



# OIL ANALYSIS REPORT

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

Machine Id  
**U190115B**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 68 (--- GAL)**

## RECOMMENDATION

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

| Test           | UOM | Method      | Limit/Abn | Current     | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number  |     | Client Info |           | WC0789218   | ---      | ---      |
| Sample Date    |     | Client Info |           | 27 Mar 2023 | ---      | ---      |
| Machine Age    | hrs | Client Info |           | 273         | ---      | ---      |
| Oil Age        | hrs | Client Info |           | 273         | ---      | ---      |
| Filter Age     | hrs | Client Info |           | 273         | ---      | ---      |
| Oil Changed    |     | Client Info |           | Not Chngd   | ---      | ---      |
| Filter Changed |     | Client Info |           | Not Chngd   | ---      | ---      |
| Sample Status  |     |             |           | ABNORMAL    | ---      | ---      |

## WEAR

All component wear rates are normal.

|              |        |             |      |      |     |     |
|--------------|--------|-------------|------|------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >20  | 10   | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >10  | 0    | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >10  | <1   | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | <1   | --- | --- |
| Silver       | ppm    | ASTM D5185m |      | 0    | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >10  | 1    | --- | --- |
| Lead         | ppm    | ASTM D5185m | >10  | <1   | --- | --- |
| 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 | --- | --- |

