



OIL ANALYSIS REPORT

| | |
|-----------------|----------|
| WEAR | NORMAL |
| CONTAMINATION | ABNORMAL |
| FLUID CONDITION | NORMAL |

Machine Id
F HYDRAULICS TANK

Component
Hydraulic System

Fluid
RED DRUM (250 GAL)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | ST42846 | ST42092 | --- |
| Sample Date | | Client Info | | 05 Jan 2024 | 04 Jan 2022 | --- |
| Machine Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Age | hrs | Client Info | | 0 | 0 | --- |
| Filter Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Changed | | Client Info | | N/A | N/A | --- |
| Filter Changed | | Client Info | | N/A | N/A | --- |
| Sample Status | | | | ABNORMAL | ATTENTION | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron | ppm | ASTM D5185m | >20 | 1 | 7 | --- |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | --- |
| Nickel | ppm | ASTM D5185m | >20 | 0 | 0 | --- |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | --- |
| Silver | ppm | ASTM D5185m | | 0 | <1 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | 1 | --- |
| Lead | ppm | ASTM D5185m | >20 | 0 | 0 | --- |
| Copper | ppm | ASTM D5185m | >20 | 8 | 20 | --- |
| Tin | ppm | ASTM D5185m | >20 | <1 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

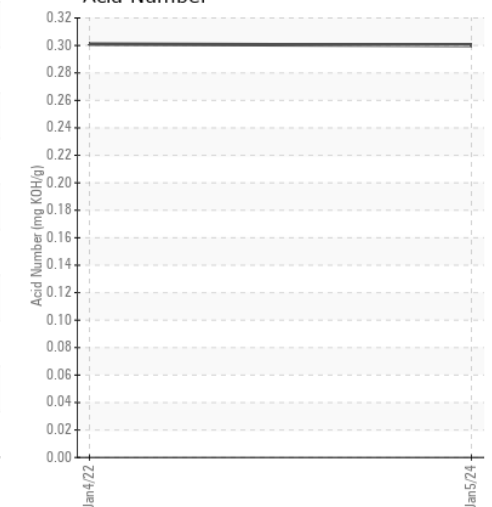
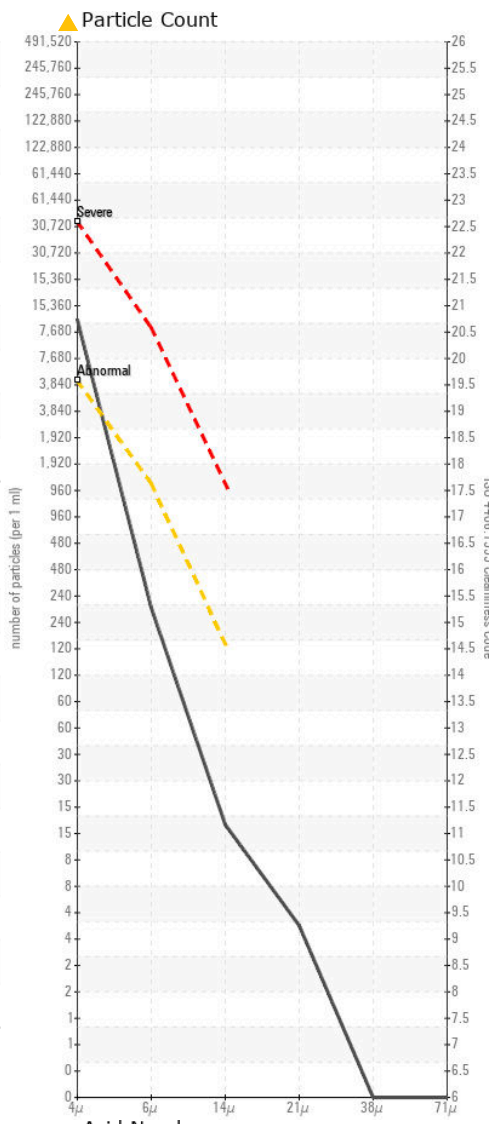
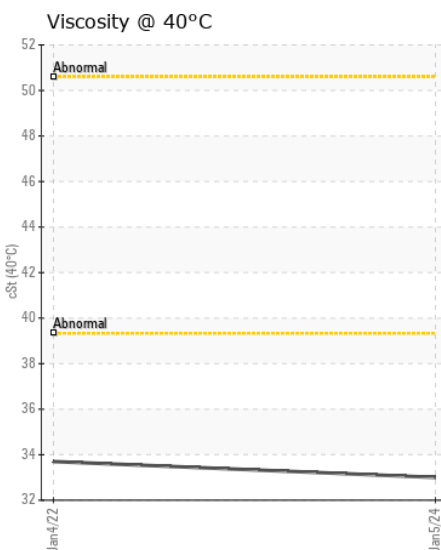
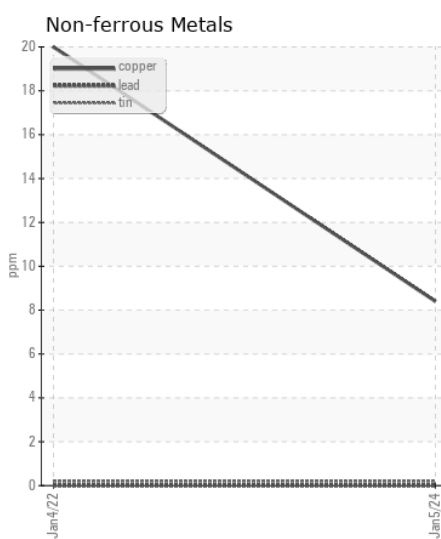
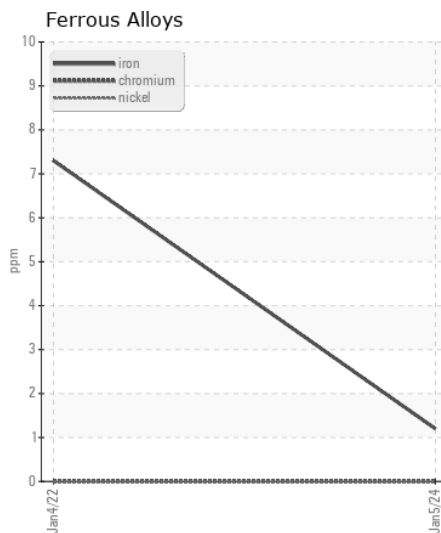
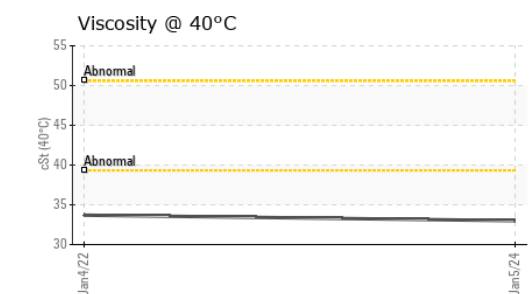
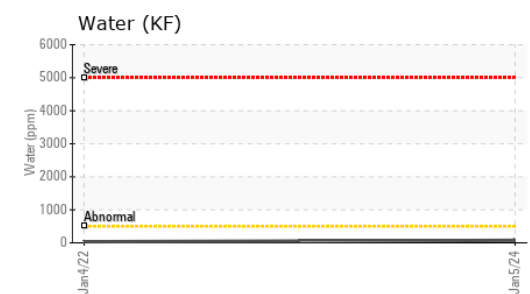
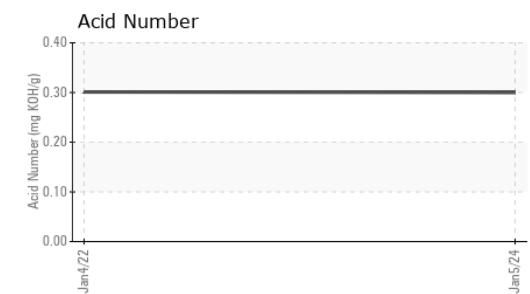
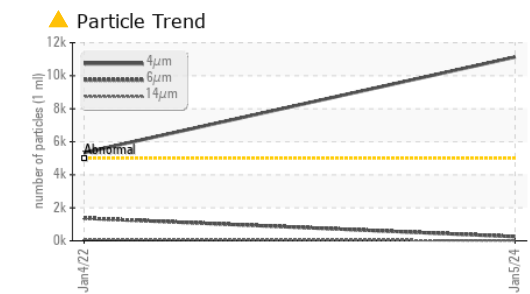
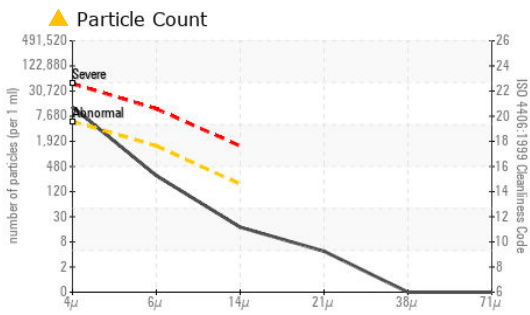
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

