



OIL ANALYSIS REPORT

Sample Rating Trend

WATER

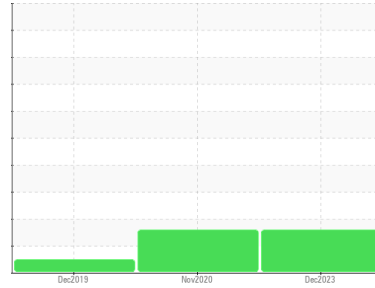


Area
[2307050175]

Machine Id
DWD INTERNATIONAL CANNON CHILLER BR-3 - WCC-2504 (S/N 146008)

Component
Refrigeration Compressor

Fluid
{not provided} (--- GAL)



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a trace of moisture 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 | WC0812218 | WCI2215487 | WCI2310873 |
| Sample Date | Client Info | 07 Dec 2023 | 11 Nov 2020 | 26 Dec 2019 |
| Machine Age | hrs | Client Info | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 |
| Oil Changed | Client Info | N/A | Not Changd | N/A |
| Sample Status | | MARGINAL | MARGINAL | NORMAL |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|----------------|--------------|----------|----|
| Iron | ppm | ASTM D5185m >8 | 0 | <1 | 0 |
| Chromium | ppm | ASTM D5185m >2 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m >2 | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185m >3 | 0 | 0 | <1 |
| Lead | ppm | ASTM D5185m >2 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m >8 | <1 | <1 | 0 |
| Tin | ppm | ASTM D5185m >4 | 0 | <1 | 0 |
| Antimony | ppm | ASTM D5185m | --- | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|-------------|--------------|----------|----|
| Boron | ppm | ASTM D5185m | 0 | <1 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | <1 | 0 |
| Manganese | ppm | ASTM D5185m | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | <1 | 0 | <1 |
| Calcium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 0 | 5 | 0 |
| Zinc | ppm | ASTM D5185m | 2 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 0 | 14 | 2 |

CONTAMINANTS

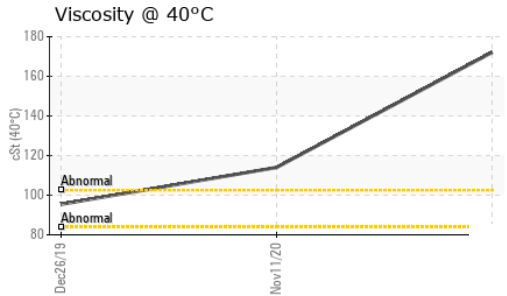
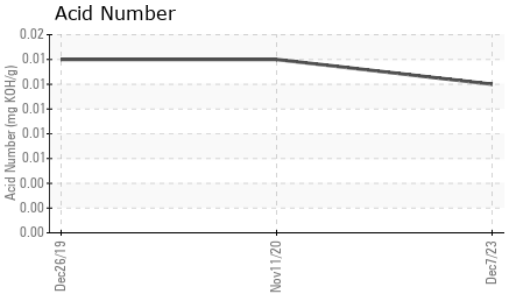
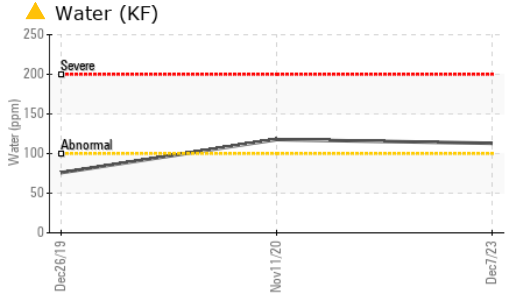
| method | limit/base | current | history1 | history2 | |
|-----------|------------|------------------|----------------|----------|-------|
| Silicon | ppm | ASTM D5185m >15 | 0 | 2 | 6 |
| Sodium | ppm | ASTM D5185m | 0 | 1 | <1 |
| Potassium | ppm | ASTM D5185m >20 | 0 | 0 | 0 |
| Water | % | ASTM D6304 >0.01 | ▲ 0.011 | ▲ 0.011 | 0.007 |
| ppm Water | ppm | ASTM D6304 >100 | ▲ 113 | ▲ 117.7 | 75.9 |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 | |
|------------------|------------|-----------|--------------|----------|-------|
| Acid Number (AN) | mg KOH/g | ASTM D974 | 0.012 | 0.014 | 0.014 |



