

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

FRICK C 16 (S/N F0110WFMNTHAA03) Component

Refrigeration Compressor USPI ALT-68 SC (--- GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

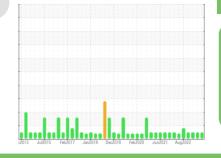
All component wear rates are normal.

Contamination

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

Fluid Condition

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





| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|--|--------|--|-----------------------------------|------------------------------------|---------------------------------|----------------------------------|
| Sample Number | | Client Info | | USP243722 | USP248759 | USP246698 |
| Sample Date | | Client Info | | 16 Jul 2023 | 13 Apr 2023 | 06 Feb 2023 |
| 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 | NORMAL | NORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >8 | 0 | 0 | 2 |
| Chromium | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | | 0 | <1 | 1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| Lead | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Tin | ppm | | >4 | 0 | 0 | <1 |
| 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 | 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 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Zinc | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 50 | 16 | 0 | 18 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >15 | <1 | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 0 | 0 |
| Water | % | ASTM D6304 | | 0.004 | 0.005 | 0.003 |
| ppm Water | ppm | ASTM D6304 | >100 | 43.7 | 51.5 | 31.2 |
| FLUID CLEANLIN | ESS | method | limit/base | | history1 | history2 |
| | | | | | riistory i | |
| Particles >4µm | | ASTM D7647 | iiiii/base | current 7002 | 2184 | 6798 |
| Particles >4µm Particles >6µm | | | | | | |
| | | ASTM D7647 | | 7002 | 2184 | 6798 |
| Particles >6µm | | ASTM D7647 ASTM D7647 | >2500 >320 | 7002 1391 | 2184 410 | 6798 938 |
| Particles >6µm Particles >14µm | | ASTM D7647 ASTM D7647 ASTM D7647 | >2500 >320 | 7002 1391 40 | 2184 410 9 | 6798 938 10 |
| Particles >6μm Particles >14μm Particles >21μm Particles >38μm | | ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | >2500 >320 >80 >20 | 7002 1391 40 10 | 2184 410 9 2 | 6798 938 10 2 |
| Particles >6μm Particles >14μm Particles >21μm | | ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | >2500 >320 >80 >20 | 7002 1391 40 10 0 | 2184 410 9 2 0 | 6798 938 10 2 0 |
| Particles >6μm Particles >14μm Particles >21μm Particles >38μm Particles >71μm | | ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | >2500 >320 >80 >20 >4 | 7002 1391 40 10 0 0 | 2184 410 9 2 0 0 | 6798 938 10 2 0 0 |

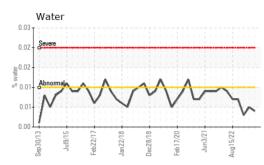


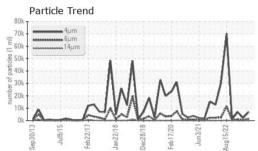
Water

0.03

OIL ANALYSIS REPORT

VISUAI





| VISUAL | | methou | | | Thistory I | matoryz |
|------------------|--------|-----------|------------|---------|--|--------------------|
| 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 PROPERT | IES | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 65.6 | 65.3 | 64.8 | 65.0 |
| SAMPLE IMAGES | 5 | method | limit/base | current | history1 | history2 |
| Color | | | | | 2015 2015 2017 2019 2017 2019 2017 2019 2017 2019 2019 2019 2019 2019 2019 2019 2019 | 8 79492 7845 |
| | | | | 1 | | |

Bottom