## CONTAMINATION

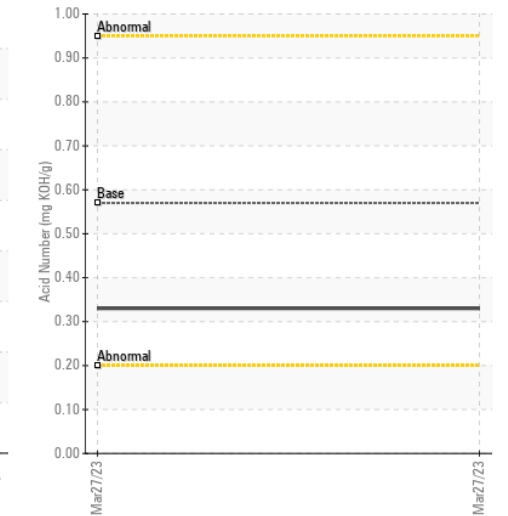
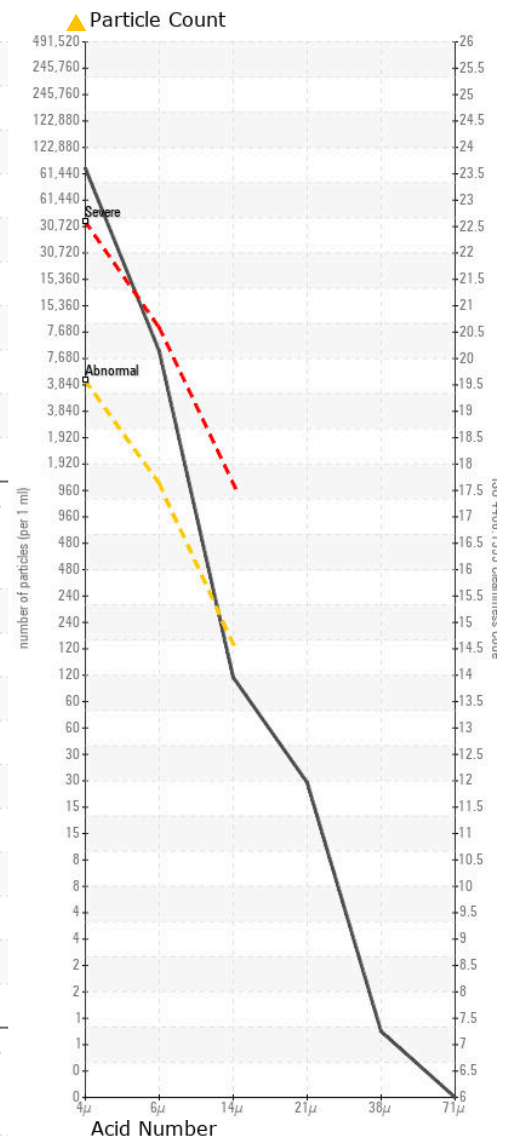
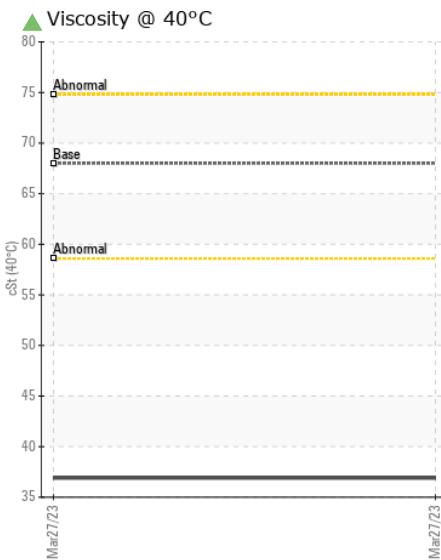
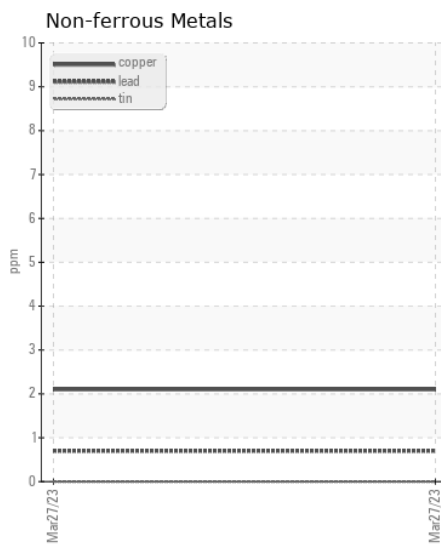
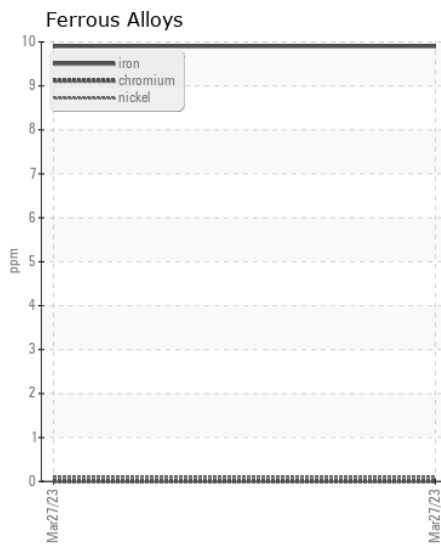
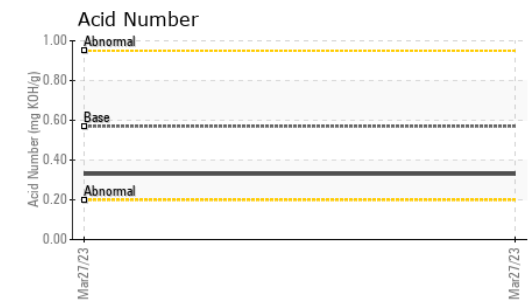
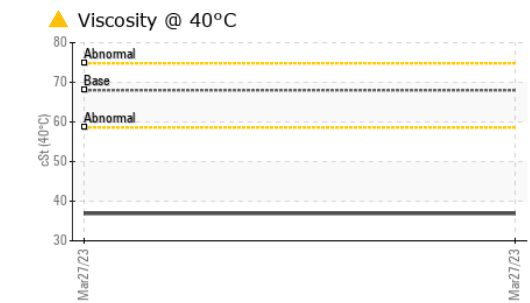
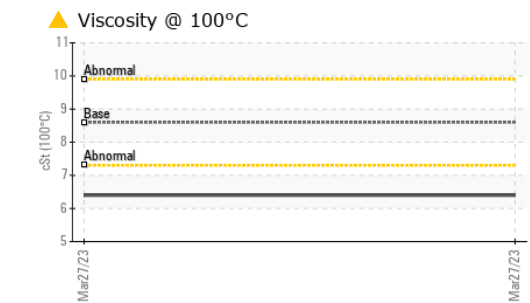
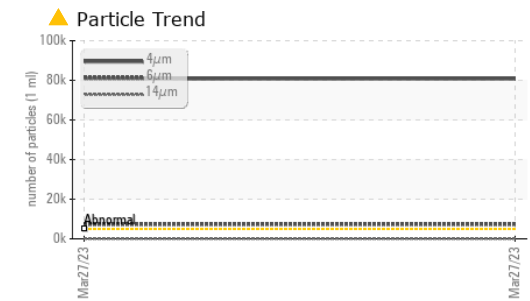
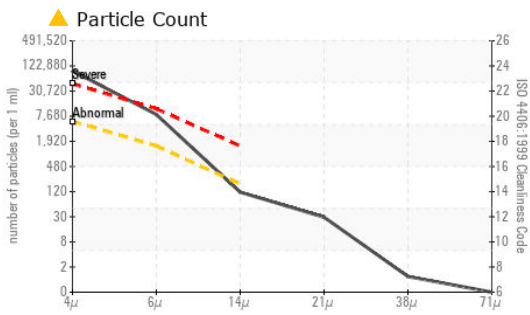
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

