



# OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | SEVERE |
| FLUID CONDITION | NORMAL |

Machine Id  
**3221921**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 32 (--- QTS)**

## RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

Please specify the component make and model with your next sample.

## WEAR

All component wear rates are normal.

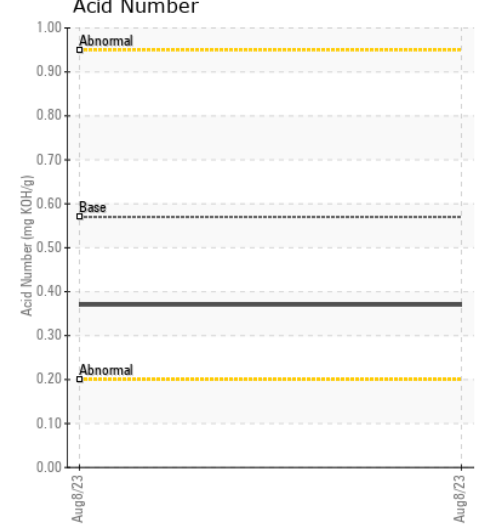
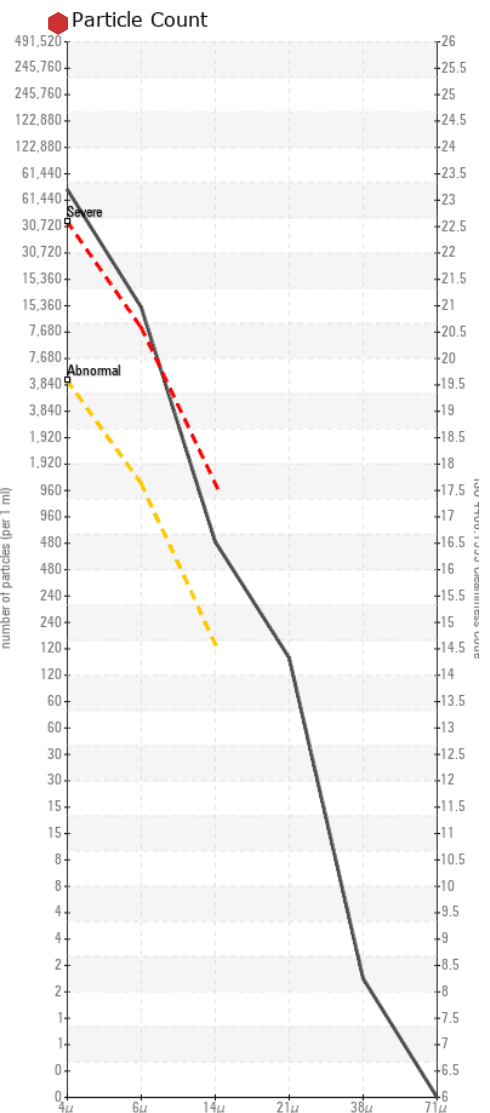
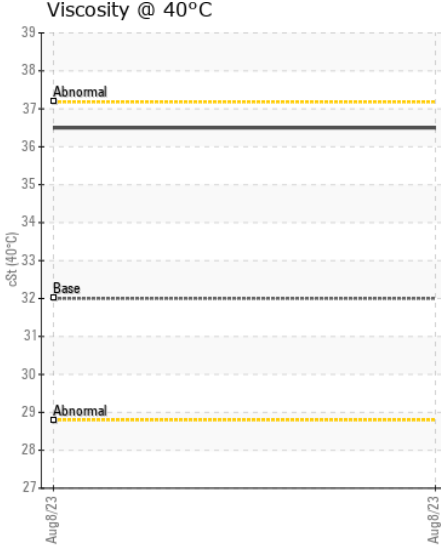
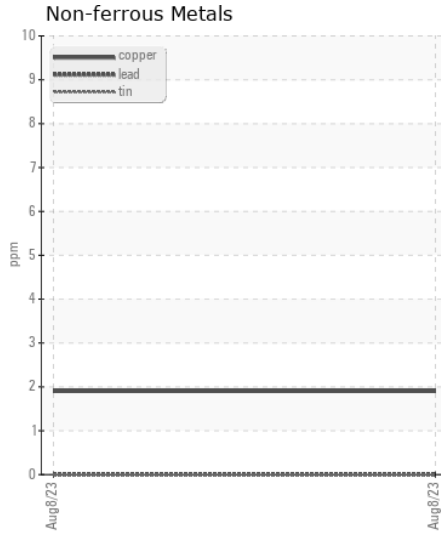
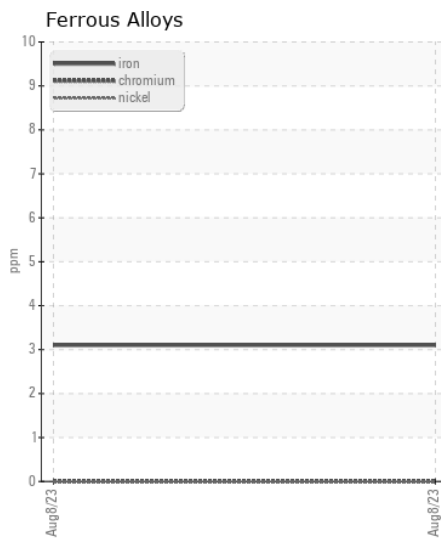
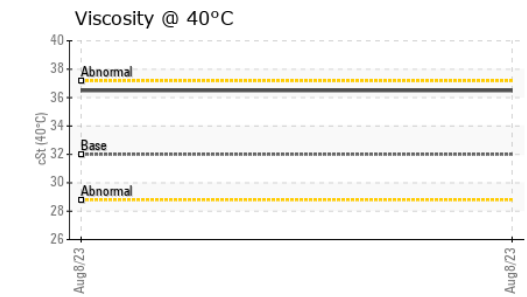
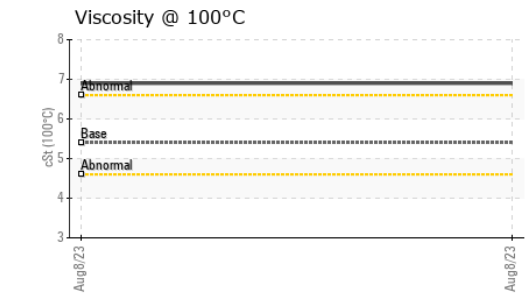
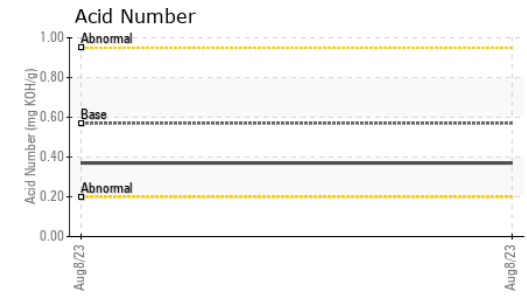
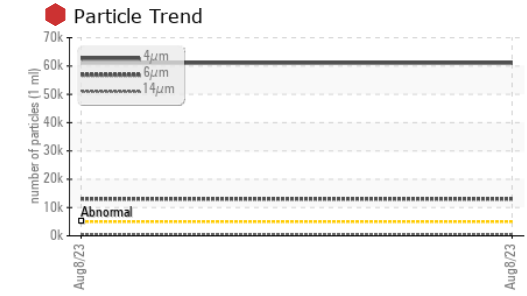
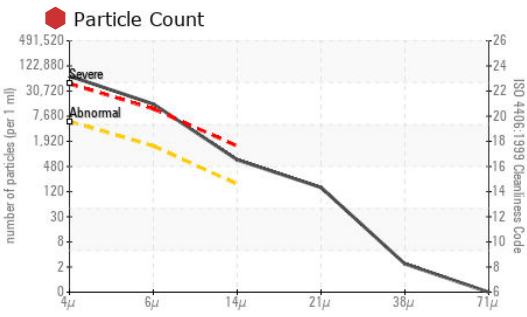
## CONTAMINATION

