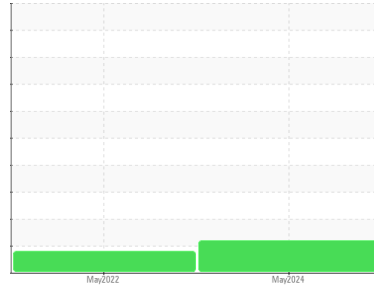




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
25823 - ABC SUPPLY
 Component
Hydraulic System
 Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. 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.

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 | | | WC0891954 | WC0640463 | --- |
| Sample Date | Client Info | | | 01 May 2024 | 24 May 2022 | --- |
| Machine Age | yrs | Client Info | | 0 | 1 | --- |
| Oil Age | yrs | Client Info | | 0 | 1 | --- |
| Oil Changed | Client Info | | | Not Changed | Not Changed | --- |
| Sample Status | | | | ABNORMAL | ATTENTION | --- |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | | >0.1 | NEG | NEG | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >20 | <1 | <1 | --- |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | --- |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | --- |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | --- |
| Silver | ppm | ASTM D5185m | | 0 | <1 | --- |
| Aluminum | ppm | ASTM D5185m | >10 | <1 | <1 | --- |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | --- |
| Copper | ppm | ASTM D5185m | >75 | 3 | 1 | --- |
| Tin | ppm | ASTM D5185m | >10 | <1 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | --- |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 5 | 0 | <1 | --- |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 5 | 0 | <1 | --- |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | --- |
| Magnesium | ppm | ASTM D5185m | 25 | 0 | <1 | --- |
| Calcium | ppm | ASTM D5185m | 200 | 48 | 49 | --- |
| Phosphorus | ppm | ASTM D5185m | 300 | 353 | 352 | --- |
| Zinc | ppm | ASTM D5185m | 370 | 457 | 461 | --- |
| Sulfur | ppm | ASTM D5185m | 2500 | 4374 | 4208 | --- |

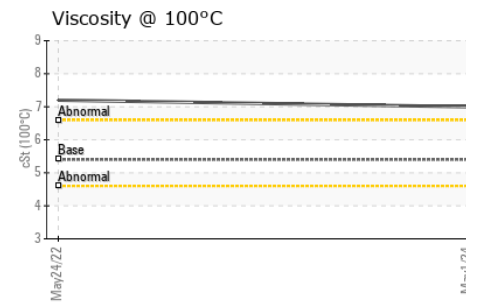
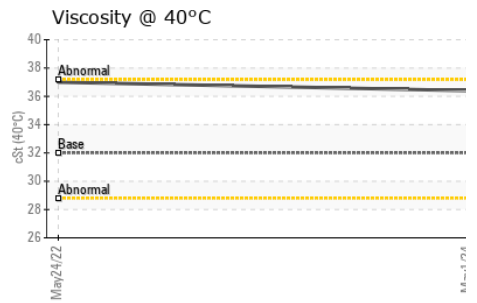
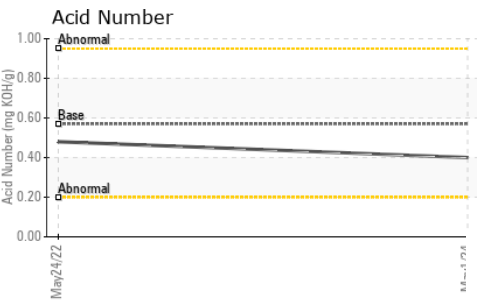
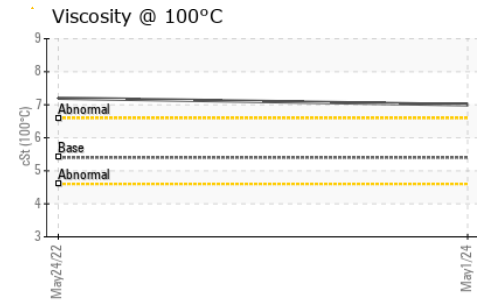
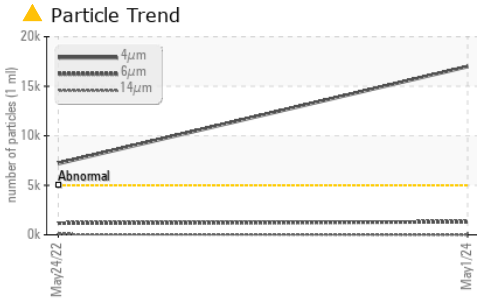
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >20 | <1 | <1 | --- |
| Sodium | ppm | ASTM D5185m | | 2 | 0 | --- |
| Potassium | ppm | ASTM D5185m | >20 |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

