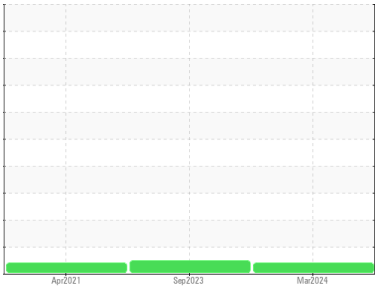
OIL ANALYSIS REPORT

Machine Id
910079
Component
Diesel Engine
Fluid
CASTROL 15W40 (--- GAL)

Sample Rating Trend



VISCOSITY

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
Metal levels are typical for a new component breaking in.

Contamination
Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0100739**	GFL0079571	GFL0021459
Sample Date		Client Info		**07 Mar 2024**	15 Sep 2023	05 Apr 2021
Machine Age	kms	Client Info		**42193**	37812	7555
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	N/A
Sample Status				**ABNORMAL**	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	0.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	**4**	9	28
Chromium	ppm	ASTM D5185(m)	>20	**0**	<1	1
Nickel	ppm	ASTM D5185(m)	>5	**<1**	1	10
Titanium	ppm	ASTM D5185(m)	>2	**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>2	**0**	<1	1
Aluminum	ppm	ASTM D5185(m)	>20	**1**	1	2
Lead	ppm	ASTM D5185(m)	>40	**0**	<1	2
Copper	ppm	ASTM D5185(m)	>330	**<1**	1	41
Tin	ppm	ASTM D5185(m)	>15	**0**	<1	3
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)		**15**	88	39
Barium	ppm	ASTM D5185(m)		**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)		**57**	62	39
Manganese	ppm	ASTM D5185(m)		**0**	<1	4
Magnesium	ppm	ASTM D5185(m)		**942**	1022	483
Calcium	ppm	ASTM D5185(m)		**1048**	1021	1584
Phosphorus	ppm	ASTM D5185(m)		**1019**	1050	893
Zinc	ppm	ASTM D5185(m)		**1150**	1161	1122
Sulfur	ppm	ASTM D5185(m)		**2804**	2776	2494
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**4**	4	76
Sodium	ppm	ASTM D5185(m)	>406	**1**	2	3
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	8
Fuel	%	ASTM D7593*	>3.0	**0.7**	<1.0	0.3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	**0**	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	**4.9**	6.6	7.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	**17.9**	19.2	24.1

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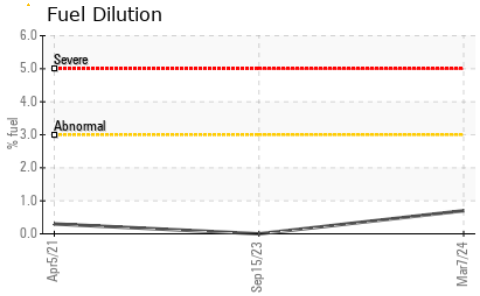
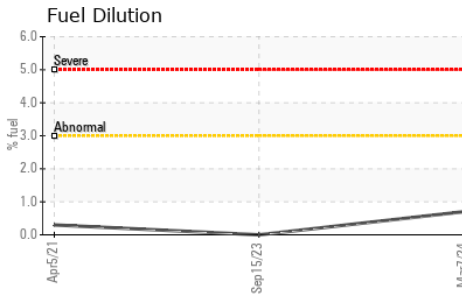


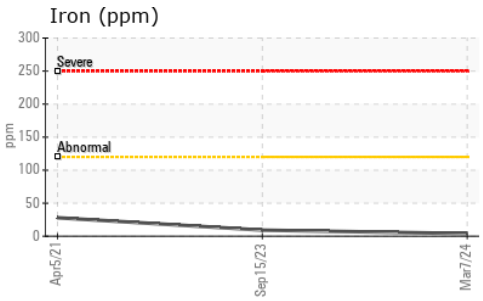


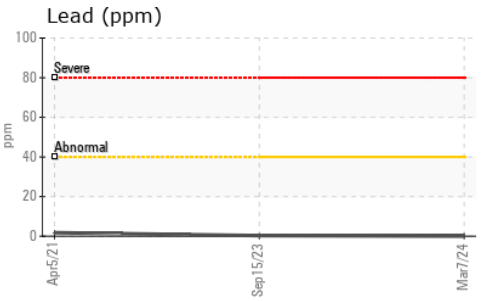
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**13.1**	14.4	20.6

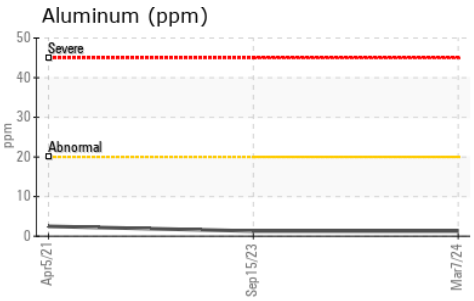
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

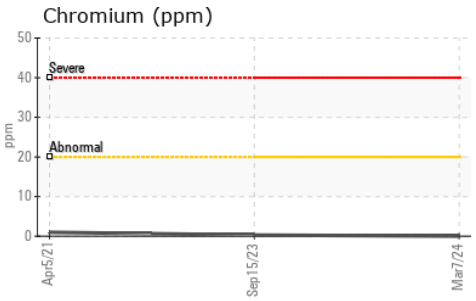
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		▲ **11.6**	13.3	▲ 10.7

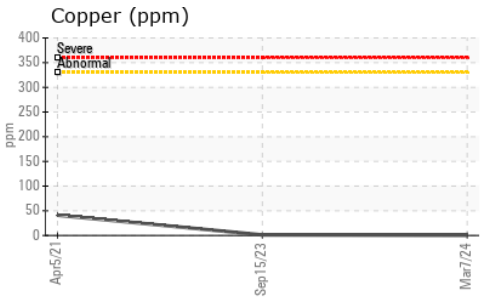
GRAPHS

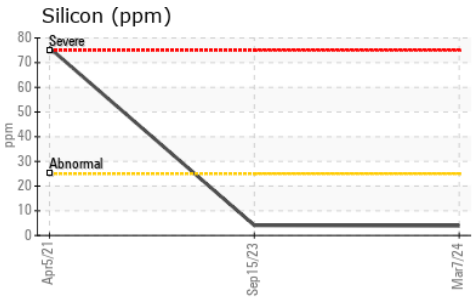


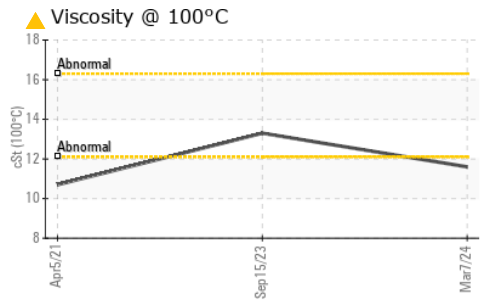


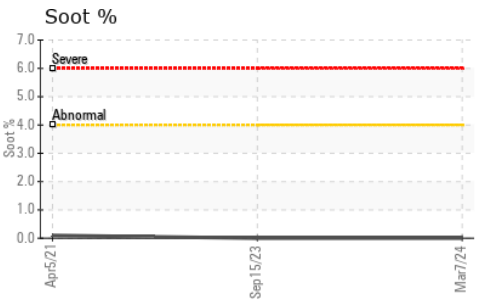












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100739
Lab Number : 02621039
Unique Number : 5746158
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

Received : 11 Mar 2024
Tested : 12 Mar 2024
Diagnosed : 12 Mar 2024 - Kevin Marson

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.

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