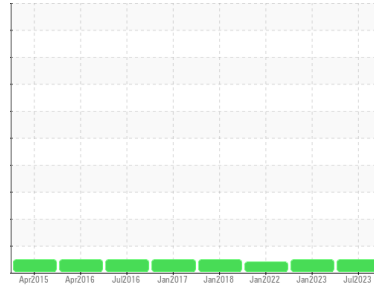




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**OUTFEED**  
Machine Id  
**1010CL02**

Component  
**Gearbox**  
Fluid  
**SUMMIT Syngear SH-1022 220 (50 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is 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 |             |            | <b>WC0761388</b>   | WC0764184   | WC0635750   |
| Sample Date        | Client Info |             |            | <b>11 Jul 2023</b> | 12 Jan 2023 | 13 Jan 2022 |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>Not Chngd</b>   | N/A         | Not Chngd   |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | ABNORMAL    |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| PQ          |     | ASTM D8184  |            | <b>16</b>    | 17       | ---      |
| Iron        | ppm | ASTM D5185m | >200       | <b>19</b>    | 19       | 60       |
| Chromium    | ppm | ASTM D5185m | >15        | <b>0</b>     | 0        | <1       |
| Nickel      | ppm | ASTM D5185m | >15        | <b>0</b>     | 0        | <1       |
| Titanium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Silver      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >25        | <b>0</b>     | 0        | <1       |
| Lead        | ppm | ASTM D5185m | >100       | <b>0</b>     | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >200       | <b>&lt;1</b> | 0        | <1       |
| Tin         | ppm | ASTM D5185m | >25        | <b>0</b>     | 0        | 0        |
| Antimony    | ppm | ASTM D5185m | >5         | <b>---</b>   | ---      | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

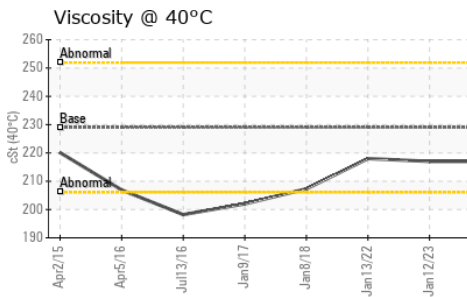
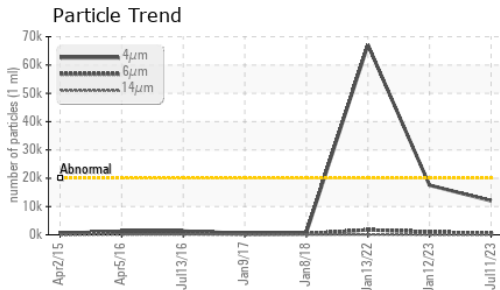
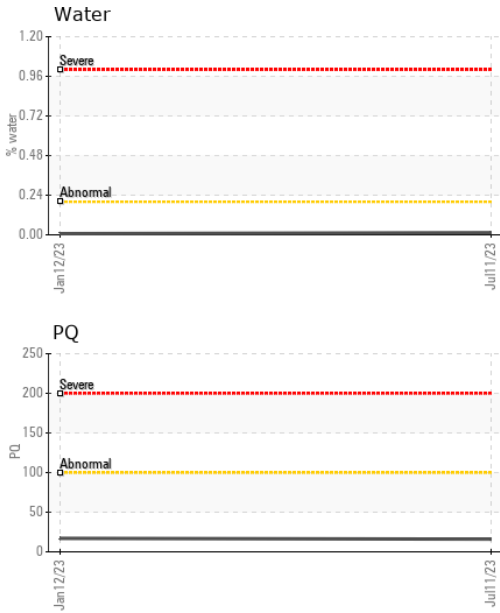
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 3        |
| Barium     | ppm | ASTM D5185m |            | <b>0</b>     | 1        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm | ASTM D5185m |            | <b>2</b>     | <1       | 0        |
| Calcium    | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Phosphorus | ppm | ASTM D5185m |            | <b>246</b>   | 255      | 379      |
| Zinc       | ppm | ASTM D5185m |            | <b>2</b>     | 4        | 8        |
| Sulfur     | ppm | ASTM D5185m |            | <b>16168</b> | 13458    | 5486     |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >50        | <b>5</b>     | 7        | 18       |
| Sodium       | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | <1       |
| Potassium    | ppm | ASTM D5185m | >20        | <b>0</b>     | <1       | 0        |
| Water        | %   | ASTM D6304  | >0.2       | <b>0.013</b> | 0.007    | ---      |
| ppm Water    | ppm | ASTM D6304  | >2000      | <b>132.2</b> | 75.3     | ---      |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2   |
|-------------------|--|--------------|------------|-----------------|----------|------------|
| Particles >4µm    |  | ASTM D7647   | >20000     | <b>12017</b>    | 17519    | ▲ 67079    |
| Particles >6µm    |  | ASTM D7647   | >5000      | <b>438</b>      | 1039     | 1742       |
| Particles >14µm   |  | ASTM D7647   | >640       | <b>20</b>       | 23       | 110        |
| Particles >21µm   |  | ASTM D7647   | >160       | <b>6</b>        | 2        | 25         |
| Particles >38µm   |  | ASTM D7647   | >40        | <b>0</b>        | 0        | 1          |
| Particles >71µm   |  | ASTM D7647   | >10        | <b>0</b>        | 0        | 0          |
| Oil Cleanliness   |  | ISO 4406 (c) | >21/19/16  | <b>21/16/11</b> | 21/17/12 | ▲ 23/18/14 |