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|------------------|------------|----------|
| Particles >4µm | | ASTM D7647 | >5000 | ▲ 16989 | ● 7189 | --- |
| Particles >6µm | | ASTM D7647 | >1300 | ● 1311 | 1174 | --- |
| Particles >14µm | | ASTM D7647 | >160 | 4 | 61 | --- |
| Particles >21µm | | ASTM D7647 | >40 | 1 | 12 | --- |
| Particles >38µm | | ASTM D7647 | >10 | 0 | 1 | --- |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ 21/18/9 | ● 20/17/13 | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.57 | 0.40 | 0.48 | --- |



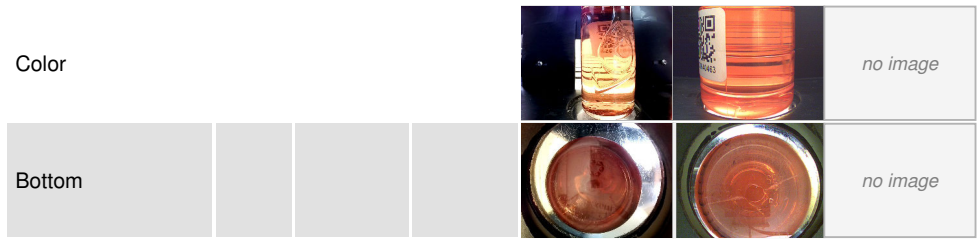
OIL ANALYSIS REPORT



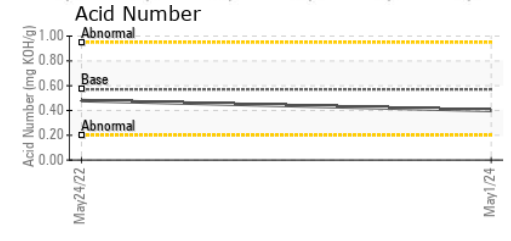
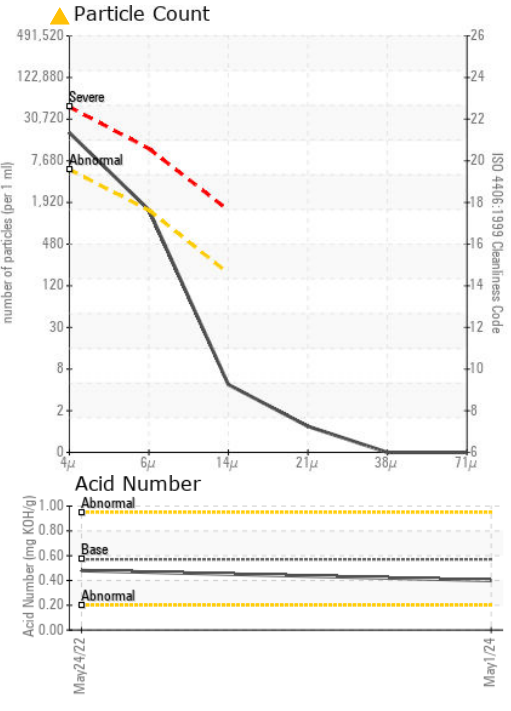
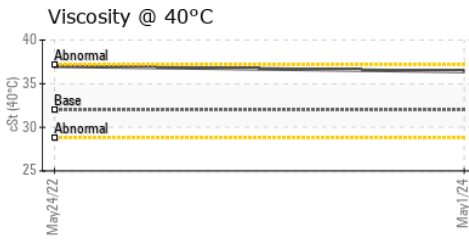
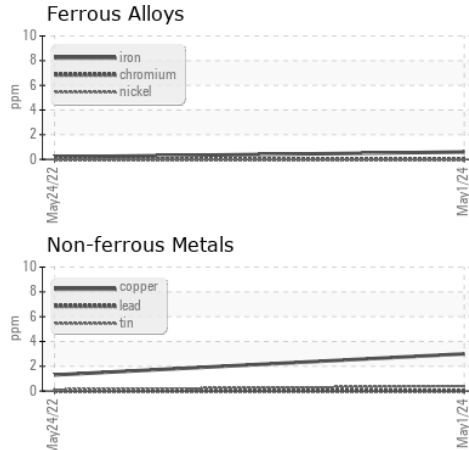
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | --- |
| Free Water | scalar | *Visual | | NEG | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 32 | 36.4 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 5.4 | 7.0 | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | 102 | 156 | --- |

SAMPLE IMAGES



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0891954 **Received** : 20 May 2024
Lab Number : 06184963 **Tested** : 22 May 2024
Unique Number : 11036289 **Diagnosed** : 22 May 2024 - Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

HIAB USA - MINNEAPOLIS
 10974 CLARK RD
 INVER GROVE HEIGHTS, MN
 US 55077
 Contact: MAT ENGLER
 MAT.ENGLER@HIAB.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)

T:
F: