

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH110 155976-1227 - Front Right Wheel Hub

Sample No: LH0267535

Oil Type: GEAR OIL SAE 80W90



KINDER MORGAN
4301 IVERSON
TRINITY, AL
US 35601
Contact: CHIP OAKES

T: (256)350-0006
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Sample Information

| | | | | |
|---------------|-------------|-------------|-------------|-----|
| Sample Number | LH0267535 | LH0280577 | LH0280566 | --- |
| Sample Date | 18 Apr 2024 | 23 Feb 2024 | 30 Jan 2024 | --- |
| Machine Hours | 1623 | 995 | 534 | --- |
| Oil Hours | 628 | 0 | 0 | --- |
| Oil Changed | Not Changd | Changed | Not Changd | --- |
| Sample Status | NORMAL | NORMAL | NORMAL | --- |



Oil Condition

| | | | | | |
|-------------|-----|-----|-----|-----|-----|
| Visc @ 40°C | cSt | 119 | 173 | 172 | --- |
|-------------|-----|-----|-----|-----|-----|



Contamination

| | | | | | |
|-----------|-----|-----|-----|-----|-----|
| Water | % | NEG | NEG | NEG | --- |
| Silicon | ppm | 3 | 12 | 10 | --- |
| Sodium | ppm | 0 | 3 | 0 | --- |
| Potassium | ppm | <1 | 1 | 1 | --- |



Wear Metals

| | | | | | |
|------------|-----|----|----|----|-----|
| Iron | ppm | 22 | 41 | 33 | --- |
| Copper | ppm | 0 | 2 | 0 | --- |
| Lead | ppm | 0 | 0 | 0 | --- |
| Tin | ppm | 0 | 0 | 0 | --- |
| Aluminum | ppm | <1 | 1 | 2 | --- |
| Chromium | ppm | 0 | <1 | <1 | --- |
| Molybdenum | ppm | 1 | 0 | 0 | --- |
| Nickel | ppm | 0 | <1 | 0 | --- |
| Titanium | ppm | <1 | <1 | 0 | --- |
| Silver | ppm | 0 | 0 | 0 | --- |
| Manganese | ppm | <1 | 2 | <1 | --- |
| Vanadium | ppm | 0 | 0 | 0 | --- |



Additives

| | | | | | |
|------------|-----|-----|------|------|-----|
| Calcium | ppm | 187 | 142 | 147 | --- |
| Magnesium | ppm | 5 | 2 | 0 | --- |
| Zinc | ppm | 108 | 21 | 4 | --- |
| Phosphorus | ppm | 454 | 1582 | 1281 | --- |
| Barium | ppm | 0 | 0 | 5 | --- |
| Boron | ppm | 0 | 2 | 8 | --- |

Diagnosis

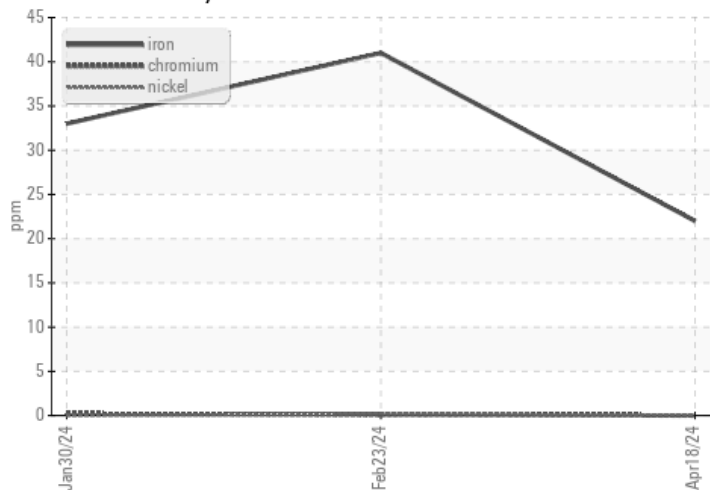
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: KINTRI
Unique No: 11031837
Signed: Wes Davis
Report Date: 16 May 2024

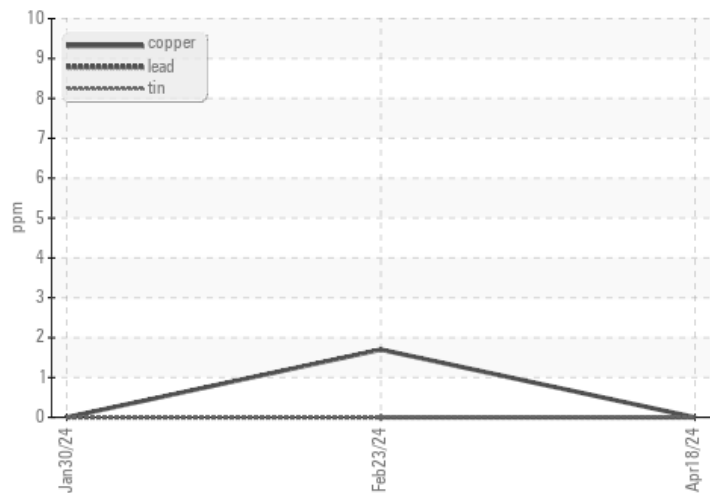


Graphs

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

