

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50 142548-1216 - Front Right Wheel Hub

Sample No: LH0272483

Oil Type: GEAR OIL SAE 80W90



**AMERICAN STATE EQUIPMENT CO.**  
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#### SAMPLE INFORMATION

|               |                    |             |             |     |
|---------------|--------------------|-------------|-------------|-----|
| Sample Number | <b>LH0272483</b>   | LH0254790   | LH0243157   | --- |
| Sample Date   | <b>30 Oct 2023</b> | 14 Apr 2023 | 11 Jan 2023 | --- |
| Machine Hours | <b>1993</b>        | 1008        | 473         | --- |
| Oil Hours     | <b>0</b>           | 0           | 0           | --- |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | --- |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | --- |



#### OIL CONDITION

|             |     |            |     |     |     |
|-------------|-----|------------|-----|-----|-----|
| Visc @ 40°C | cSt | <b>123</b> | 135 | 163 | --- |
|-------------|-----|------------|-----|-----|-----|



#### CONTAMINATION

|           |     |          |   |    |     |
|-----------|-----|----------|---|----|-----|
| Silicon   | ppm | <b>5</b> | 8 | 17 | --- |
| Sodium    | ppm | <b>5</b> | 3 | 4  | --- |
| Potassium | ppm | <b>0</b> | 0 | 1  | --- |



#### WEAR METALS

|            |     |              |    |    |     |
|------------|-----|--------------|----|----|-----|
| Iron       | ppm | <b>32</b>    | 36 | 59 | --- |
| Copper     | ppm | <b>38</b>    | 18 | 27 | --- |
| Lead       | ppm | <b>0</b>     | 0  | <1 | --- |
| Tin        | ppm | <b>0</b>     | 0  | <1 | --- |
| Aluminum   | ppm | <b>&lt;1</b> | 0  | 2  | --- |
| Chromium   | ppm | <b>0</b>     | <1 | <1 | --- |
| Molybdenum | ppm | <b>0</b>     | 1  | 2  | --- |
| Nickel     | ppm | <b>0</b>     | 0  | 0  | --- |
| Titanium   | ppm | <b>&lt;1</b> | <1 | <1 | --- |
| Silver     | ppm | <b>0</b>     | 0  | 0  | --- |
| Manganese  | ppm | <b>2</b>     | 2  | 3  | --- |
| Vanadium   | ppm | <b>0</b>     | <1 | 0  | --- |



#### ADDITIVES

|            |     |            |     |      |     |
|------------|-----|------------|-----|------|-----|
| Calcium    | ppm | <b>34</b>  | 40  | 87   | --- |
| Magnesium  | ppm | <b>14</b>  | 6   | 2    | --- |
| Zinc       | ppm | <b>58</b>  | 32  | 25   | --- |
| Phosphorus | ppm | <b>719</b> | 948 | 1198 | --- |
| Barium     | ppm | <b>0</b>   | 0   | 0    | --- |
| Boron      | ppm | <b>0</b>   | 3   | 2    | --- |

#### Diagnosis

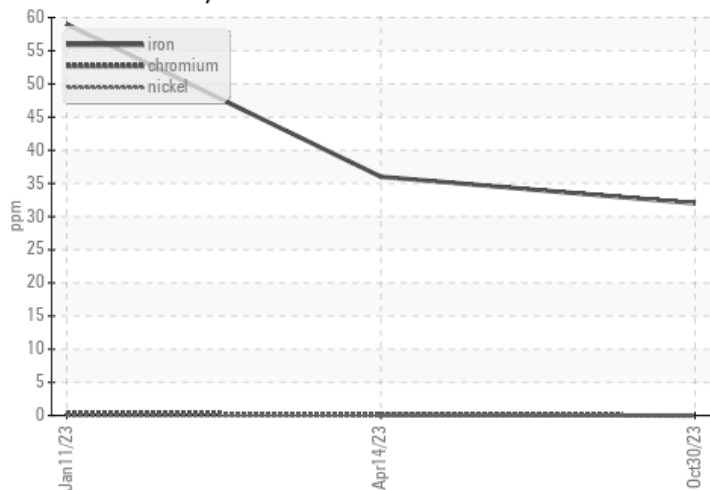
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

**Depot:** LEC0008  
**Unique No:** 10726898  
**Signed:** Sean Felton  
**Report Date:** 06 Nov 2023

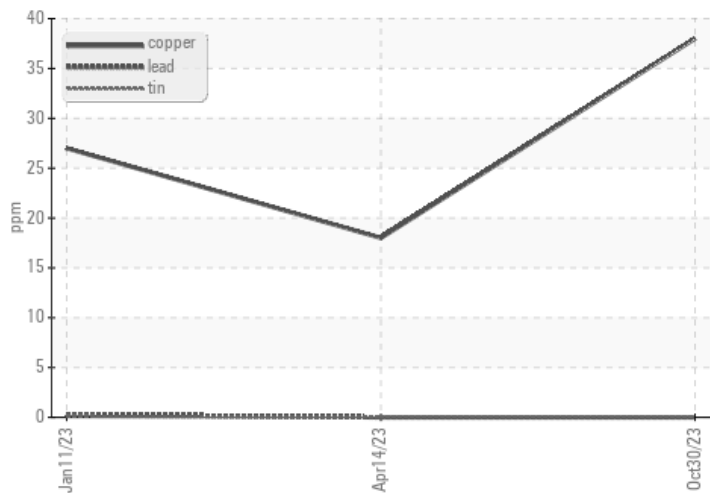


### GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

