



# PROBLEM SUMMARY

Sample Rating Trend



**WEAR**



Machine Id

**SHOP**

Component

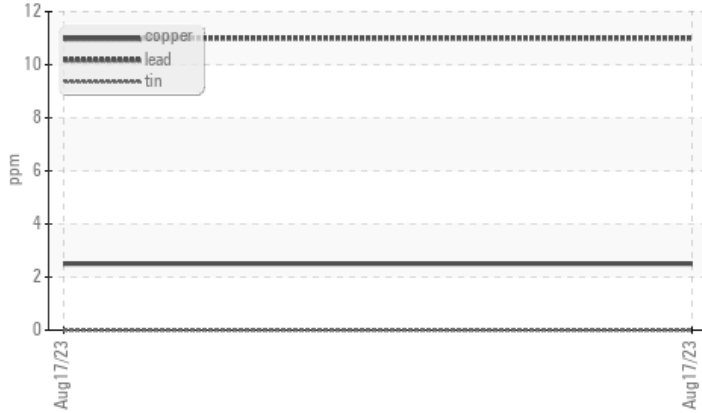
**Hydraulic System**

Fluid

**AW HYDRAULIC OIL ISO 22 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Non-ferrous Metals



## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid.

## PROBLEMATIC TEST RESULTS

| Sample Status              | ATTENTION | --- | --- |
|----------------------------|-----------|-----|-----|
| Lead ppm ASTM D5185(m) >10 | ▲ 11      | --- | --- |

**Customer Id:** GOLEDM  
**Sample No.:** WC0792197  
**Lab Number:** 02580389  
**Test Package:** FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Kevin Marson +1 (289)291-4644 x4644  
[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

| Action               | Status | Date | Done By | Description   |
|----------------------|--------|------|---------|---|
| Contact Required     | ---    | ---  | ?       | Please contact your representative for information regarding the proper sampling kits for your service.   |
| Alert                | ---    | ---  | ?       | NOTE: We recommend using MOB 2 test kits,   |
| Information Required | ---    | ---  | ?       | Please specify the brand, type, and viscosity of the oil on your next sample.<br>Please specify the component make and model with your next sample. |

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**SHOP**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 22 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid.

### Wear

Lead ppm levels are noted. All other component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

| method        | limit/base      | current            | history1 | history2 |
|---------------|-----------------|--------------------|----------|----------|
| Sample Number | Client Info     | <b>WC0792197</b>   | ---      | ---      |
| Sample Date   | Client Info     | <b>17 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>ATTENTION</b>   | ---      | ---      |

## WEAR METALS

| method    | limit/base            | current      | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| PQ        | ASTM D8184*           | <b>0</b>     | ---      | ---      |
| Iron      | ppm ASTM D5185(m) >20 | <b>4</b>     | ---      | ---      |
| Chromium  | ppm ASTM D5185(m) >10 | <b>0</b>     | ---      | ---      |
| Nickel    | ppm ASTM D5185(m) >10 | <b>&lt;1</b> | ---      | ---      |
| Titanium  | ppm ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Silver    | ppm ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Aluminum  | ppm ASTM D5185(m) >10 | <b>2</b>     | ---      | ---      |
| Lead      | ppm ASTM D5185(m) >10 | <b>▲ 11</b>  | ---      | ---      |
| Copper    | ppm ASTM D5185(m) >75 | <b>2</b>     | ---      | ---      |
| Tin       | ppm ASTM D5185(m) >10 | <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>&lt;1</b> | ---      | ---      |
| Molybdenum | ppm ASTM D5185(m) 5    | <b>0</b>     | ---      | ---      |
| Manganese  | ppm ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Magnesium  | ppm ASTM D5185(m) 25   | <b>2</b>     | ---      | ---      |
| Calcium    | ppm ASTM D5185(m) 200  | <b>69</b>    | ---      | ---      |
| Phosphorus | ppm ASTM D5185(m) 300  | <b>354</b>   | ---      | ---      |
| Zinc       | ppm ASTM D5185(m) 370  | <b>419</b>   | ---      | ---      |
| Sulfur     | ppm ASTM D5185(m) 2500 | <b>871</b>   | ---      | ---      |
| Lithium    | ppm ASTM D5185(m)      | <b>&lt;1</b> | ---      | ---      |

## CONTAMINANTS

| method    | limit/base            | current      | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| Silicon   | ppm ASTM D5185(m) >20 | <b>6</b>     | ---      | ---      |
| Sodium    | ppm ASTM D5185(m)     | <b>&lt;1</b> | ---      | ---      |
| Potassium | ppm ASTM D5185(m) >20 | <b>&lt;1</b> | ---      | ---      |

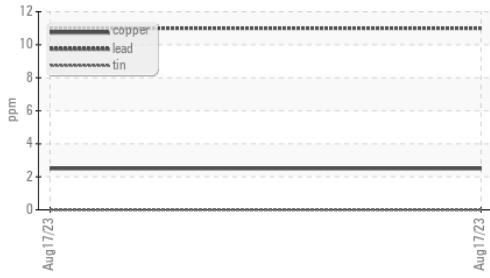
## VISUAL

| 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* >0.1  | <b>NEG</b>   | ---      | ---      |
| Free Water       | scalar Visual*       | <b>NEG</b>   | ---      | ---      |

