

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Dec122



Machine Id **TANK 8** Component **New (Unused) Oil** Fluid **{not provided} (--- QTS)** 

## DIAGNOSIS

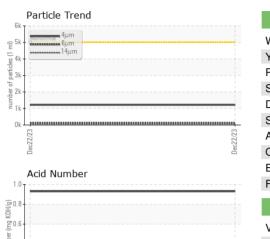
Recommendation

This is a baseline read-out on the submitted sample.

| SAMPLE INFORM    | <b>NATION</b> | method       | limit/base | current     | history1 | history2 |
|------------------|---------------|--------------|------------|-------------|----------|----------|
| Sample Number    |               | Client Info  |            | WC06063238  |          |          |
| Sample Date      |               | Client Info  |            | 22 Dec 2023 |          |          |
| Machine Age      | hrs           | Client Info  |            | 0           |          |          |
| Oil Age          | hrs           | Client Info  |            | 0           |          |          |
| Oil Changed      |               | Client Info  |            | N/A         |          |          |
| Sample Status    |               |              |            | NORMAL      |          |          |
| WEAR METALS      |               | method       | limit/base | current     | history1 | history2 |
| Iron             | ppm           | ASTM D5185m  |            | 0           |          |          |
| Chromium         | ppm           | ASTM D5185m  |            | 0           |          |          |
| Nickel           | ppm           | ASTM D5185m  |            | 0           |          |          |
| Titanium         | ppm           | ASTM D5185m  |            | 0           |          |          |
| Silver           | ppm           | ASTM D5185m  |            | 0           |          |          |
| Aluminum         | ppm           | ASTM D5185m  |            | 0           |          |          |
| Lead             | ppm           | ASTM D5185m  |            | 0           |          |          |
| Copper           | ppm           | ASTM D5185m  |            | 0           |          |          |
| Tin              | ppm           | ASTM D5185m  |            | <1          |          |          |
| Vanadium         | ppm           | ASTM D5185m  |            | 0           |          |          |
| Cadmium          | ppm           | ASTM D5185m  |            | 0           |          |          |
| ADDITIVES        |               | method       | limit/base | current     | history1 | history2 |
| Boron            | ppm           | ASTM D5185m  |            | 2           |          |          |
| Barium           | ppm           | ASTM D5185m  |            | 0           |          |          |
| Molybdenum       | ppm           | ASTM D5185m  |            | 0           |          |          |
| Manganese        | ppm           | ASTM D5185m  |            | 0           |          |          |
| Magnesium        | ppm           | ASTM D5185m  |            | 11          |          |          |
| Calcium          | ppm           | ASTM D5185m  |            | 29          |          |          |
| Phosphorus       | ppm           | ASTM D5185m  |            | 589         |          |          |
| Zinc             | ppm           | ASTM D5185m  |            | 731         |          |          |
| Sulfur           | ppm           | ASTM D5185m  |            | 1553        |          |          |
| CONTAMINANTS     | 5             | method       | limit/base | current     | history1 | history2 |
| Silicon          | ppm           | ASTM D5185m  |            | <1          |          |          |
| Sodium           | ppm           | ASTM D5185m  |            | 2           |          |          |
| Potassium        | ppm           | ASTM D5185m  | >20        | 0           |          |          |
| Water            | %             | ASTM D6304   |            | NEG         |          |          |
| FLUID CLEANLIN   | IESS          | method       | limit/base | current     | history1 | history2 |
| Particles >4µm   |               | ASTM D7647   | >5000      | 1215        |          |          |
| Particles >6µm   |               | ASTM D7647   | >1300      | 108         |          |          |
| Particles >14µm  |               | ASTM D7647   | >160       | 7           |          |          |
| Particles >21µm  |               | ASTM D7647   | >40        | 4           |          |          |
| Particles >38µm  |               | ASTM D7647   | >10        | 0           |          |          |
| Particles >71µm  |               | ASTM D7647   | >3         | 0           |          |          |
| Oil Cleanliness  |               | ISO 4406 (c) | >19/17/14  | 17/14/10    |          |          |
| FLUID DEGRADA    | TION          | method       | limit/base | current     | history1 | history2 |
| Acid Number (AN) | mg KOH/g      | ASTM D8045   |            | 0.93        |          |          |



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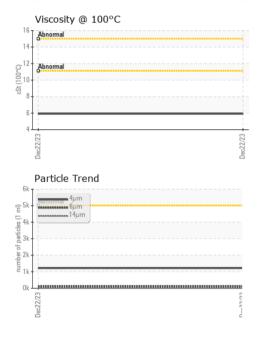
cSt (40°C)

Laboratory

Sample No.

