



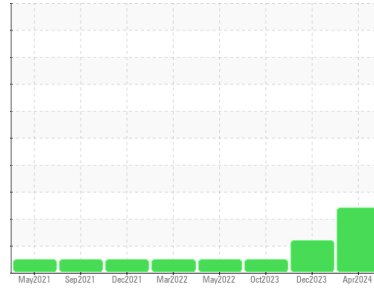
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



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



DIAGNOSIS

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.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	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
Oil Changed	Client Info		Changed	Changed	N/A
Sample Status			SEVERE	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
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
Antimony	ppm	ASTM D5185(m)	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
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
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

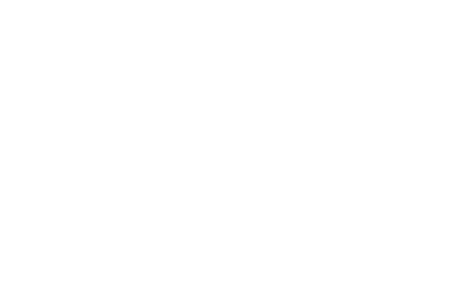
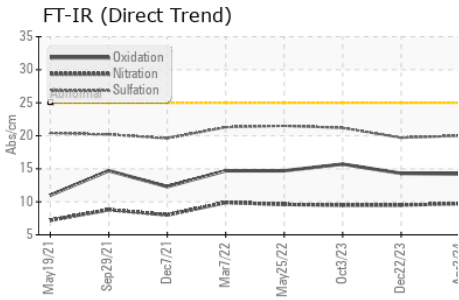
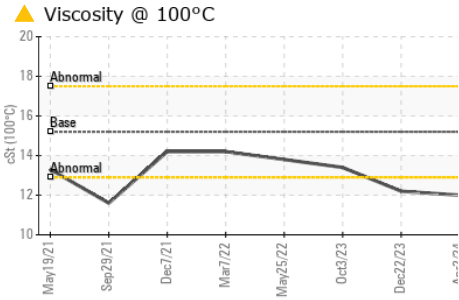
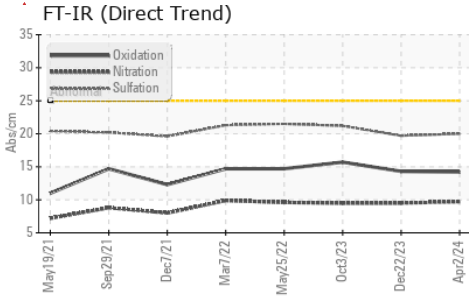
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	1	3	3
Sodium	ppm	ASTM D5185(m)	2	3	5
Potassium	ppm	ASTM D5185(m) >20	1	2	1
Fuel	%	ASTM D7593* >3.0	▲ 5.1	▲ 4.4	<1.0

INFRA-RED

	method	limit/base	current	history1	history2
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



OIL ANALYSIS REPORT

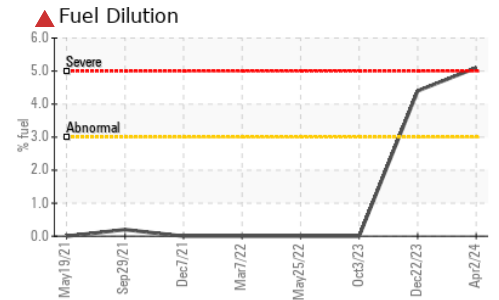
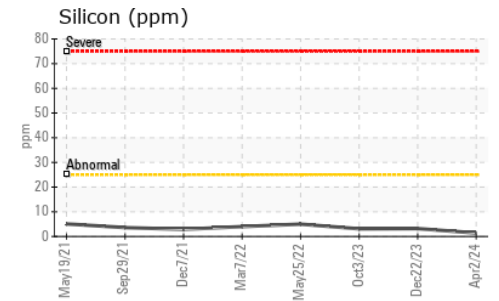
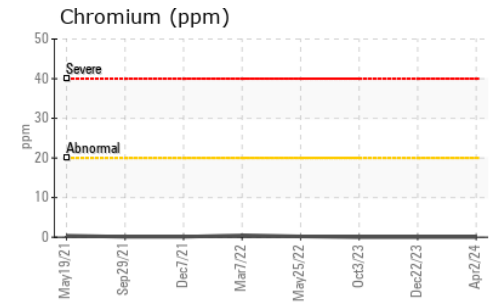
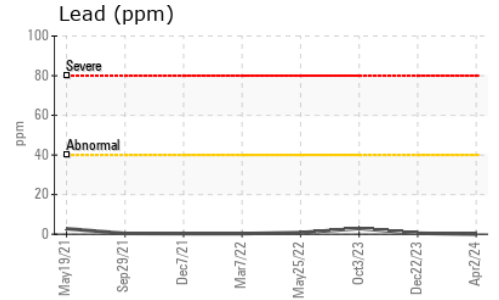
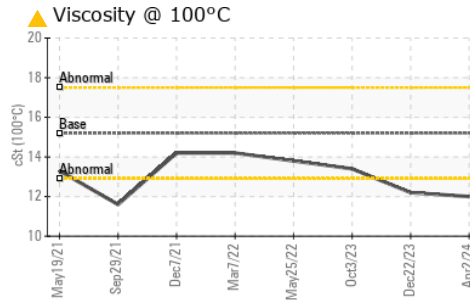
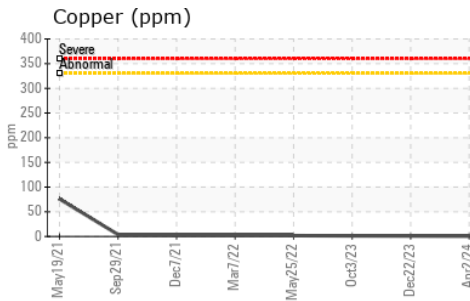
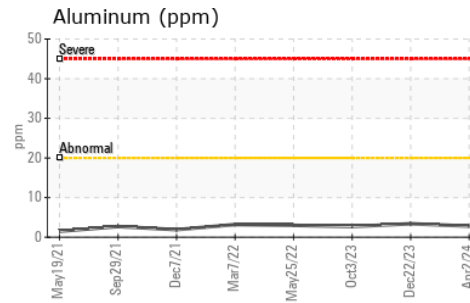
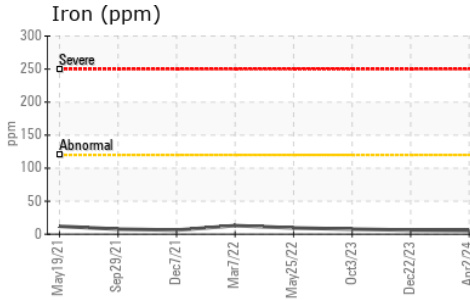


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.2	14.3	15.7

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.2	▲ 12.0	▲ 12.2	13.4

GRAPHS



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
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCIAL 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.