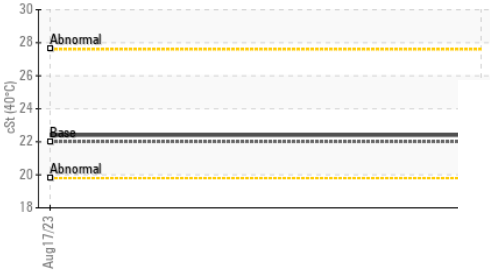


# OIL ANALYSIS REPORT

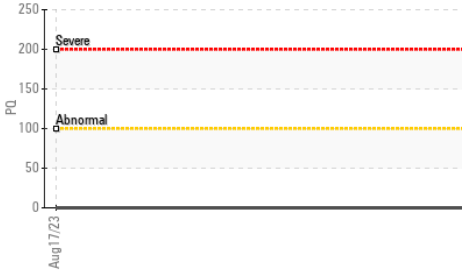
### ▲ Non-ferrous Metals



### Viscosity @ 40°C



### PQ



### FLUID PROPERTIES

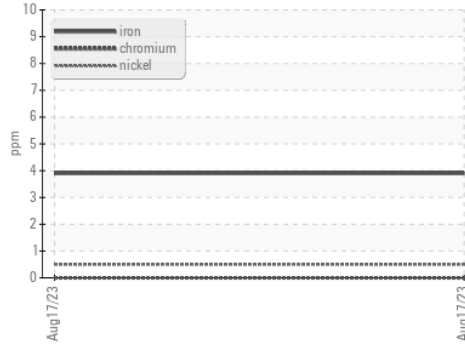
| method      | limit/base        | current | history1 | history2 |
|-------------|-------------------|---------|----------|----------|
| Visc @ 40°C | cSt ASTM D7279(m) | 22      | ---      | ---      |

### SAMPLE IMAGES

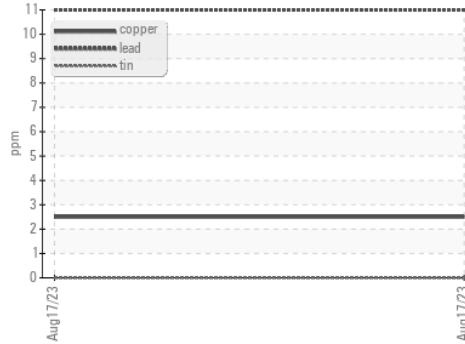
| method | limit/base | current | history1 | history2 |
|--------|------------|---------|----------|----------|
| Color  |            |         | no image | no image |
| Bottom |            |         | no image | no image |

### GRAPHS

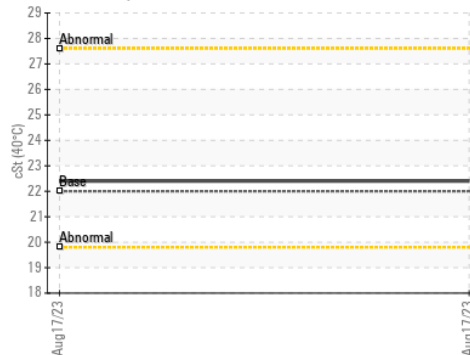
#### Ferrous Alloys



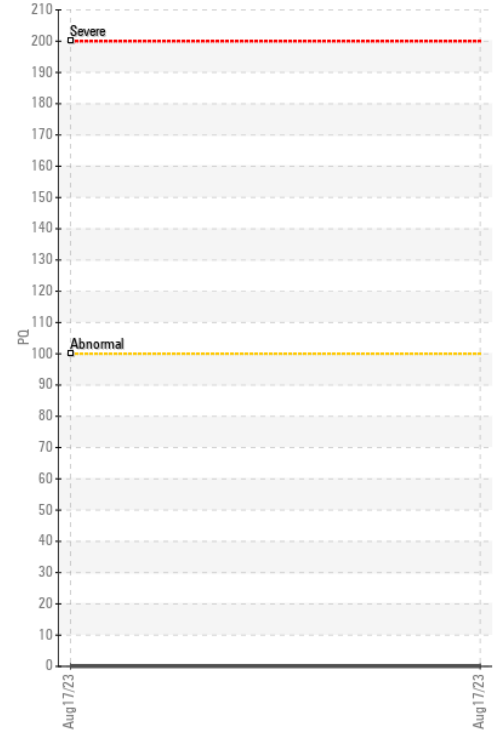
#### ▲ Non-ferrous Metals



#### Viscosity @ 40°C



#### PQ



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0792197 **Received** : 05 Sep 2023  
**Lab Number** : 02580389 **Diagnosed** : 06 Sep 2023  
**Unique Number** : 5633449 **Diagnostician** : Kevin Marson  
**Test Package** : FLEET ( Additional Tests: PQ )

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.

**GOLIATH ENERGY GROUP**  
 3277 PARSONS RD NW  
 EDMONTON, AB  
 CA T6N 1B4  
 Contact: Kurt Bromling  
 kurt@goliathenergy.com  
 T: (780)897-6262  
 F: