

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R924LC 041508 - Hydraulic System

Sample No: LH0260667

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL



SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-------------|-------------|-----|
| Sample Number | LH0260667 | LH0140320 | LH0137047 | --- |
| Sample Date | 19 Jul 2023 | 08 May 2019 | 15 Feb 2019 | --- |
| Machine Hours | 13316 | 6006 | 5546 | --- |
| Oil Hours | 0 | 0 | 0 | --- |
| Oil Changed | Not Changd | Not Changd | Not Changd | --- |
| Sample Status | NORMAL | ABNORMAL | ATTENTION | --- |

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 Richmond, BC
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 T:
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OIL CONDITION

| | | | | | |
|-------------|-----|------|------|------|-----|
| Visc @ 40°C | cSt | 43.8 | 39.6 | 39.8 | --- |
|-------------|-----|------|------|------|-----|



CONTAMINATION

| | | | | | |
|-------------------|-----|----------|----------|----------|-----|
| Water | % | --- | 0.029 | --- | --- |
| Particles >4µm | | 2117 | 44607 | 7333 | --- |
| Particles >6µm | | 324 | 14358 | 312 | --- |
| Particles >14µm | | 26 | 1071 | 16 | --- |
| ISO 4406:1999 (c) | | 18/16/12 | 23/21/17 | 20/15/11 | --- |
| Silicon | ppm | 1 | 7 | 6 | --- |
| Sodium | ppm | <1 | 2 | 2 | --- |
| Potassium | ppm | <1 | 2 | 2 | --- |



WEAR METALS

| | | | | | |
|------------|-----|-----|----|----|-----|
| PQ | | --- | 22 | 9 | --- |
| Iron | ppm | 4 | 87 | 79 | --- |
| Copper | ppm | 1 | 52 | 51 | --- |
| Lead | ppm | 0 | 5 | 4 | --- |
| Tin | ppm | 0 | 0 | 0 | --- |
| Aluminum | ppm | <1 | 1 | 1 | --- |
| Chromium | ppm | <1 | 15 | 14 | --- |
| Molybdenum | ppm | 0 | 1 | <1 | --- |
| Nickel | ppm | 0 | <1 | <1 | --- |
| Titanium | ppm | <1 | 0 | 0 | --- |
| Silver | ppm | 0 | 0 | 0 | --- |
| Manganese | ppm | 0 | 2 | 2 | --- |
| Vanadium | ppm | 0 | 0 | 0 | --- |



ADDITIVES

| | | | | | |
|------------|-----|-----|-----|-----|-----|
| Calcium | ppm | 63 | 498 | 502 | --- |
| Magnesium | ppm | 2 | 6 | 5 | --- |
| Zinc | ppm | 444 | 579 | 574 | --- |
| Phosphorus | ppm | 367 | 467 | 456 | --- |
| Barium | ppm | 0 | 0 | 0 | --- |
| Boron | ppm | <1 | 2 | 2 | --- |

Diagnosis

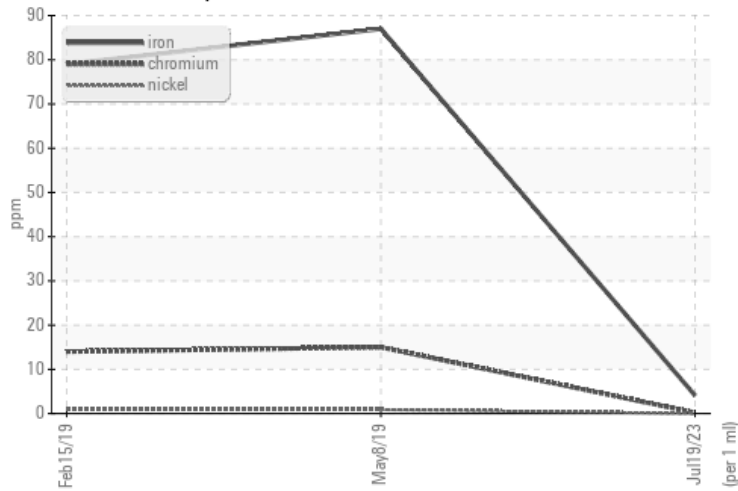
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Depot: LIERIC
Unique No: 5632440
Signed: Wes Davis
Report Date: 31 Aug 2023

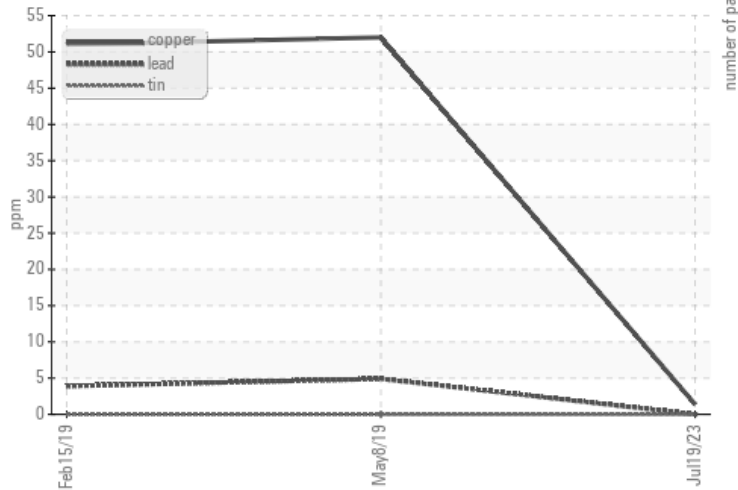


GRAPHS

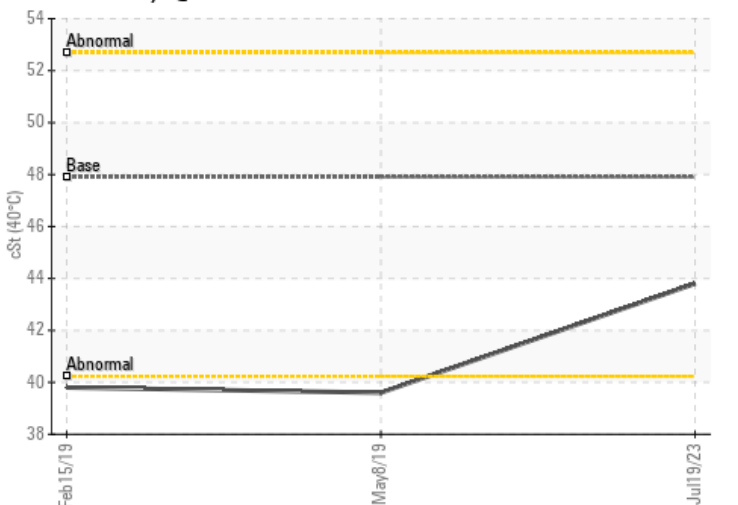
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

