



# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Baytech - W00300**  
 Machine Id  
**A2308089**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

## DIAGNOSIS

### Recommendation

This is a baseline read-out on the submitted sample.

### Wear

Copper ppm levels are noted.

### Contamination

Silicon ppm levels are notably high.

### Fluid Condition

{not applicable}

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info |             | <b>E30000117</b>   | ---      | ---      |
| Sample Date   | Client Info |             | <b>04 Aug 2023</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed   | Client Info |             | <b>N/A</b>         | ---      | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | ---      | ---      |

## WEAR METALS

|           | method | limit/base    | current | history1     | history2 |
|-----------|--------|---------------|---------|--------------|----------|
| Iron      | ppm    | ASTM D5185(m) | >20     | <b>13</b>    | ---      |
| Chromium  | ppm    | ASTM D5185(m) | >20     | <b>&lt;1</b> | ---      |
| Nickel    | ppm    | ASTM D5185(m) | >20     | <b>&lt;1</b> | ---      |
| Titanium  | ppm    | ASTM D5185(m) |         | <b>0</b>     | ---      |
| Silver    | ppm    | ASTM D5185(m) |         | <b>&lt;1</b> | ---      |
| Aluminum  | ppm    | ASTM D5185(m) | >20     | <b>1</b>     | ---      |
| Lead      | ppm    | ASTM D5185(m) | >20     | <b>7</b>     | ---      |
| Copper    | ppm    | ASTM D5185(m) | >20     | <b>37</b>    | ---      |
| Tin       | ppm    | ASTM D5185(m) | >20     | <b>0</b>     | ---      |
| Antimony  | ppm    | ASTM D5185(m) |         | <b>0</b>     | ---      |
| Vanadium  | ppm    | ASTM D5185(m) |         | <b>0</b>     | ---      |
| Beryllium | ppm    | ASTM D5185(m) |         | <b>0</b>     | ---      |
| Cadmium   | ppm    | ASTM D5185(m) |         | <b>0</b>     | ---      |

## ADDITIVES

|            | method | limit/base    | current | history1     | history2 |
|------------|--------|---------------|---------|--------------|----------|
| Boron      | ppm    | ASTM D5185(m) | 5       | <b>&lt;1</b> | ---      |
| Barium     | ppm    | ASTM D5185(m) | 5       | <b>1</b>     | ---      |
| Molybdenum | ppm    | ASTM D5185(m) | 5       | <b>&lt;1</b> | ---      |
| Manganese  | ppm    | ASTM D5185(m) |         | <b>2</b>     | ---      |
| Magnesium  | ppm    | ASTM D5185(m) | 25      | <b>68</b>    | ---      |
| Calcium    | ppm    | ASTM D5185(m) | 200     | <b>91</b>    | ---      |
| Phosphorus | ppm    | ASTM D5185(m) | 300     | <b>574</b>   | ---      |
| Zinc       | ppm    | ASTM D5185(m) | 370     | <b>556</b>   | ---      |
| Sulfur     | ppm    | ASTM D5185(m) | 2500    | <b>2325</b>  | ---      |
| Lithium    | ppm    | ASTM D5185(m) |         | <b>&lt;1</b> | ---      |

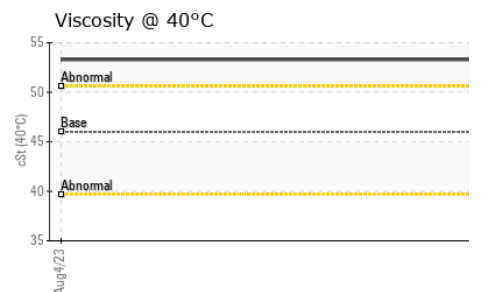
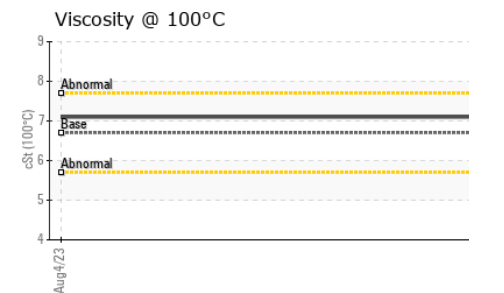
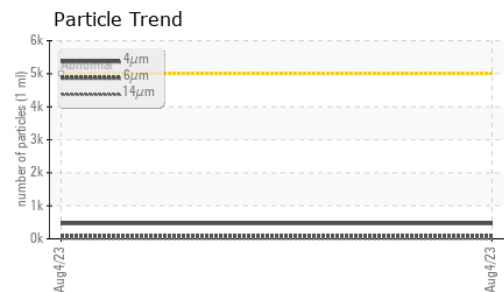
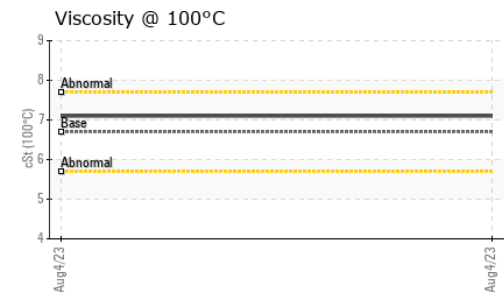
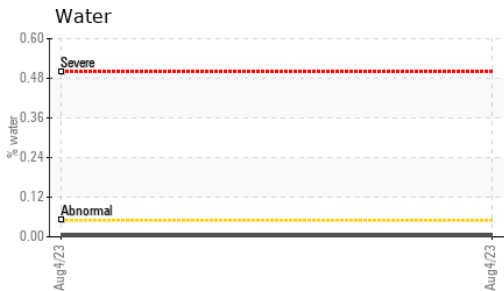
## CONTAMINANTS

|           | method | limit/base    | current | history1     | history2 |
|-----------|--------|---------------|---------|--------------|----------|
| Silicon   | ppm    | ASTM D5185(m) | >15     | <b>25</b>    | ---      |
| Sodium    | ppm    | ASTM D5185(m) |         | <b>2</b>     | ---      |
| Potassium | ppm    | ASTM D5185(m) | >20     | <b>&lt;1</b> | ---      |
| Water     | %      | ASTM D6304*   | >0.05   | <b>0.004</b> | ---      |
| ppm Water | ppm    | ASTM D6304*   | >500    | <b>42.9</b>  | ---      |

## FLUID CLEANLINESS

|                 | method       | limit/base | current         | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >5000      | <b>465</b>      | ---      | ---      |
| Particles >6µm  | ASTM D7647   | >1300      | <b>72</b>       | ---      | ---      |
| Particles >14µm | ASTM D7647   | >160       | <b>5</b>        | ---      | ---      |
| Particles >21µm | ASTM D7647   | >40        | <b>1</b>        | ---      | ---      |
| Particles >38µm | ASTM D7647   | >10        | <b>0</b>        | ---      | ---      |
| Particles >71µm | ASTM D7647   | >3         | <b>0</b>        | ---      | ---      |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14  | <b>16/13/10</b> | ---      | ---      |

# OIL ANALYSIS REPORT

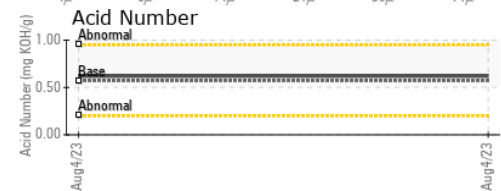
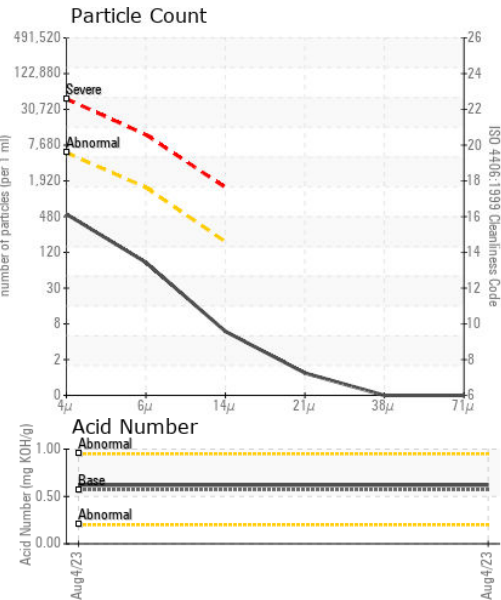
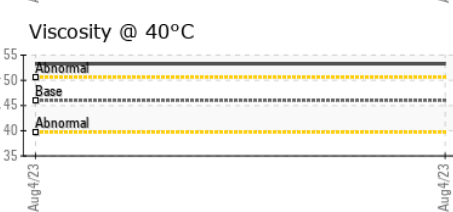
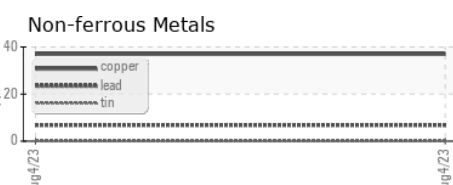
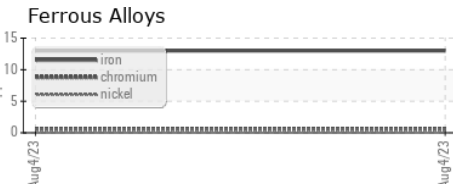


| FLUID DEGRADATION |          | method     | limit/base | current      | history1 | history2 |
|-------------------|----------|------------|------------|--------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D974* | 0.57       | <b>0.62</b>  | ---      | ---      |
| VISUAL            |          | method     | limit/base | current      | history1 | history2 |
| White Metal       | scalar   | Visual*    | NONE       | <b>NONE</b>  | ---      | ---      |
| Yellow Metal      | scalar   | Visual*    | NONE       | <b>NONE</b>  | ---      | ---      |
| Precipitate       | scalar   | Visual*    | NONE       | <b>NONE</b>  | ---      | ---      |
| Silt              | scalar   | Visual*    | NONE       | <b>NONE</b>  | ---      | ---      |
| Debris            | scalar   | Visual*    | NONE       | <b>NONE</b>  | ---      | ---      |
| Sand/Dirt         | scalar   | Visual*    | NONE       | <b>NONE</b>  | ---      | ---      |
| Appearance        | scalar   | Visual*    | NORML      | <b>NORML</b> | ---      | ---      |
| Odor              | scalar   | Visual*    | NORML      | <b>NORML</b> | ---      | ---      |
| Emulsified Water  | scalar   | Visual*    | >0.05      | <b>NEG</b>   | ---      | ---      |
| Free Water        | scalar   | Visual*    |            | <b>NEG</b>   | ---      | ---      |

| FLUID PROPERTIES     |       | method        | limit/base | current     | history1 | history2 |
|----------------------|-------|---------------|------------|-------------|----------|----------|
| Visc @ 40°C          | cSt   | ASTM D7279(m) | 46         | <b>53.3</b> | ---      | ---      |
| Visc @ 100°C         | cSt   | ASTM D7279(m) | 6.7        | <b>7.1</b>  | ---      | ---      |
| Viscosity Index (VI) | Scale | ASTM D2270*   | 97         | <b>87</b>   | ---      | ---      |

| SAMPLE IMAGES |  | method | limit/base | current  | history1 | history2 |
|---------------|--|--------|------------|----------|----------|----------|
| Color         |  |        |            | no image | no image |          |
| Bottom        |  |        |            | no image | no image |          |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : E3000117 **Received** : 22 Aug 2023  
**Lab Number** : **02577473** **Diagnosed** : 25 Aug 2023  
**Unique Number** : 5630533 **Diagnostician** : Tatiana Sorkina  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, VI )

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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.