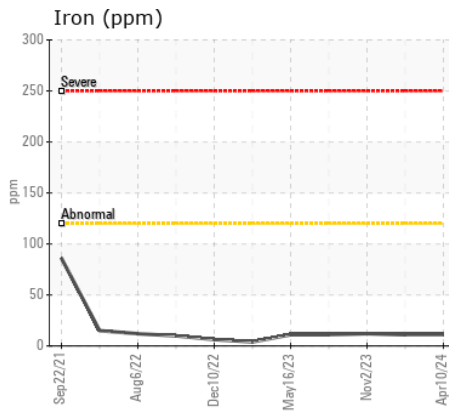
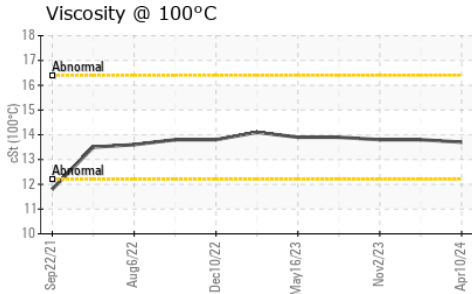
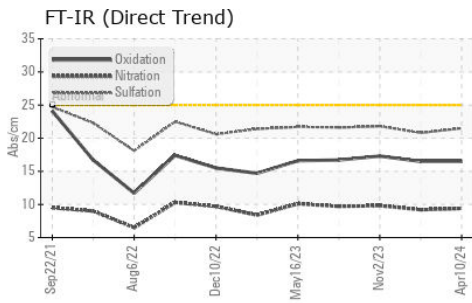
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	<1	0	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*	>4	0.2	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	9.4	9.2	9.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.5	20.8	21.8
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)	>406	2	2	2
Boron	ppm	ASTM D5185(m)		6	5	6
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		54	52	52
Manganese	ppm	ASTM D5185(m)		<1	0	0
Magnesium	ppm	ASTM D5185(m)		847	831	806
Calcium	ppm	ASTM D5185(m)		1265	1272	1304
Phosphorus	ppm	ASTM D5185(m)		983	967	982
Zinc	ppm	ASTM D5185(m)		1218	1200	1197
Sulfur	ppm	ASTM D5185(m)		2441	2439	2502
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.5	16.5	17.3
Visc @ 100°C	cSt	ASTM D7279(m)		13.7	13.8	13.8



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100705
Lab Number : 02637598
Unique Number : 5786760
Test Package : MOB 1

GFL Environmental - 861 - Moncton
 1095 CHAMPLAIN ST
 MONCTON, NB
 CA E1A 1P9
 Contact: Vicki Clark
 vclark@gflenv.com
 T: (506)457-1427
 F: (506)453-9490

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.