

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 1216-109299 - Swing Drive

Sample No: LH0272564

Oil Type: CHEVRON DELO GEAR ESI OIL 80W90



SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-------------|-------------|-------------|
| Sample Number | LH0272564 | LH0264385 | LH0243145 | LH0217660 |
| Sample Date | 19 Jan 2024 | 21 Jul 2023 | 21 Dec 2022 | 07 Jun 2022 |
| Machine Hours | 9018 | 8127 | 7018 | 6004 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Changed | Changed | Changed | Changed |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |

ALTER METAL
2900 SHERMAN STREET
WAUSAU, WI
US 54401
Contact: Service Manager



OIL CONDITION

| | | | | | |
|-------------|-----|-----|-----|-----|-----|
| Visc @ 40°C | cSt | 121 | 127 | 129 | 138 |
|-------------|-----|-----|-----|-----|-----|

T:
F:



CONTAMINATION

| Water | % | NEG | NEG | NEG | NEG |
|-----------|-----|-----|-----|-----|-----|
| Silicon | ppm | <1 | 1 | 2 | 2 |
| Sodium | ppm | 2 | 2 | 0 | 2 |
| Potassium | ppm | <1 | 4 | 3 | 0 |

Diagnosis

Resample at the next service interval to monitor. 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.



WEAR METALS

| | | | | | |
|------------|-----|----|----|----|----|
| Iron | ppm | 72 | 97 | 61 | 51 |
| Copper | ppm | 54 | 99 | 47 | 52 |
| Lead | ppm | 0 | 0 | 0 | 0 |
| Tin | ppm | 2 | 3 | 1 | 2 |
| Aluminum | ppm | 0 | <1 | <1 | <1 |
| Chromium | ppm | 0 | <1 | <1 | <1 |
| Molybdenum | ppm | <1 | 2 | 2 | 1 |
| Nickel | ppm | 0 | <1 | 0 | 0 |
| Titanium | ppm | <1 | 0 | 0 | 0 |
| Silver | ppm | <1 | 0 | 0 | <1 |
| Manganese | ppm | 1 | 1 | <1 | <1 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |



ADDITIVES

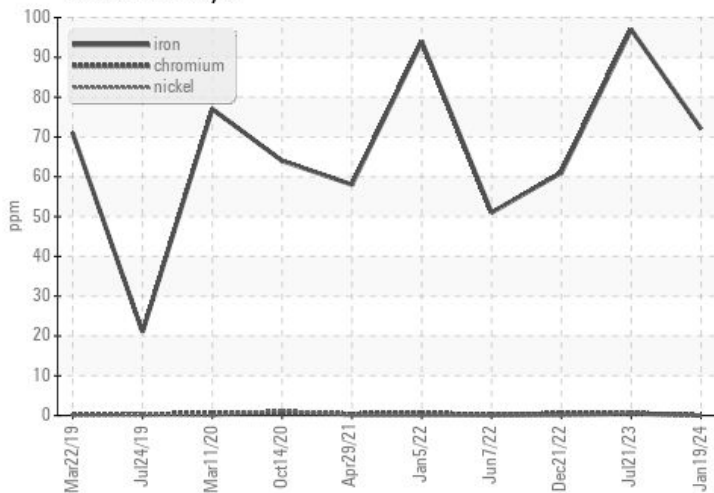
| | | | | | |
|------------|-----|-----|-----|-----|-----|
| Calcium | ppm | 95 | 148 | 157 | 101 |
| Magnesium | ppm | 9 | 8 | 13 | 9 |
| Zinc | ppm | 48 | 59 | 73 | 43 |
| Phosphorus | ppm | 734 | 846 | 804 | 949 |
| Barium | ppm | 0 | 0 | 0 | 0 |
| Boron | ppm | 7 | 23 | 22 | 31 |

Depot: ALTWAAUS
Unique No: 10846835
Signed: Wes Davis
Report Date: 25 Jan 2024

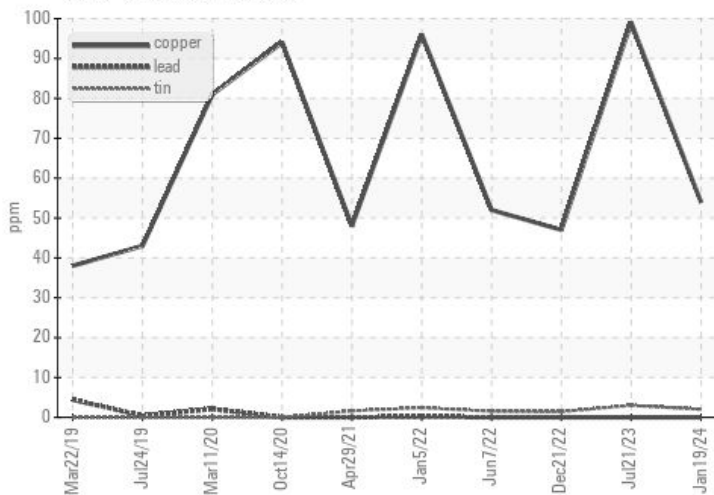


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

