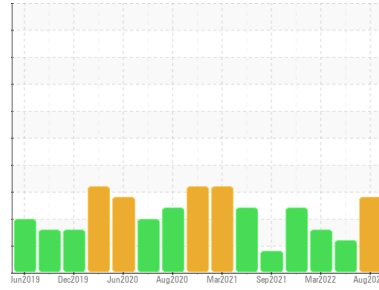


PROBLEM SUMMARY

Sample Rating Trend



WATER

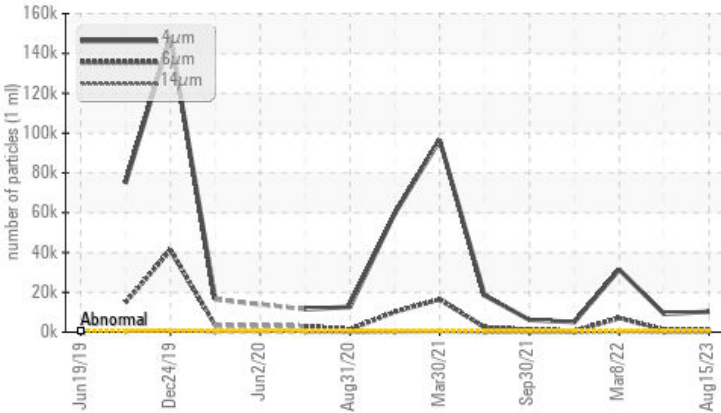


Area
HOPSON PLANT
Machine Id
C-4111

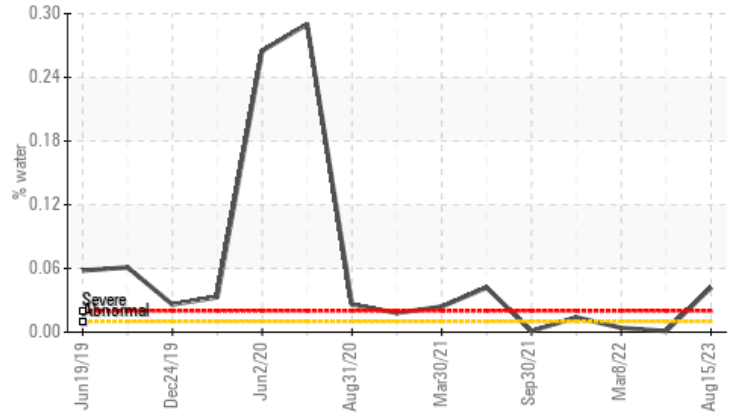
Component
Refrigeration Compressor
Fluid
FRICK COMPRESSOR OIL #12B (250 GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



▲ Water



RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |
|-----------------|-----|--------------|-----------|-------------------|------------|------------|
| Water | % | ASTM D6304 | >0.01 | ▲ 0.042 | 0.001 | 0.004 |
| ppm Water | ppm | ASTM D6304 | >100 | ▲ 421.7 | 0.00 | 43.1 |
| Particles >4µm | | ASTM D7647 | >640 | ▲ 10262 | ▲ 9169 | ▲ 31420 |
| Particles >6µm | | ASTM D7647 | >320 | ▲ 1109 | ▲ 1204 | ▲ 7095 |
| Oil Cleanliness | | ISO 4406 (c) | >16/15/13 | ▲ 21/17/12 | ▲ 20/17/11 | ▲ 22/20/15 |

Customer Id: TARHOPS
Sample No.: TO90002282
Lab Number: 05931603
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---------------|--------|------|---------|---|
| Change Filter | --- | --- | ? | We recommend you service the filters on this component if applicable. |

HISTORICAL DIAGNOSIS

16 Mar 2023 Diag: Doug Bogart

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



08 Mar 2022 Diag: Don Baldrige

ISO



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



01 Dec 2021 Diag: Doug Bogart

WATER



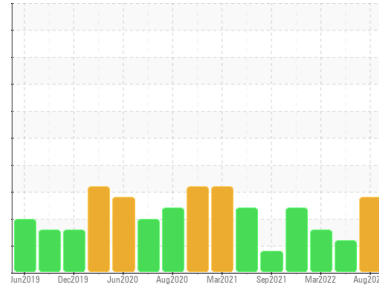
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a trace of moisture present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area
HOPSON PLANT
Machine Id
C-4111

