

LIEBHERR LH80M 1218-157090 - Rear Left Wheel Hub

Sample No: LH0267071

Oil Type: GEAR OIL SAE 80W90

Sample Information

| | - | | | | | | | |
|---------------|-------------|-------------|-------------|--|--|--|--|--|
| Sample Number | LH0267071 | LH0282878 | LH0282900 | | | | | |
| Sample Date | 10 Jun 2024 | 18 May 2024 | 19 Mar 2024 | | | | | |
| Machine Hours | 2008 | 1559 | 545 | | | | | |
| Oil Hours | 1035 | 0 | 0 | | | | | |
| Oil Changed | Changed | Not Changd | Not Changd | | | | | |
| Sample Status | MARGINAL | ATTENTION | NORMAL | | | | | |
| | | | | | | | | |
| Oil Condition | | | | | | | | |
| Visc@40°C cSt | 0 119 | 0 89.6 | 0 164 | | | | | |
| | | | | | | | | |

| Con | ntaminati | on | | | |
|-----------|-----------|------|-----|------|--|
| Water | % | NEG | NEG | NEG | |
| Silicon | ppm | 0 12 | 0 6 | 0 16 | |
| Sodium | ppm | 07 | 2 | 8 | |
| Potassium | ppm | 02 | 02 | 01 | |

| Ä | | | | | |
|------------|-----------|-------------|------|-------|--|
| Wec Wec | ar Metals | 5 | | | |
| Iron | ppm | 529 | 0 27 | 0 120 | |
| Copper | ppm | 08 | 0 12 | 5 | |
| Lead | ppm | 0 | 0 | 0 | |
| Tin | ppm | 0 | 0 | 0 2 | |
| Aluminum | ppm | 0 2 | 0 1 | 2 | |
| Chromium | ppm | 0 2 | ○ <1 | ◯ <1 | |
| Molybdenum | ppm | ◯ <1 | 0 4 | ◯ <1 | |
| Nickel | ppm | ○ <1 | ○ <1 | ◯ <1 | |
| Titanium | ppm | ○ <1 | ◯ <1 | 0 | |
| Silver | ppm | 0 | <1 | 0 | |
| Manganese | ppm | 04 | ◯ <1 | 2 | |
| Vanadium | ppm | 0 | <1 | <1 | |

ø **Additives** Calcium ppm 078 0 179 0 76 Magnesium 0 12 29 $\bigcirc 0$ ppm 074 0 21 Zinc 0 119 ppm Phosphorus 0 824 ○ 510 0 1244 ppm Barium 0 0 $\bigcirc 0$ ppm Boron 06 0 ppm 02





KINDER MORGAN

4301 IVERSON TRINITY, AL US 35601 Contact: RICKY JOHNSON ricky_johnson@kindermorgan.com T: F: (256)355-5250

Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.An increase in the iron level is noted. Gear wear is indicated. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot:KINTRIUnique No:1108905Signed:Don BalReport Date:23 Jun 2







Graphs

