



# LIEBHERR

## OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | NORMAL |
| FLUID CONDITION | NORMAL |



Machine Id  
**056328-1783**  
Component  
**Right Final Drive**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current     | History1    | History2 |
|----------------|-----|-------------|-----------|-------------|-------------|----------|
| Sample Number  |     | Client Info |           | LH0252392   | LH0252385   | ---      |
| Sample Date    |     | Client Info |           | 04 Jun 2024 | 11 Sep 2023 | ---      |
| Machine Age    | hrs | Client Info |           | 2000        | 1314        | ---      |
| Oil Age        | hrs | Client Info |           | 0           | 0           | ---      |
| Filter Age     | hrs | Client Info |           | 0           | 0           | ---      |
| Oil Changed    |     | Client Info |           | N/A         | N/A         | ---      |
| Filter Changed |     | Client Info |           | N/A         | N/A         | ---      |
| Sample Status  |     |             |           | NORMAL      | NORMAL      | ---      |

### WEAR

All component wear rates are normal.

|              |        |               |      |      |      |     |
|--------------|--------|---------------|------|------|------|-----|
| Iron         | ppm    | ASTM D5185(m) | >500 | 352  | 237  | --- |
| Chromium     | ppm    | ASTM D5185(m) | >10  | 5    | 4    | --- |
| Nickel       | ppm    | ASTM D5185(m) | >10  | 2    | 1    | --- |
| Titanium     | ppm    | ASTM D5185(m) |      | <1   | <1   | --- |
| Silver       | ppm    | ASTM D5185(m) |      | 0    | 0    | --- |
| Aluminum     | ppm    | ASTM D5185(m) | >25  | 3    | 2    | --- |
| Lead         | ppm    | ASTM D5185(m) | >25  | 0    | 0    | --- |
| Copper       | ppm    | ASTM D5185(m) | >50  | <1   | <1   | --- |
| Tin          | ppm    | ASTM D5185(m) | >10  | 0    | 0    | --- |
| Vanadium     | ppm    | ASTM D5185(m) |      | 0    | 0    | --- |
| White Metal  | scalar | Visual*       | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | Visual*       | NONE | NONE | NONE | --- |

### CONTAMINATION

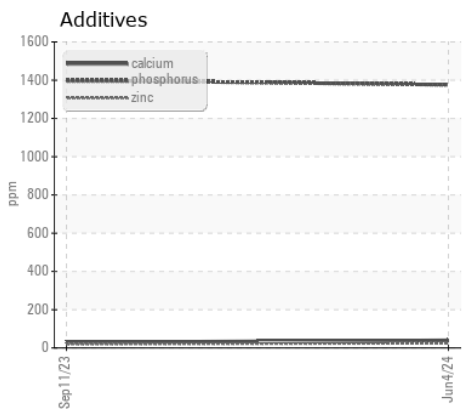
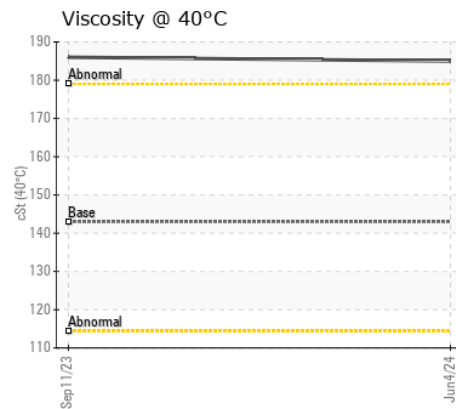
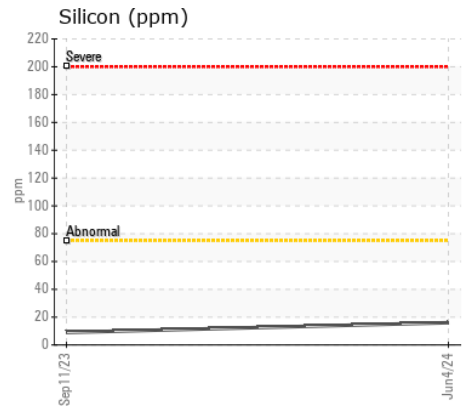
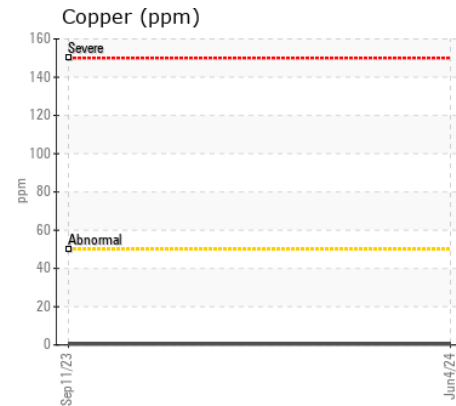
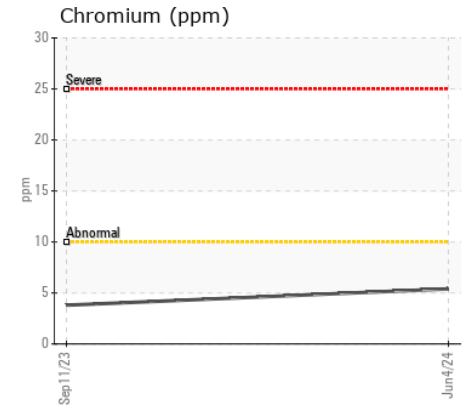
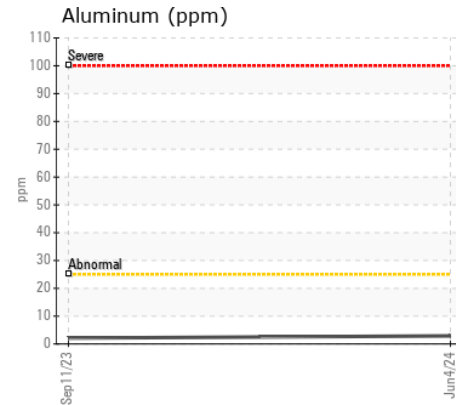
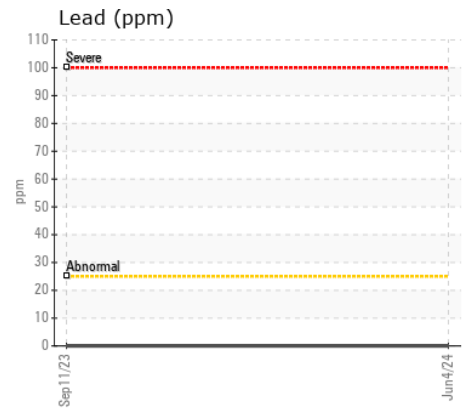
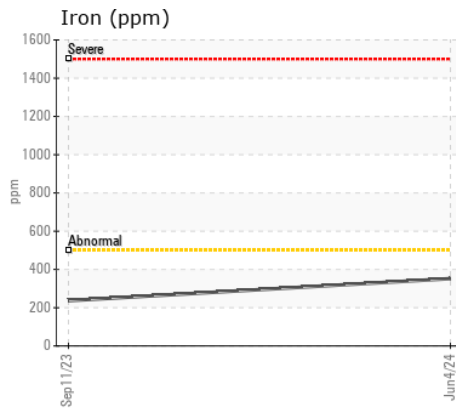
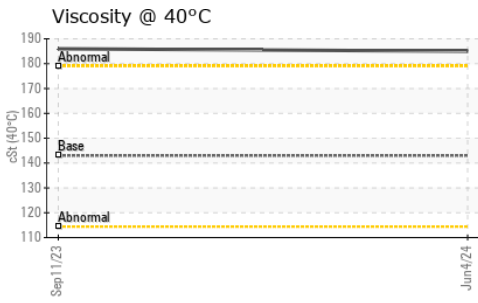
There is no indication of any contamination in the oil.