Component
Refrigeration Compressor
Fluid
FRICK COMPRESSOR OIL #12B (250 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a trace of moisture present 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 | | TO90002282 | TO90002381 | TO90001766 |
| Sample Date | Client Info | | 15 Aug 2023 | 16 Mar 2023 | 08 Mar 2022 |
| Machine Age | mths | Client Info | 3 | 3 | 3 |
| Oil Age | mths | Client Info | 3 | 3 | 3 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | ABNORMAL | ABNORMAL | ABNORMAL |

| WEAR METALS | method | limit/base | current | history1 | history2 |
|-------------|--------|----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >8 | 2 | 3 | 4 |
| 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 | <1 | 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 | 2 | 0 |
| Calcium | ppm | ASTM D5185m | 12 | 13 | 5 |
| Phosphorus | ppm | ASTM D5185m | 15 | 20 | 33 |
| Zinc | ppm | ASTM D5185m | 0 | 4 | 0 |
| Sulfur | ppm | ASTM D5185m | 23 | 41 | 34 |

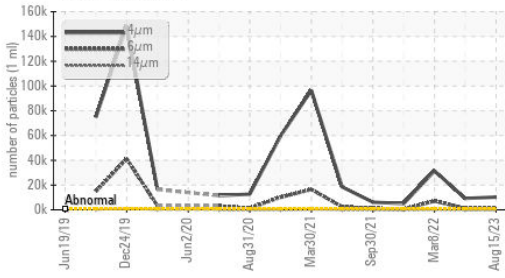
| CONTAMINANTS | method | limit/base | current | history1 | history2 |
|--------------|--------|------------------|----------------|----------|----------|
| Silicon | ppm | ASTM D5185m >15 | 5 | 5 | 5 |
| Sodium | ppm | ASTM D5185m | <1 | 0 | <1 |
| Potassium | ppm | ASTM D5185m >20 | 1 | <1 | 0 |
| Water | % | ASTM D6304 >0.01 | ▲ 0.042 | 0.001 | 0.004 |
| ppm Water | ppm | ASTM D6304 >100 | ▲ 421.7 | 0.00 | 43.1 |

| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|-------------------|------------|------------|
| Particles >4µm | ASTM D7647 | >640 | ▲ 10262 | ▲ 9169 | ▲ 31420 |
| Particles >6µm | ASTM D7647 | >320 | ▲ 1109 | ▲ 1204 | ▲ 7095 |
| Particles >14µm | ASTM D7647 | >80 | 35 | 18 | ▲ 237 |
| Particles >21µm | ASTM D7647 | >20 | 11 | 4 | ▲ 39 |
| Particles >38µm | ASTM D7647 | >4 | 1 | 1 | 0 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >16/15/13 | ▲ 21/17/12 | ▲ 20/17/11 | ▲ 22/20/15 |

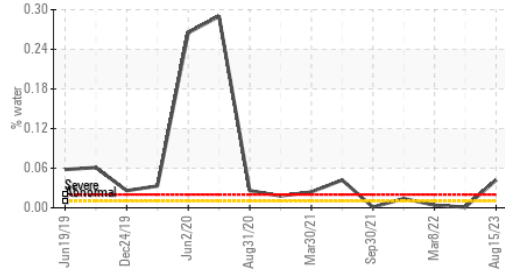
| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974 | 0.015 | 0.014 | 0.024 |