# OIL ANALYSIS REPORT



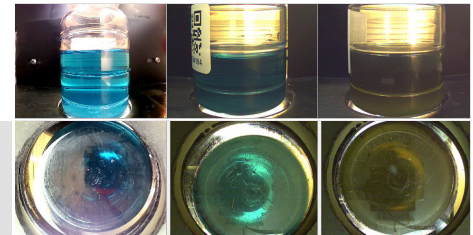
| FLUID DEGRADATION |          | method     | limit/base | current      | history1 | history2 |
|-------------------|----------|------------|------------|--------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>0.52</b>  | 0.46     | 0.81     |
| VISUAL            |          | 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 D445 | 229        | <b>217</b> | 217      | 218      |

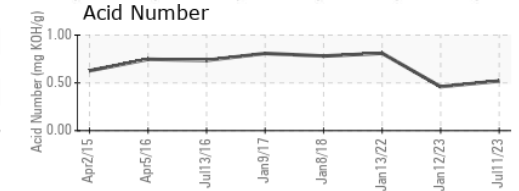
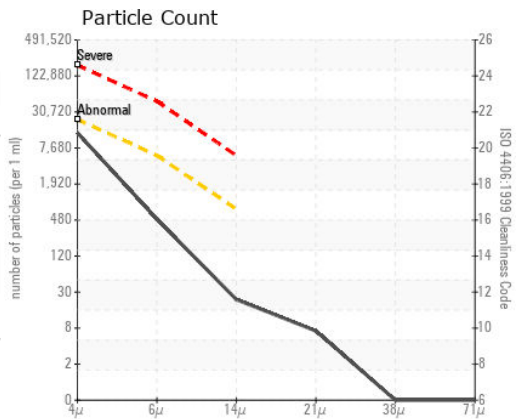
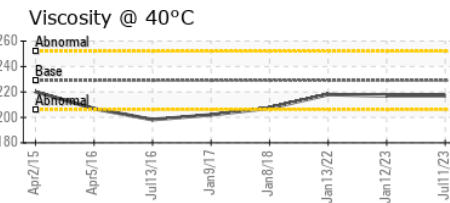
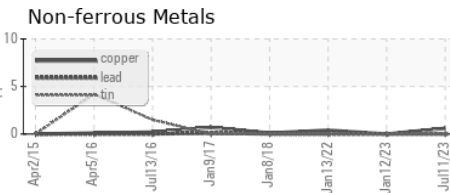
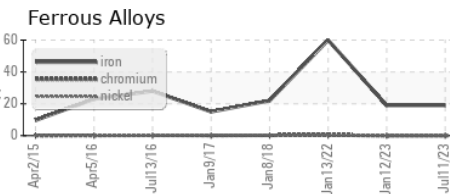
| SAMPLE IMAGES |  | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|---------|----------|----------|
|---------------|--|--------|------------|---------|----------|----------|

Color

Bottom



## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0761388  
 Lab Number : 05930867  
 Unique Number : 10616138  
 Test Package : IND 2 ( Additional Tests: KF, PQ, PrtCount )

**FLAKEBOARD ARAUCO - MDF**  
 985 CORINTH RD  
 MONCURE, NC  
 US

Contact: CHRISTOPHER JACKSON  
 christopher.jackson@arauco.com

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)

T:  
F: