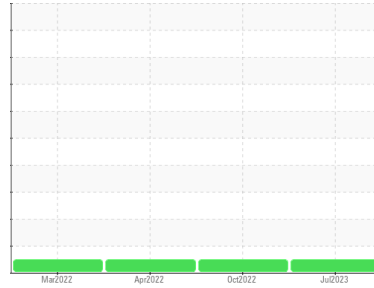




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**810049**

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	history 1	history 2
Sample Number	Client Info			<b>GFL0062928</b>	GFL0051262	GFL0041306
Sample Date	Client Info			<b>06 Jul 2023</b>	13 Oct 2022	24 Apr 2022
Machine Age	hrs	Client Info		<b>3776</b>	2176	1119
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history 1	history 2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185(m)	>100	<b>39</b>	31	36
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	1	1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>9</b>	14	5
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	5
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	9	142
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185(m)	250	<b>44</b>	5	21
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185(m)	100	<b>14</b>	60	67
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185(m)	450	<b>147</b>	942	961
Calcium	ppm	ASTM D5185(m)	3000	<b>2158</b>	1093	1144
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1031</b>	1025	953
Zinc	ppm	ASTM D5185(m)	1350	<b>1198</b>	1172	1167
Sulfur	ppm	ASTM D5185(m)	4250	<b>2793</b>	2355	2029
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

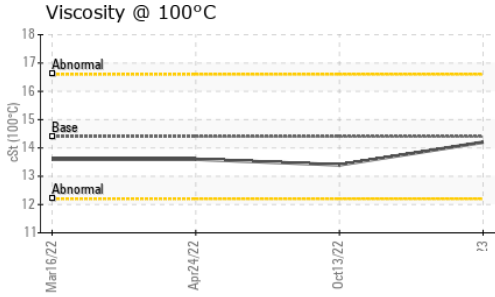
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185(m)	>25	<b>17</b>	6	11
Sodium	ppm	ASTM D5185(m)	>216	<b>4</b>	3	7
Potassium	ppm	ASTM D5185(m)	>20	<b>22</b>	31	5

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	ASTM D7844*	>3	<b>0.5</b>	0.3	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.4</b>	8.8	8.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>26.0</b>	20.7	22.2

FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.8</b>	16.7	17.2



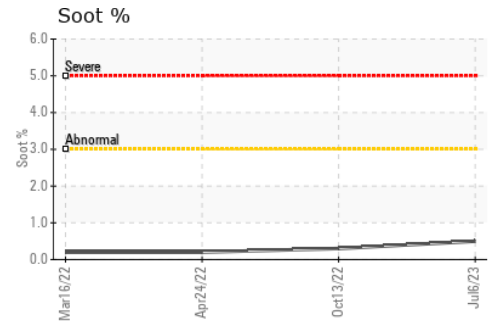
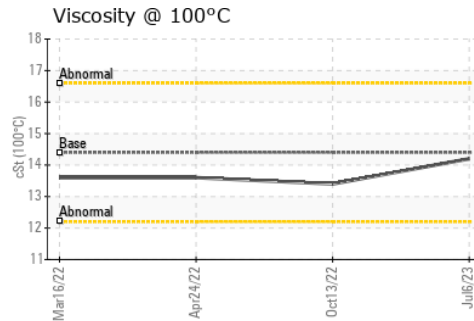
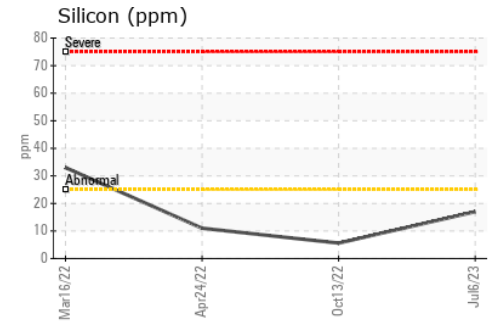
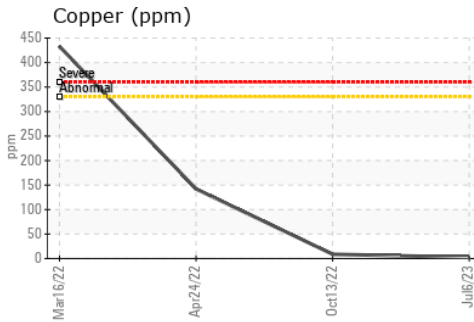
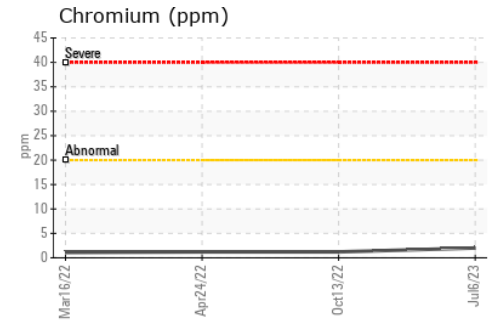
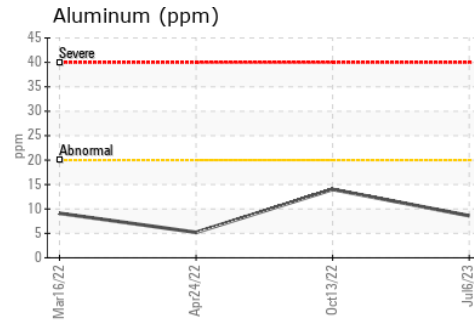
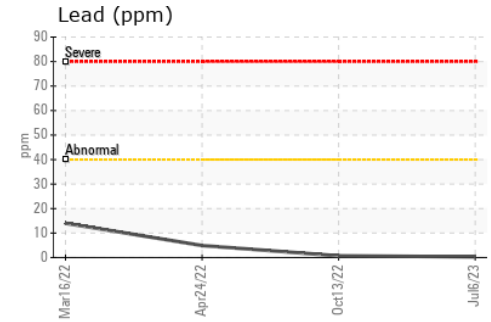
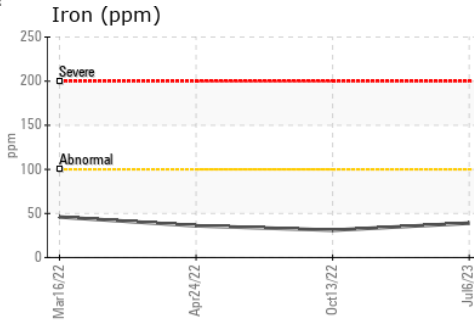
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>14.2</b>	13.4	13.6

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 777 - Belleville-Municipal waste  
**Sample No.** : GFL0062928 **Received** : 07 Jul 2023  
**Lab Number** : **02568406** **Diagnosed** : 07 Jul 2023  
**Unique Number** : 5605452 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

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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