|                  |        |               |       |       |       |     |
|------------------|--------|---------------|-------|-------|-------|-----|
| Silicon          | ppm    | ASTM D5185(m) | >75   | 16    | 9     | --- |
| Potassium        | ppm    | ASTM D5185(m) | >20   | 3     | 3     | --- |
| Water            |        | WC Method     | >0.2  | NEG   | NEG   | --- |
| Silt             | scalar | Visual*       | NONE  | VLITE | NONE  | --- |
| 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

The condition of the oil is acceptable for the time in service.

|             |     |               |       |       |       |     |
|-------------|-----|---------------|-------|-------|-------|-----|
| Sodium      | ppm | ASTM D5185(m) | >170  | 5     | 4     | --- |
| Boron       | ppm | ASTM D5185(m) | 400   | 1     | 1     | --- |
| Barium      | ppm | ASTM D5185(m) | 200   | 2     | 1     | --- |
| Molybdenum  | ppm | ASTM D5185(m) | 12    | 0     | <1    | --- |
| Manganese   | ppm | ASTM D5185(m) |       | 4     | 3     | --- |
| Magnesium   | ppm | ASTM D5185(m) | 12    | 3     | 2     | --- |
| Calcium     | ppm | ASTM D5185(m) | 150   | 40    | 29    | --- |
| Phosphorus  | ppm | ASTM D5185(m) | 1650  | 1376  | 1400  | --- |
| Zinc        | ppm | ASTM D5185(m) | 125   | 24    | 20    | --- |
| Sulfur      | ppm | ASTM D5185(m) | 22500 | 25129 | 25074 | --- |
| Visc @ 40°C | cSt | ASTM D7279(m) | 143   | 185   | 186   | --- |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0252392 **Received** : 05 Jun 2024  
**Lab Number** : 02639970 **Tested** : 06 Jun 2024  
**Unique Number** : 5789132 **Diagnosed** : 06 Jun 2024 - Wes Davis  
**Test Package** : MOBCE

**American Iron and Metal**  
 10301 Metropolitaine Est  
 Montreal, QC  
 CA H1B 1A1  
 Contact: Sebastien Liautaud  
 sliautaud@aimrecyclinggroup.com

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: