



Machine Id
910075
Component
Diesel Engine
Fluid
CASTROL TECTION EXTRA SAE 15W-40 (42 LTR)

RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0094417	GFL0086776	GFL0042860
Sample Date		Client Info		02 Apr 2024	22 Dec 2023	03 Oct 2023
Machine Age	hrs	Client Info		71518	7519	0
Oil Age	hrs	Client Info		71518	600	0
Filter Age	hrs	Client Info		71518	600	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				SEVERE	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	6	6	8
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	0	<1	0
Titanium	ppm	ASTM D5185(m)	>2	1	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	3	3	3
Lead	ppm	ASTM D5185(m)	>40	0	<1	3
Copper	ppm	ASTM D5185(m)	>330	<1	<1	1
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

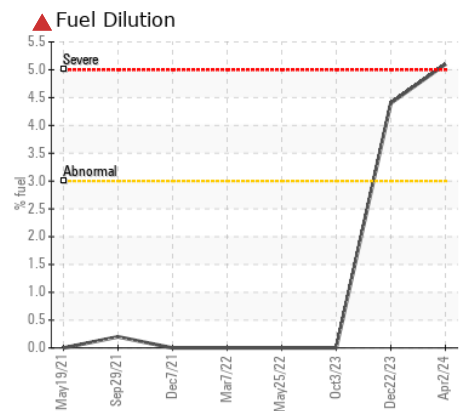
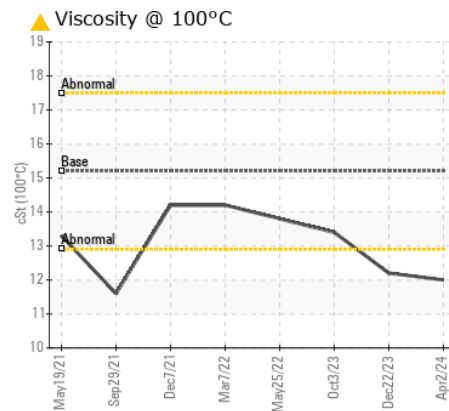
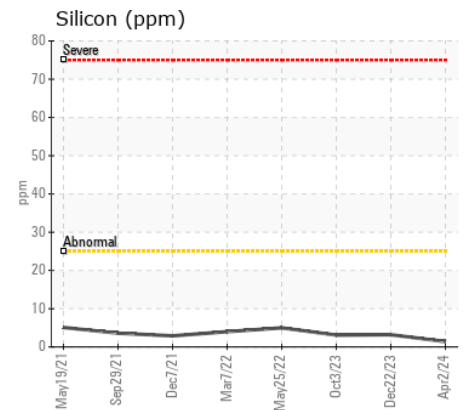
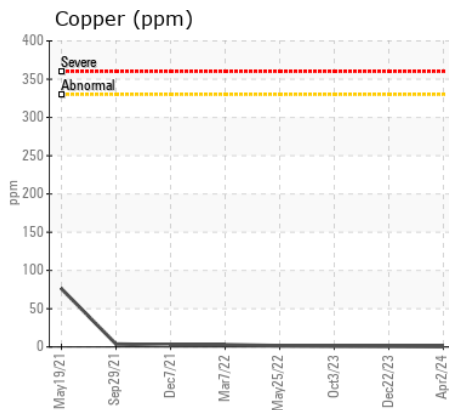
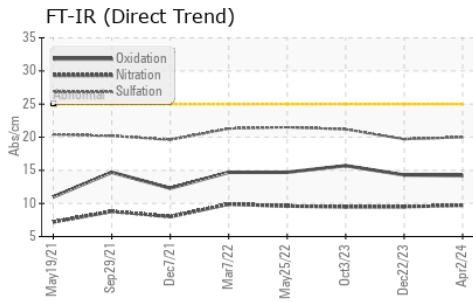
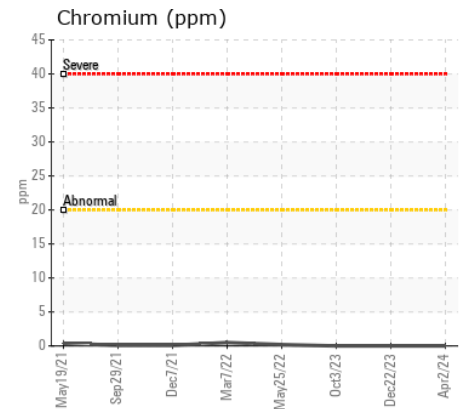
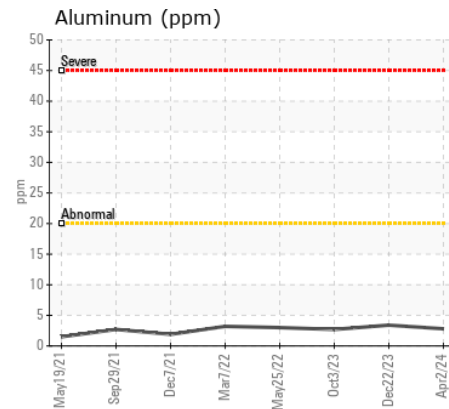
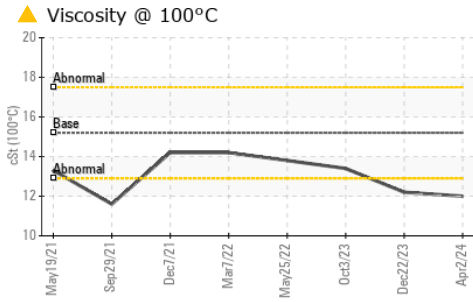
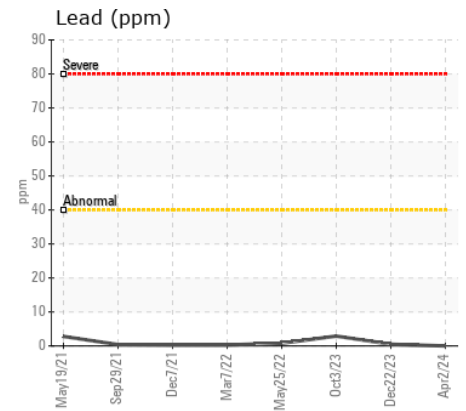
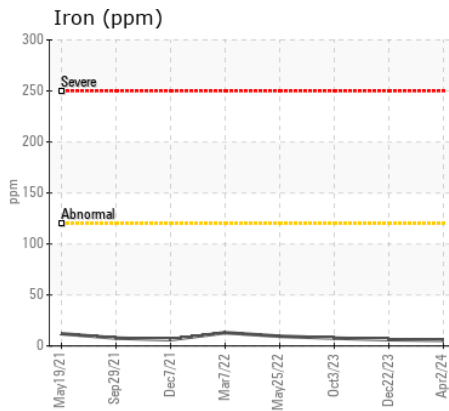
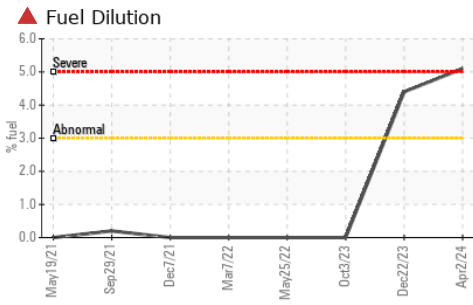
