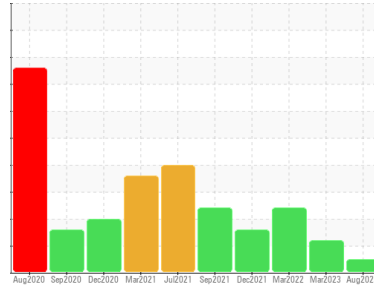


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
REBEL 2
Machine Id
FRICK C-162 - REBEL 2
Component
Refrigeration Compressor
Fluid
TULCO LUBSOIL SYN RL WI 100 (250 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

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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 | | | TO90002195 | TO90002315 | TO90000113 |
| Sample Date | Client Info | | | 14 Aug 2023 | 15 Mar 2023 | 02 Mar 2022 |
| 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 | ATTENTION | ATTENTION |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >8 | 14 | 18 | 16 |
| Chromium | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >3 | 0 | 1 | <1 |
| Lead | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >8 | <1 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >4 | 1 | <1 | <1 |
| Antimony | ppm | ASTM D5185m | | --- | --- | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |

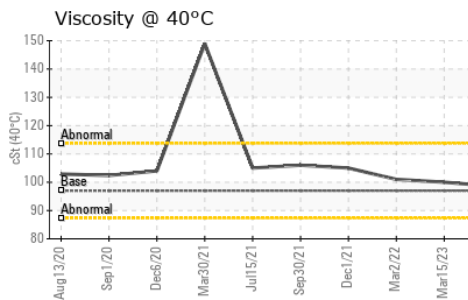
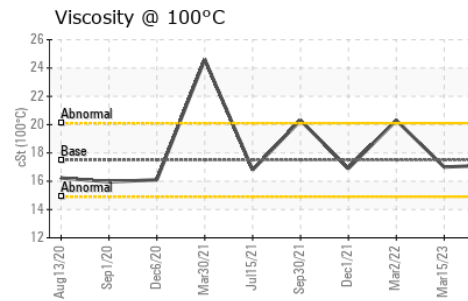
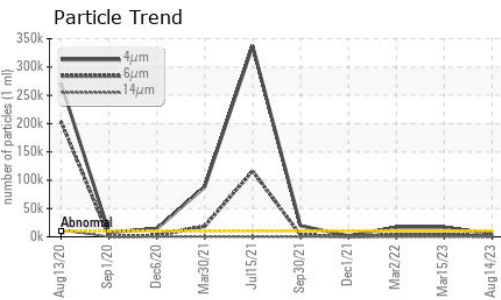
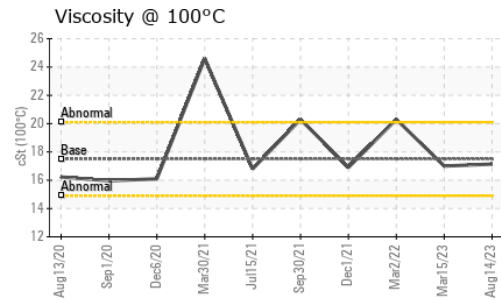
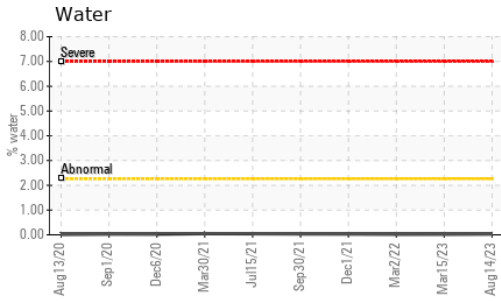
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 0 | 0 | 3 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | 1 | <1 | 0 |
| Calcium | ppm | ASTM D5185m | | 1 | 5 | 0 |
| Phosphorus | ppm | ASTM D5185m | 1500 | 511 | 674 | 816 |
| Zinc | ppm | ASTM D5185m | | 0 | 17 | 13 |
| Sulfur | ppm | ASTM D5185m | | 9 | 60 | 6 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >15 | 2 | 2 | 2 |
| Sodium | ppm | ASTM D5185m | | 11 | 6 | 6 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | <1 | 0 |
| Water | % | ASTM D6304 | >2.26 | 0.029 | 0.020 | ▲ 0.017 |
| ppm Water | ppm | ASTM D6304 | >22600 | 290.4 | 207.0 | ▲ 170.9 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|------------|------------|
| Particles >4µm | | ASTM D7647 | >10000 | 4234 | ▲ 17149 | ▲ 17045 |
| Particles >6µm | | ASTM D7647 | >2500 | 720 | ▲ 3647 | ▲ 3201 |
| Particles >14µm | | ASTM D7647 | >320 | 27 | 75 | 94 |
| Particles >21µm | | ASTM D7647 | >80 | 6 | 12 | 16 |
| Particles >38µm | | ASTM D7647 | >20 | 0 | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >4 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | 19/17/12 | ▲ 21/19/13 | ▲ 21/19/14 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-----------|------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974 | 0.04 | 0.015 | 0.015 | 0.026 |

