

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1216-115017 - Hydraulic System

Sample No: LH0267175

Oil Type: LIEBHERR HYDRAULIC HVI



Sample Information

| Sample Number | LH0267175 | LH0263958 | LH0243334 | LH0263877 |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date | 01 May 2024 | 30 Jan 2024 | 29 Sep 2023 | 09 Aug 2023 |
| Machine Hours | 9474 | 8879 | 8189 | 7823 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Not Changd | Not Changd | Not Changd | Not Changd |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |

ALTER RECYCLING

2175 BADGERLAND DR
GREEN BAY, WI
US 54303

Contact: LORI GRAVES

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T:

F:



Oil Condition

| Visc @ 40°C | cSt | 43.0 | 42.9 | 42.4 | 42.3 |
|------------------|----------|------|------|------|------|
| Acid Number (AN) | mg KOH/g | 0.42 | 0.22 | 0.44 | 0.47 |



Contamination

| Water | % | NEG | NEG | NEG | NEG |
|-------------------|-----|----------|----------|----------|----------|
| Particles >4µm | | 1521 | 1119 | 772 | 894 |
| Particles >6µm | | 95 | 239 | 118 | 240 |
| Particles >14µm | | 9 | 20 | 9 | 22 |
| ISO 4406:1999 (c) | | 18/14/10 | 17/15/11 | 17/14/10 | 17/15/12 |
| Silicon | ppm | 2 | 0 | 1 | 1 |
| Sodium | ppm | 0 | 0 | 2 | <1 |
| Potassium | ppm | 3 | 3 | 4 | 4 |

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



Wear Metals

| | | | | | |
|------------|-----|----|----|----|----|
| Iron | ppm | 18 | 17 | 23 | 25 |
| Copper | ppm | 3 | 2 | 3 | 2 |
| Lead | ppm | 1 | 0 | 0 | 0 |
| Tin | ppm | 1 | 0 | 0 | 0 |
| Aluminum | ppm | <1 | 2 | 0 | <1 |
| Chromium | ppm | 2 | <1 | 2 | 1 |
| Molybdenum | ppm | 5 | 4 | 6 | 6 |
| Nickel | ppm | <1 | 0 | 0 | 0 |
| Titanium | ppm | <1 | <1 | <1 | 0 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | <1 | 0 | <1 | <1 |
| Vanadium | ppm | <1 | 0 | 0 | 0 |



Additives

| | | | | | |
|------------|-----|-----|-----|-----|-----|
| Calcium | ppm | 143 | 163 | 209 | 205 |
| Magnesium | ppm | 21 | 29 | 34 | 31 |
| Zinc | ppm | 485 | 486 | 488 | 511 |
| Phosphorus | ppm | 364 | 357 | 397 | 412 |
| Barium | ppm | 0 | 5 | 0 | 0 |
| Boron | ppm | 5 | 7 | 11 | 10 |

