MOB I

OIL ANALYSIS REPORT

| | |
|---|---|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Area
**MCMASTER UNIVERSITY [151223]**
Machine Id
**74670971**
Component
**Diesel Engine**
Fluid
**{not provided} (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

## WEAR

Metal levels are typical for a new component breaking in.

## CONTAMINATION

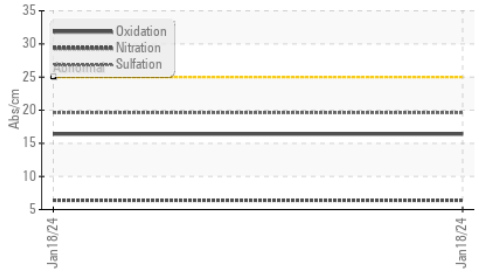
There is no indication of any contamination in the oil.

## FLUID CONDITION

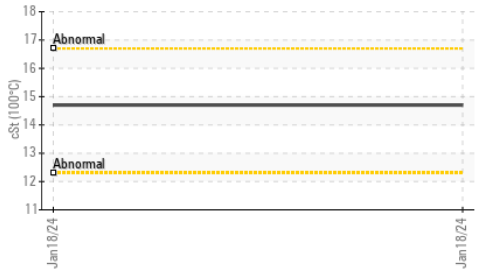
The condition of the oil is acceptable for the time in service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | CU0021849 | --- | --- |
| Sample Date | | Client Info | | 18 Jan 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 121 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | Changed | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |
| Iron | ppm | ASTM D5185(m) | >90 | 2 | --- | --- |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185(m) | >2 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | --- | --- |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | --- | --- |
| Lead | ppm | ASTM D5185(m) | >40 | 0 | --- | --- |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | --- | --- |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Silicon | ppm | ASTM D5185(m) | >25 | 3 | --- | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | 0 | --- | --- |
| Fuel | | WC Method | >3.0 | <1.0 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | ASTM D7844* | >6 | 0 | --- | --- |
| Nitration | Abs/cm | ASTM D7624* | >20 | 6.4 | --- | --- |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 19.6 | --- | --- |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | --- | --- |
| Sodium | ppm | ASTM D5185(m) | | 3 | --- | --- |
| Boron | ppm | ASTM D5185(m) | | 42 | --- | --- |
| Barium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) | | 46 | --- | --- |
| Manganese | ppm | ASTM D5185(m) | | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185(m) | | 782 | --- | --- |
| Calcium | ppm | ASTM D5185(m) | | 1148 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) | | 698 | --- | --- |
| Zinc | ppm | ASTM D5185(m) | | 801 | --- | --- |
| Sulfur | ppm | ASTM D5185(m) | | 1913 | --- | --- |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 16.4 | --- | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | | 14.7 | --- | --- |

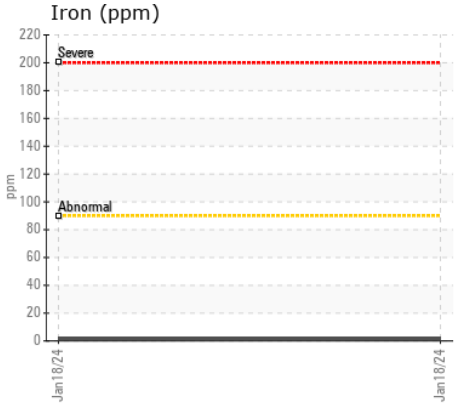
FT-IR (Direct Trend)



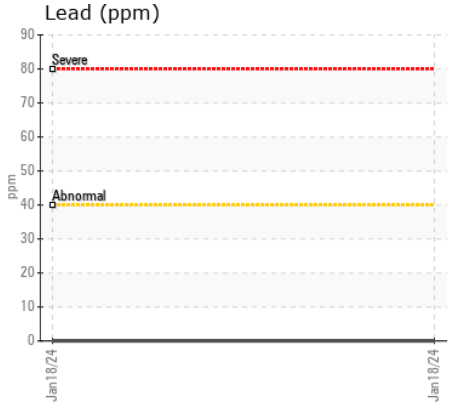

Viscosity @ 100°C



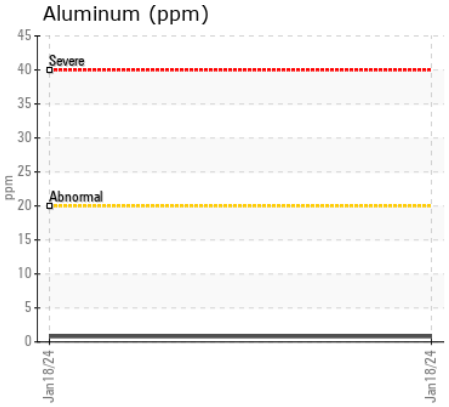

Iron (ppm)



