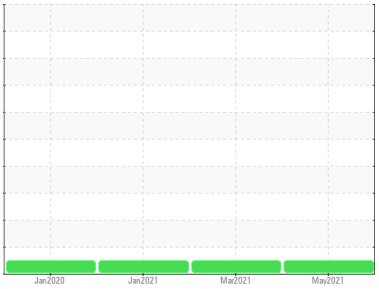
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Area
**P1**
Machine Id
## 3104 - 3101 EVAPORATOR
Component
**Gearbox**
Fluid
**MOBIL MOBILGEAR 600 XP ISO 150 (15 QTS)**

## 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. The amount and size of particulates present in the system are acceptable.

**Fluid Condition**
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 | | **WC0565726** | WC0524629 | WC0536890 |
| Sample Date | | Client Info | | **11 May 2021** | 02 Mar 2021 | 13 Jan 2021 |
| Machine Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >200 | **5** | 6 | 32 |
| Chromium | ppm | ASTM D5185m | >15 | **<1** | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >15 | **<1** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | <1 | 3 |
| Silver | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **<1** | 0 | <1 |
| Lead | ppm | ASTM D5185m | >100 | **<1** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | **<1** | 0 | <1 |
| Tin | ppm | ASTM D5185m | >25 | **<1** | 0 | <1 |
| Antimony | ppm | ASTM D5185m | | **<1** | 0 | 5 |
| Vanadium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **<1** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **35** | 38 | 18 |
| Barium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | 1 |
| Magnesium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | **0** | 0 | 5 |
| Phosphorus | ppm | ASTM D5185m | | **344** | 316 | 367 |
| Zinc | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | | **15051** | 12576 | 16078 |

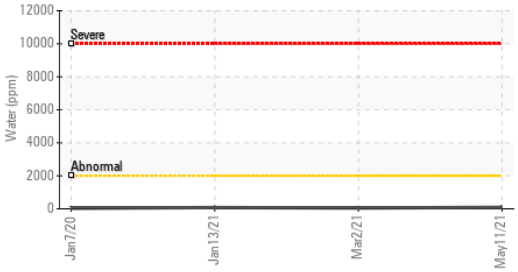
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **0** | 0 | <1 |
| Sodium | ppm | ASTM D5185m | | **2** | 0 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | **1** | 0 | 0 |
| Water | % | ASTM D6304 | >0.2 | **0.008** | 0.004 | 0.007 |
| ppm Water | ppm | ASTM D6304 | >2000 | **89.0** | 49.3 | 76.5 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **47112** | 113037 | 67089 |
| Particles >6µm | | ASTM D7647 | >40000 | **2758** | 6621 | 4886 |
| Particles >14µm | | ASTM D7647 | >10000 | **114** | 216 | 141 |
| Particles >21µm | | ASTM D7647 | >2500 | **29** | 51 | 39 |
| Particles >38µm | | ASTM D7647 | >640 | **1** | 3 | 3 |
| Particles >71µm | | ASTM D7647 | >160 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >22/20 | **23/19/14** | 24/20/15 | 23/19/14 |

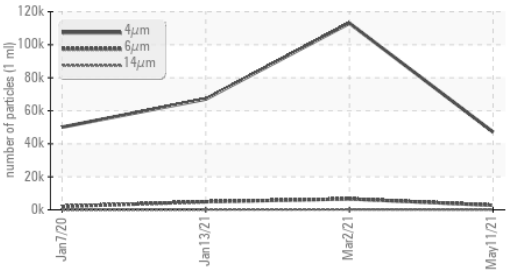
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.744** | 0.813 | 0.701 |

# OIL ANALYSIS REPORT

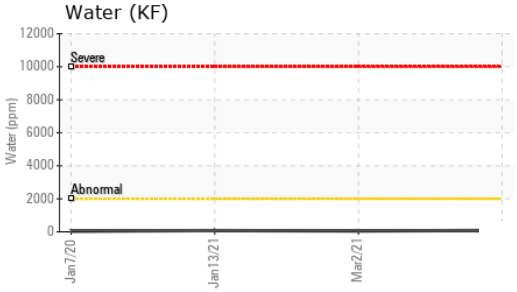
Water (KF)



