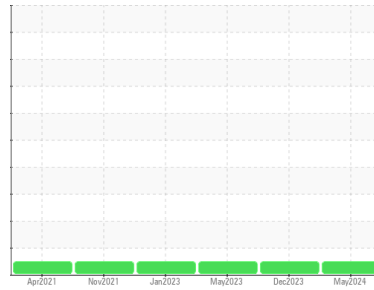




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**731028**  
 Component  
**Natural Gas Engine**  
 Fluid  
**CASTROL 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### 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		<b>GFL0100744</b>	GFL0100717	GFL0079561
Sample Date	Client Info		<b>08 May 2024</b>	21 Dec 2023	16 May 2023
Machine Age	kms	Client Info	<b>159305</b>	149163	130044
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	<b>13</b>	15	9
Chromium	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>9	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	6	1
Copper	ppm	ASTM D5185(m)	>35	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	<1
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	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>10</b>	6	7
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>52</b>	56	53
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>519</b>	603	550
Calcium	ppm	ASTM D5185(m)		<b>1622</b>	1676	1615
Phosphorus	ppm	ASTM D5185(m)		<b>667</b>	767	706
Zinc	ppm	ASTM D5185(m)		<b>904</b>	973	923
Sulfur	ppm	ASTM D5185(m)		<b>2000</b>	2178	2024
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	<b>3</b>	4	3
Sodium	ppm	ASTM D5185(m)	>406	<b>4</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0

## INFRA-RED

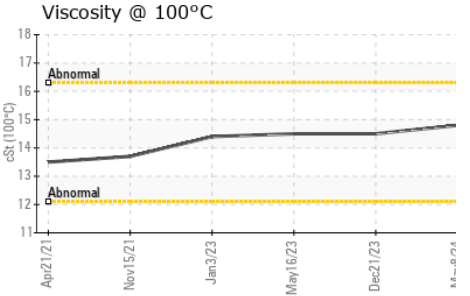
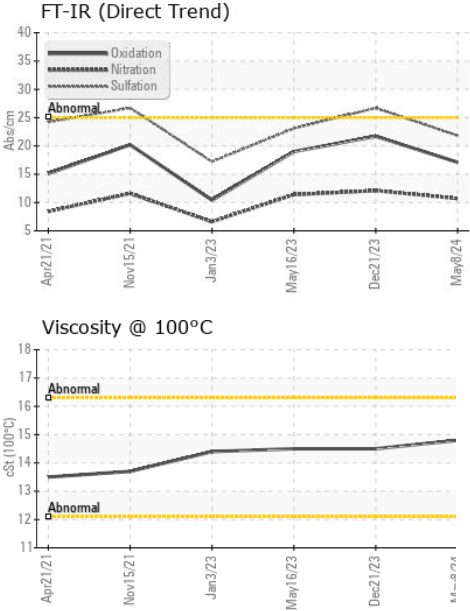
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.7</b>	12.1	11.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.8</b>	26.7	23.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.1</b>	21.7	19.0



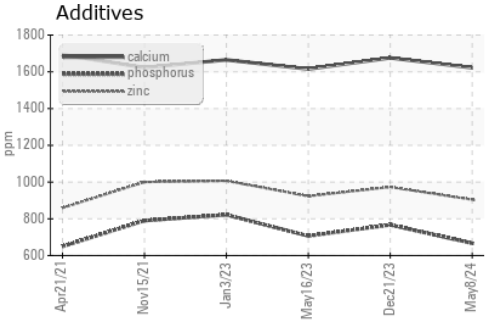
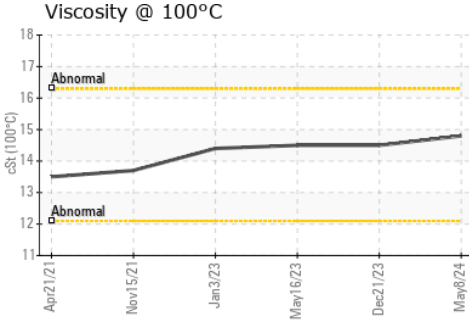
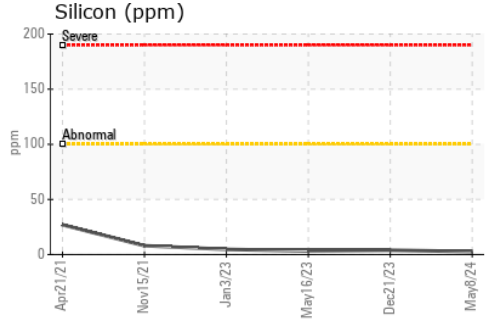
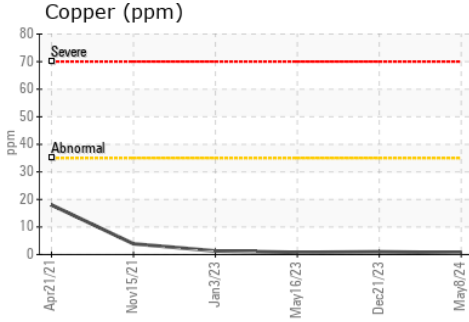
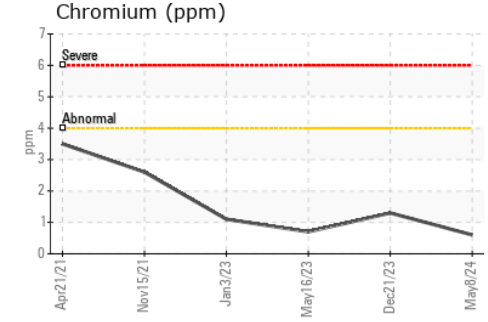
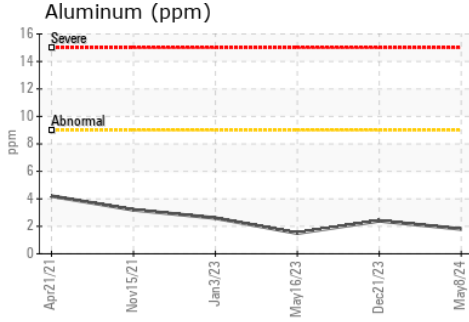
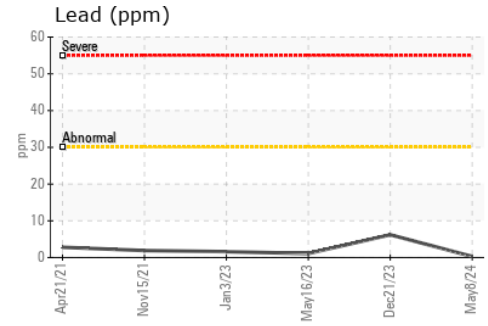
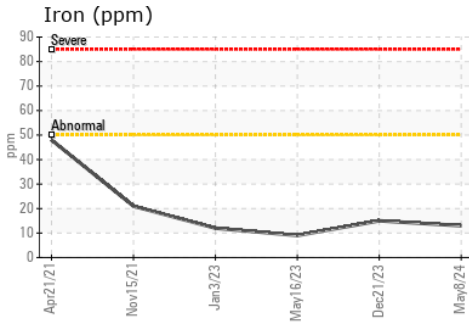
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	14.5	14.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0100744  
**Lab Number** : 02634288  
**Unique Number** : 5775441  
**Test Package** : MOB 1

**GFL Environmental - 277 - Niagara Regional**  
 C/O Metro Truck Niagara Inc., 411 Glendale Avenue  
 St. Catharines, ON  
 CA L2P 3Y1

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.

Contact: Kelly Bremner  
 kbremner@gflenv.com  
 T: (437)235-6849  
 F: