



# OIL ANALYSIS REPORT

## Sample Rating Trend



NORMAL



Area

{UNASSIGNED}

Machine Id

HUMGPB-1 (S/N 21-110)

Component

Hydraulic Power Pack

Fluid

AW HYDRAULIC OIL ISO 46 (165 GAL)

### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. ( Customer Sample Comment: VI please. Before kidney filtration. )

#### Wear

All component wear rates are normal.

#### Contamination

The amount and size of particulates present in the system are acceptable.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION |             | method      | limit/base | current     | history1 | history2 |
|--------------------|-------------|-------------|------------|-------------|----------|----------|
| Sample Number      | Client Info |             |            | WC0782798   | ---      | ---      |
| Sample Date        | Client Info |             |            | 17 Apr 2024 | ---      | ---      |
| Machine Age        | hrs         | Client Info |            | 18846       | ---      | ---      |
| Oil Age            | hrs         | Client Info |            | 1244        | ---      | ---      |
| Oil Changed        | Client Info |             |            | Not Chngd   | ---      | ---      |
| Sample Status      |             |             |            | NORMAL      | ---      | ---      |

| CONTAMINATION |           | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|---------|----------|----------|
| Water         | WC Method |        | >0.05      | NEG     | ---      | ---      |

| WEAR METALS |     | method      | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|---------|----------|----------|
| Iron        | ppm | ASTM D5185m | >20        | 0       | ---      | ---      |
| Chromium    | ppm | ASTM D5185m | >20        | 0       | ---      | ---      |
| Nickel      | ppm | ASTM D5185m | >20        | 0       | ---      | ---      |
| Titanium    | ppm | ASTM D5185m |            | 0       | ---      | ---      |
| Silver      | ppm | ASTM D5185m |            | 0       | ---      | ---      |
| Aluminum    | ppm | ASTM D5185m | >20        | 0       | ---      | ---      |
| Lead        | ppm | ASTM D5185m | >20        | 0       | ---      | ---      |
| Copper      | ppm | ASTM D5185m | >20        | 14      | ---      | ---      |
| Tin         | ppm | ASTM D5185m | >20        | 0       | ---      | ---      |
| Vanadium    | ppm | ASTM D5185m |            | 0       | ---      | ---      |
| Cadmium     | ppm | ASTM D5185m |            | 0       | ---      | ---      |

| ADDITIVES  |     | method      | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|---------|----------|----------|
| 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         | 0       | ---      | ---      |
| Calcium    | ppm | ASTM D5185m | 200        | 59      | ---      | ---      |
| Phosphorus | ppm | ASTM D5185m | 300        | 334     | ---      | ---      |
| Zinc       | ppm | ASTM D5185m | 370        | 522     | ---      | ---      |
| Sulfur     | ppm | ASTM D5185m | 2500       | 932     | ---      | ---      |

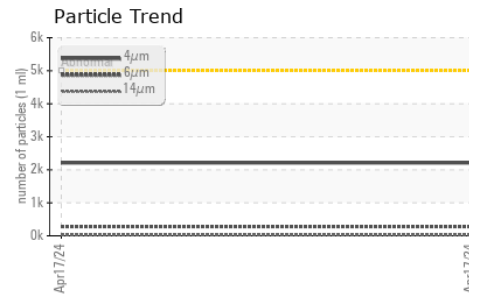
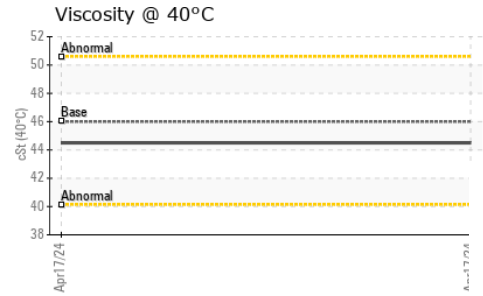
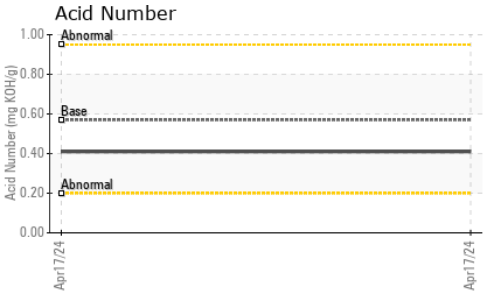
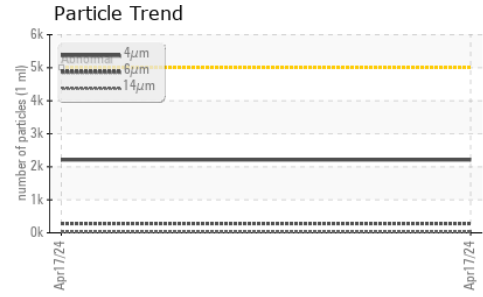
| CONTAMINANTS |     | method      | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|---------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >15        | <1      | ---      | ---      |
| Sodium       | ppm | ASTM D5185m |            | <1  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