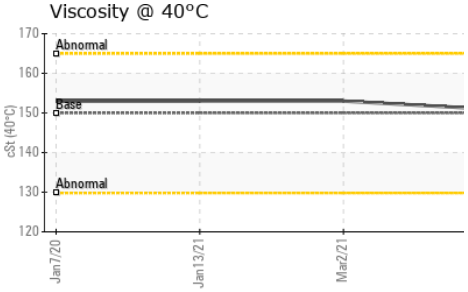

Particle Trend



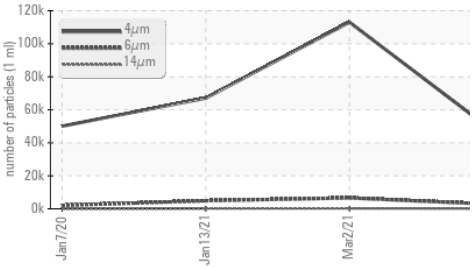

Water (KF)




Viscosity @ 40°C

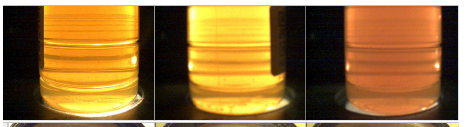



Particle Trend



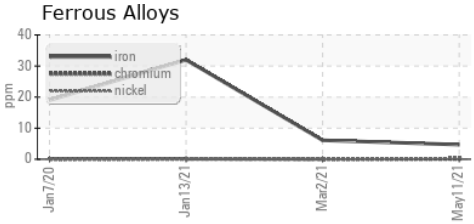

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 150 | **151** | 153 | 153 |

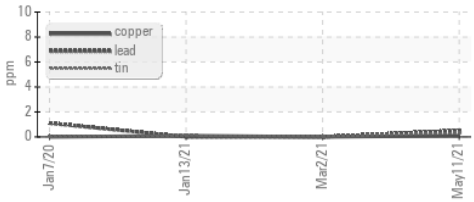
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

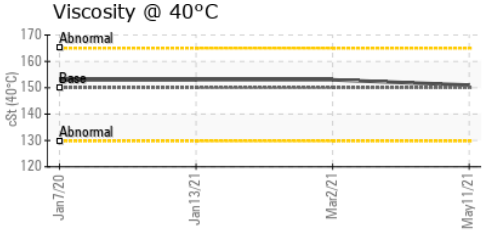
Ferrous Alloys



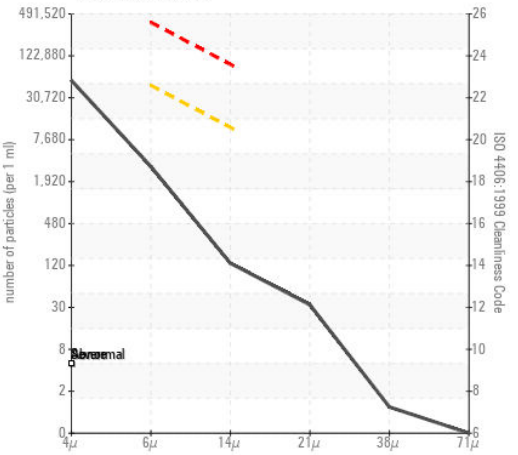

Non-ferrous Metals



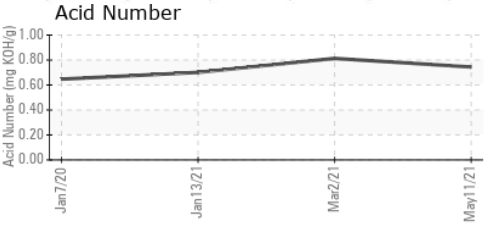

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0565726 **Recieved** : 21 May 2021
**Lab Number** : 05260226 **Diagnosed** : 24 May 2021
**Unique Number** : 9514149 **Diagnostician** : Angela Borella
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

*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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