OIL ANALYSIS REPORT

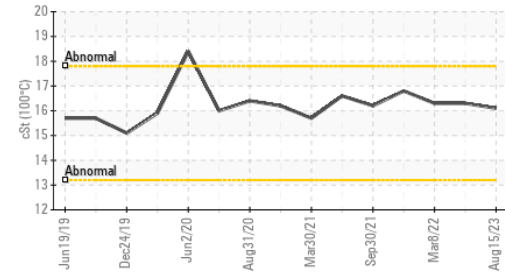
▲ Particle Trend



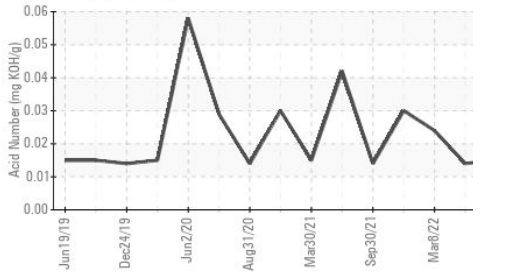
▲ Water



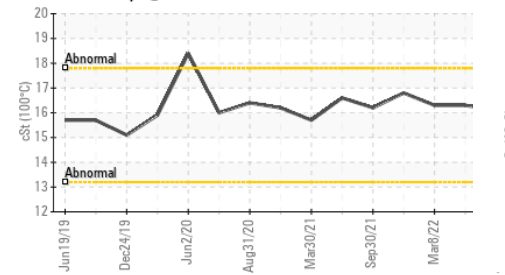
▲ Viscosity @ 100°C



▲ Acid Number



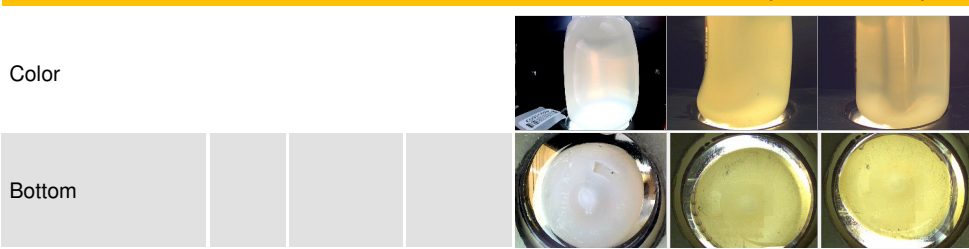
▲ Viscosity @ 100°C



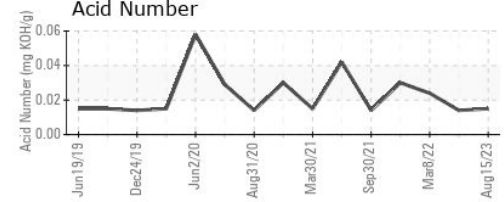
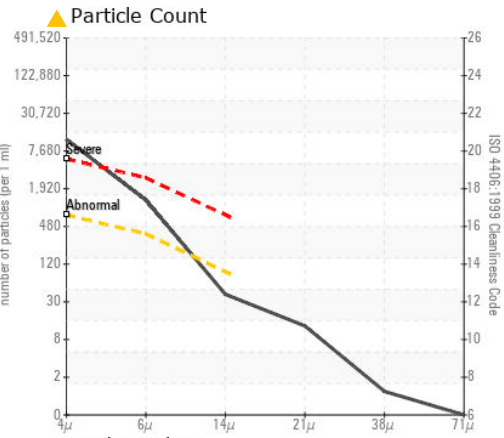
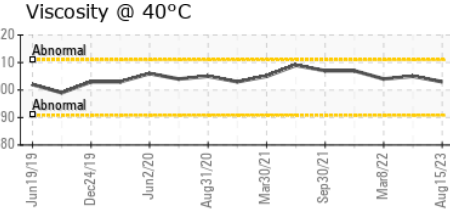
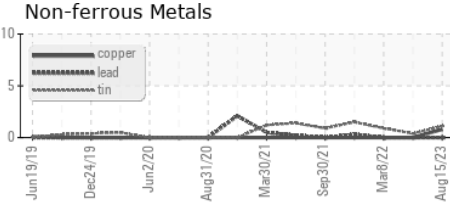
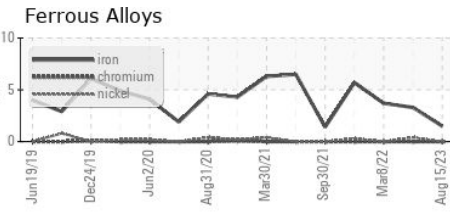
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | 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 | >0.01 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 103 | 105 | 104 |
| Visc @ 100°C | cSt | ASTM D445 | 16.1 | 16.3 | 16.3 |
| Viscosity Index (VI) | Scale | ASTM D2270 | 167 | 167 | 169 |

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90002282 **Received** : 22 Aug 2023
Lab Number : 05931603 **Diagnosed** : 24 Aug 2023
Unique Number : 10616874 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KV100, PrtCount, VI)

TARGA RESOURCES - HOPSON
 13110 EAST CR 230
 MIDLAND, TX
 US 79706
 Contact: KENNETH BATLA
 kbatla@targaresources.com

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)