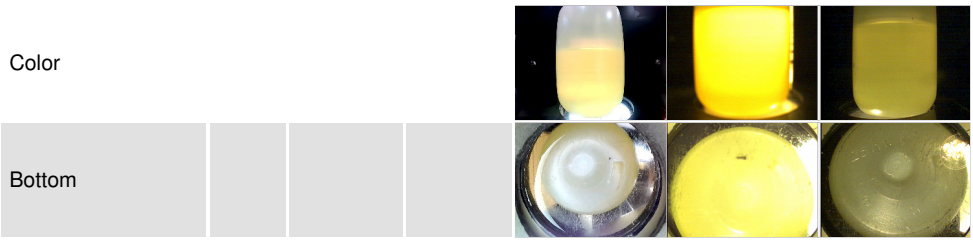
OIL ANALYSIS REPORT



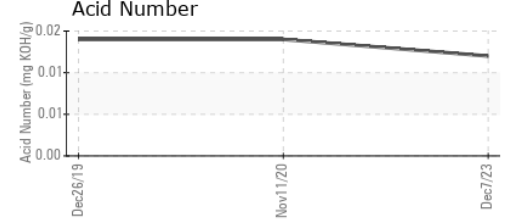
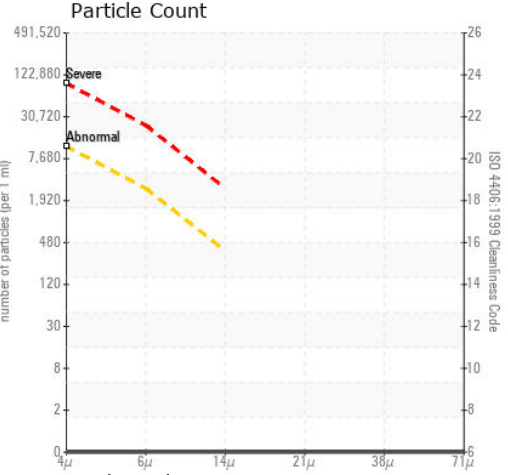
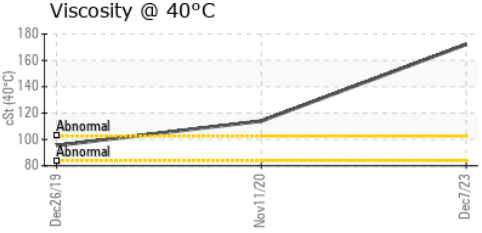
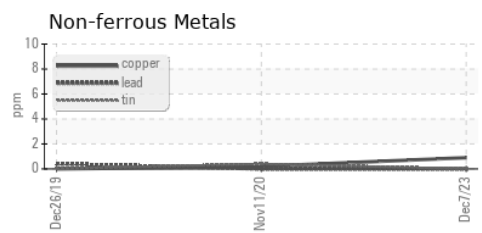
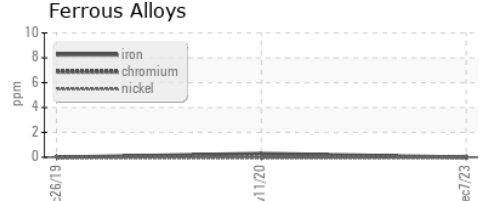
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.01 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 172.1 | 114 | 95.4 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0812218 **Received** : 17 Jan 2024
Lab Number : 06062871 **Diagnosed** : 25 Jan 2024
Unique Number : 10834253 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: PrtCount)

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Certificate L2367
 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.
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