



Machine Id
910081
Component
Diesel Engine
Fluid
CASTROL TECTION EXTRA SAE 15W-40 (42 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0118933	GFL0086801	GFL0086775
Sample Date		Client Info		24 Jun 2024	12 Mar 2024	22 Dec 2023
Machine Age	hrs	Client Info		8646	7971	7413
Oil Age	hrs	Client Info		1200	600	600
Filter Age	hrs	Client Info		1200	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)	>120	10	11	10
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<1	<1	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	4	4
Lead	ppm	ASTM D5185(m)	>40	2	1	<1
Copper	ppm	ASTM D5185(m)	>330	1	1	1
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

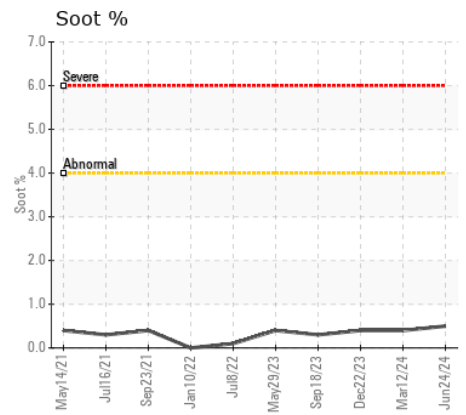
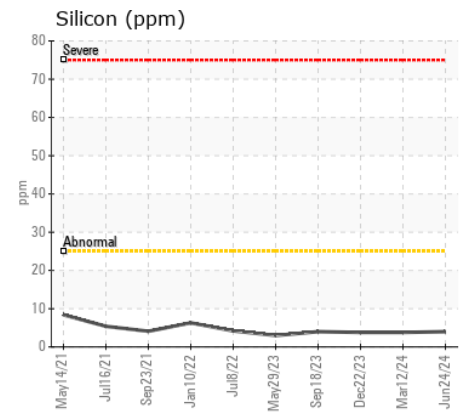
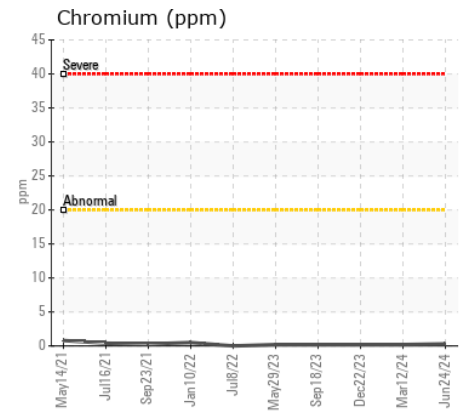
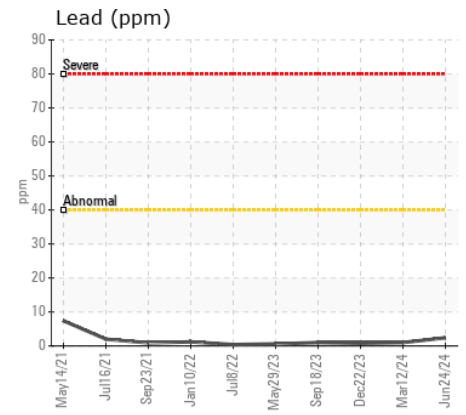
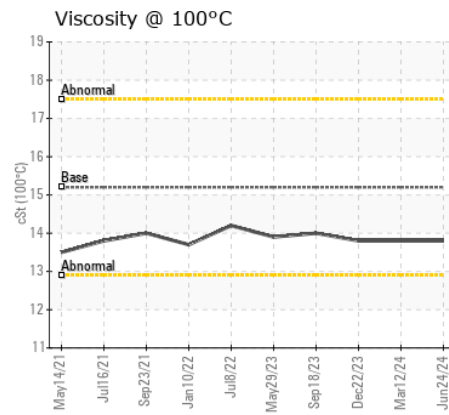
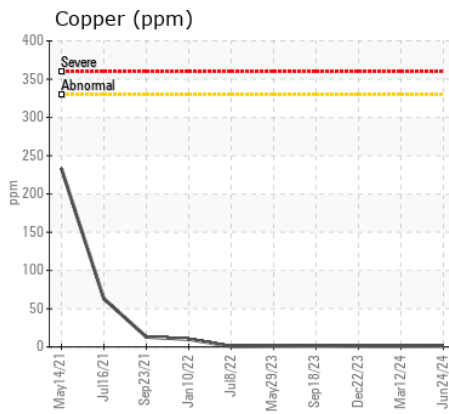
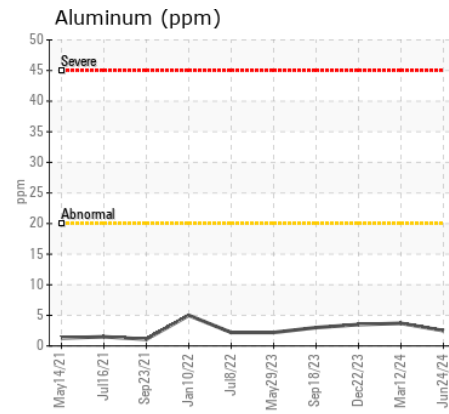
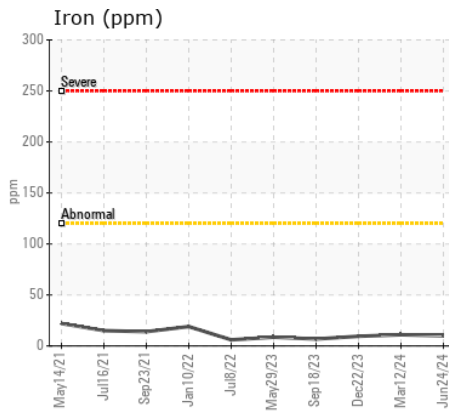
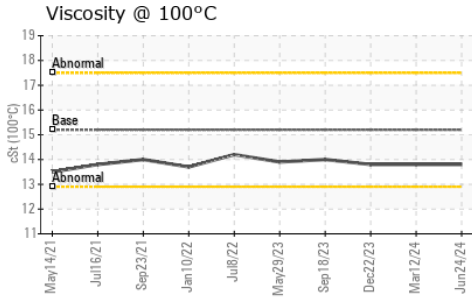
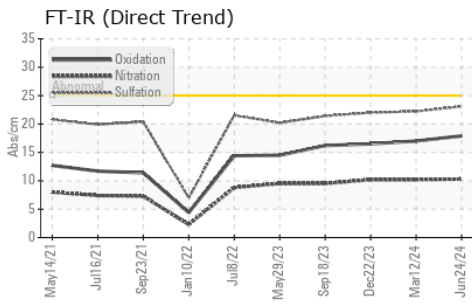
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	4	4
Potassium	ppm	ASTM D5185(m)	>20	1	<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*	>4	0.5	0.4	0.4
Nitration	Abs/cm	ASTM D7624*	>20	10.3	10.2	10.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.1	22.2	22.0
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)		5	6	4
Boron	ppm	ASTM D5185(m)	30	20	27	23
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		87	88	87
Manganese	ppm	ASTM D5185(m)		<1	0	0
Magnesium	ppm	ASTM D5185(m)	110	133	81	67
Calcium	ppm	ASTM D5185(m)	2740	1983	2138	2129
Phosphorus	ppm	ASTM D5185(m)	1240	919	974	938
Zinc	ppm	ASTM D5185(m)	1350	1133	1137	1126
Sulfur	ppm	ASTM D5185(m)	3520	2623	2940	2917
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.9	17.0	16.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.2	13.8	13.8	13.8



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118933
Lab Number : 02643998
Unique Number : 5801537
Test Package : MOB 1 (Additional Tests: Visual)

Received : 25 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Wes Davis

GFL Environmental - 222 - Sandhill
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD
 ORANGEVILLE, ON
 CA L9W 3X5
 Contact: GLENN COOK
 gcook@gflenv.com
 T: (519)940-4167
 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.