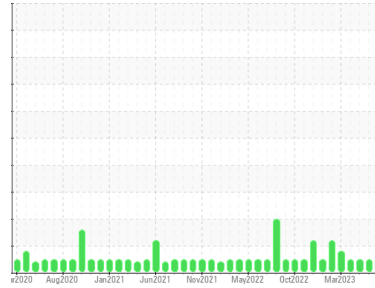




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
FLAKER
 Machine Id
LINE 2 FLAKER INFEED HPU Reservoir (S/N FL205H20T)
 Component
Hydraulic System
 Fluid
AW HYDRAULIC OIL ISO 68 (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

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 | | WC0783024 | WC0782954 | WC0782900 |
| Sample Date | Client Info | | 17 Jul 2023 | 26 Jun 2023 | 22 May 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 >20 | 2 | 2 | 2 |
| Chromium | ppm | ASTM D5185m >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >20 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >20 | 0 | <1 | 0 |
| Lead | ppm | ASTM D5185m >20 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m >20 | 1 | 2 | 2 |
| Tin | ppm | ASTM D5185m >20 | 0 | 0 | 0 |
| 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 5 | <1 | 0 | 0 |
| Barium | ppm | ASTM D5185m 5 | 2 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m 5 | 1 | 1 | <1 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m 25 | 6 | 6 | 7 |
| Calcium | ppm | ASTM D5185m 200 | 73 | 69 | 62 |
| Phosphorus | ppm | ASTM D5185m 300 | 354 | 354 | 350 |
| Zinc | ppm | ASTM D5185m 370 | 459 | 447 | 422 |
| Sulfur | ppm | ASTM D5185m 2500 | 1016 | 1090 | 782 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >15 | 0 | 0 | <1 |
| Sodium | ppm | ASTM D5185m | 0 | <1 | 2 |
| Potassium | ppm | ASTM D5185m >20 | <1 | <1 | <1 |

FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | >640 | 266 | 284 | 182 |
| Particles >6µm | ASTM D7647 | >160 | 71 | 110 | 61 |
| Particles >14µm | ASTM D7647 | >20 | 7 | 16 | 11 |
| Particles >21µm | ASTM D7647 | >4 | 1 | 6 | 2 |
| Particles >38µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >16/14/11 | 15/13/10 | 15/14/11 | 15/13/11 |

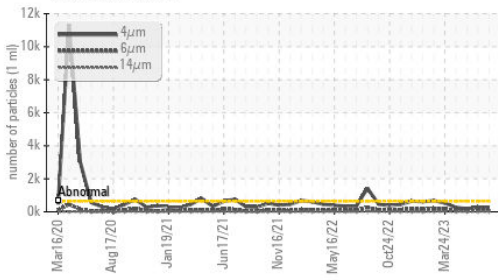
FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.57 | 0.27 | 0.28 | 0.24 |

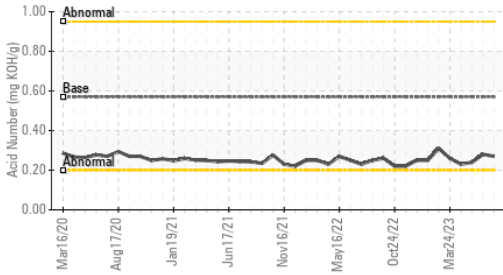


OIL ANALYSIS REPORT

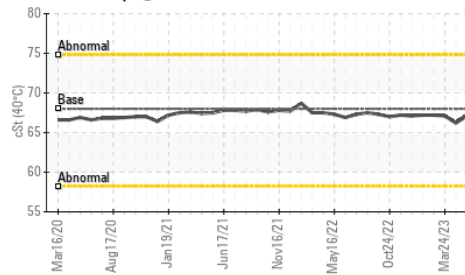
Particle Trend



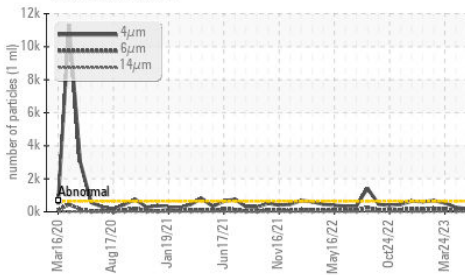
Acid Number



Viscosity @ 40°C



Particle Trend

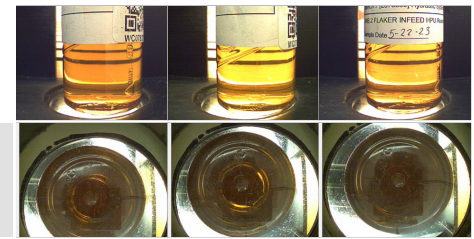


| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | 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 | >0.05 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 68 | 67.3 | 67.0 | 67.1 |

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

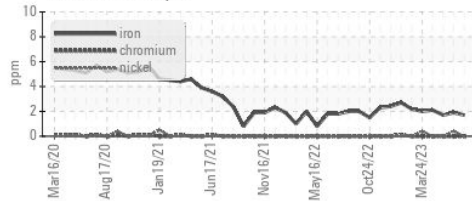
Color



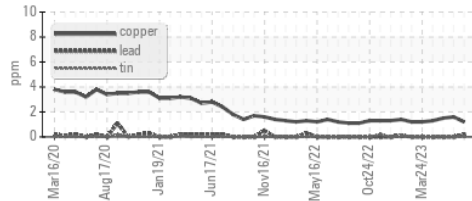
Bottom

GRAPHS

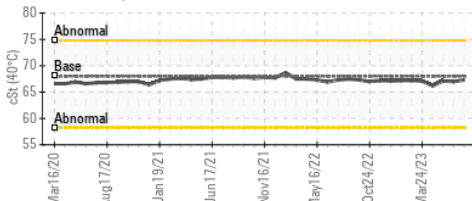
Ferrous Alloys



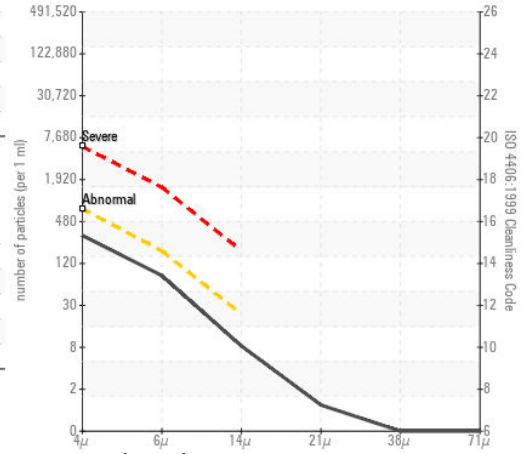
Non-ferrous Metals



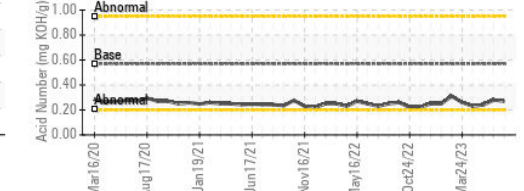
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0783024
 Lab Number : 05904891
 Unique Number : 10566247
 Test Package : IND 2
 Received : 21 Jul 2023
 Diagnosed : 24 Jul 2023
 Diagnostician : Wes Davis

J.M. Huber Corporation
 PO BOX 38
 CRYSTAL HILL, VA
 US 24539
 Contact: Ted Hudson
 ted.hudson@huber.com
 T: (434)476-6628
 F: (434)476-8133

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)