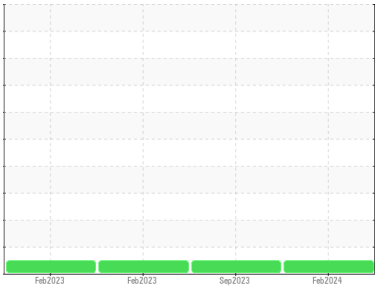
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
**931030**
Component
**Natural Gas Engine**
Fluid
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

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

**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 | | **GFL0112698** | GFL0087021 | GFL0066649 |
| Sample Date | | Client Info | | **27 Feb 2024** | 07 Sep 2023 | 28 Feb 2023 |
| Machine Age | kms | Client Info | | **54093** | 45221 | 30498 |
| Oil Age | kms | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **Changed** | N/A | N/A |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.1 | **NEG** | NEG | NEG |
| Glycol | | WC Method | | **---** | --- | 0.0 |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185(m) | >50 | **33** | 19 | 28 |
| Chromium | ppm | ASTM D5185(m) | >5 | **2** | 2 | 2 |
| Nickel | ppm | ASTM D5185(m) | >4 | **1** | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | >5 | **0** | 0 | 2 |
| Silver | ppm | ASTM D5185(m) | >3 | **0** | <1 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >25 | **23** | 18 | 16 |
| Lead | ppm | ASTM D5185(m) | >40 | **16** | 4 | 6 |
| Copper | ppm | ASTM D5185(m) | >150 | **3** | 2 | 5 |
| Tin | ppm | ASTM D5185(m) | >4 | **1** | <1 | 2 |
| Antimony | ppm | ASTM D5185(m) | | **0** | 0 | <1 |
| 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** | 8 | 5 |
| Barium | ppm | ASTM D5185(m) | 10 | **0** | <1 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | 100 | **53** | 52 | 53 |
| Manganese | ppm | ASTM D5185(m) | | **<1** | <1 | 2 |
| Magnesium | ppm | ASTM D5185(m) | 450 | **559** | 566 | 557 |
| Calcium | ppm | ASTM D5185(m) | 3000 | **1658** | 1618 | 1700 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | **732** | 716 | 788 |
| Zinc | ppm | ASTM D5185(m) | 1350 | **923** | 929 | 908 |
| Sulfur | ppm | ASTM D5185(m) | 4250 | **2031** | 1929 | 2028 |
| Lithium | ppm | ASTM D5185(m) | | **<1** | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >25 | **7** | 8 | 8 |
| Sodium | ppm | ASTM D5185(m) | >158 | **10** | 7 | 12 |
| Potassium | ppm | ASTM D5185(m) | >20 | **4** | 6 | 11 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | ASTM D7844* | | **0** | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | **12.1** | 10.8 | 7.5 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | **26.5** | 22.6 | 20.5 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | **22.8** | 19.0 | 13.4 |

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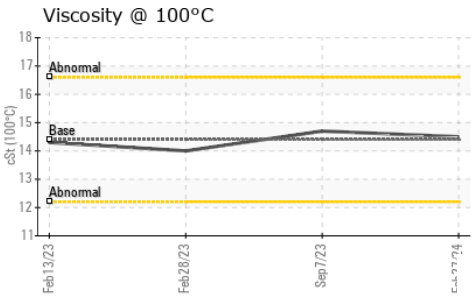
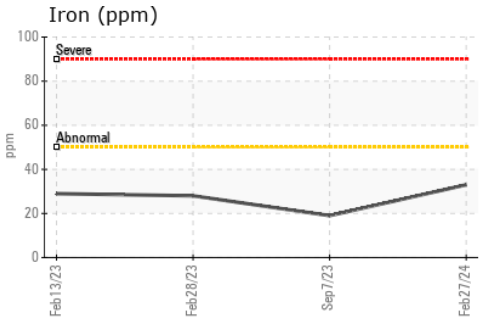
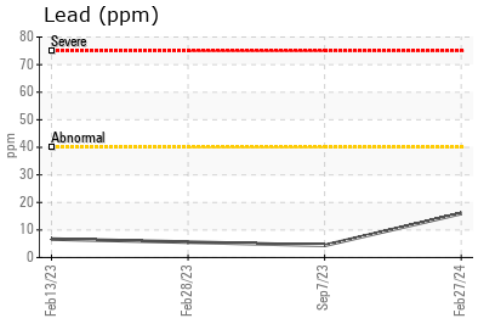


