



Machine Id  
**511015**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0098552</b>	GFL0084215	GFL0072265
Sample Date		Client Info		<b>17 Jan 2024</b>	25 Jul 2023	01 Mar 2023
Machine Age	kms	Client Info		<b>575489</b>	516522	452051
Oil Age	kms	Client Info		<b>58967</b>	64471	60000
Filter Age	kms	Client Info		<b>58967</b>	64471	60000
Oil Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>78</b>	52	45
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>1</b>	1	3
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>3</b>	2	2
Copper	ppm	ASTM D5185(m)	>330	<b>12</b>	8	16
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

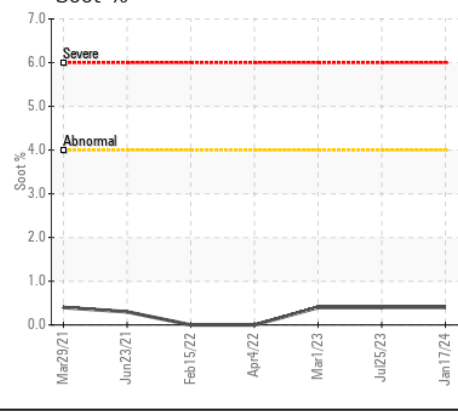
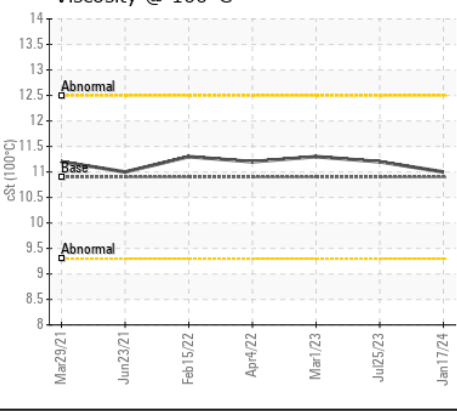
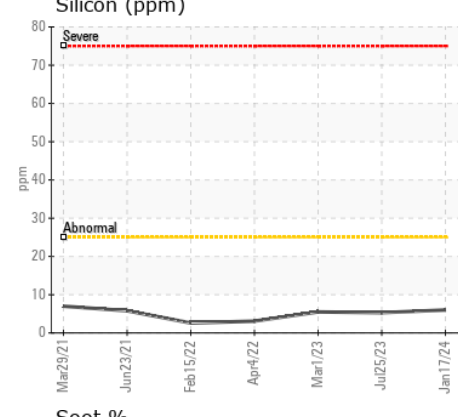
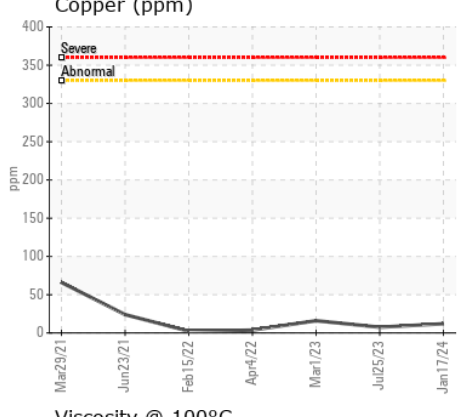
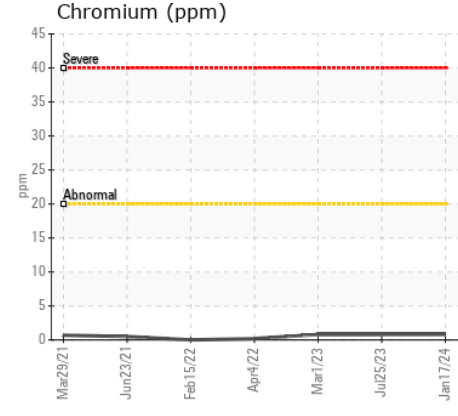
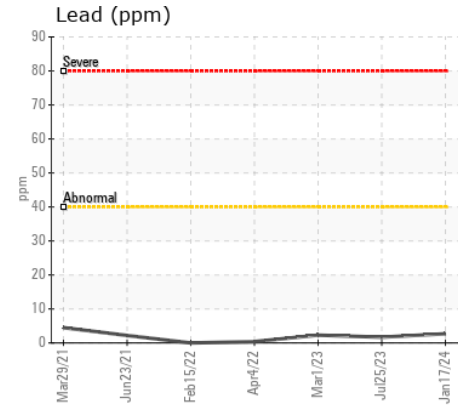
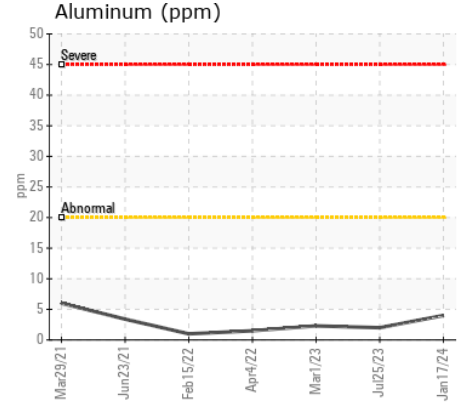
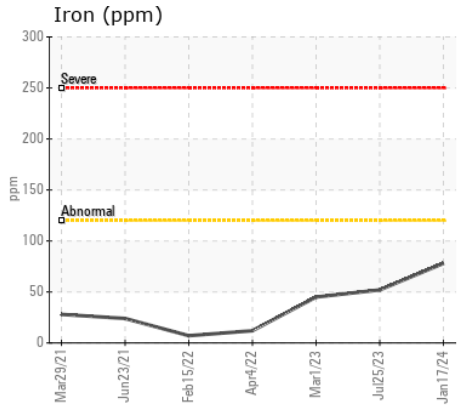
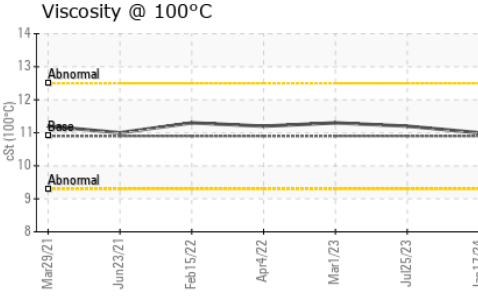
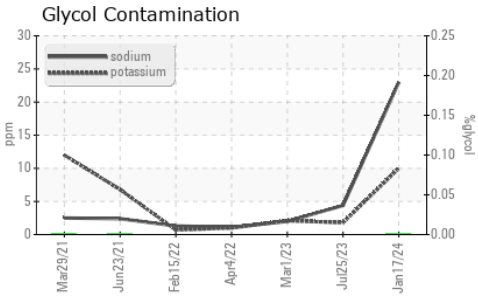
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	5	6
Potassium	ppm	ASTM D5185(m)	>20	<b>10</b>	2	2
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.0</b>	NEG	NEG
Soot %	%	ASTM D7844*	>4	<b>0.4</b>	0.4	0.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.4</b>	9.9	11.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.6</b>	23.2	25.0
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>23</b>	4	2
Boron	ppm	ASTM D5185(m)	250	<b>3</b>	4	1
Barium	ppm	ASTM D5185(m)	10	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>63</b>	61	62
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>955</b>	996	990
Calcium	ppm	ASTM D5185(m)	3000	<b>1127</b>	1114	1137
Phosphorus	ppm	ASTM D5185(m)	1150	<b>947</b>	1051	1052
Zinc	ppm	ASTM D5185(m)	1350	<b>1174</b>	1229	1207
Sulfur	ppm	ASTM D5185(m)	4250	<b>2290</b>	2310	2295
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.5</b>	18.4	20.3
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	<b>11.0</b>	11.2	11.3



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0098552 **Received** : 19 Jan 2024  
**Lab Number** : 02609891 **Diagnosed** : 19 Jan 2024  
**Unique Number** : 5710977 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol )  
 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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