**WEAR** CONTAMINATION **FLUID CONDITION** 

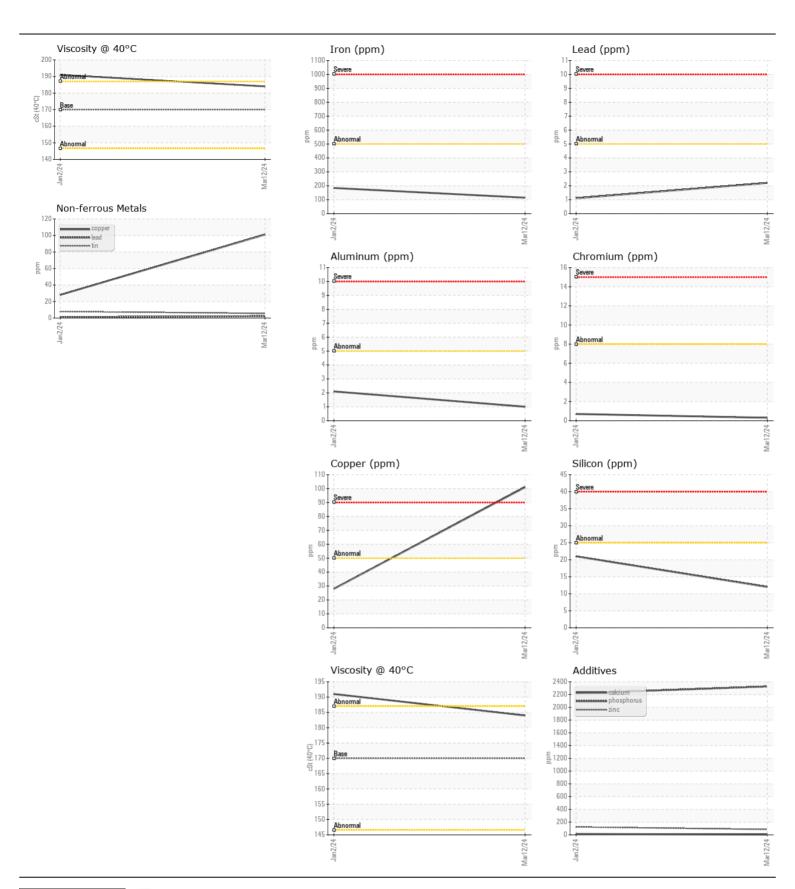
**NORMAL NORMAL NORMAL** 



## LIEBHERR L580 070558-1762

Component Rear Left Wheel Hub

| LIEBHERR GEAR BASIC 90 LS ( GAL)                                |                  |        |               |           |             |             |          |
|---|------------------|--------|---------------|-----------|-------------|-------------|----------|
| RECOMMENDATION  | Test             | UOM    | Method        | Limit/Abn | Current     | History1    | History2 |
| Resample at the next service interval to monitor.               | Sample Number    |        | Client Info   |           | LH0218135   |             |          |
|   | Sample Date      |        | Client Info   |           | 12 Mar 2024 | 02 Jan 2024 |          |
|   | Machine Age      | hrs    | Client Info   |           | 1460        | 797         |          |
|   | Oil Age          | hrs    | Client Info   |           | 0           | 0           |          |
|   | Filter Age       | hrs    | Client Info   |           | 0           | 0           |          |
|   | Oil Changed      |        | Client Info   |           | Changed     | Changed     |          |
|   | Filter Changed   |        | Client Info   |           | N/A         | N/A         |          |
|   | Sample Status    |        |               |           | NORMAL      | NORMAL      |          |
| WEAR  | Iron             | ppm    | ASTM D5185(m) | >500      | 114         | 184         |          |
| All component wear rates are normal.                            | Chromium         | ppm    | ASTM D5185(m) | >8        | <1          | <1          |          |
|   | Nickel           | ppm    | ASTM D5185(m) | >5        | <1          | <1          |          |
|   | Titanium         | ppm    | ASTM D5185(m) |           | 0           | 0           |          |
|   | Silver           | ppm    | ASTM D5185(m) |           | 0           | <1          |          |
|   | Aluminum         | ppm    | ASTM D5185(m) | >5        | 1           | 2           |          |
|   | Lead             | ppm    | ASTM D5185(m) | >5        | 2           | 1           |          |
|   | Copper           | ppm    | ASTM D5185(m) | >50       | 101         | 28          |          |
|   | Tin              | ppm    | ASTM D5185(m) |           | 6           | 8           |          |
|   | Vanadium         | ppm    | ASTM D5185(m) |           | 0           | 0           |          |
|   | White Metal      | scalar | Visual*       | NONE      | VLITE       | NONE        |          |
|   | Yellow Metal     | scalar | Visual*       | NONE      | NONE        | NONE        |          |
| CONTAMINATION   | Silicon          | ppm    | ASTM D5185(m) | >25       | 12          | 21          |          |
| There is no indication of any contamination in the oil.         | Potassium        | ppm    | ASTM D5185(m) | >20       | <1          | 1           |          |
|   | Water            |        | WC Method     | >0.2      | NEG         | NEG         |          |
|   | Silt             | scalar | Visual*       | NONE      | NONE        | MODER       |          |
|   | Debris           | scalar | Visual*       | NONE      | VLITE       | NONE        |          |
|   | Sand/Dirt        | scalar | Visual*       | NONE      | NONE        | NONE        |          |
|   | Appearance       | scalar | Visual*       | NORML     | NORML       | NORML       |          |
|   | Odor             | scalar | Visual*       | NORML     | NORML       | NORML       |          |
|   | Emulsified Water | scalar | Visual*       | >0.2      | NEG         | NEG         |          |
| FLUID CONDITION   | Sodium           | ppm    | ASTM D5185(m) |           | 4           | 9           |          |
| The condition of the oil is acceptable for the time in service. | Boron            | ppm    | ASTM D5185(m) | 0         | <1          | 1           |          |
|   | Barium           | ppm    | ASTM D5185(m) | 0         | 0           | 0           |          |
|   | Molybdenum       | ppm    | ASTM D5185(m) | 0         | 0           | 0           |          |
|   | Manganese        | ppm    | ASTM D5185(m) | 0         | 18          | 37          |          |
|   | Magnesium        | ppm    | ASTM D5185(m) | <1        | <1          | 2           |          |
|   | Calcium          | ppm    | ASTM D5185(m) |           | 6           | 14          |          |
|   | Phosphorus       | ppm    | ASTM D5185(m) | 2143      | 2326        | 2219        |          |
|   | Zinc             | ppm    | ASTM D5185(m) | <1        | 85          | 124         |          |
|   | Sulfur           | ppm    | ASTM D5185(m) |           | 25001       | 25148       |          |
|   | Visc @ 40°C      | cSt    | ASTM D7279(m) | 170       | 184         | 191         |          |





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02625361 Unique Number : 5750480

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : LH0218135 Received **Tested** 

Diagnosed Test Package : MOBCE ( Additional Tests: Visual )

: 28 Mar 2024 : 28 Mar 2024 : 28 Mar 2024 - Kevin Marson

**HUBERT ET FILS INC** 1012 CHEMIN DE PARC INDUSTRIEL BOIS-FRANC, QC CA J9E 3A9

Contact: Service Manager

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.

T:

F: