

LIEBHERR

CONSTRUCTION EQUIPMENT



NO UNIT LH0285053 - Hydraulic System

Sample No: LH0285053

Oil Type: {unknown}



SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-----|-----|-----|
| Sample Number | LH0285053 | --- | --- | --- |
| Sample Date | 29 Jan 2024 | --- | --- | --- |
| Machine Hours | 0 | --- | --- | --- |
| Oil Hours | 0 | --- | --- | --- |
| Oil Changed | N/A | --- | --- | --- |
| Sample Status | SEVERE | --- | --- | --- |

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 joseph.rodgers@liebherr.com
 T:
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OIL CONDITION

| | | | | | |
|-------------|-----|------|-----|-----|-----|
| Visc @ 40°C | cSt | 39.1 | --- | --- | --- |
|-------------|-----|------|-----|-----|-----|



CONTAMINATION

| | | | | | |
|-------------------|-----|----------|-----|-----|-----|
| Water | % | NEG | --- | --- | --- |
| Particles >4µm | | ● 154574 | --- | --- | --- |
| Particles >6µm | | ● 28874 | --- | --- | --- |
| Particles >14µm | | ● 1346 | --- | --- | --- |
| ISO 4406:1999 (c) | | 24/22/18 | --- | --- | --- |
| Silicon | ppm | ● 2 | --- | --- | --- |
| Sodium | ppm | ● <1 | --- | --- | --- |
| Potassium | ppm | ● 1 | --- | --- | --- |

Diagnosis

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



WEAR METALS

| | | | | | |
|------------|-----|------|-----|-----|-----|
| Iron | ppm | ● 6 | --- | --- | --- |
| Copper | ppm | ● 2 | --- | --- | --- |
| Lead | ppm | ● <1 | --- | --- | --- |
| Tin | ppm | ● 0 | --- | --- | --- |
| Aluminum | ppm | ● <1 | --- | --- | --- |
| Chromium | ppm | ● <1 | --- | --- | --- |
| Molybdenum | ppm | ● 32 | --- | --- | --- |
| Nickel | ppm | ● <1 | --- | --- | --- |
| Titanium | ppm | ● 0 | --- | --- | --- |
| Silver | ppm | ● 0 | --- | --- | --- |
| Manganese | ppm | ● 0 | --- | --- | --- |
| Vanadium | ppm | ● 0 | --- | --- | --- |



ADDITIVES

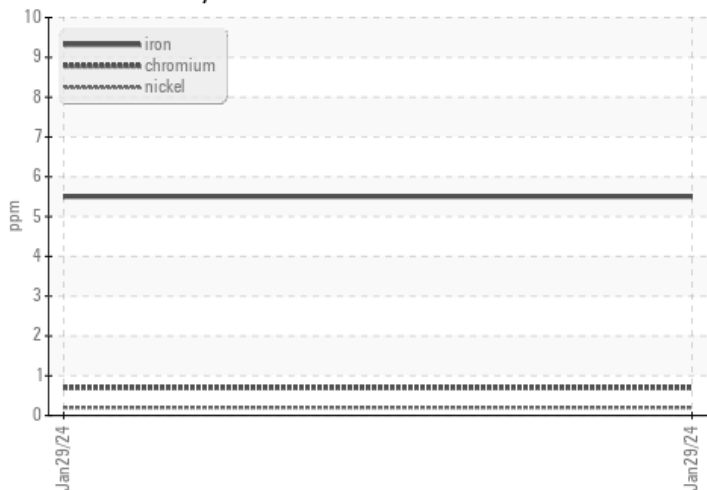
| | | | | | |
|------------|-----|-------|-----|-----|-----|
| Calcium | ppm | ● 98 | --- | --- | --- |
| Magnesium | ppm | ● 15 | --- | --- | --- |
| Zinc | ppm | ● 615 | --- | --- | --- |
| Phosphorus | ppm | ● 500 | --- | --- | --- |
| Barium | ppm | ● 0 | --- | --- | --- |
| Boron | ppm | ● <1 | --- | --- | --- |

Depot: LIEMIS
 Unique No: 5721259
 Signed: Bill Quesnel
 Report Date: 31 Jan 2024

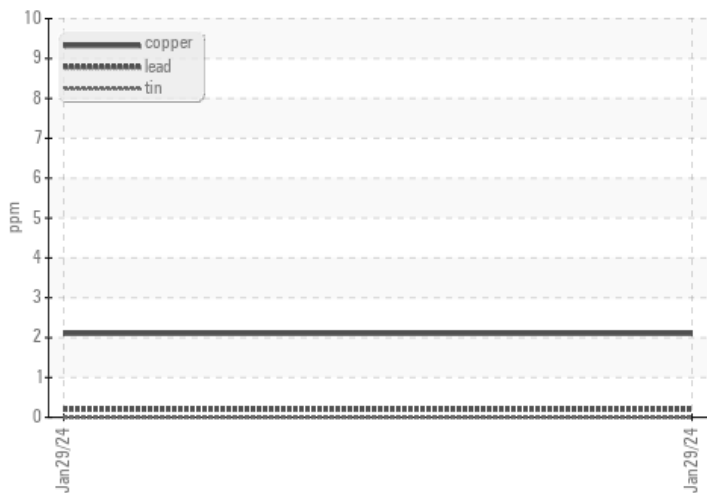


GRAPHS

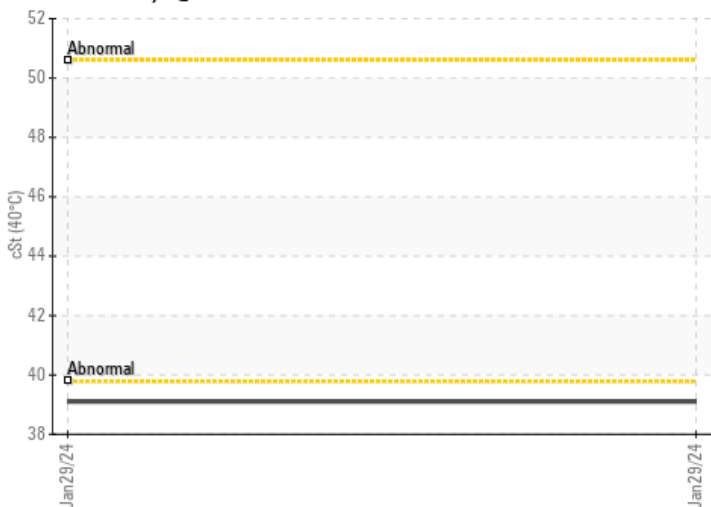
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

