



# OIL ANALYSIS REPORT

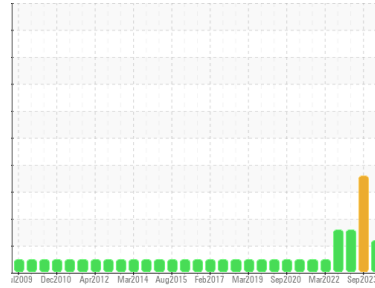
Sample Rating Trend

ISO



Area  
**OPK/CL04**  
Machine Id  
**101802 Plastifier**

Component  
**Gearbox**  
Fluid  
**MOBIL MOBILGEAR 600 XP 460 (375 LTR)**



## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

| method        | limit/base  | current            | history1    | history2    |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>WC0855089</b>   | WC0790671   | WC0763710   |
| Sample Date   | Client Info | <b>09 Jan 2024</b> | 26 Sep 2023 | 14 Mar 2023 |
| Machine Age   | hrs         | Client Info        | 0           | 0           |
| Oil Age       | hrs         | Client Info        | 0           | 0           |
| Oil Changed   | Client Info | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             | <b>ABNORMAL</b>    | SEVERE      | ABNORMAL    |

## CONTAMINATION

| method | limit/base     | current    | history1 | history2 |
|--------|----------------|------------|----------|----------|
| Water  | WC Method >0.2 | <b>NEG</b> | NEG      | NEG      |

## WEAR METALS

| method    | limit/base             | current      | history1 | history2 |
|-----------|------------------------|--------------|----------|----------|
| Iron      | ppm ASTM D5185(m) >200 | <b>23</b>    | 20       | 11       |
| Chromium  | ppm ASTM D5185(m) >15  | <b>0</b>     | 0        | 0        |
| Nickel    | ppm ASTM D5185(m) >15  | <b>&lt;1</b> | <1       | 0        |
| Titanium  | ppm ASTM D5185(m)      | <b>0</b>     | 0        | 0        |
| Silver    | ppm ASTM D5185(m)      | <b>0</b>     | 0        | 0        |
| Aluminum  | ppm ASTM D5185(m) >25  | <b>&lt;1</b> | 0        | <1       |
| Lead      | ppm ASTM D5185(m) >100 | <b>0</b>     | <1       | 0        |
| Copper    | ppm ASTM D5185(m) >200 | <b>2</b>     | 1        | 1        |
| Tin       | ppm ASTM D5185(m) >25  | <b>0</b>     | 0        | 0        |
| Antimony  | ppm ASTM D5185(m) >5   | <b>0</b>     | 0        | <1       |
| Vanadium  | ppm ASTM D5185(m)      | <b>0</b>     | 0        | 0        |
| Beryllium | ppm ASTM D5185(m)      | <b>0</b>     | 0        | 0        |
| Cadmium   | ppm ASTM D5185(m)      | <b>0</b>     | 0        | 0        |

## ADDITIVES

| method     | limit/base        | current      | history1 | history2 |
|------------|-------------------|--------------|----------|----------|
| Boron      | ppm ASTM D5185(m) | <b>20</b>    | 24       | 28       |
| Barium     | ppm ASTM D5185(m) | <b>0</b>     | <1       | 0        |
| Molybdenum | ppm ASTM D5185(m) | <b>0</b>     | 0        | 0        |
| Manganese  | ppm ASTM D5185(m) | <b>0</b>     | 0        | <1       |
| Magnesium  | ppm ASTM D5185(m) | <b>&lt;1</b> | 0        | 0        |
| Calcium    | ppm ASTM D5185(m) | <b>2</b>     | 2        | 0        |
| Phosphorus | ppm ASTM D5185(m) | <b>317</b>   | 320      | 354      |
| Zinc       | ppm ASTM D5185(m) | <b>3</b>     | 4        | 3        |
| Sulfur     | ppm ASTM D5185(m) | <b>12473</b> | 12395    | 12601    |
| Lithium    | ppm ASTM D5185(m) | <b>&lt;1</b> | <1       | <1       |

## CONTAMINANTS

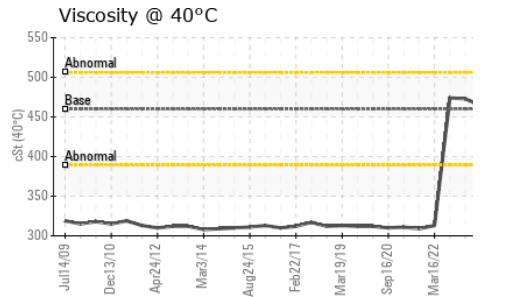
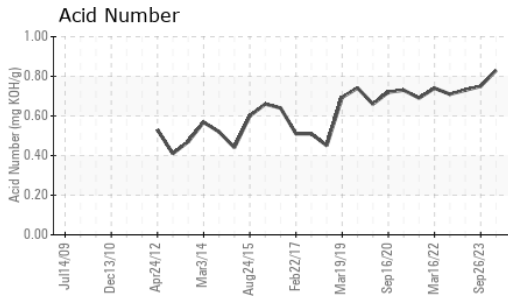
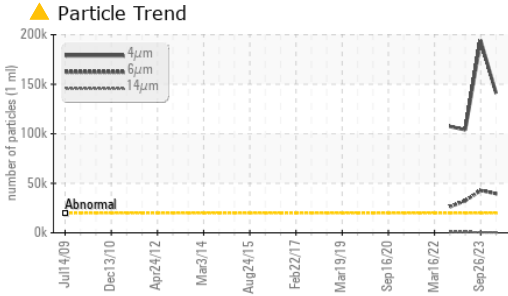
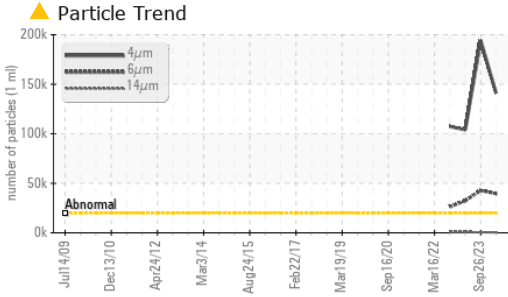
| method    | limit/base            | current      | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| Silicon   | ppm ASTM D5185(m) >50 | <b>1</b>     | 1        | 1        |
| Sodium    | ppm ASTM D5185(m)     | <b>&lt;1</b> | <1       | <1       |
| Potassium | ppm ASTM D5185(m) >20 | <b>1</b>     | 0        | 2        |