|                  |        |              |           |            |     |     |
|------------------|--------|--------------|-----------|------------|-----|-----|
| Silicon          | ppm    | ASTM D5185m  | >20       | 2          | --- | --- |
| Potassium        | ppm    | ASTM D5185m  | >20       | 1          | --- | --- |
| Water            |        | WC Method    | >0.1      | NEG        | --- | --- |
| Particles >4µm   |        | ASTM D7647   | >5000     | ▲ 80801    | --- | --- |
| Particles >6µm   |        | ASTM D7647   | >1300     | ▲ 7353     | --- | --- |
| Particles >14µm  |        | ASTM D7647   | >160      | 103        | --- | --- |
| Particles >21µm  |        | ASTM D7647   | >40       | 26         | --- | --- |
| Particles >38µm  |        | ASTM D7647   | >10       | 1          | --- | --- |
| Particles >71µm  |        | ASTM D7647   | >3        | 0          | --- | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | ▲ 24/20/14 | --- | --- |
| Silt             | scalar | *Visual      | NONE      | NONE       | --- | --- |
| Debris           | scalar | *Visual      | NONE      | VLITE      | --- | --- |
| Sand/Dirt        | scalar | *Visual      | NONE      | NONE       | --- | --- |
| Appearance       | scalar | *Visual      | NORML     | NORML      | --- | --- |
| Odor             | scalar | *Visual      | NORML     | NORML      | --- | --- |
| Emulsified Water | scalar | *Visual      | >0.1      | NEG        | --- | --- |

## FLUID CONDITION

The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

|                      |          |             |      |        |     |     |
|----------------------|----------|-------------|------|--------|-----|-----|
| Sodium               | ppm      | ASTM D5185m |      | 0      | --- | --- |
| Boron                | ppm      | ASTM D5185m | 5    | 0      | --- | --- |
| Barium               | ppm      | ASTM D5185m | 5    | 0      | --- | --- |
| Molybdenum           | ppm      | ASTM D5185m | 5    | <1     | --- | --- |
| Manganese            | ppm      | ASTM D5185m |      | <1     | --- | --- |
| Magnesium            | ppm      | ASTM D5185m | 25   | 1      | --- | --- |
| Calcium              | ppm      | ASTM D5185m | 200  | 40     | --- | --- |
| Phosphorus           | ppm      | ASTM D5185m | 300  | 258    | --- | --- |
| Zinc                 | ppm      | ASTM D5185m | 370  | 332    | --- | --- |
| Sulfur               | ppm      | ASTM D5185m | 2500 | 3798   | --- | --- |
| Acid Number (AN)     | mg KOH/g | ASTM D8045  | 0.57 | 0.33   | --- | --- |
| Visc @ 40°C          | cSt      | ASTM D445   | 68   | ▲ 36.9 | --- | --- |
| Visc @ 100°C         | cSt      | ASTM D445   | 8.6  | ▲ 6.4  | --- | --- |
| Viscosity Index (VI) | Scale    | ASTM D2270  | 96   | 124    | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0789218 **Received** : 29 Mar 2023  
**Lab Number** : 05805586 **Diagnosed** : 30 Mar 2023  
**Unique Number** : 10403115 **Diagnostician** : Doug Bogart  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI )

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)

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