| FLUID CLEANLINESS |  | method       | limit/base | current  | history1 | history2 |
|-------------------|--|--------------|------------|----------|----------|----------|
| Particles >4µm    |  | ASTM D7647   | >5000      | 2210     | ---      | ---      |
| Particles >6µm    |  | ASTM D7647   | >1300      | 281      | ---      | ---      |
| Particles >14µm   |  | ASTM D7647   | >160       | 19       | ---      | ---      |
| Particles >21µm   |  | ASTM D7647   | >40        | 6        | ---      | ---      |
| Particles >38µm   |  | ASTM D7647   | >10        | 1        | ---      | ---      |
| Particles >71µm   |  | ASTM D7647   | >3         | 0        | ---      | ---      |
| Oil Cleanliness   |  | ISO 4406 (c) | >19/17/14  | 18/15/11 | ---      | ---      |

| FLUID DEGRADATION |          | method     | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|---------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.57       | 0.41    | ---      | ---      |



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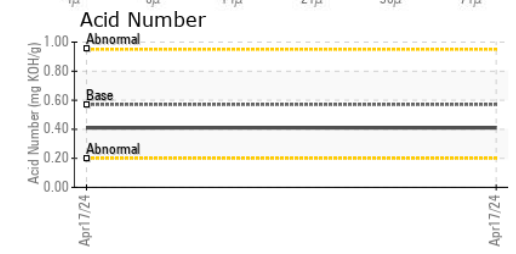
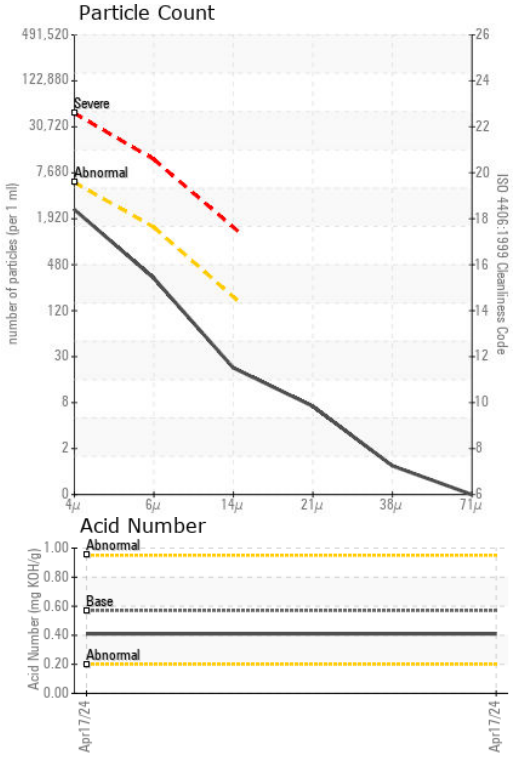
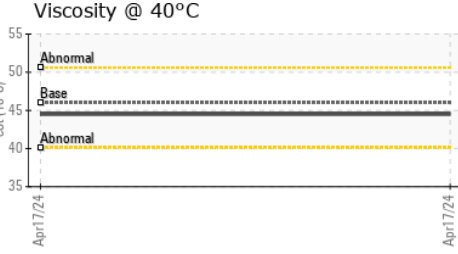
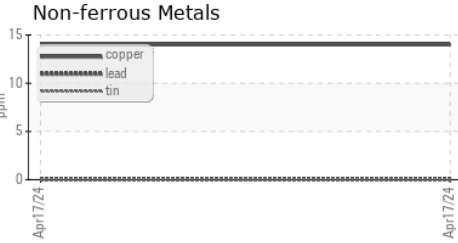
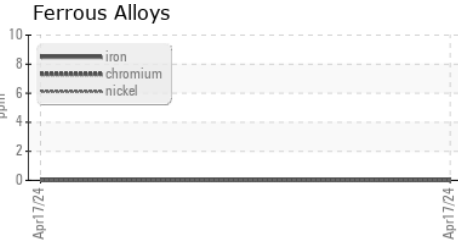
| VISUAL           | method | limit/base | current | history1 | history2 |     |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE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

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |     |
|------------------|--------|------------|---------|----------|----------|-----|
| Visc @ 40°C      | cSt    | ASTM D445  | 46      | 44.5     | ---      | --- |

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

|        |  |  |  |          |          |
|--------|--|--|--|----------|----------|
| Color  |  |  |  | no image | no image |
| Bottom |  |  |  | no image | no image |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0782798      **Received** : 25 Apr 2024  
**Lab Number** : 06160315      **Tested** : 26 Apr 2024  
**Unique Number** : 10995738      **Diagnosed** : 26 Apr 2024 - Angela Borella  
**Test Package** : IND 2

**WEST SIDE SOLUTIONS**  
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 CONWAY, SC  
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 T: (216)577-5014  
 F:

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)