Depot: ALTGRE

Unique No: 11019164

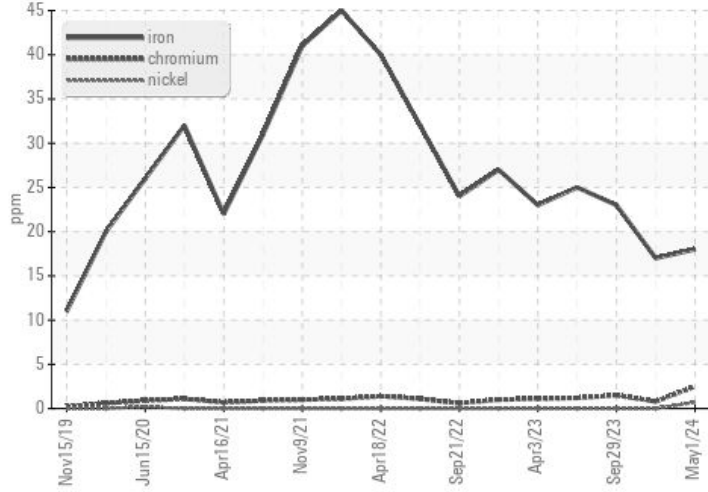
Signed: Don Baldrige

Report Date: 10 May 2024

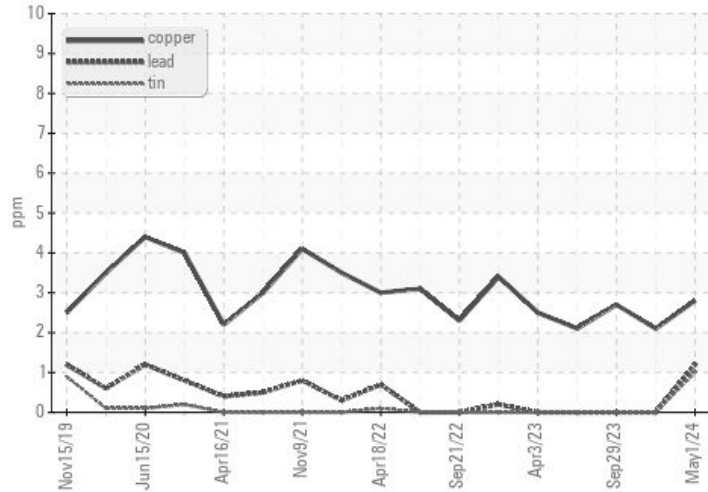


Graphs

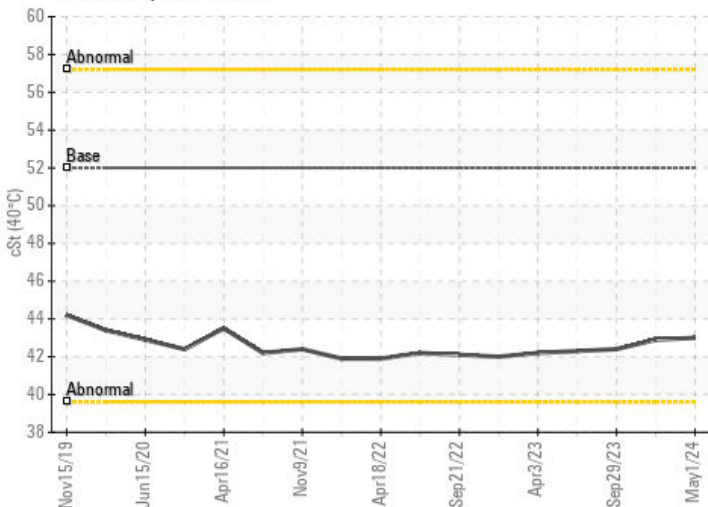
Ferrous Alloys



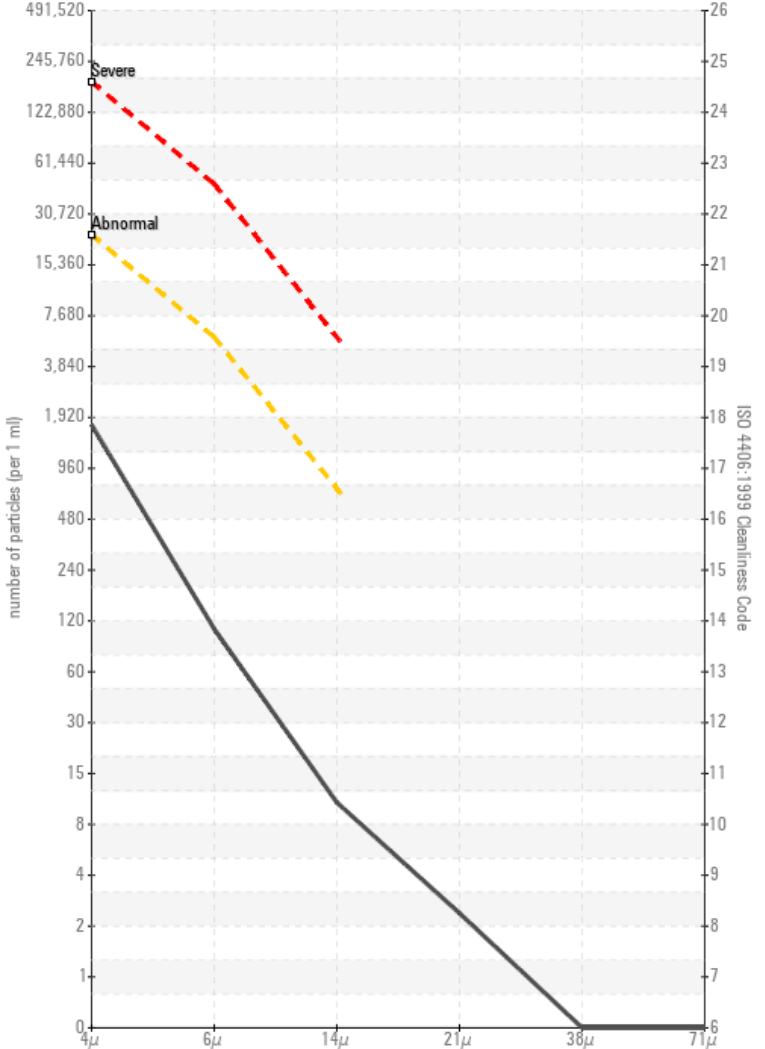
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

