# OIL ANALYSIS REPORT

Sample Rating Trend


**DEGRADATION**

Area
**(C0857008)**
Machine Id
**934027**
Component
**Natural Gas Engine**
Fluid
**DIESEL ENGINE OIL SAE 15W30 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**
Cylinder, crank, or cam shaft wear is indicated.

**Contamination**
There is no indication of any contamination in the oil.

**Fluid Condition**
The BN level is low. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **GFL0103430** | --- | --- |
| Sample Date | | Client Info | | **19 Mar 2024** | --- | --- |
| Machine Age | hrs | Client Info | | **1125** | --- | --- |
| Oil Age | hrs | Client Info | | **1125** | --- | --- |
| Oil Changed | | Client Info | | **Changed** | --- | --- |
| Sample Status | | | | **ABNORMAL** | --- | --- |

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

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | ▲ **95** | --- | --- |
| Chromium | ppm | ASTM D5185m | >4 | **3** | --- | --- |
| Nickel | ppm | ASTM D5185m | >2 | **4** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Silver | ppm | ASTM D5185m | >3 | **<1** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >9 | **24** | --- | --- |
| Lead | ppm | ASTM D5185m | >30 | **4** | --- | --- |
| Copper | ppm | ASTM D5185m | >35 | **23** | --- | --- |
| Tin | ppm | ASTM D5185m | >4 | **3** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **<1** | --- | --- |

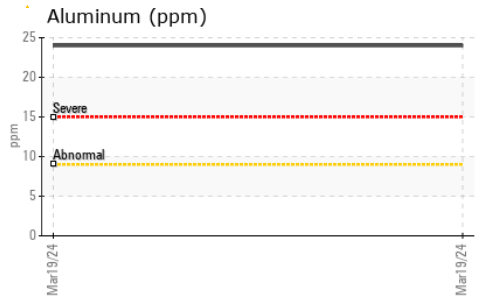
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 250 | **3** | --- | --- |
| Barium | ppm | ASTM D5185m | 10 | **4** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 100 | **79** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **15** | --- | --- |
| Magnesium | ppm | ASTM D5185m | 450 | **939** | --- | --- |
| Calcium | ppm | ASTM D5185m | 3000 | **1225** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | **926** | --- | --- |
| Zinc | ppm | ASTM D5185m | 1350 | **1126** | --- | --- |
| Sulfur | ppm | ASTM D5185m | 4250 | **2376** | --- | --- |

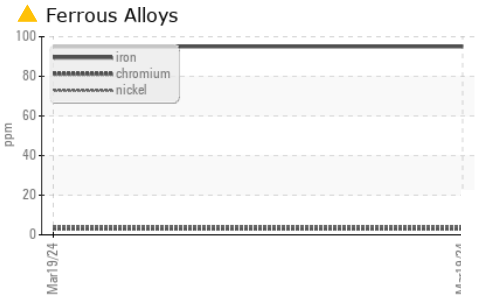
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >+100 | **30** | --- | --- |
| Sodium | ppm | ASTM D5185m | >25 | **8** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **66** | --- | --- |

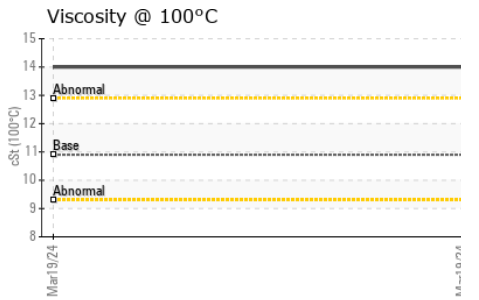
| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | *ASTM D7844 | | **0** | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | **12.8** | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | **27.3** | --- | --- |

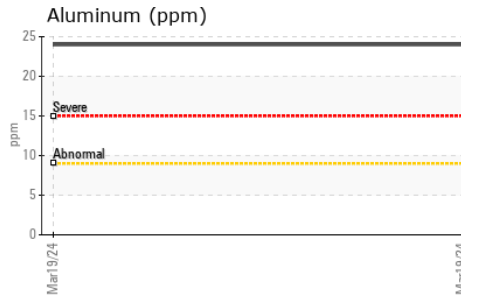
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | **25.9** | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | ▲ **2.5** | --- | --- |

# OIL ANALYSIS REPORT



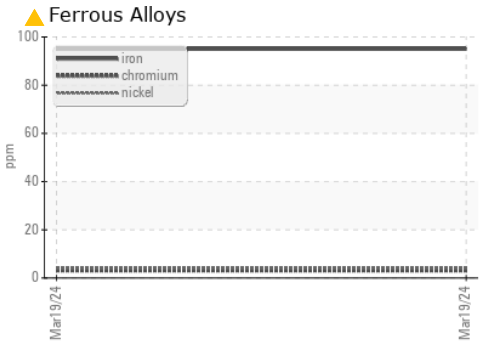



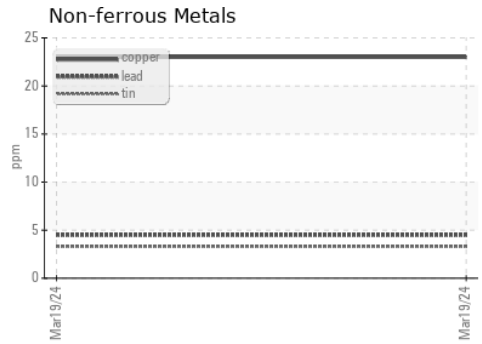



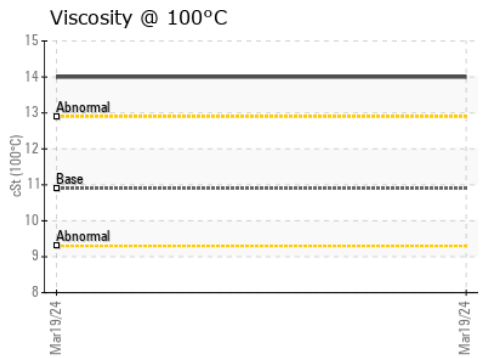

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Debris | scalar | *Visual | NONE | **NONE** | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Appearance | scalar | *Visual | NORML | **NORML** | --- | --- |
| Odor | scalar | *Visual | NORML | **NORML** | --- | --- |
| Emulsified Water | scalar | *Visual | >0.1 | **NEG** | --- | --- |
| Free Water | scalar | *Visual | | **NEG** | --- | --- |

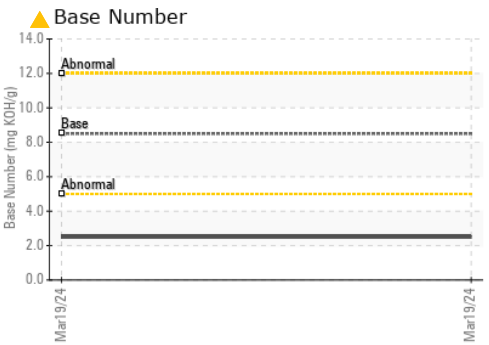
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D445 | 10.9 | **14.0** | --- | --- |

## GRAPHS




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : GFL0103430
**Lab Number** : 06126909
**Unique Number** : 10941060
**Test Package** : FLEET

**Received** : 22 Mar 2024
**Tested** : 27 Mar 2024
**Diagnosed** : 27 Mar 2024 - Jonathan Hester

*To discuss this sample report, contact Customer Service at 1-800-237-1369.*
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
*Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)*

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