

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH24 1251-1077 21 - Front Left Wheel Hub

Sample No: LH0258006

Oil Type: LIEBHERR 20W40 GEAR PLUS



#### SAMPLE INFORMATION

|               |             |             |             |             |
|---------------|-------------|-------------|-------------|-------------|
| Sample Number | LH0258006   | LH0229674   | LH0147682   | LH0147738   |
| Sample Date   | 27 Apr 2023 | 13 Sep 2022 | 22 Mar 2022 | 28 Dec 2021 |
| Machine Hours | 8247        | 6696        | 5504        | 4955        |
| Oil Hours     | 826         | 1192        | 1113        | 0           |
| Oil Changed   | Changed     | Changed     | Changed     | Not Changd  |
| Sample Status | NORMAL      | NORMAL      | MARGINAL    | NORMAL      |

**POTOMAC METALS INC**  
 410 16TH AVENUE  
 RANSON, WV  
 US 25438  
 Contact: Service Manager



#### OIL CONDITION

|             |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|
| Visc @ 40°C | cSt | 118 | 115 | 114 | 115 |
|-------------|-----|-----|-----|-----|-----|

T:  
F:



#### CONTAMINATION

|           |     |    |   |   |    |
|-----------|-----|----|---|---|----|
| Silicon   | ppm | 11 | 8 | 6 | 6  |
| Sodium    | ppm | 3  | 3 | 4 | 3  |
| Potassium | ppm | 0  | 0 | 0 | <1 |

#### 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.



#### WEAR METALS

|            |     |    |    |    |    |
|------------|-----|----|----|----|----|
| Iron       | ppm | 26 | 16 | 20 | 11 |
| Copper     | ppm | 1  | 6  | 7  | 7  |
| Lead       | ppm | 0  | 0  | <1 | <1 |
| Tin        | ppm | 0  | 0  | 0  | 0  |
| Aluminum   | ppm | 0  | 2  | <1 | 2  |
| Chromium   | ppm | <1 | <1 | 0  | <1 |
| Molybdenum | ppm | 0  | 0  | <1 | <1 |
| Nickel     | ppm | 0  | 0  | 0  | 0  |
| Titanium   | ppm | 0  | 0  | 0  | 0  |
| Silver     | ppm | 0  | 0  | <1 | 1  |
| Manganese  | ppm | <1 | 1  | <1 | <1 |
| Vanadium   | ppm | 0  | <1 | 0  | 0  |



#### ADDITIVES

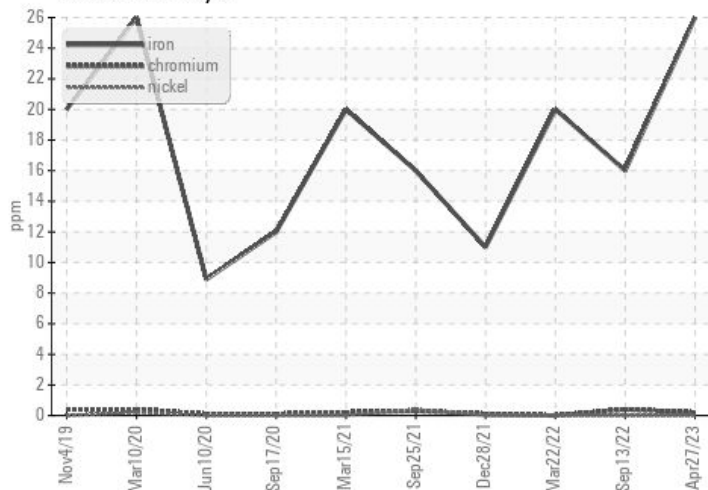
|            |     |      |      |      |      |
|------------|-----|------|------|------|------|
| Calcium    | ppm | 3660 | 3411 | 3252 | 3337 |
| Magnesium  | ppm | 13   | 8    | 6    | 5    |
| Zinc       | ppm | 1457 | 1383 | 1292 | 1382 |
| Phosphorus | ppm | 1187 | 1130 | 1253 | 1338 |
| Barium     | ppm | 3    | 0    | 0    | <1   |
| Boron      | ppm | 116  | 96   | 73   | 67   |

**Depot:** POTRAN  
**Unique No:** 10608952  
**Signed:** Sean Felton  
**Report Date:** 21 Aug 2023

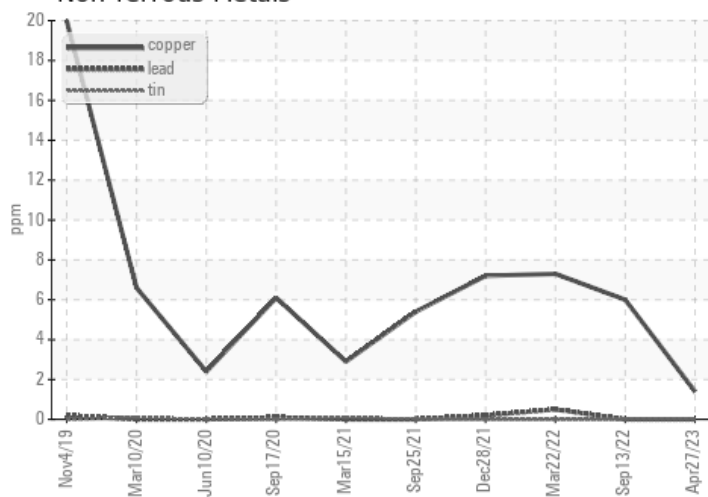


### GRAPHS

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