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	1	3	3
Potassium	ppm	ASTM D5185(m)	>20	1	2	1
Fuel	%	ASTM D7593*	>3.0	▲ 5.1	▲ 4.4	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0.3	0.3	0.4
Nitration	Abs/cm	ASTM D7624*	>20	9.7	9.5	9.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.0	19.7	21.2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		2	3	5
Boron	ppm	ASTM D5185(m)	30	37	33	18
Barium	ppm	ASTM D5185(m)		0	0	<1
Molybdenum	ppm	ASTM D5185(m)		81	83	81
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	110	74	61	33
Calcium	ppm	ASTM D5185(m)	2740	1957	2025	2164
Phosphorus	ppm	ASTM D5185(m)	1240	895	912	933
Zinc	ppm	ASTM D5185(m)	1350	1053	1078	1145
Sulfur	ppm	ASTM D5185(m)	3520	2725	2963	2839
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.2	14.3	15.7
Visc @ 100°C	cSt	ASTM D7279(m)	15.2	▲ 12.0	▲ 12.2	13.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0094417 **Received** : 03 Apr 2024
Lab Number : 02626326 **Tested** : 04 Apr 2024
Unique Number : 5759458 **Diagnosed** : 04 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel)

GFL Environmental - 222 - Sandhill
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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.