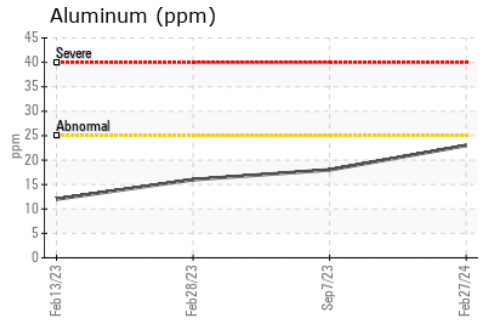

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Emulsified Water | scalar | Visual* | >0.1 | **NEG** | NEG | NEG |
| Free Water | scalar | Visual* | | **NEG** | NEG | NEG |

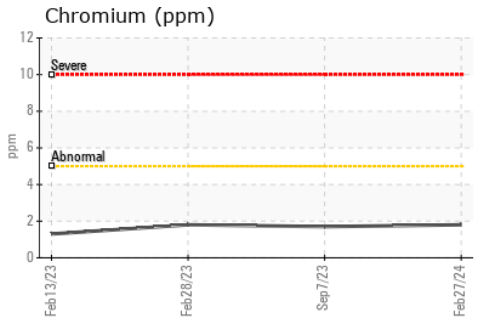
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.4 | **14.5** | 14.7 | 14.0 |

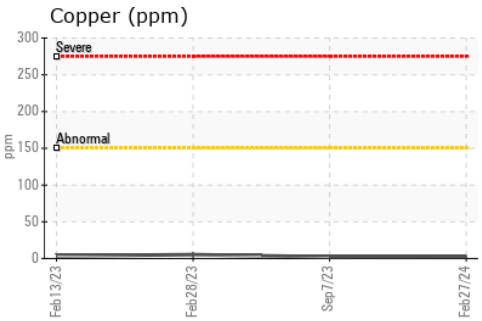
## GRAPHS

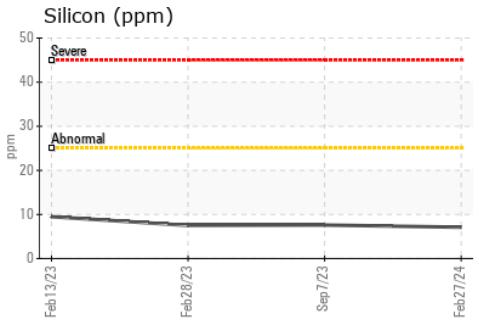


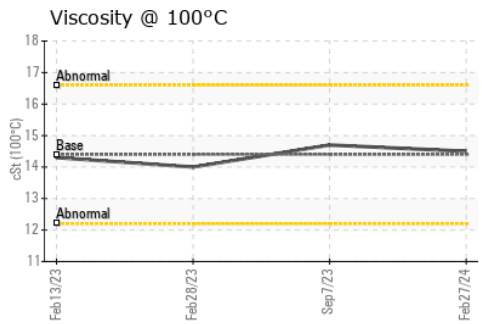



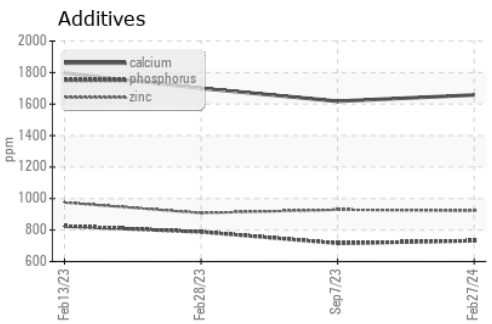




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : GFL0112698
**Lab Number** : 02621683
**Unique Number** : 5746802
**Test Package** : MOB 1 ( Additional Tests: Sulphur-Active, Sulphur-Total )

**Received** : 13 Mar 2024
**Tested** : 27 Mar 2024
**Diagnosed** : 27 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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