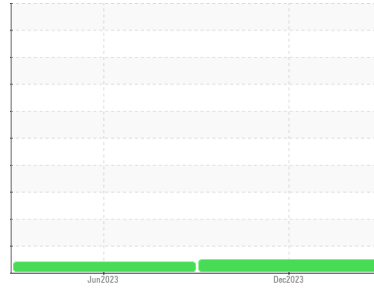# OIL ANALYSIS REPORT

**Sample Rating Trend**



**NORMAL**



Area
## [604063008 SDR]
Machine Id
## COLD WATER PUMP 2 (S/N 20064006)
Component
**Primary Pump**
Fluid
**MOBIL DTE OIL HVY MEDIUM (--- 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**
Confirm oil type. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0854249** | WC0605521 | --- |
| Sample Date | | Client Info | | **28 Dec 2023** | 22 Jun 2023 | --- |
| Machine Age | mls | Client Info | | **0** | 0 | --- |
| Oil Age | mls | Client Info | | **0** | 0 | --- |
| Oil Changed | | Client Info | | **Changed** | Changed | --- |
| Sample Status | | | | **NORMAL** | ATTENTION | --- |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >.1 | **NEG** | NEG | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >90 | **0** | 0 | --- |
| Chromium | ppm | ASTM D5185m | >5 | **0** | 0 | --- |
| Nickel | ppm | ASTM D5185m | >5 | **0** | 0 | --- |
| Titanium | ppm | ASTM D5185m | >3 | **0** | <1 | --- |
| Silver | ppm | ASTM D5185m | >3 | **0** | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >7 | **0** | 1 | --- |
| Lead | ppm | ASTM D5185m | >12 | **<1** | 0 | --- |
| Copper | ppm | ASTM D5185m | >30 | **0** | 0 | --- |
| Tin | ppm | ASTM D5185m | >9 | **0** | 0 | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | 0 | --- |
| Barium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | --- |
| Manganese | ppm | ASTM D5185m | | **0** | 0 | --- |
| Magnesium | ppm | ASTM D5185m | | **0** | <1 | --- |
| Calcium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Phosphorus | ppm | ASTM D5185m | | **10** | 15 | --- |
| Zinc | ppm | ASTM D5185m | | **0** | 2 | --- |
| Sulfur | ppm | ASTM D5185m | | **540** | 932 | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >60 | **0** | <1 | --- |
| Sodium | ppm | ASTM D5185m | | **<1** | 0 | --- |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | <1 | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.088** | 0.082 | --- |

## Acid Number



## Viscosity @ 40°C
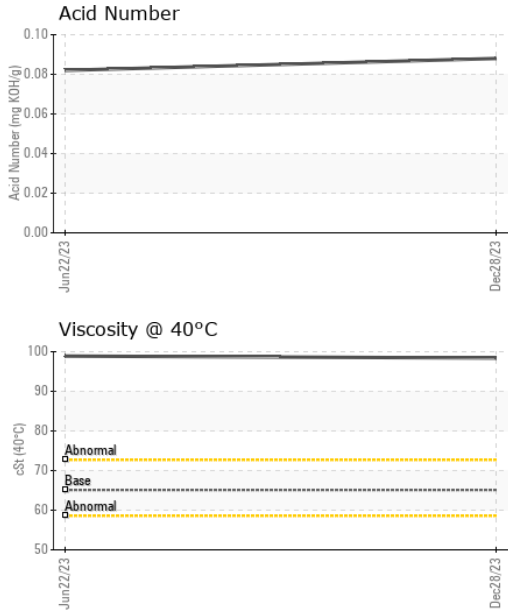


| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Debris | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Appearance | scalar | *Visual | NORML | **NORML** | NORML | --- |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | --- |
| Emulsified Water | scalar | *Visual | >.1 | **NEG** | NEG | --- |
| Free Water | scalar | *Visual | | **NEG** | NEG | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 65.1 | **98.4** | ▲ 98.9 | --- |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  |  | no image |
| Bottom | | |  |  | no image |

## GRAPHS

### Ferrous Alloys



iron, chromium, nickel

### Non-ferrous Metals



copper, lead, tin

### Viscosity @ 40°C



### Acid Number



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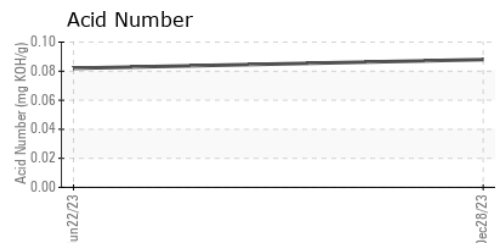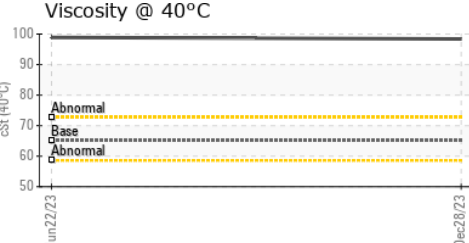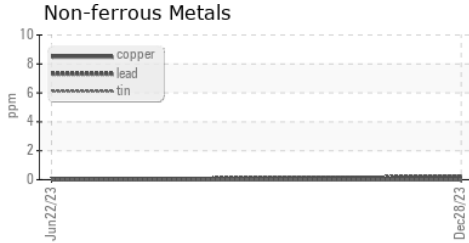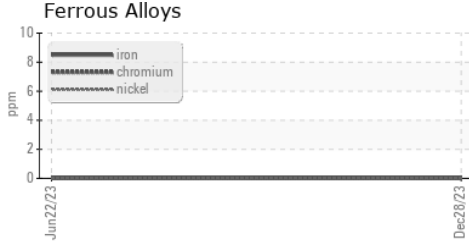
**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0854249    **Recieved** : 18 Jan 2024

**Lab Number** : 06064448    **Diagnosed** : 22 Jan 2024

**Unique Number** : 10835830    **Diagnostician** : Don Baldridge

**Test Package** : IND 2

*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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