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

## 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.

| Test                 | UOM      | Method       | Limit/Abn | Current     | History1 | History2 |
|----------------------|----------|--------------|-----------|-------------|----------|----------|
| Sample Number        |          | Client Info  |           | WC0803525   | ---      | ---      |
| Sample Date          |          | Client Info  |           | 08 Aug 2023 | ---      | ---      |
| Machine Age          | yrs      | Client Info  |           | 0           | ---      | ---      |
| Oil Age              | yrs      | Client Info  |           | 0           | ---      | ---      |
| Filter Age           | yrs      | Client Info  |           | 0           | ---      | ---      |
| Oil Changed          |          | Client Info  |           | N/A         | ---      | ---      |
| Filter Changed       |          | Client Info  |           | Changed     | ---      | ---      |
| Sample Status        |          |              |           | SEVERE      | ---      | ---      |
| Iron                 | ppm      | ASTM D5185m  | >20       | 3           | ---      | ---      |
| Chromium             | ppm      | ASTM D5185m  | >10       | 0           | ---      | ---      |
| Nickel               | ppm      | ASTM D5185m  | >10       | 0           | ---      | ---      |
| Titanium             | ppm      | ASTM D5185m  |           | 0           | ---      | ---      |
| Silver               | ppm      | ASTM D5185m  |           | 0           | ---      | ---      |
| Aluminum             | ppm      | ASTM D5185m  | >10       | 1           | ---      | ---      |
| Lead                 | ppm      | ASTM D5185m  | >10       | 0           | ---      | ---      |
| Copper               | ppm      | ASTM D5185m  | >75       | 2           | ---      | ---      |
| Tin                  | ppm      | ASTM D5185m  | >10       | 0           | ---      | ---      |
| Vanadium             | ppm      | ASTM D5185m  |           | 0           | ---      | ---      |
| White Metal          | scalar   | *Visual      | NONE      | NONE        | ---      | ---      |
| Yellow Metal         | scalar   | *Visual      | NONE      | NONE        | ---      | ---      |
| Silicon              | ppm      | ASTM D5185m  | >20       | <1          | ---      | ---      |
| Potassium            | ppm      | ASTM D5185m  | >20       | <1          | ---      | ---      |
| Water                |          | WC Method    | >0.1      | NEG         | ---      | ---      |
| Particles >4µm       |          | ASTM D7647   | >5000     | 61074       | ---      | ---      |
| Particles >6µm       |          | ASTM D7647   | >1300     | 13048       | ---      | ---      |
| Particles >14µm      |          | ASTM D7647   | >160      | 608         | ---      | ---      |
| Particles >21µm      |          | ASTM D7647   | >40       | 133         | ---      | ---      |
| Particles >38µm      |          | ASTM D7647   | >10       | 2           | ---      | ---      |
| Particles >71µm      |          | ASTM D7647   | >3        | 0           | ---      | ---      |
| Oil Cleanliness      |          | ISO 4406 (c) | >19/17/14 | 23/21/16    | ---      | ---      |
| 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         | ---      | ---      |
| Sodium               | ppm      | ASTM D5185m  |           | 0           | ---      | ---      |
| Boron                | ppm      | ASTM D5185m  | 5         | 0           | ---      | ---      |
| Barium               | ppm      | ASTM D5185m  | 5         | 0           | ---      | ---      |
| Molybdenum           | ppm      | ASTM D5185m  | 5         | 0           | ---      | ---      |
| Manganese            | ppm      | ASTM D5185m  |           | 0           | ---      | ---      |
| Magnesium            | ppm      | ASTM D5185m  | 25        | <1          | ---      | ---      |
| Calcium              | ppm      | ASTM D5185m  | 200       | 51          | ---      | ---      |
| Phosphorus           | ppm      | ASTM D5185m  | 300       | 392         | ---      | ---      |
| Zinc                 | ppm      | ASTM D5185m  | 370       | 462         | ---      | ---      |
| Sulfur               | ppm      | ASTM D5185m  | 2500      | 4463        | ---      | ---      |
| Acid Number (AN)     | mg KOH/g | ASTM D8045   | 0.57      | 0.37        | ---      | ---      |
| Visc @ 40°C          | cSt      | ASTM D445    | 32        | 36.5        | ---      | ---      |
| Visc @ 100°C         | cSt      | ASTM D445    | 5.4       | 6.9         | ---      | ---      |
| Viscosity Index (VI) | Scale    | ASTM D2270   | 102       | 151         | ---      | ---      |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0803525 **Received** : 17 Jan 2024  
**Lab Number** : 06062650 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10834032 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI )

**HIAB USA - MIDATLANTIC**  
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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)