# CONSTRUCTION EQUIPMENT

#### [[\$20230514031131]] LIEBHERR TA230 4162 - Front Rear Axia

Sample No: LH06059587

Oil Type: GEAR OIL SAE 80W90

#### **SAMPLE INFORMATION**

LH06059587

10 Nov 2023 3503

Changed ABNORMAL

0

| Sample Number |  |
|---------------|--|
| Sample Date   |  |
| Machine Hours |  |
| Oil Hours     |  |
| Oil Changed   |  |
| Sample Status |  |

**OIL CONDITION** 

Visc @ 40°C

### cSt 0 62.8

| Water     | %   | NEG         |  |  |  |  |  |
|-----------|-----|-------------|--|--|--|--|--|
| Silicon   | ppm | <b>0</b> 10 |  |  |  |  |  |
| Sodium    | ppm | 0 13        |  |  |  |  |  |
| Potassium | ppm | 0 2         |  |  |  |  |  |

| Â          |                 |             |      |  |
|------------|-----------------|-------------|------|--|
| 👾 WEA      | <b>R METALS</b> |             |      |  |
| Iron       | 000             | 0 181       |      |  |
| Iron       | ppm             | Ũ           | <br> |  |
| Copper     | ppm             | <u> </u>    | <br> |  |
| Lead       | ppm             | 01          | <br> |  |
| Tin        | ppm             | <b>3</b>    | <br> |  |
| Aluminum   | ppm             | 02          | <br> |  |
| Chromium   | ppm             | 02          | <br> |  |
| Molybdenum | ppm             | <b>○</b> <1 | <br> |  |
| Nickel     | ppm             | 0 11        | <br> |  |
| Titanium   | ppm             | <1          | <br> |  |
| Silver     | ppm             | 0           | <br> |  |
| Manganese  | ppm             | 0 27        | <br> |  |
| Vanadium   | ppm             | 0           | <br> |  |

0 **ADDITIVES** 3572 Calcium ppm Magnesium 0 10 ppm Zinc 0 1500 ppm Phosphorus ppm 0 1260 Barium 04 ppm Boron ppm 0 126





## HEAVY MACHINES INC.

3930 EAST RAINES RD MEMPHIS, TN US 38118 Contact: J. DAVIS JDAVIS@HEAVY.LLC.COM T: F: (901)260-2245

#### Diagnosis

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.The copper level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type.

| Depot:       | LEC0051         |
|--------------|-----------------|
| Unique No:   | 10830969        |
| Signed:      | Jonathan Hester |
| Report Date: | 16 Jan 2024     |

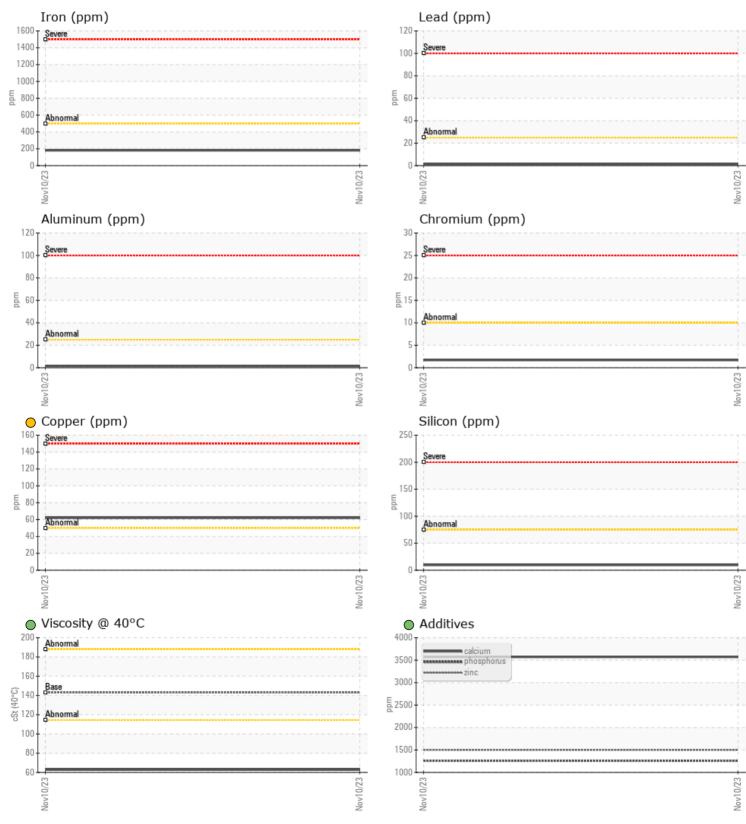
Contact/Location: J. DAVIS - LEC0051





GRAPHS

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Report Id: LEC0051 [WUSCAR] 06059587 (Generated: 01/16/2024 10:09:42) Rev: 1

Contact/Location: J. DAVIS - LEC0051