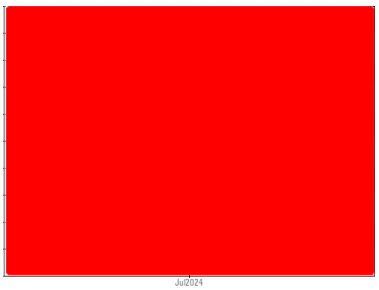
# PROBLEM SUMMARY

Sample Rating Trend

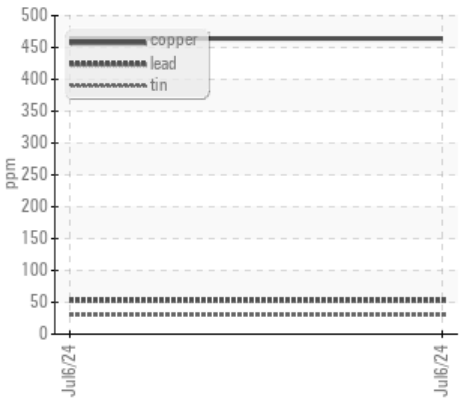


WEAR

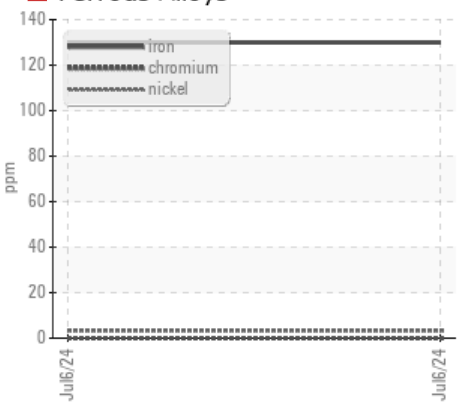
Machine Id
**K2 P2 NW**
Component
**Bearing**
Fluid
**MOBIL MOBILGEAR SHC 1500 (40 LTR)**

## COMPONENT CONDITION SUMMARY

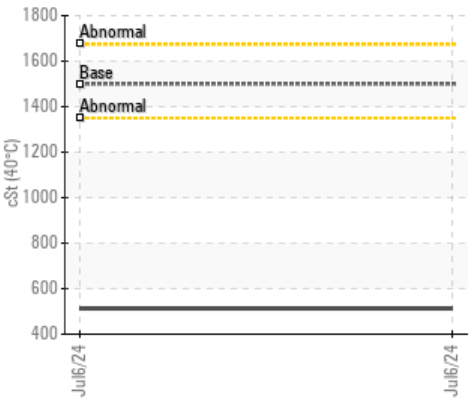
▲ Non-ferrous Metals




▲ Ferrous Alloys



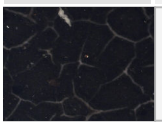

▲ Viscosity @ 40°C




## RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **SEVERE** | --- | --- |
| Iron | ppm | ASTM D5185(m) | >20 | ▲ **130** | --- | --- |
| Lead | ppm | ASTM D5185(m) | >20 | ▲ **53** | --- | --- |
| Copper | ppm | ASTM D5185(m) | >20 | ▲ **464** | --- | --- |
| Tin | ppm | ASTM D5185(m) | >20 | ▲ **30** | --- | --- |
| Visc @ 40°C | cSt | ASTM D7279(m) | 1500 | ▲ **513** | --- | --- |
| PrtFilter | | | |  | *no image* | *no image* |

**Customer Id:** CARDUN
**Sample No.:** WC0959800
**Lab Number:** 02647705
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

*To change component or sample information:*
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

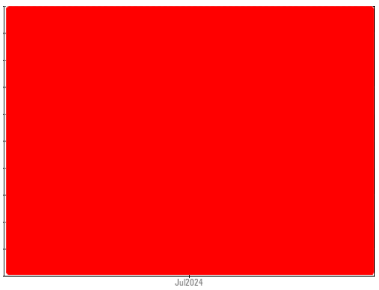
## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Change Fluid | --- | --- | ? | We recommend that you drain the oil from the component if this has not already been done. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |

## HISTORICAL DIAGNOSIS

# OIL ANALYSIS REPORT

Sample Rating Trend




WEAR

Machine Id
## K2 P2 NW
Component
**Bearing**
Fluid
**MOBIL MOBILGEAR SHC 1500 (40 LTR)**

## DIAGNOSIS

**▲ Recommendation**
We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

**▲ Wear**
Copper and iron and lead ppm levels are severe. Tin ppm levels are abnormal. Bearing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