| | | | | | | |
|------------------|--------|--------------|-----------|-------------------|------------|-----|
| Silicon | ppm | ASTM D5185m | >15 | <1 | <1 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 0 | --- |
| Water | % | ASTM D6304 | >0.05 | 0.007 | 0.003 | --- |
| ppm Water | ppm | ASTM D6304 | >500 | 75 | 32.5 | --- |
| Particles >4µm | | ASTM D7647 | >5000 | ▲ 11133 | ▲ 5342 | --- |
| Particles >6µm | | ASTM D7647 | >1300 | 256 | ▲ 1373 | --- |
| Particles >14µm | | ASTM D7647 | >160 | 15 | 102 | --- |
| Particles >21µm | | ASTM D7647 | >40 | 4 | 19 | --- |
| Particles >38µm | | ASTM D7647 | >10 | 0 | 1 | --- |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ 21/15/11 | ▲ 20/18/14 | --- |
| 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 | >0.05 | NEG | NEG | --- |

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

| | | | | | | |
|------------------|----------|-------------|--|-------------|-------|-----|
| Sodium | ppm | ASTM D5185m | | 0 | <1 | --- |
| Boron | ppm | ASTM D5185m | | 4 | <1 | --- |
| Barium | ppm | ASTM D5185m | | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | | 2 | 0 | --- |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | --- |
| Magnesium | ppm | ASTM D5185m | | 18 | 5 | --- |
| Calcium | ppm | ASTM D5185m | | 74 | 5 | --- |
| Phosphorus | ppm | ASTM D5185m | | 343 | 291 | --- |
| Zinc | ppm | ASTM D5185m | | 352 | 216 | --- |
| Sulfur | ppm | ASTM D5185m | | 979 | 869 | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.30 | 0.301 | --- |
| Visc @ 40°C | cSt | ASTM D445 | | 33.0 | 33.7 | --- |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ST42846 **Received** : 10 Jan 2024
Lab Number : 06057344 **Diagnosed** : 11 Jan 2024
Unique Number : 10823293 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF)

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 US 45828
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Certificate L2367
 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)