

OIL ANALYSIS REPORT

Sample Rating Trend



FES N6 FES HS1 (S/N 9843704D)

FES 2 (--- GAL)

Refrigeration Compressor

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

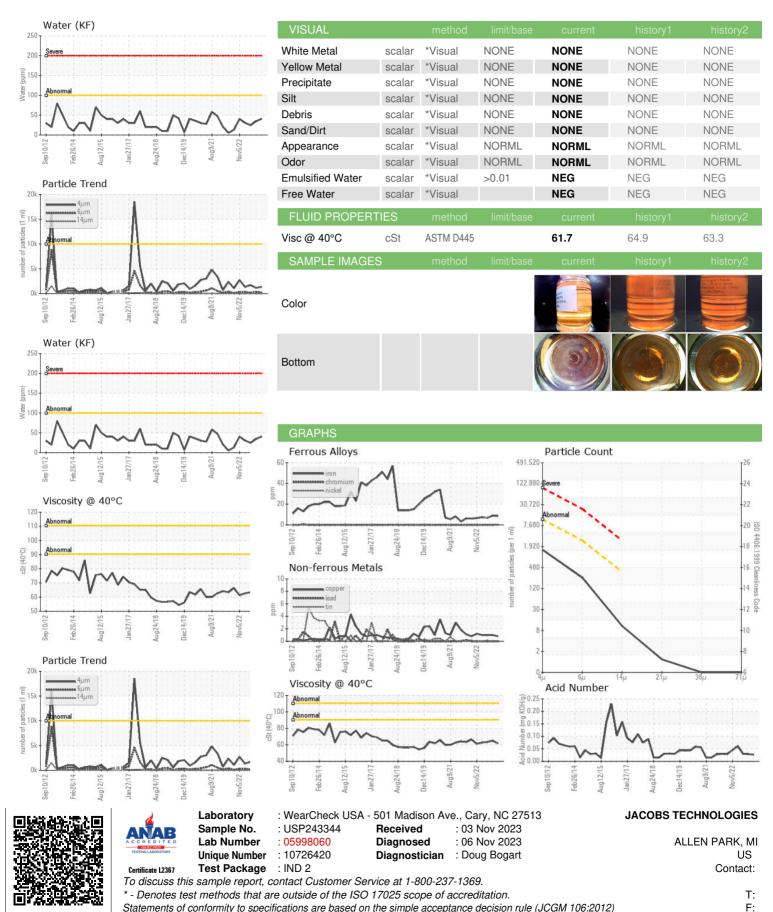
Fluid Condition

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

| 32012 Feb2014 Aug2015 Jan2017 Aug2018 Des2019 Aug2021 New2022 | | | | | | |
|---|----------|--------------|------------|-------------|-------------|-------------|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | USP243344 | USP243346 | USP243345 |
| Sample Date | | Client Info | | 27 Oct 2023 | 01 Aug 2023 | 08 May 2023 |
| Machine Age | hrs | Client Info | | 111982 | 111564 | 111382 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >8 | 9 | 9 | 7 |
| Chromium | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| Lead | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >8 | <1 | 1 | 1 |
| Tin | ppm | ASTM D5185m | >4 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | <1 | 1 | <1 |
| Calcium | ppm | ASTM D5185m | | 1 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Zinc | ppm | ASTM D5185m | | 4 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | | 0 | 0 | 0 |
| CONTAMINANTS | ; | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >15 | 4 | 3 | 3 |
| Sodium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 0 | 1 |
| Water | % | ASTM D6304 | >0.01 | 0.004 | 0.003 | 0.002 |
| ppm Water | ppm | ASTM D6304 | >100 | 40.7 | 34.6 | 24.6 |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >10000 | 1357 | 1133 | 1691 |
| Particles >6µm | | ASTM D7647 | >2500 | 218 | 273 | 197 |
| Particles >14µm | | ASTM D7647 | >320 | 9 | 9 | 8 |
| Particles >21µm | | ASTM D7647 | >80 | 1 | 1 | 3 |
| Particles >38µm | | ASTM D7647 | >20 | 0 | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >4 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | 18/15/10 | 17/15/10 | 18/15/10 |
| FLUID DEGRADA | ATION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D974 | | 0.026 | 0.029 | 0.03 |



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