

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH30 101514-1253 - Front Right Wheel Hub

Sample No: LH0272804

Oil Type: GEAR OIL SAE 80W90



**SPARTAN RECYCLING**

3071 HOWARD ST  
SPARTANBURG, SC  
US 29303

Contact: SERVICE MANAGER

T:  
F:



#### SAMPLE INFORMATION

| Sample Number | LH0272804   | LH0235746   | LH0217623   | LH0166349   |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date   | 10 Jan 2024 | 25 Sep 2023 | 22 Mar 2023 | 14 Jul 2022 |
| Machine Hours | 12010       | 11543       | 10552       | 7420        |
| Oil Hours     | 0           | 0           | 2000        | 0           |
| Oil Changed   | Changed     | Changed     | Changed     | N/A         |
| Sample Status | ABNORMAL    | ABNORMAL    | NORMAL      | ABNORMAL    |



#### OIL CONDITION

| Visc @ 40°C | cSt | 131 | 108 | 107 | 94.8 |
|-------------|-----|-----|-----|-----|------|
|-------------|-----|-----|-----|-----|------|



#### CONTAMINATION

| Water     | %   | NEG | NEG | NEG | NEG |
|-----------|-----|-----|-----|-----|-----|
| Silicon   | ppm | 5   | 8   | 7   | 12  |
| Sodium    | ppm | 1   | 3   | 2   | 4   |
| Potassium | ppm | <1  | 2   | 2   | 3   |



#### WEAR METALS

|            |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|
| Iron       | ppm | 467 | 581 | 204 | 724 |
| Copper     | ppm | 7   | 11  | 2   | 8   |
| Lead       | ppm | 0   | 0   | 0   | <1  |
| Tin        | ppm | 0   | 0   | 0   | <1  |
| Aluminum   | ppm | 2   | 2   | <1  | 2   |
| Chromium   | ppm | 1   | 2   | <1  | 2   |
| Molybdenum | ppm | <1  | 1   | 2   | <1  |
| Nickel     | ppm | 0   | 0   | 0   | <1  |
| Titanium   | ppm | 0   | 0   | <1  | 0   |
| Silver     | ppm | 0   | 0   | 0   | 0   |
| Manganese  | ppm | 3   | 4   | 2   | 5   |
| Vanadium   | ppm | 0   | <1  | 0   | <1  |



#### ADDITIVES

|            |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|
| Calcium    | ppm | 59  | 94  | 120 | 26  |
| Magnesium  | ppm | 5   | 10  | 15  | 4   |
| Zinc       | ppm | 4   | 67  | 76  | 20  |
| Phosphorus | ppm | 342 | 288 | 290 | 266 |
| Barium     | ppm | 3   | 0   | 0   | 0   |
| Boron      | ppm | 0   | 0   | <1  | 4   |

#### Diagnosis

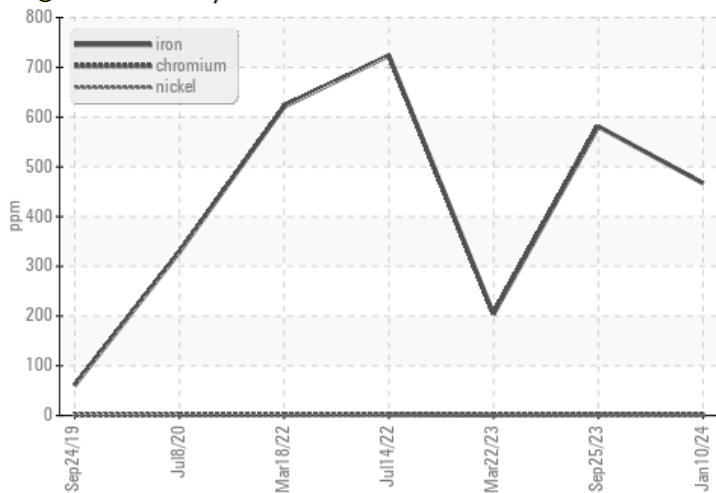
The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. High concentration of visible metal present. Gear wear is indicated. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: SPASPALH  
Unique No: 10834562  
Signed: Don Baldrige  
Report Date: 19 Jan 2024

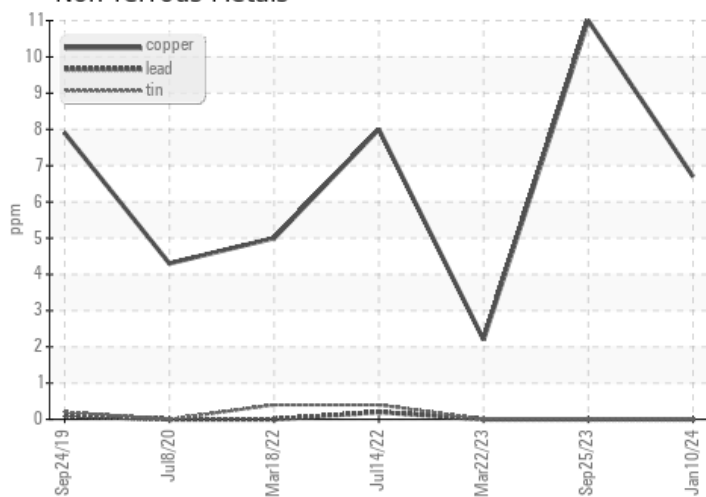


### GRAPHS

#### ● Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

