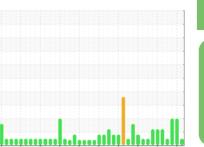


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

FES LOPOKL/SOUTH FC-03 (S/N AB10098)

Refrigeration Compressor

USPI ALT-68 SC (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

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.

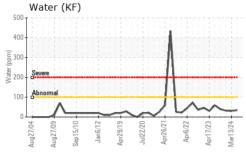
Fluid Condition

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

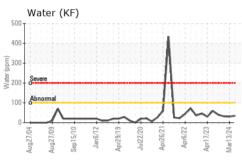
| 02004 Aug2009 Sup2010 Jun2012 Apr2013 Jul2020 Apr2021 Apr2022 Apr2023 Muz024 | | | | | | |
|--|----------|--------------|------------|-------------|--------------------------------|-------------------|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | USP0013094 | USP0005931 | USP0004669 |
| Sample Date | | Client Info | | 23 Jun 2024 | 13 Mar 2024 | 04 Jan 2024 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | ABNORMAL | ABNORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >8 | 4 | 4 | 4 |
| Chromium | ppm | ASTM D5185m | >2 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >3 | 0 | 0 | 1 |
| Lead | ppm | ASTM D5185m | >2 | 0 | 1 | 0 |
| Copper | ppm | ASTM D5185m | >8 | 0 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >4 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | <1 | 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 | | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Phosphorus | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Zinc | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 50 | 0 | 0 | 0 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >15 | <1 | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | <1 | 2 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 1 | 2 |
| Water | % | ASTM D6304 | >0.01 | 0.003 | 0.003 | 0.003 |
| ppm Water | ppm | ASTM D6304 | >100 | 35 | 30 | 32 |
| FLUID CLEANLIN | ESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >10000 | 5936 | <u>▲</u> 107251 | <u> </u> |
| Particles >6µm | | ASTM D7647 | >2500 | 1241 | <u>\$\text{\Delta}\$ 25944</u> | <u>▲</u> 39634 |
| Particles >14µm | | ASTM D7647 | >320 | 16 | △ 675 | <u>▲</u> 1222 |
| Particles >21µm | | ASTM D7647 | >80 | 2 | <u></u> 84 | <u>174</u> |
| Particles >38µm | | ASTM D7647 | >20 | 0 | 0 | 1 |
| Particles >71µm | | ASTM D7647 | >4 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | 20/17/11 | 2 4/22/17 | <u>4</u> 24/22/17 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D974 | 0.005 | 0.014 | 0.015 | 0.014 |

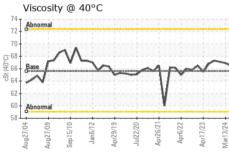


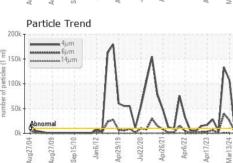
OIL ANALYSIS REPORT



| 200k - | Pai | rticle | Trer | nd | | | | | | |
|--|----------|----------|--------------------|---------|----------|----------|----------|---------|----------|----------|
| | | | 4μm 6μm 14μm | | 1 | | ٨ | | | |
| 150k - 15 | | | | | | 1 | 1 | | | 1 |
| 50k | Abr | normal | | | 7 | | 1 | | 1 | W |
| 0k · | Aug27/04 | Aug27/09 | Sep15/10 | Jan6/12 | Apr29/19 | Jul22/20 | Apr26/21 | Apr6/22 | Apr17/23 | Mar13/24 |







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

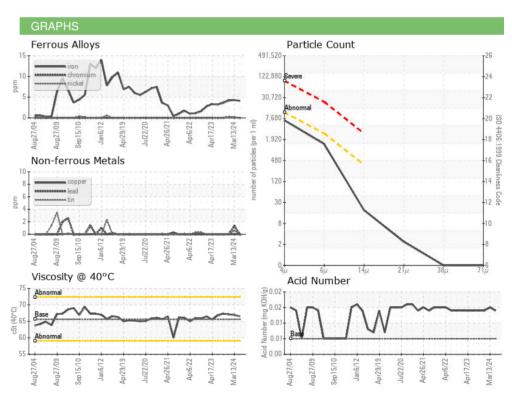
| FLUID PROPER | HES | method | ilmit/base | | nistory i | nistoryz |
|--------------|-----|-----------|------------|------|-----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 65.6 | 66.5 | 66.9 | 67.1 |

| SAIVIE | IMAGES |
|--------|--------|
| | |

Bottom

Color









Certificate 12367

Laboratory Sample No.

Test Package : IND 2

: USP0013094 Lab Number : 06218276 Unique Number : 11096473

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 24 Jun 2024

Tested : 25 Jun 2024 Diagnosed : 25 Jun 2024 - Doug Bogart

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)

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US 73127