

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A918 095565-1184 - Hydraulic System

Sample No: LH0264449

Oil Type: LIEBHERR HYDRAULIC HVI



Sample Information

| | | | | |
|---------------|-------------|-------------|-------------|-------------|
| Sample Number | LH0264449 | LH0268874 | LH0220689 | LHMC130197 |
| Sample Date | 12 Jun 2024 | 24 Jan 2024 | 23 Sep 2022 | 19 Sep 2020 |
| Machine Hours | 17064 | 15862 | 9750 | 3571 |
| Oil Hours | 0 | 0 | 0 | 3571 |
| Oil Changed | N/A | Changed | Changed | Not Changd |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |

UNITED SCRAP

1545 S CICERO AVE
BURR RIDGE, IL
US 60527

Contact: Service Manager



Oil Condition

| | | | | | |
|------------------|----------|------|------|------|-------|
| Visc @ 40°C | cSt | 44.7 | 44.9 | 47.0 | 44.7 |
| Acid Number (AN) | mg KOH/g | 0.49 | 0.42 | 0.55 | 1.007 |

T:
F:



Contamination

| | | | | | |
|-------------------|-----|----------|----------|----------|----------|
| Water | % | NEG | NEG | NEG | NEG |
| Particles >4µm | | 6315 | 3435 | 11465 | 10617 |
| Particles >6µm | | 1434 | 230 | 2502 | 1975 |
| Particles >14µm | | 47 | 16 | 132 | 66 |
| ISO 4406:1999 (c) | | 20/18/13 | 19/15/11 | 21/19/14 | 21/18/13 |
| Silicon | ppm | 4 | 3 | 2 | <1 |
| Sodium | ppm | 1 | 2 | 2 | <1 |
| Potassium | ppm | 2 | 0 | 0 | <1 |

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 | 27 | 16 | 17 | 10 |
| Copper | ppm | 3 | 3 | 6 | 6 |
| Lead | ppm | 0 | 0 | 0 | <1 |
| Tin | ppm | <1 | 0 | 0 | <1 |
| Aluminum | ppm | 1 | <1 | <1 | 0 |
| Chromium | ppm | 4 | 3 | 2 | 1 |
| Molybdenum | ppm | <1 | <1 | 4 | <1 |
| Nickel | ppm | <1 | 0 | 0 | 0 |
| Titanium | ppm | 0 | <1 | <1 | 0 |
| Silver | ppm | 0 | 0 | 1 | 0 |
| Manganese | ppm | 1 | <1 | 1 | <1 |
| Vanadium | ppm | 0 | 0 | 2 | 0 |



Additives

| | | | | | |
|------------|-----|-----|-----|-----|------|
| Calcium | ppm | 177 | 159 | 268 | 1106 |
| Magnesium | ppm | 8 | 3 | 6 | 7 |
| Zinc | ppm | 530 | 439 | 505 | 642 |
| Phosphorus | ppm | 409 | 365 | 419 | 508 |
| Barium | ppm | 0 | 0 | 0 | 0 |
| Boron | ppm | 1 | <1 | 0 | 2 |