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

**▲ Fluid Condition**
Viscosity of sample indicates oil is within ISO 460 range, advise investigate. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0959800** | --- | --- |
| Sample Date | | Client Info | | **06 Jul 2024** | --- | --- |
| Machine Age | mths | Client Info | | **4** | --- | --- |
| Oil Age | mths | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **N/A** | --- | --- |
| Sample Status | | | | **SEVERE** | --- | --- |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >2 | **NEG** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184* | | **71** | --- | --- |
| Iron | ppm | ASTM D5185(m) | >20 | ▲ **130** | --- | --- |
| Chromium | ppm | ASTM D5185(m) | >20 | **0** | --- | --- |
| Nickel | ppm | ASTM D5185(m) | >20 | **3** | --- | --- |
| Titanium | ppm | ASTM D5185(m) | | **<1** | --- | --- |
| Silver | ppm | ASTM D5185(m) | | **<1** | --- | --- |
| Aluminum | ppm | ASTM D5185(m) | >20 | **1** | --- | --- |
| Lead | ppm | ASTM D5185(m) | >20 | ▲ **53** | --- | --- |
| Copper | ppm | ASTM D5185(m) | >20 | ▲ **464** | --- | --- |
| Tin | ppm | ASTM D5185(m) | >20 | ▲ **30** | --- | --- |
| Antimony | ppm | ASTM D5185(m) | | **<1** | --- | --- |
| Vanadium | ppm | ASTM D5185(m) | | **0** | --- | --- |
| Beryllium | ppm | ASTM D5185(m) | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185(m) | | **0** | --- | --- |

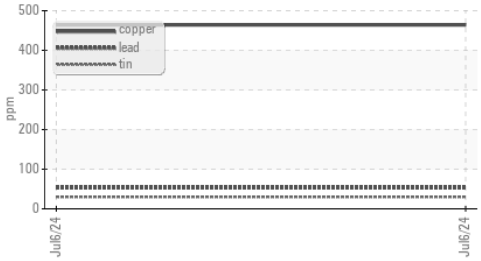
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185(m) | | **30** | --- | --- |
| Barium | ppm | ASTM D5185(m) | | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) | | **0** | --- | --- |
| Manganese | ppm | ASTM D5185(m) | | **1** | --- | --- |
| Magnesium | ppm | ASTM D5185(m) | | **82** | --- | --- |
| Calcium | ppm | ASTM D5185(m) | | **146** | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) | | **167** | --- | --- |
| Zinc | ppm | ASTM D5185(m) | | **19** | --- | --- |
| Sulfur | ppm | ASTM D5185(m) | | **3479** | --- | --- |
| Lithium | ppm | ASTM D5185(m) | | **<1** | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >15 | **12** | --- | --- |
| Sodium | ppm | ASTM D5185(m) | | **<1** | --- | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | **<1** | --- | --- |

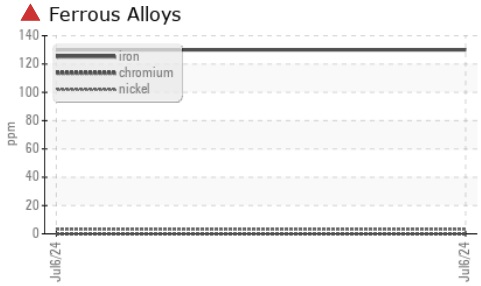
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D974* | | **1.40** | --- | --- |

# OIL ANALYSIS REPORT

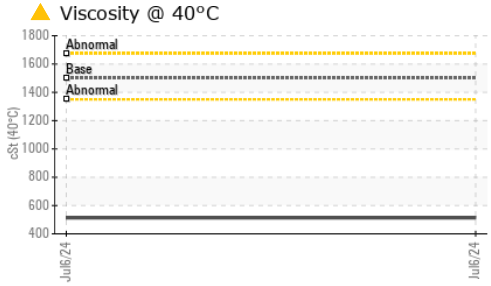
Non-ferrous Metals



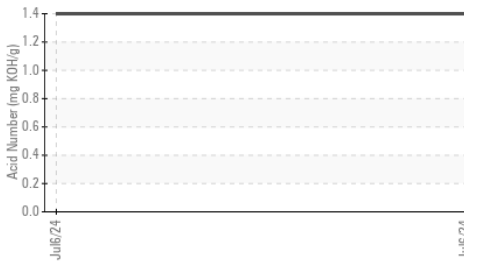

Ferrous Alloys



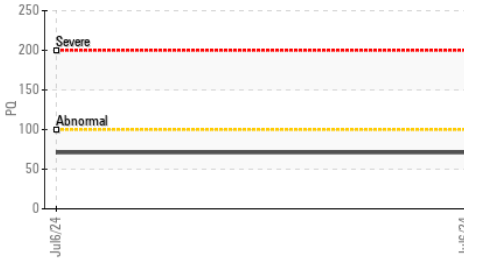

Viscosity @ 40°C




Acid Number

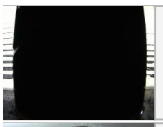
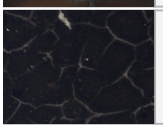