Lab Number **Unique Number** 

Test Package



| 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                                      | LIGHT                           |          |   |
| Sand/Dirt            | scalar                          | *Visual                               | NONE                                      | NONE                            |          |   |
| Appearance           | scalar                          | *Visual                               | NORML                                     | NORML                           |          |   |
| Odor                 | scalar                          | *Visual                               | NORML                                     | NORML                           |          |   |
| Emulsified Water     | scalar                          | *Visual                               |   | NEG                             |          |   |
| Free Water           | scalar                          | *Visual                               |   | NEG                             |          |   |
| FLUID PROPERT        |                                 | method                                | limit/base                                | current                         | history1 | history2  |
|                      |                                 |                                       | mmubase                                   |                                 |          | Thistoryz   |
| /isc @ 40°C          | cSt                             | ASTM D445                             |   | 31.43                           |          |   |
| /isc @ 100°C         | cSt                             | ASTM D445                             |   | 5.92                            |          |   |
| /iscosity Index (VI) | Scale                           | ASTM D2270                            |   | 135                             |          |   |
| SAMPLE IMAGES        |                                 | method                                | limit/base                                | current                         | history1 | history2  |
| Color                |                                 |                                       |   | •                               | no image | no image  |
| Bottom               |                                 |                                       |   |                                 | no image | no image  |
| GRAPHS               |                                 |                                       |   |                                 |          |   |
| Ferrous Alloys       |                                 |                                       |   | Particle Count                  |          |   |
| iron ]               |                                 |                                       | 491,52                                    | 20 T                            |          | T <sup>26</sup>   |
| normium<br>nickel    |                                 |                                       | 122,8                                     | 80 -                            |          | -24   |
| IIICKei              |                                 |                                       | 30,72                                     | Severe                          |          | -22   |
|                      |                                 |                                       |   |                                 |          |   |
| 23                   |                                 |                                       | EZ E 7,61                                 | 30 Abnormal                     |          | +20<br>+18<br>+16<br>+14                                  |
| Dec22/23             |                                 |                                       | Dec22/23<br>(per 1 m)                     | 20-                             |          | -18   |
| —                    |                                 |                                       | tricles (                                 |                                 |          | 10  |
| Non-ferrous Metals   | ;<br>                           |                                       | Dec22/23<br>number of particles (per 1 m) |                                 |          | 10  |
| copper               |                                 |                                       | age 13                                    | 20-                             |          | -14   |
| second tin           |                                 |                                       |   | 30-                             |          | -12   |
|                      |                                 |                                       |   |                                 |          |   |
|                      |                                 |                                       |   | 8-                              |          | -10   |
| Dec22/23             |                                 |                                       | Dec22/23                                  | 2-                              |          | -8  |
| Dec                  |                                 |                                       | Deci                                      | 0                               |          |   |
| Viscosity @ 40°C     |                                 |                                       |   | <sup>4μ</sup> 6μ<br>Acid Number | 14μ 21μ  | 38µ 71µ   |
| Abnormal             |                                 |                                       | (B/H                                      |                                 |          |   |
| Abnormal             |                                 |                                       | Q P                                       | .8                              |          |   |
|                      |                                 |                                       | 0 <u>گ</u>                                | .6                              |          |   |
|                      |                                 |                                       | Acid Number (mg KOH(g)<br>0 0 0 0 10      | .2                              |          |   |
| L                    |                                 |                                       | - Acid                                    |                                 |          |   |
| Dec22/23             |                                 |                                       | Dec22/23                                  | Dec22/23                        |          |   |
| ы<br>Д               |                                 |                                       | Dec                                       | Dec                             |          | c   |
| 06063238             | Recieved<br>Diagnos<br>Diagnost | d : 17 .<br>ed : 05 l<br>tician : Dou | Jan 2024<br>Feb 2024<br>Ig Bogart         |                                 | 601      | r Oil Compan<br>Industrial Roa<br>Carlstadt, N<br>US 0707 |

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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