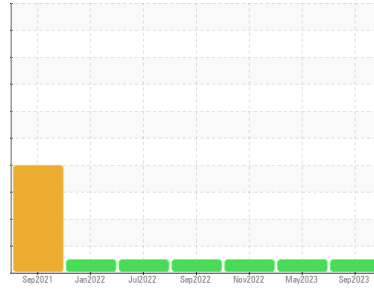




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
719004
 Component
Diesel Engine
 Fluid
CASTROL 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0093114	GFL0070458	GFL0054014
Sample Date	Client Info		26 Sep 2023	23 May 2023	18 Nov 2022
Machine Age	kms	Client Info	72639	62266	47606
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>80	29	17	13
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>30	10	6	6
Lead	ppm	ASTM D5185(m)	>30	<1	0	0
Copper	ppm	ASTM D5185(m)	>150	2	1	1
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	<1
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)		10	19	14
Barium	ppm	ASTM D5185(m)		<1	0	0
Molybdenum	ppm	ASTM D5185(m)		34	34	37
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		501	528	583
Calcium	ppm	ASTM D5185(m)		1501	1498	1507
Phosphorus	ppm	ASTM D5185(m)		852	1033	1052
Zinc	ppm	ASTM D5185(m)		1085	1157	1149
Sulfur	ppm	ASTM D5185(m)		2719	2909	2883
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	4	3	3
Sodium	ppm	ASTM D5185(m)	>406	2	1	1
Potassium	ppm	ASTM D5185(m)	>20	6	3	6

INFRA-RED

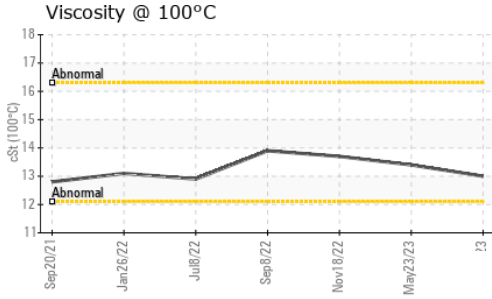
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.6	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	10.9	9.3	9.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.6	19.0	19.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.0	14.5	15.0



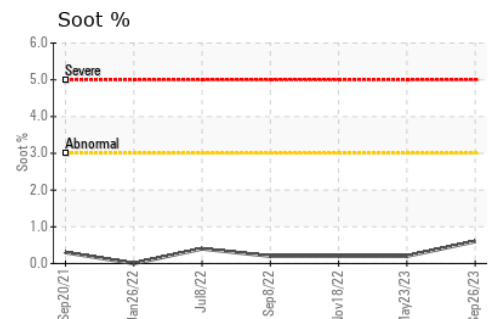
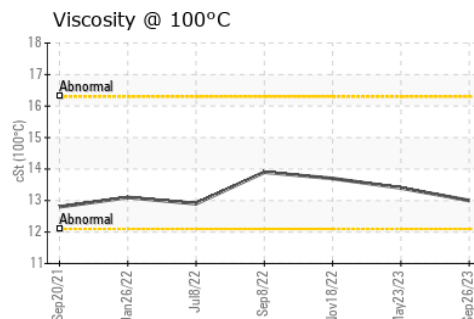
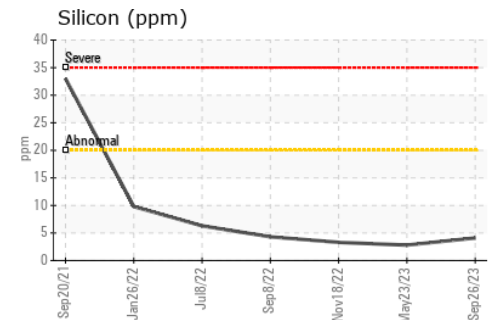
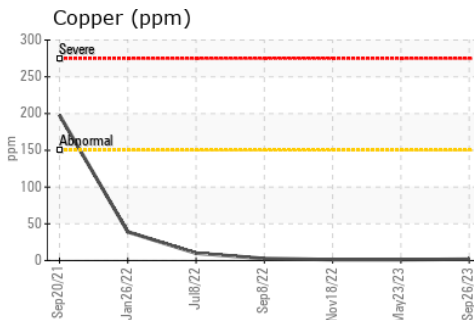
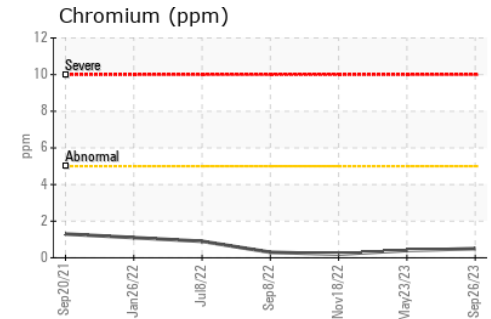
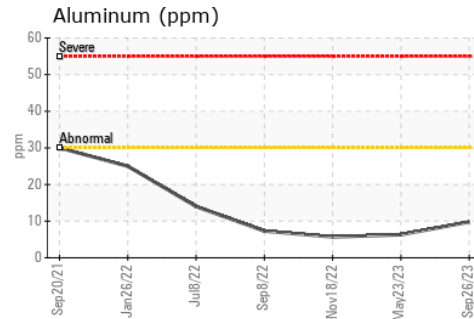
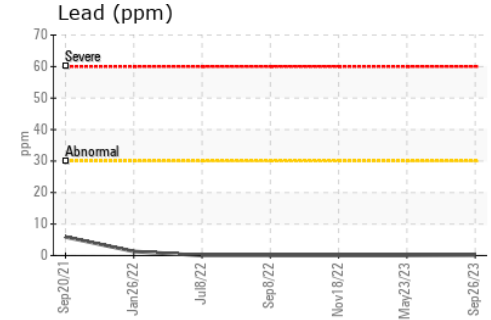
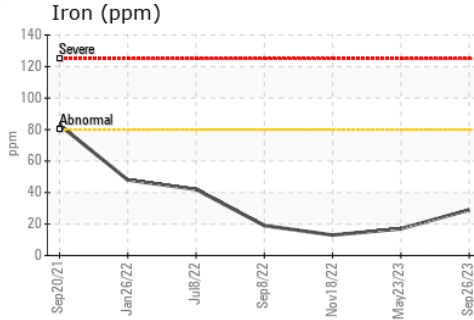
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	13.0	13.4	13.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 860 - Fredericton**
Sample No. : GFL0093114 **Received** : 10 Oct 2023 **160 BLIZZARD ST**
Lab Number : 02587951 **Diagnosed** : 10 Oct 2023 **FREDERICTON, NB**
Unique Number : 5657017 **Diagnostician** : Kevin Marson **CA E3B 8K2**
Test Package : MOB 1 **Contact: Crystal Beach-Nassuai**
cbeachnassuai@gflenv.com

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.