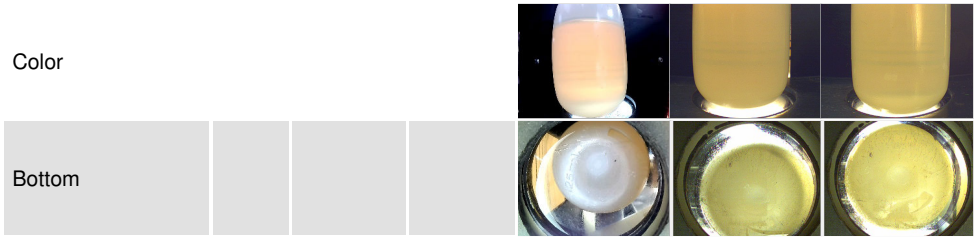
OIL ANALYSIS REPORT



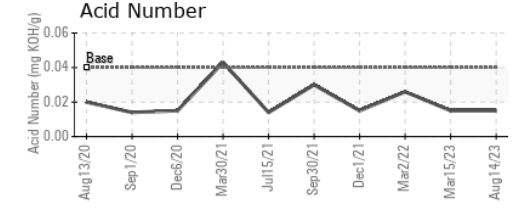
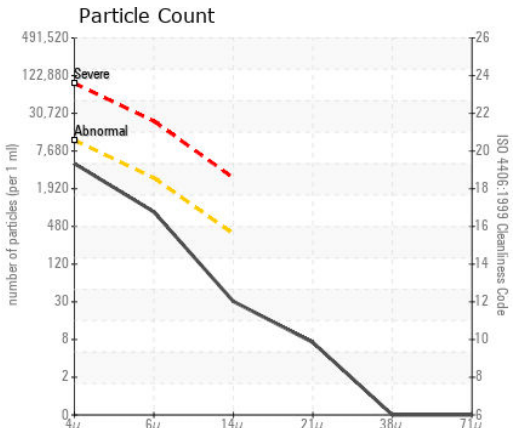
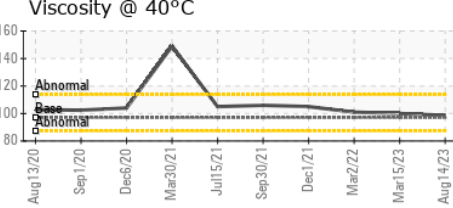
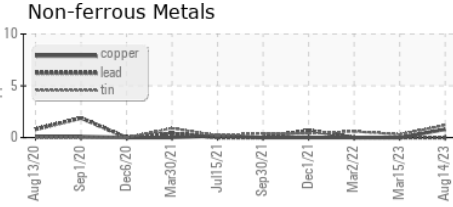
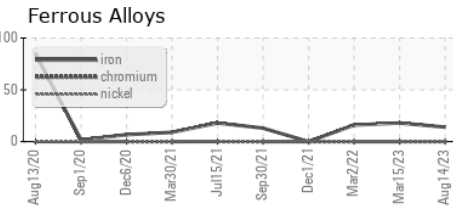
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | 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 | >2.26 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 97 | 100 | 101 |
| Visc @ 100°C | cSt | ASTM D445 | 17.5 | 17.0 | 20.3 |
| Viscosity Index (VI) | Scale | ASTM D2270 | 198 | 185 | 226 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90002195 **Received** : 22 Aug 2023
Lab Number : 05931586 **Diagnosed** : 25 Aug 2023
Unique Number : 10616857 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KV100, PrtCount, VI)

ENERGY TRANSFER - REBEL
 13788 TX-158
 GARDEN CITY, TX
 US 79739
 Contact: BOBBY POSEY
 bobby.posey@energytransfer.com
 T: (432)270-4842
 F:

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)