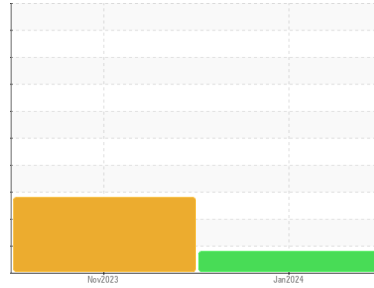




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
RAWMILL GEARBOX
 Component
New (Unused) Oil
 Fluid
MOBIL MOBILGEAR SHC 320 (--- GAL)

DIAGNOSIS

Recommendation

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. Resample at the next service interval to monitor. NOTE: New oils are not generally filtered or guaranteed to a certain cleanliness code. We advise that you verify the target cleanliness code for your application and recommend the use of a portable filter cart to fill any system with a target code below the ISO cleanliness code of this product.

Wear

{not applicable}

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for service.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|----------|
| Sample Number | Client Info | WC0806819 | WC0806828 | --- |
| Sample Date | Client Info | 09 Jan 2024 | 23 Nov 2023 | --- |
| Machine Age | hrs | Client Info | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | --- |
| Sample Status | | ATTENTION | ABNORMAL | --- |

CONTAMINATION

| method | limit/base | current | history1 | history2 |
|--------|------------|------------|----------|----------|
| Water | WC Method | NEG | NEG | --- |

WEAR METALS

| method | limit/base | current | history1 | history2 | | |
|-----------|------------|---------------|----------|--------------|----|-----|
| Iron | ppm | ASTM D5185(m) | >5 | 0 | 0 | --- |
| Chromium | ppm | ASTM D5185(m) | >5 | 0 | 0 | --- |
| Nickel | ppm | ASTM D5185(m) | >5 | 0 | <1 | --- |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| Silver | ppm | ASTM D5185(m) | >5 | 0 | <1 | --- |
| Aluminum | ppm | ASTM D5185(m) | >5 | <1 | 0 | --- |
| Lead | ppm | ASTM D5185(m) | >5 | 0 | 0 | --- |
| Copper | ppm | ASTM D5185(m) | >5 | 0 | <1 | --- |
| Tin | ppm | ASTM D5185(m) | >5 | 0 | 0 | --- |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | --- |

ADDITIVES

| method | limit/base | current | history1 | history2 | | |
|------------|------------|---------------|----------|--------------|------|-----|
| Boron | ppm | ASTM D5185(m) | | <1 | <1 | --- |
| Barium | ppm | ASTM D5185(m) | | 0 | <1 | --- |
| Molybdenum | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 | --- |
| Magnesium | ppm | ASTM D5185(m) | | <1 | <1 | --- |
| Calcium | ppm | ASTM D5185(m) | | <1 | <1 | --- |
| Phosphorus | ppm | ASTM D5185(m) | | 388 | 422 | --- |
| Zinc | ppm | ASTM D5185(m) | | <1 | <1 | --- |
| Sulfur | ppm | ASTM D5185(m) | | 1660 | 1643 | --- |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | --- |

