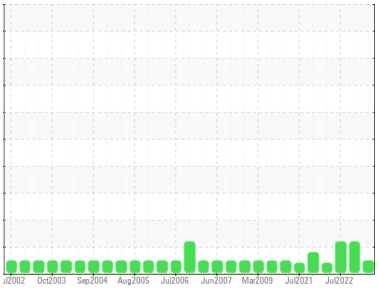
OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
## BLENDER 2
Component
**Gearbox**
Fluid
**MOBIL SHC 630 (15 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. 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 | | **PCA0094144** | PCA0094171 | PCA0073722 |
| Sample Date | | Client Info | | **18 Jul 2023** | 02 Jun 2023 | 06 Jul 2022 |
| 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** | ABNORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >200 | **1** | 5 | 19 |
| Chromium | ppm | ASTM D5185m | >15 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >15 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **<1** | <1 | 0 |
| Lead | ppm | ASTM D5185m | >100 | **0** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | **<1** | 0 | <1 |
| Tin | ppm | ASTM D5185m | >25 | **0** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | 0 | 4 |
| Barium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | <1 |
| Manganese | ppm | ASTM D5185m | | **0** | <1 | 2 |
| Magnesium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | **0** | 0 | 2 |
| Phosphorus | ppm | ASTM D5185m | | **504** | 472 | 563 |
| Zinc | ppm | ASTM D5185m | | **0** | 0 | 15 |
| Sulfur | ppm | ASTM D5185m | | **669** | 874 | 6886 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **23** | 23 | 21 |
| Sodium | ppm | ASTM D5185m | | **<1** | 0 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | **0** | 0 | 0 |

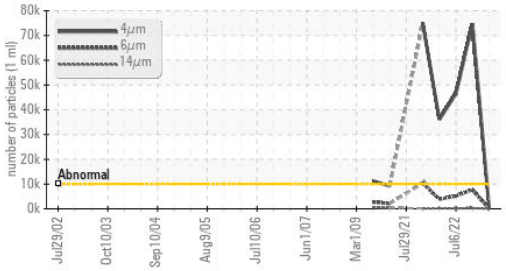
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >10000 | **556** | ▲ 74696 | ▲ 46407 |
| Particles >6µm | | ASTM D7647 | >2500 | **63** | ▲ 7722 | ▲ 5148 |
| Particles >14µm | | ASTM D7647 | >640 | **6** | 272 | 163 |
| Particles >21µm | | ASTM D7647 | >160 | **1** | 49 | 34 |
| Particles >38µm | | ASTM D7647 | >40 | **0** | 4 | 2 |
| Particles >71µm | | ASTM D7647 | >10 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/16 | **16/13/10** | ▲ 23/20/15 | ▲ 23/20/15 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.53** | 0.65 | 0.62 |

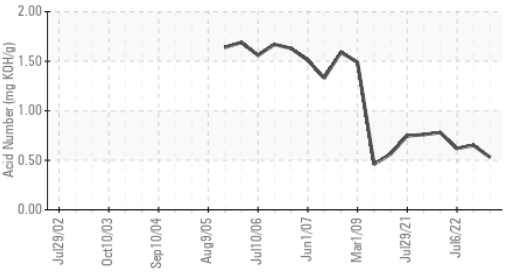
# OIL ANALYSIS REPORT

OIL DIAGNOSTICS

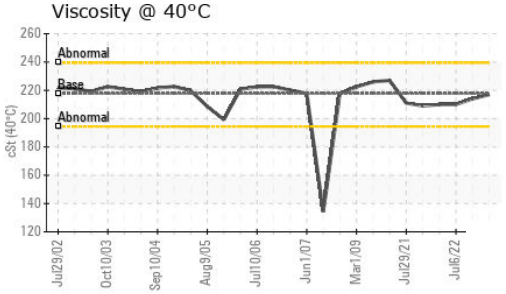
Particle Trend



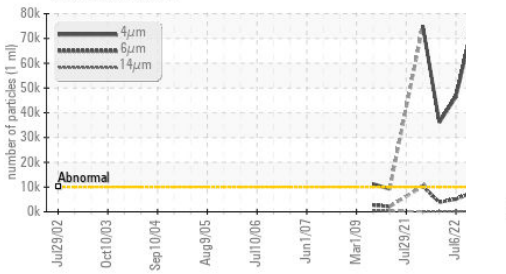

Acid Number




Viscosity @ 40°C

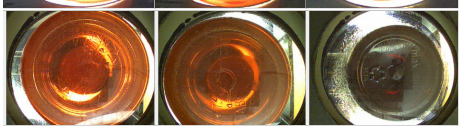



Particle Trend



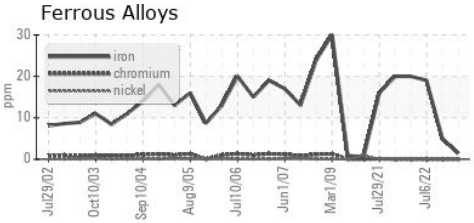

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | LIGHT | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | 217.7 | **217** | 214 | 210 |

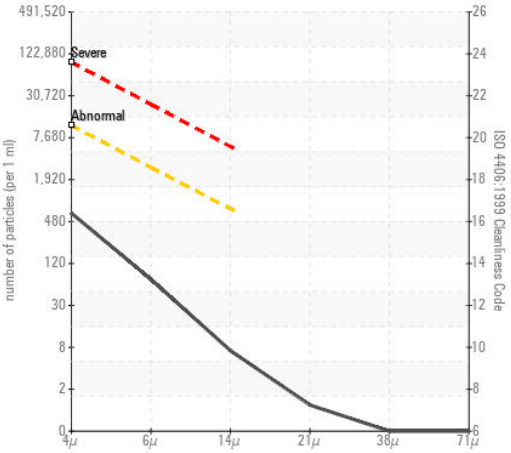
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

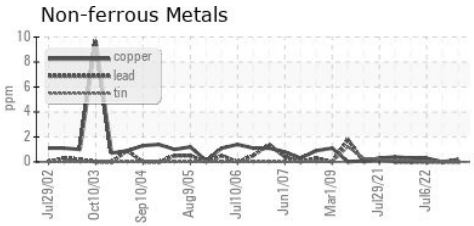
Ferrous Alloys



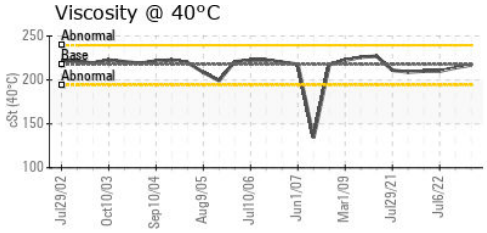

Particle Count



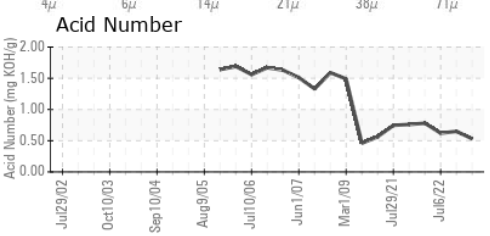

Non-ferrous Metals




Viscosity @ 40°C




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PCA0094144 **Received** : 09 Aug 2023
**Lab Number** : 05919754 **Diagnosed** : 10 Aug 2023
**Unique Number** : 10591668 **Diagnostician** : Don Baldridge
**Test Package** : IND 2 ( Additional Tests: 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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