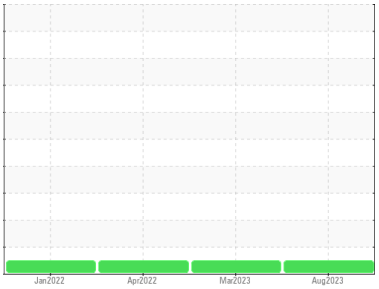
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
[1132764]
Machine Id
810047
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear
All component wear rates are normal.

Contamination
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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		**GFL0062939**	GFL0062909	GFL0041333
Sample Date		Client Info		**21 Aug 2023**	16 Mar 2023	12 Apr 2022
Machine Age	hrs	Client Info		**4294**	3373	1137
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
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)	>100	**23**	30	37
Chromium	ppm	ASTM D5185(m)	>20	**1**	2	1
Nickel	ppm	ASTM D5185(m)	>4	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	<1	0
Silver	ppm	ASTM D5185(m)	>3	**<1**	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	**6**	3	4
Lead	ppm	ASTM D5185(m)	>40	**<1**	<1	3
Copper	ppm	ASTM D5185(m)	>330	**2**	3	84
Tin	ppm	ASTM D5185(m)	>15	**<1**	<1	<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)	250	**5**	4	23
Barium	ppm	ASTM D5185(m)	10	**0**	0	1
Molybdenum	ppm	ASTM D5185(m)	100	**59**	60	68
Manganese	ppm	ASTM D5185(m)		**<1**	<1	2
Magnesium	ppm	ASTM D5185(m)	450	**959**	951	959
Calcium	ppm	ASTM D5185(m)	3000	**1069**	1105	1181
Phosphorus	ppm	ASTM D5185(m)	1150	**1040**	1071	968
Zinc	ppm	ASTM D5185(m)	1350	**1188**	1179	1172
Sulfur	ppm	ASTM D5185(m)	4250	**2486**	2453	2162
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**4**	4	10
Sodium	ppm	ASTM D5185(m)	>216	**7**	7	7
Potassium	ppm	ASTM D5185(m)	>20	**13**	3	3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.4**	0.1	0.2
Nitration	Abs/cm	ASTM D7624*	>20	**8.6**	6.4	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.8**	18.6	22.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**16.1**	10.5	18.0

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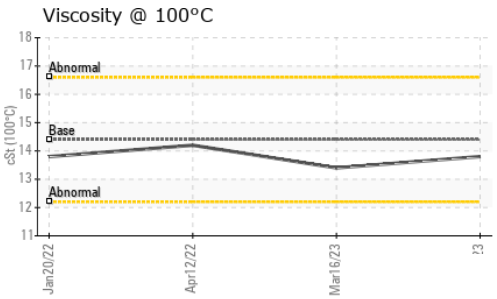
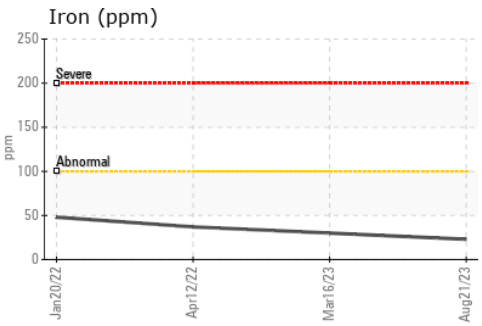
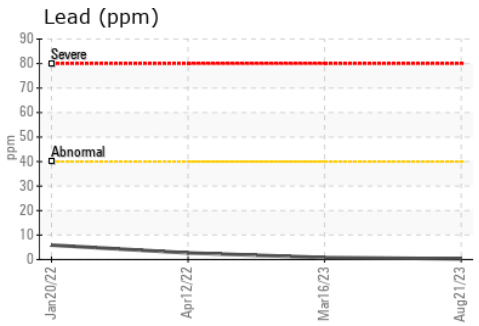


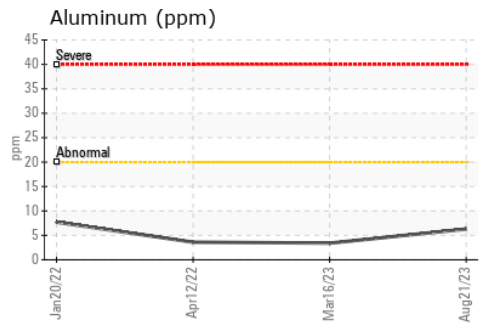
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

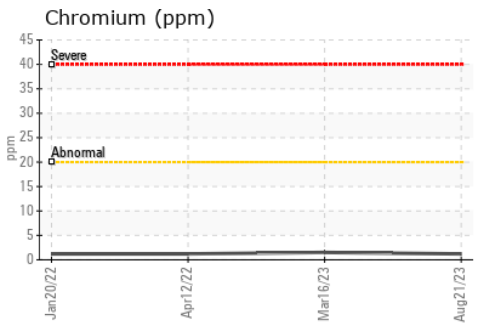
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	**13.8**	13.4	14.2

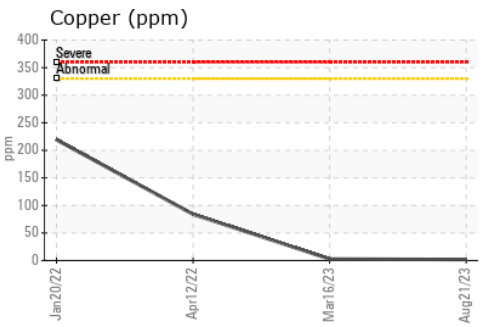
GRAPHS

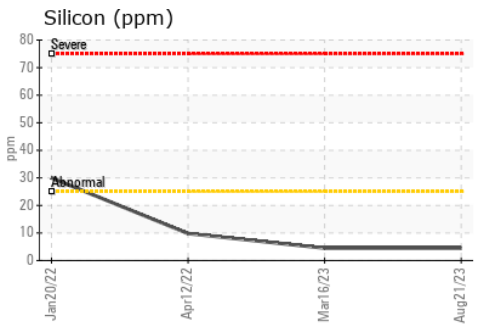


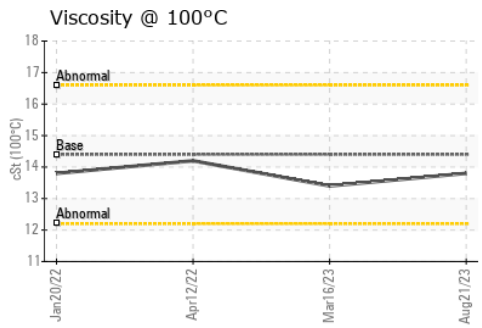


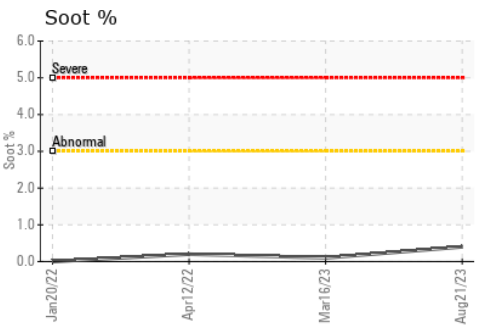












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0062939
Lab Number : 02577375
Unique Number : 5630435
Test Package : MOB 1

Received : 22 Aug 2023
Diagnosed : 22 Aug 2023
Diagnostician : Wes Davis

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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