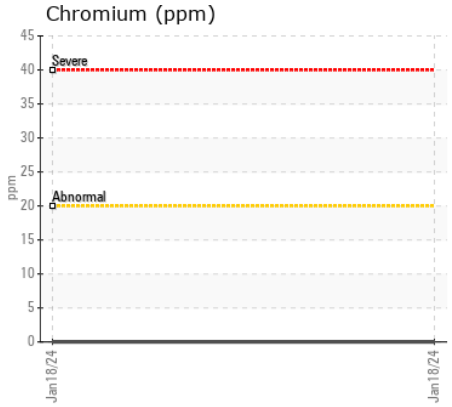

Lead (ppm)



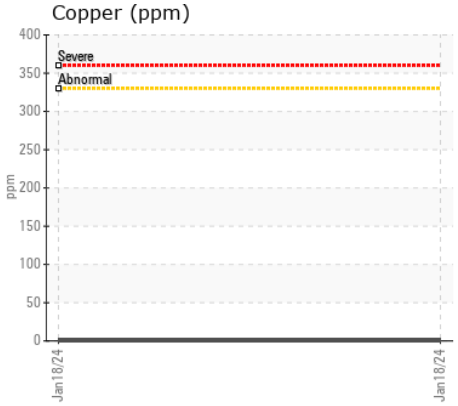

Aluminum (ppm)



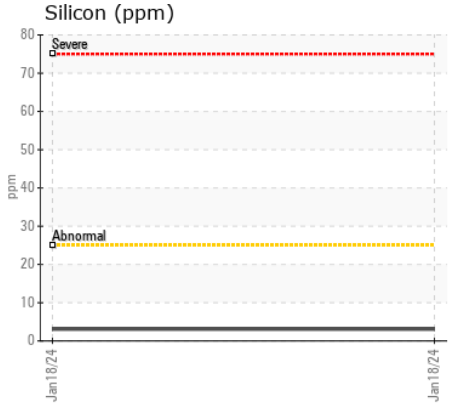

Chromium (ppm)



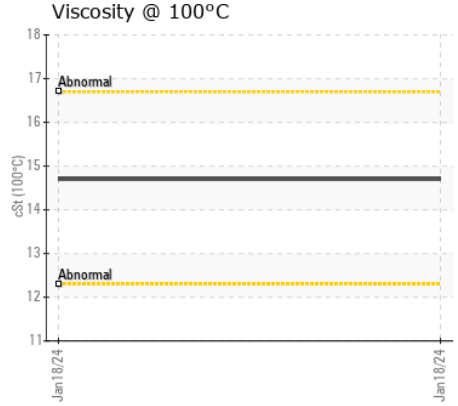

Copper (ppm)



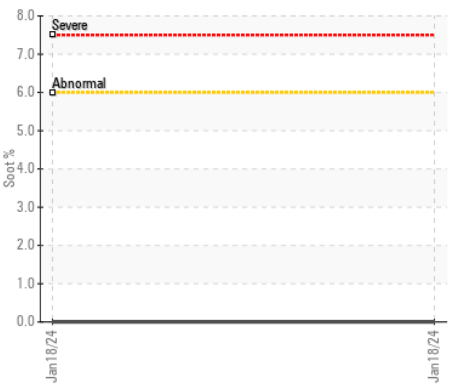

Silicon (ppm)




Viscosity @ 100°C




Soot %




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : CU0021849
**Lab Number** : 02631844
**Unique Number** : 5772997
**Test Package** : MOB 1

**Received** : 29 Apr 2024
**Tested** : 29 Apr 2024
**Diagnosed** : 29 Apr 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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