## FLUID CLEANLINESS

| method          | limit/base             | current           | history1   | history2   |
|-----------------|------------------------|-------------------|------------|------------|
| Particles >4µm  | ASTM D7647 >20000      | <b>▲ 140991</b>   | ● 194097   | ▲ 103982   |
| Particles >6µm  | ASTM D7647 >5000       | <b>▲ 39590</b>    | ● 42755    | ▲ 32478    |
| Particles >14µm | ASTM D7647 >640        | <b>425</b>        | 516        | ▲ 676      |
| Particles >21µm | ASTM D7647 >160        | <b>62</b>         | 67         | 75         |
| Particles >38µm | ASTM D7647 >40         | <b>4</b>          | 3          | 2          |
| Particles >71µm | ASTM D7647 >10         | <b>1</b>          | 0          | 2          |
| Oil Cleanliness | ISO 4406 (c) >21/19/16 | <b>▲ 24/22/16</b> | ● 25/23/16 | ▲ 24/22/17 |



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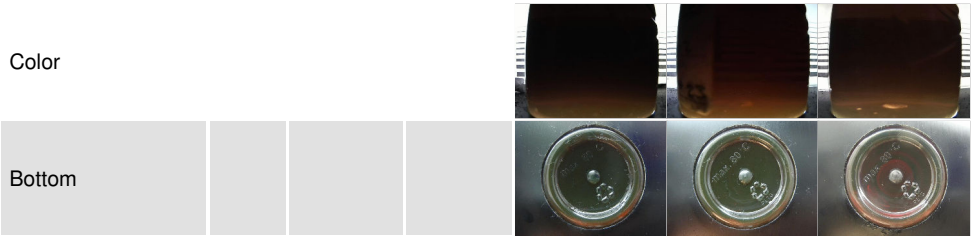


| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D974* |            | <b>0.83</b> | 0.75     | 0.73     |

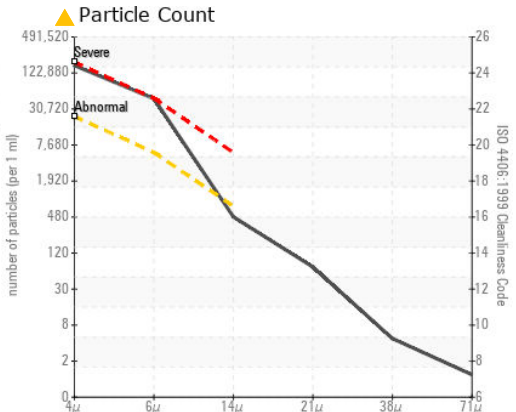
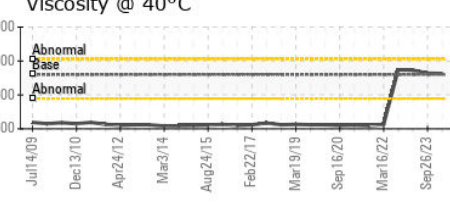
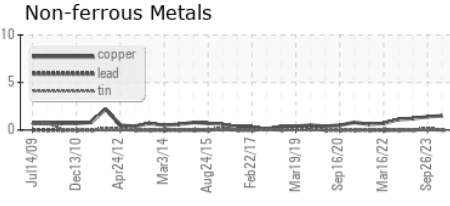
| VISUAL           |        | method  | limit/base | current      | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal      | scalar | Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Yellow Metal     | scalar | Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Precipitate      | scalar | Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Silt             | scalar | Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Debris           | scalar | Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Sand/Dirt        | scalar | Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Appearance       | scalar | Visual* | NORML      | <b>NORML</b> | NORML    | NORML    |
| Odor             | scalar | Visual* | NORML      | <b>NORML</b> | NORML    | NORML    |
| Emulsified Water | scalar | Visual* | >0.2       | <b>NEG</b>   | NEG      | NEG      |
| Free Water       | scalar | Visual* |            | <b>NEG</b>   | NEG      | NEG      |

| FLUID PROPERTIES |     | method        | limit/base | current    | history1 | history2 |
|------------------|-----|---------------|------------|------------|----------|----------|
| Visc @ 40°C      | cSt | ASTM D7279(m) | 460        | <b>463</b> | 464      | 473      |

### SAMPLE IMAGES



### GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
 Sample No. : WC0855089      Recieved : 18 Jan 2024  
 Lab Number : 02609777      Diagnosed : 19 Jan 2024  
 Unique Number : 5710863      Diagnostician : Wes Davis  
 Test Package : IND 2 ( Additional Tests: TAN Man )

**MICHELIN TIRE**  
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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.