

OIL ANALYSIS REPORT

Area Refrigeration #7 High - Low Stage Compressor NCR (S/N 3235022)

Refrigeration Compressor

COLD STAR CS-2033-SC (150 GAL)

Recommendation

No corrective action is recommended at this time. The filter cleaned at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| NCR (S/N 323 | 5022) | | | | | |
|------------------|----------|--------------|-------------------|-------------------|---------------|-----------|
| · | | | | | | |
| | | | | | | |
| | | | | May2024 | | |
| SAMPLE INFORM | ΛΑΤΙΟΝ | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0892834 | | |
| Sample Date | | Client Info | | 16 May 2024 | | |
| Machine Age | hrs | Client Info | | 44397 | | |
| Oil Age | hrs | Client Info | | 0 | | |
| Oil Changed | | Client Info | | Filtered | | |
| Sample Status | | | | ATTENTION | | |
| · | | | line it flere e e | | Literature of | history O |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >8 | <1 | | |
| Chromium | ppm | ASTM D5185m | >2 | <1 | | |
| Nickel | ppm | ASTM D5185m | | <1 | | |
| Titanium | ppm | ASTM D5185m | | <1 | | |
| Silver | ppm | ASTM D5185m | >2 | 1 | | |
| Aluminum | ppm | ASTM D5185m | | 1 | | |
| Lead | ppm | ASTM D5185m | >2 | <1 | | |
| Copper | ppm | ASTM D5185m | | 1 | | |
| Tin | ppm | ASTM D5185m | >4 | <1 | | |
| Vanadium | ppm | ASTM D5185m | | <1 | | |
| Cadmium | ppm | ASTM D5185m | | <1 | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 0 | | |
| Barium | ppm | ASTM D5185m | | 0 | | |
| Molybdenum | ppm | ASTM D5185m | | <1 | | |
| Manganese | ppm | ASTM D5185m | | <1 | | |
| Magnesium | ppm | ASTM D5185m | | <1 | | |
| Calcium | ppm | ASTM D5185m | | 0 | | |
| Phosphorus | ppm | ASTM D5185m | | 4 | | |
| Zinc | ppm | ASTM D5185m | | 0 | | |
| Sulfur | ppm | ASTM D5185m | | 0 | | |
| CONTAMINANTS | | | | | | |
| Silicon | ppm | ASTM D5185m | >15 | 1 | | |
| Sodium | ppm | ASTM D5185m | | 0 | | |
| Potassium | ppm | ASTM D5185m | >20 | <1 | | |
| Water | % | ASTM D6304 | >0.01 | 0.003 | | |
| ppm Water | ppm | ASTM D6304 | >100 | 30 | | |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >10000 | — 17116 | | |
| Particles >6µm | | ASTM D7647 | >2500 | 2855 | | |
| Particles >14µm | | ASTM D7647 | >320 | 31 | | |
| Particles >21µm | | ASTM D7647 | >80 | 3 | | |
| Particles >38µm | | ASTM D7647 | >20 | 0 | | |
| Particles >71µm | | ASTM D7647 | >4 | 0 | | |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | e 21/19/12 | | |
| FLUID DEGRADA | | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D974 | | 0.013 | | |
| · / | 5 5 | | | | | |

Sample Rating Trend

ISO



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NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

61.8

Particle Count

Acid Number

491.5

122,88

30.72 7 68

1,920

480

120

31

(B)

0.01

0.00

6/74 Mav1

(mg KOH)

Acid

(per 1 ml)

es

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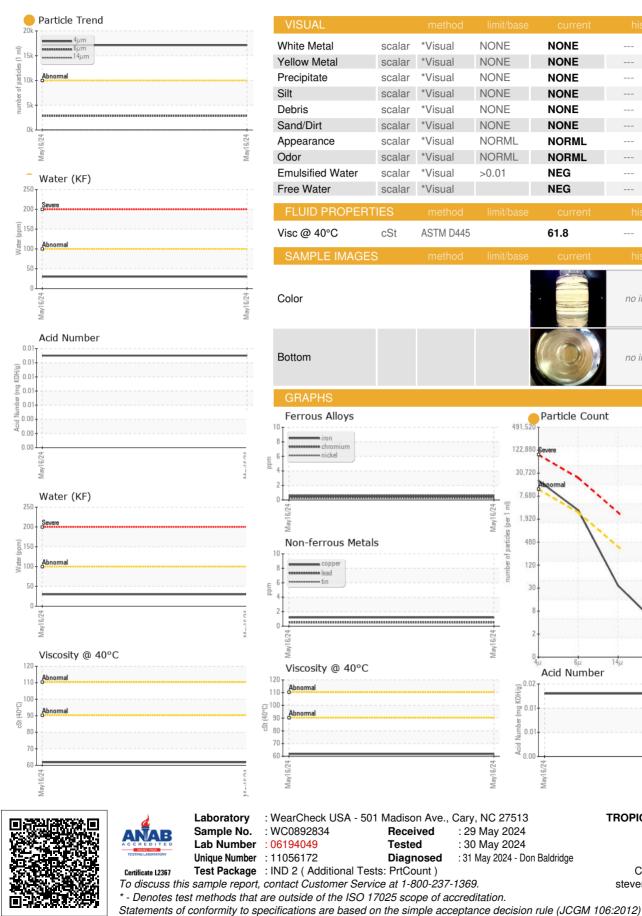
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