Depot: UNIBURIL

Unique No: 11103192

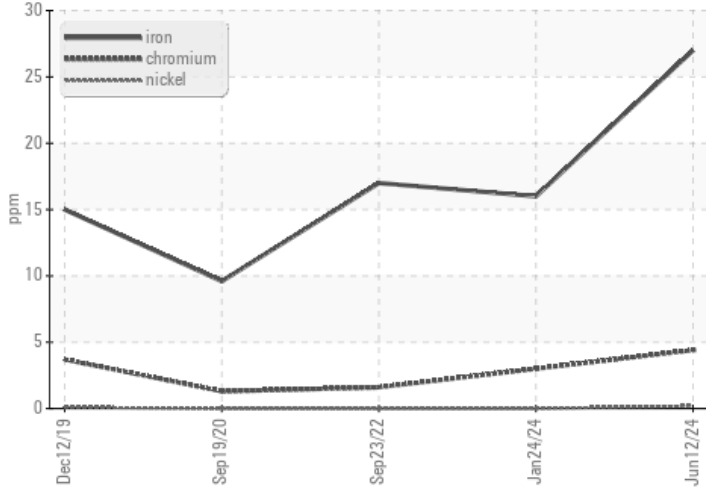
Signed: Don Baldrige

Report Date: 03 Jul 2024

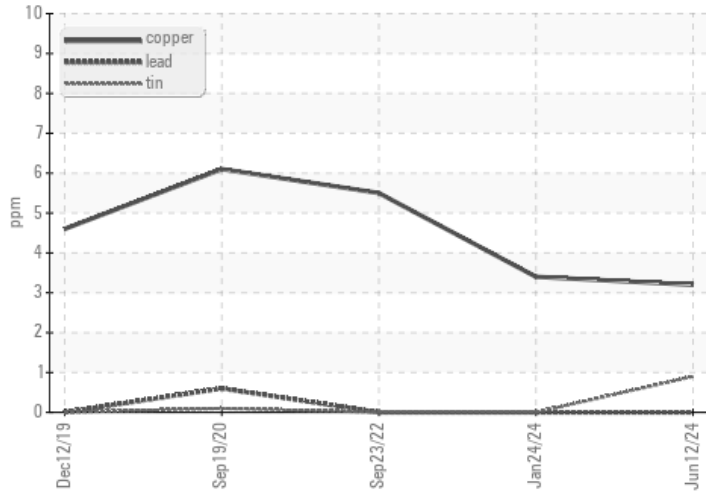


Graphs

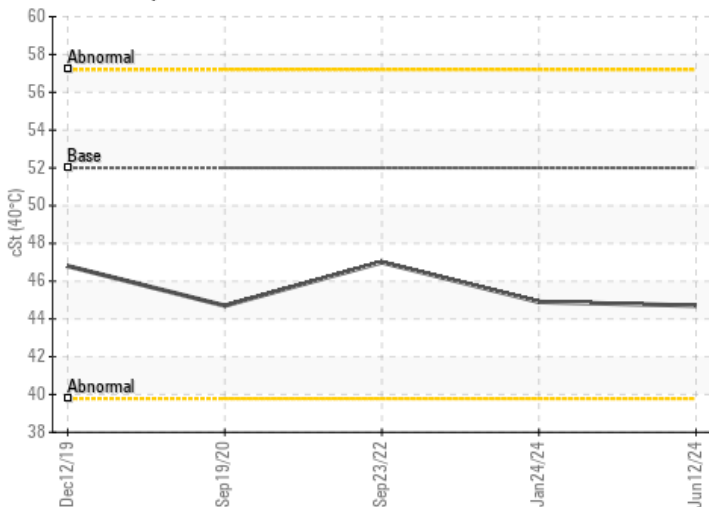
Ferrous Alloys



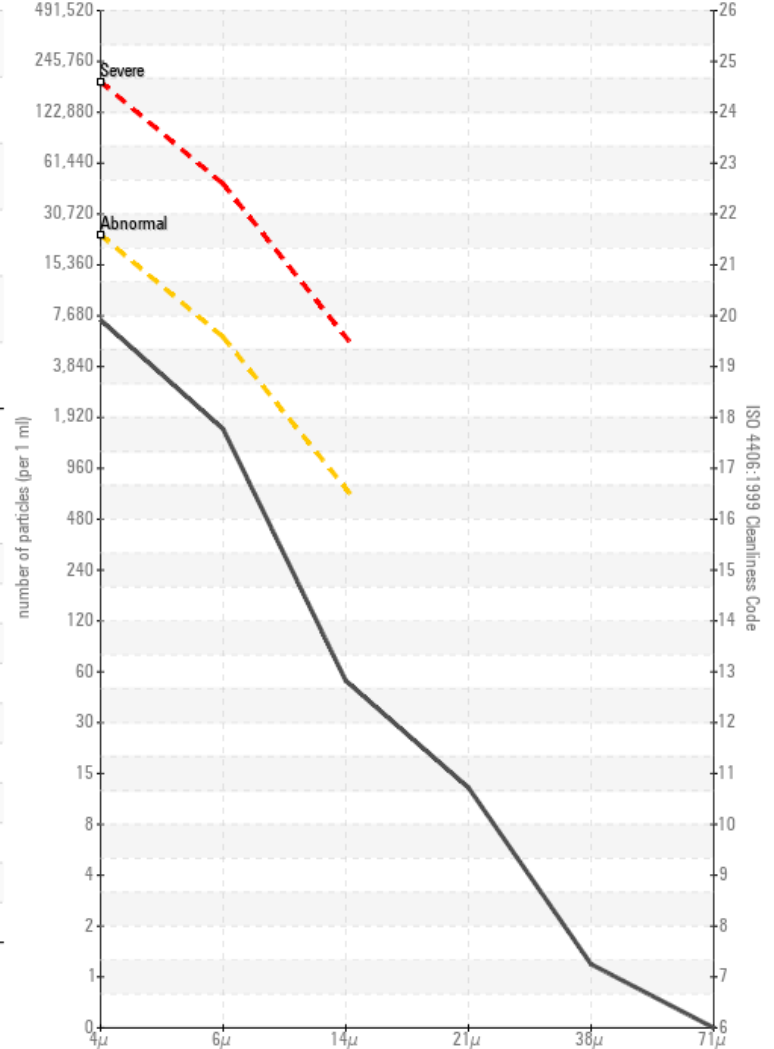
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

