

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A944C038730-194 - Hydraulic System

Sample No: LH0263827

Oil Type: LIEBHERR HYDRAULIC HVI



SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-------------|-------------|-------------|
| Sample Number | LH0263827 | LH0217654 | LH0185265 | LHMC017447 |
| Sample Date | 28 Jun 2023 | 07 Aug 2022 | 29 Jan 2021 | 28 Jan 2009 |
| Machine Hours | 29970 | 28573 | 27384 | 2261 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Not Changd | Not Changd | Changed | Not Changd |
| Sample Status | NORMAL | ABNORMAL | ATTENTION | NORMAL |

ALTER METAL

2080 SPINDT DR
WAUPACA, WI
US 54981
Contact: BRAD DORMADY
brad.dormady@altertrading.com
T:
F:



OIL CONDITION

| | | | | | |
|------------------|----------|------|------|-------|-------|
| Visc @ 40°C | cSt | 43.4 | 42.7 | 43.7 | 43.03 |
| Acid Number (AN) | mg KOH/g | 0.44 | 0.47 | 0.326 | 1.41 |



CONTAMINATION

| | | | | | |
|-------------------|-----|----------|----------|----------|----------|
| Particles >4µm | | 19303 | 132371 | 37695 | 1254 |
| Particles >6µm | | 478 | 8894 | 4048 | 683 |
| Particles >14µm | | 9 | 44 | 147 | 116 |
| ISO 4406:1999 (c) | | 21/16/10 | 24/20/13 | 22/19/14 | 17/17/14 |
| Silicon | ppm | <1 | 2 | 0 | 8 |
| Sodium | ppm | 0 | 0 | 0 | 5 |
| Potassium | ppm | <1 | 1 | 0 | 0 |



WEAR METALS

| | | | | | |
|------------|-----|----|----|----|----|
| Iron | ppm | 5 | 8 | 4 | 24 |
| Copper | ppm | 2 | 3 | 4 | 3 |
| Lead | ppm | <1 | <1 | <1 | 1 |
| Tin | ppm | 0 | 0 | 0 | 0 |
| Aluminum | ppm | 0 | <1 | 0 | <1 |
| Chromium | ppm | 2 | 3 | 3 | <1 |
| Molybdenum | ppm | 2 | 5 | <1 | <1 |
| Nickel | ppm | <1 | 0 | 0 | <1 |
| Titanium | ppm | 0 | 0 | <1 | <1 |
| Silver | ppm | 0 | 0 | <1 | 0 |
| Manganese | ppm | 0 | 0 | <1 | <1 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|-----|-----|-----|------|
| Calcium | ppm | 115 | 148 | 58 | 1741 |
| Magnesium | ppm | 17 | 32 | 1 | 16 |
| Zinc | ppm | 449 | 493 | 351 | 872 |
| Phosphorus | ppm | 354 | 381 | 336 | 738 |
| Barium | ppm | 0 | 0 | 0 | <1 |
| Boron | ppm | 5 | 14 | <1 | 35 |

Diagnosis

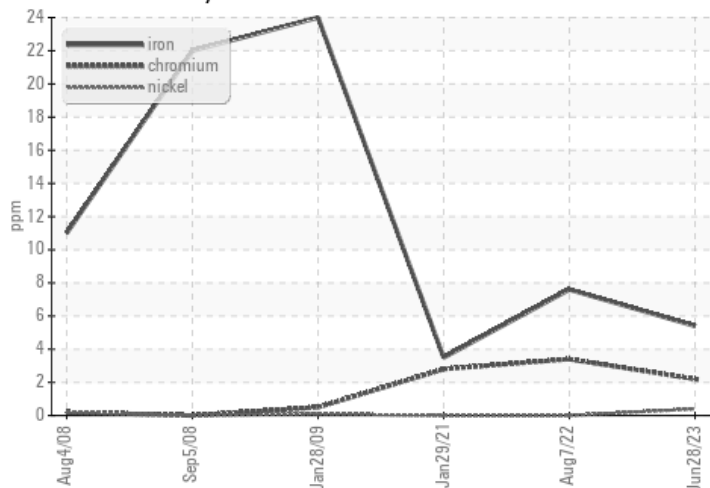
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The condition of oil is suitable for further service.

Depot: ALTWAUWI
Unique No: 10546658
Signed: Don Baldrige
Report Date: 07 Jul 2023

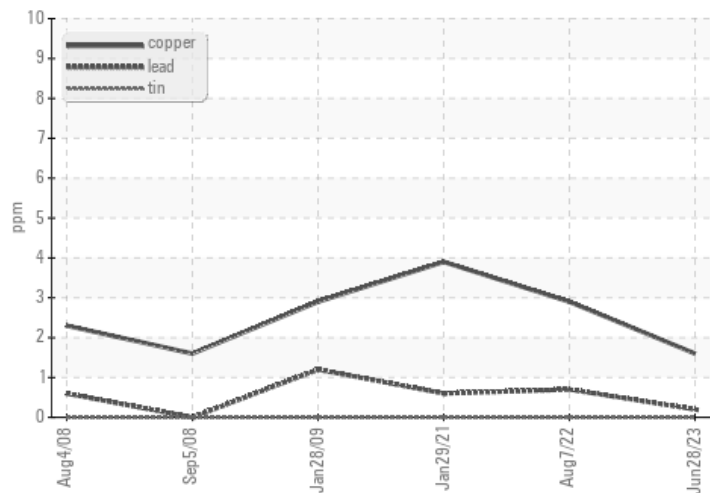


GRAPHS

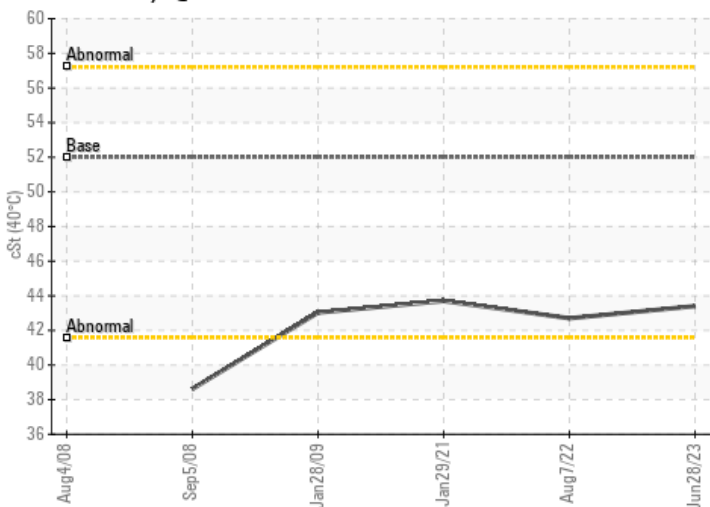
Ferrous Alloys



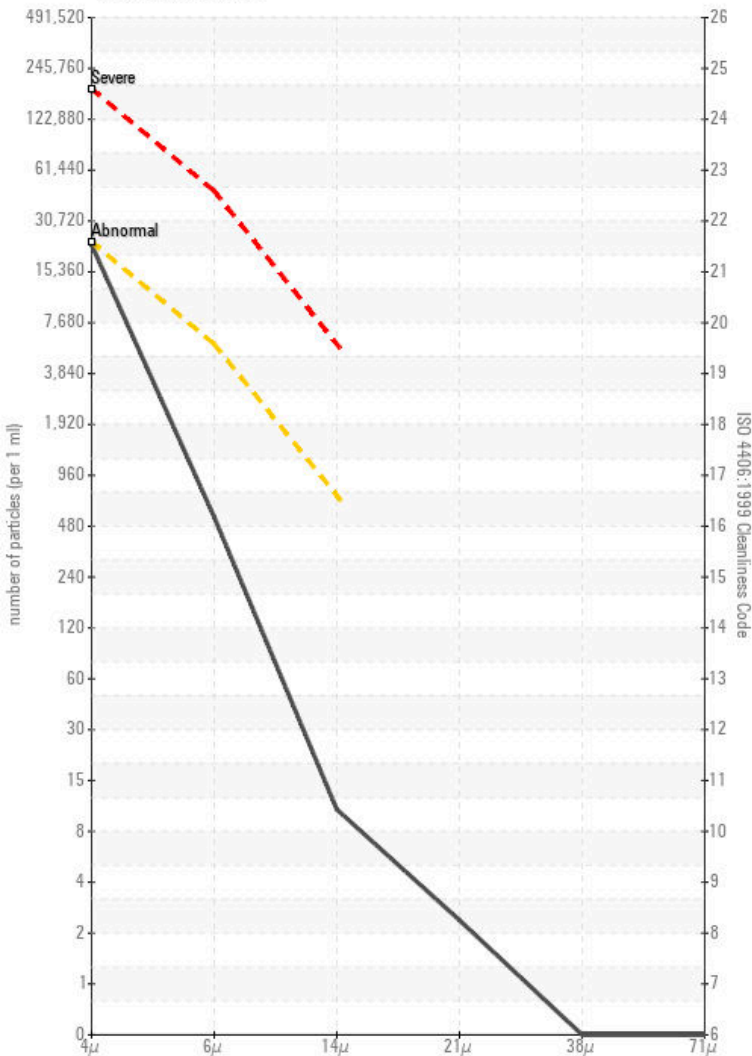
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