PQ



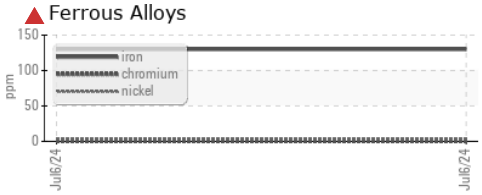

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | Visual* | NONE | **VLITE** | --- | --- |
| Yellow Metal | scalar | Visual* | NONE | **NONE** | --- | --- |
| Precipitate | scalar | Visual* | NONE | **NONE** | --- | --- |
| Silt | scalar | Visual* | NONE | **LTMOD** | --- | --- |
| Debris | scalar | Visual* | NONE | **LIGHT** | --- | --- |
| Sand/Dirt | scalar | Visual* | NONE | **NONE** | --- | --- |
| Appearance | scalar | Visual* | NORML | **NORML** | --- | --- |
| Odor | scalar | Visual* | NORML | **NORML** | --- | --- |
| Emulsified Water | scalar | Visual* | >2 | **NEG** | --- | --- |
| Free Water | scalar | Visual* | | **NEG** | --- | --- |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D7279(m) | 1500 | ▲ **513** | --- | --- |

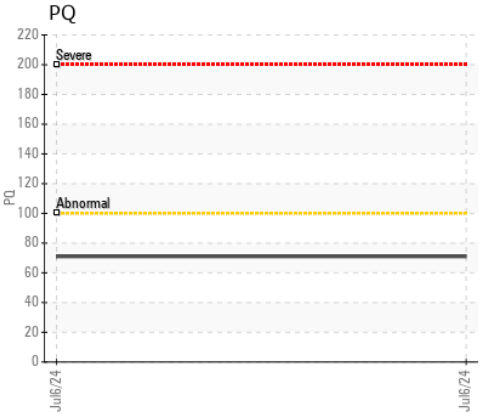
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | *no image* | *no image* |
| Bottom | | |  | *no image* | *no image* |
| PrtFilter | | |  | *no image* | *no image* |

## GRAPHS

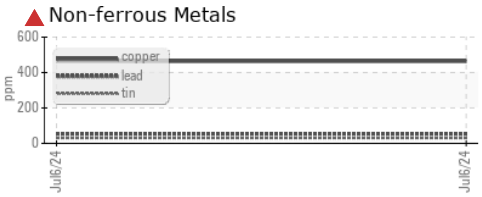
Ferrous Alloys



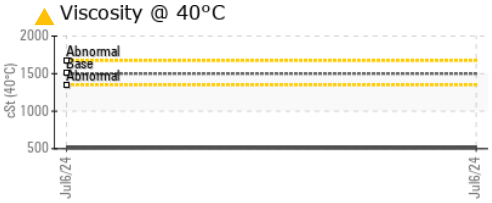

PQ



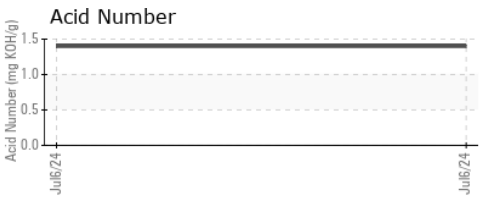

Non-ferrous Metals




Viscosity @ 40°C




Acid Number




ISO 17025:2017 Accredited Laboratory


**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Carmeuse Lime (Canada) Ltd Dundas Operations**
**Sample No.** : WC0959800 **Received** : 12 Jul 2024 R.R. #2, 600 5 Hwy W
**Lab Number** : 02647705 **Tested** : 16 Jul 2024 Dundas, ON
**Unique Number** : 5813257 **Diagnosed** : 16 Jul 2024 - Kevin Marson CA L9H 5E2
**Test Package** : IND 2 ( Additional Tests: Bottom, BottomAnalysis, FILTERPATCH, TAN Man ) Contact: Harsh Murria
harsh.murria@carmeuse.com
T: (905)628-7651
F:


*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.*