

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A934C 061188-1419 - Rear Differential

Sample No: LH0272394

Oil Type: GEAR OIL SAE 80W90



NORTHERN METAL RECYCLING
 2800 PACIFIC ST N
 MINNEAPOLIS, MN
 US 55411
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SAMPLE INFORMATION

| Sample Number | LH0272394 | LH0253879 | LH0236050 | LH0220530 |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date | 30 Jan 2024 | 21 Sep 2023 | 23 Nov 2022 | 27 Sep 2022 |
| Machine Hours | 28124 | 27222 | 25468 | 0 |
| Oil Hours | 0 | 0 | 1000 | 1000 |
| Oil Changed | Changed | Changed | Changed | Changed |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |



OIL CONDITION

| Visc @ 40°C | cSt | 127 | 153 | 153 | 156 |
|-------------|-----|-----|-----|-----|-----|
| | | ● | ● | ● | ● |



CONTAMINATION

| Water | % | NEG | NEG | NEG | NEG |
|-----------|-----|-----|------|------|-----|
| Silicon | ppm | ● 0 | ● <1 | ● <1 | ● 2 |
| Sodium | ppm | ● 2 | ● 1 | ● 2 | ● 1 |
| Potassium | ppm | ● 0 | ● 3 | ● 0 | ● 0 |



WEAR METALS

| | | | | | |
|------------|-----|------|------|------|------|
| Iron | ppm | ● 9 | ● 5 | ● 7 | ● 10 |
| Copper | ppm | ● 3 | ● <1 | ● 1 | ● 2 |
| Lead | ppm | ● 0 | ● 0 | ● 0 | ● 0 |
| Tin | ppm | ● <1 | ● <1 | ● 0 | ● 0 |
| Aluminum | ppm | ● 0 | ● 0 | ● <1 | ● <1 |
| Chromium | ppm | ● 0 | ● 0 | ● 0 | ● 0 |
| Molybdenum | ppm | ● 0 | 0 | ● 1 | ● 2 |
| Nickel | ppm | ● 0 | ● <1 | ● 0 | ● 0 |
| Titanium | ppm | 0 | <1 | 0 | 0 |
| Silver | ppm | 0 | <1 | 0 | 0 |
| Manganese | ppm | ● 0 | <1 | ● <1 | ● <1 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|-------|------|--------|--------|
| Calcium | ppm | ● 0 | 28 | ● 22 | ● 28 |
| Magnesium | ppm | ● 0 | 10 | ● 6 | ● 5 |
| Zinc | ppm | 0 | 19 | ● 6 | ● 19 |
| Phosphorus | ppm | ● 832 | 1301 | ● 1004 | ● 1180 |
| Barium | ppm | ● 0 | 0 | ● 0 | ● 0 |
| Boron | ppm | ● 4 | 9 | ● 11 | 4 |

Diagnosis

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

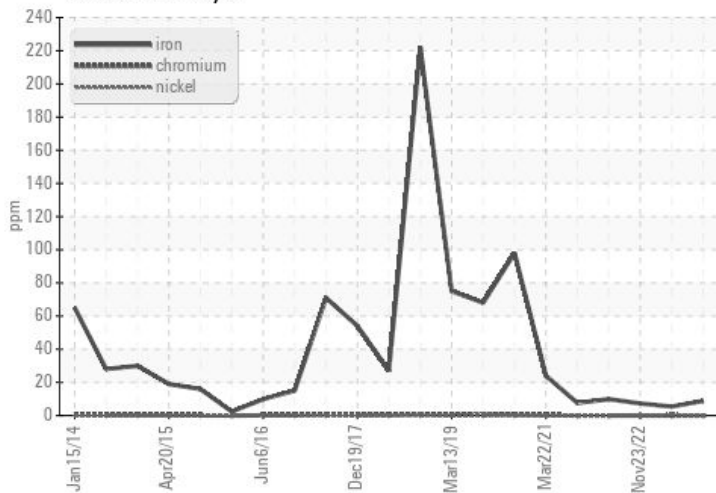
All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: NORMINLH
 Unique No: 10924335
 Signed: Wes Davis
 Report Date: 12 Mar 2024

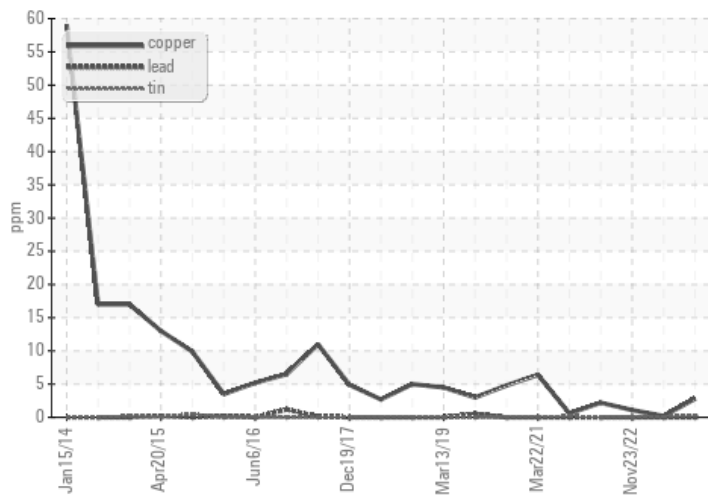


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

