MOB I WEAR CHECK

# OIL ANALYSIS REPORT

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

Machine Id
**2105**
Component
**Diesel Engine**
Fluid
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

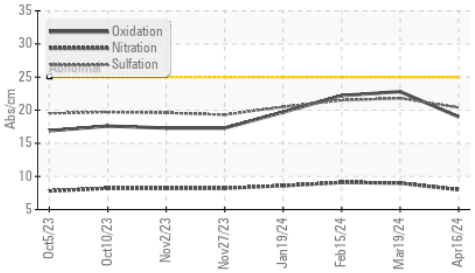
There is no indication of any contamination in the oil.

## FLUID CONDITION

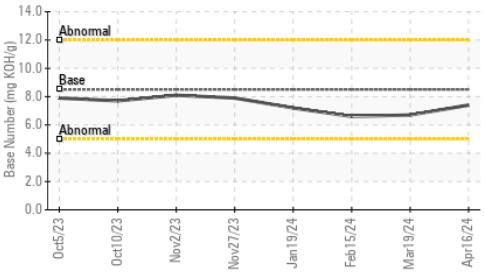
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0897923** | WC0894008 | WC0878771 |
| Sample Date | | Client Info | | **16 Apr 2024** | 19 Mar 2024 | 15 Feb 2024 |
| Machine Age | mls | Client Info | | **0** | 0 | 0 |
| Oil Age | mls | Client Info | | **0** | 0 | 0 |
| Filter Age | mls | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **Changed** | N/A | N/A |
| Filter Changed | | Client Info | | **Changed** | N/A | N/A |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >100 | **3** | 5 | 4 |
| Chromium | ppm | ASTM D5185m | >20 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >4 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | **<1** | <1 | <1 |
| Lead | ppm | ASTM D5185m | >40 | **0** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >330 | **<1** | <1 | 0 |
| Tin | ppm | ASTM D5185m | >15 | **0** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | **7** | 3 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | **0** | <1 | 0 |
| Fuel | | WC Method | >5 | **<1.0** | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | **NEG** | NEG | NEG |
| Glycol | | WC Method | | **NEG** | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | **0.2** | 0.2 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | **8.0** | 9.0 | 9.1 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | **20.4** | 21.8 | 21.5 |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Appearance | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | **NEG** | NEG | NEG |
| Sodium | ppm | ASTM D5185m | >158 | **2** | 2 | 2 |
| Boron | ppm | ASTM D5185m | 250 | **<1** | 0 | 0 |
| Barium | ppm | ASTM D5185m | 10 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 100 | **53** | 60 | 58 |
| Manganese | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 450 | **874** | 985 | 955 |
| Calcium | ppm | ASTM D5185m | 3000 | **1032** | 1096 | 1010 |
| Phosphorus | ppm | ASTM D5185m | 1150 | **942** | 1067 | 1022 |
| Zinc | ppm | ASTM D5185m | 1350 | **1127** | 1298 | 1241 |
| Sulfur | ppm | ASTM D5185m | 4250 | **3292** | 3674 | 2849 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | **19.0** | 22.8 | 22.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | **7.4** | 6.7 | 6.6 |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | **14.1** | 14.2 | 14.0 |

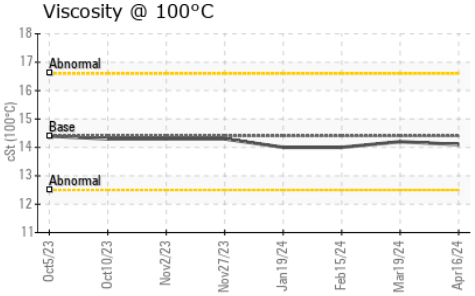
FT-IR (Direct Trend)



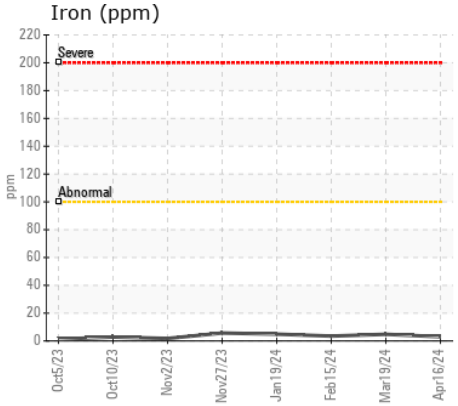

Base Number



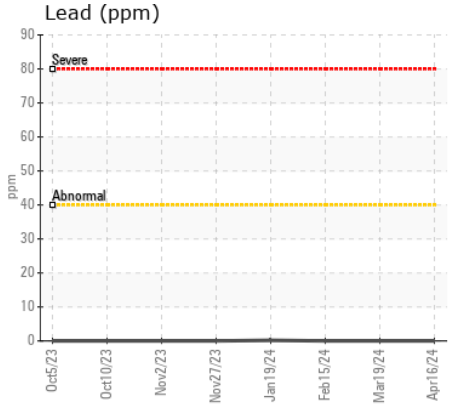

Viscosity @ 100°C



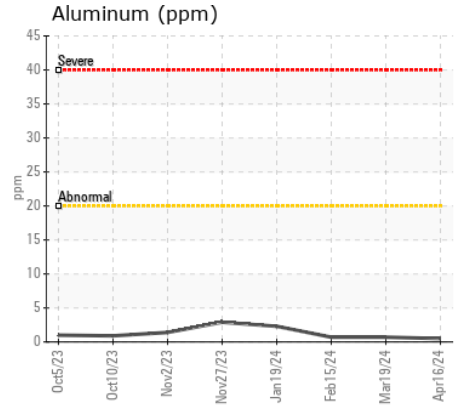

Iron (ppm)



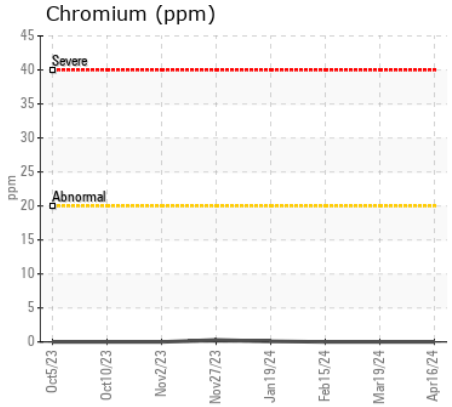

Lead (ppm)



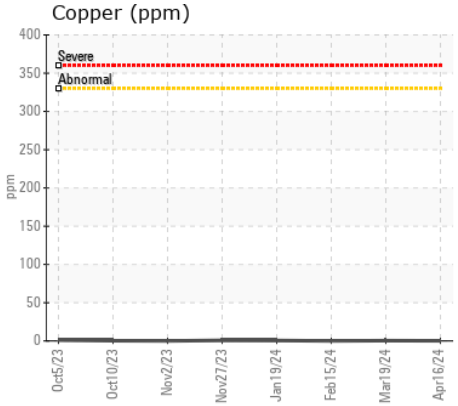

Aluminum (ppm)



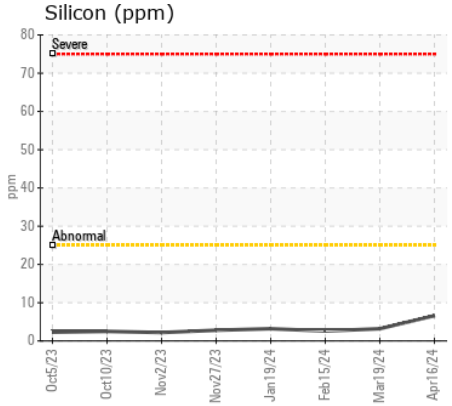

Chromium (ppm)



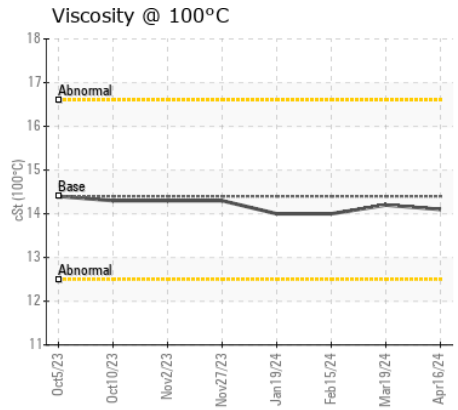

Copper (ppm)



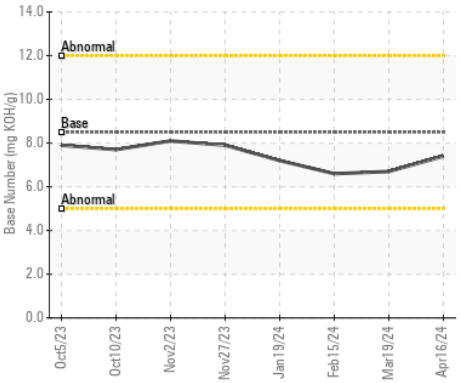

Silicon (ppm)




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0897923
**Lab Number** : 06151543
**Unique Number** : 10981621
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Received** : 17 Apr 2024
**Tested** : 19 Apr 2024
**Diagnosed** : 19 Apr 2024 - Wes Davis

*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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