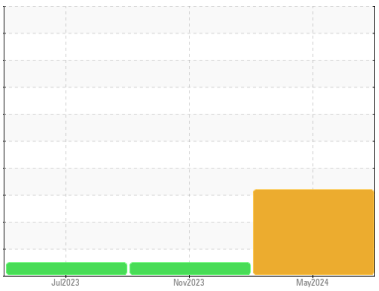
# OIL ANALYSIS REPORT

Sample Rating Trend




**WATER**

Area
**SULLUBE**
Machine Id
**SULLAIR 003-134655 - CAPITAL CLOSET DESIGN**
Component
**Compressor**

## DIAGNOSIS

**Recommendation**
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
Elemental level of silicon (Si) above normal. There is a moderate concentration of water present in the oil.

**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 | | **UCH06194181** | UCH06024646 | UCH05911327 |
| Sample Date | | Client Info | | **21 May 2024** | 30 Nov 2023 | 25 Jul 2023 |
| Machine Age | hrs | Client Info | | **63769** | 627621 | 619423 |
| Oil Age | hrs | Client Info | | **1** | 8000 | 0 |
| Oil Changed | | Client Info | | **Changed** | Not Changd | Changed |
| Sample Status | | | | **ABNORMAL** | NORMAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **<1** | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Silver | ppm | ASTM D5185m | | **1** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **2** | 1 | 0 |
| Lead | ppm | ASTM D5185m | >25 | **<1** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | **<1** | <1 | 0 |
| Tin | ppm | ASTM D5185m | >15 | **<1** | 0 | <1 |
| 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 | | **0** | 0 | 0 |
| Barium | ppm | ASTM D5185m | 745 | **1283** | 235 | 714 |
| Molybdenum | ppm | ASTM D5185m | 0.0 | **<1** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 0.0 | **1** | 0 | 0 |
| Calcium | ppm | ASTM D5185m | 1 | **0** | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 3 | **3** | 20 | 11 |
| Zinc | ppm | ASTM D5185m | 0.1 | **0** | 0 | 7 |
| Sulfur | ppm | ASTM D5185m | 240 | **372** | 301 | 341 |

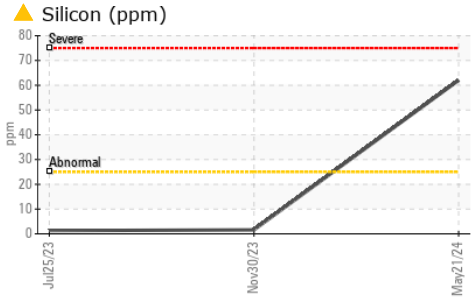
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | ▲ **62** | 2 | 1 |
| Sodium | ppm | ASTM D5185m | | **7** | 87 | 45 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 31 | 14 |
| Water | % | ASTM D6304 | >0.1 | ▲ **0.504** | --- | --- |
| ppm Water | ppm | ASTM D6304 | >1000 | ▲ **5040** | --- | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | .06 | **0.052** | 0.093 | 0.188 |

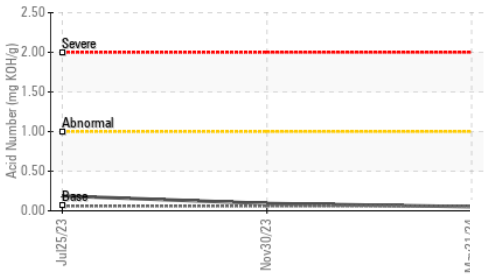
# OIL ANALYSIS REPORT

Water (KF)

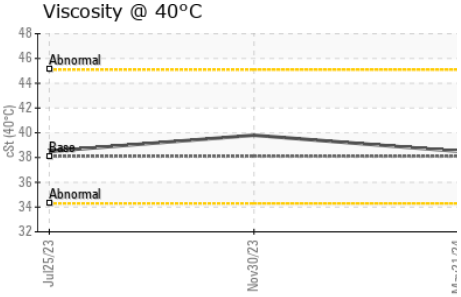

Silicon (ppm)




Acid Number




Viscosity @ 40°C



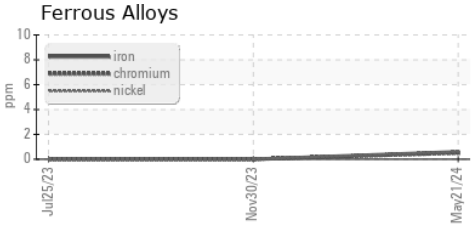

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **NONE** | NONE | LIGHT |
| 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 | >0.1 | **0.2%** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 38.1 | **38.5** | 39.8 | 38.5 |

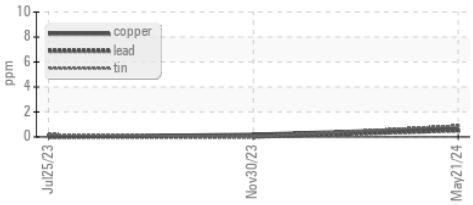
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

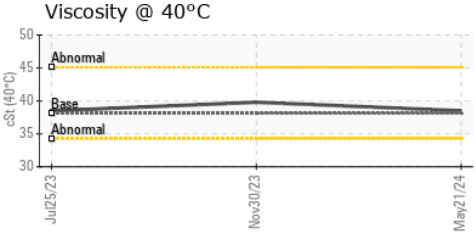
Ferrous Alloys



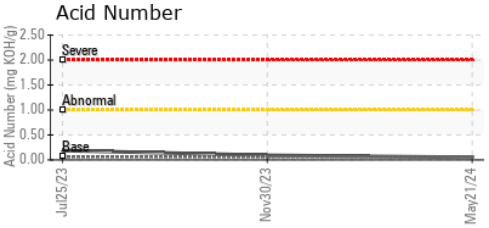

Non-ferrous Metals




Viscosity @ 40°C




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : UCH06194181
**Lab Number** : 06194181
**Unique Number** : 11056304
**Test Package** : IND 2 ( Additional Tests: KF )

**Received** : 29 May 2024
**Tested** : 31 May 2024
**Diagnosed** : 31 May 2024 - Jonathan Hester

*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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