CONTAMINANTS

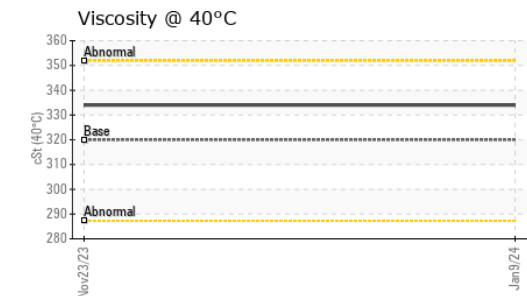
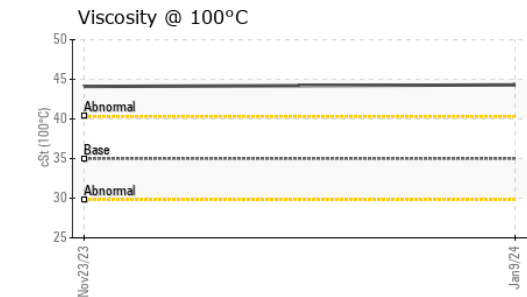
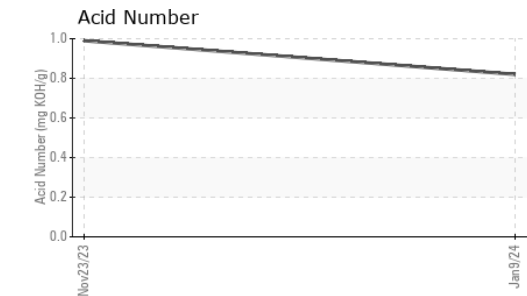
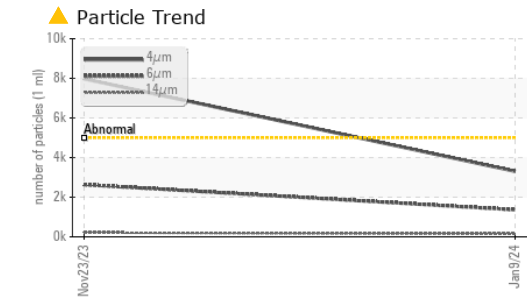
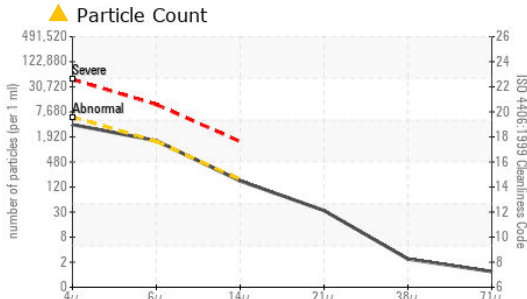
| method | limit/base | current | history1 | history2 | | |
|-----------|------------|---------------|----------|--------------|----|-----|
| Silicon | ppm | ASTM D5185(m) | >15 | 21 | 23 | --- |
| Sodium | ppm | ASTM D5185(m) | | 0 | <1 | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | 0 | --- |

INFRA-RED

| method | limit/base | current | history1 | history2 | | |
|-----------|------------|-------------|----------|-------------|------|-----|
| Soot % | % | ASTM D7844* | | 0 | 0 | --- |
| Nitration | Abs/cm | ASTM D7624* | | 3.0 | 3.0 | --- |
| Sulfation | Abs/.1mm | ASTM D7415* | | 47.9 | 47.1 | --- |



OIL ANALYSIS REPORT



| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|-------------------|------------|----------|
| Particles >4µm | ASTM D7647 | >5000 | 3307 | ▲ 7976 | --- |
| Particles >6µm | ASTM D7647 | >1300 | ▲ 1362 | ▲ 2632 | --- |
| Particles >14µm | ASTM D7647 | >160 | 148 | ▲ 212 | --- |
| Particles >21µm | ASTM D7647 | >40 | 29 | ▲ 63 | --- |
| Particles >38µm | ASTM D7647 | >10 | 2 | ▲ 18 | --- |
| Particles >71µm | ASTM D7647 | >3 | 1 | ▲ 16 | --- |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | ▲ 19/18/14 | ▲ 20/19/15 | --- |

| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|-------------|----------|----------|
| Oxidation | Abs./1mm | ASTM D7414* | 56.3 | 54.9 | --- |
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.82 | 0.99 | --- |

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

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|---------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 334 | 334 | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 44.3 | 44.1 | --- |
| Viscosity Index (VI) | Scale | ASTM D2270* | 191 | 190 | --- |

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



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0806819
Lab Number : **02607818**
Unique Number : 5708904
Test Package : IND 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, VI)

Received : 10 Jan 2024
Diagnosed : 11 Jan 2024
Diagnostician : 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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