

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH40M 1215-149851 - Diesel Engine

Sample No: LH0273628

Oil Type: DIESEL ENGINE OIL SAE 5W30



STAINLESS STEEL MIDWEST
 2615 KY-146
 LAGRANGE, KY
 US 40031
 Contact: Service Manager



Sample Information

| | | | | |
|---------------|-------------|-----|-----|-----|
| Sample Number | LH0273628 | --- | --- | --- |
| Sample Date | 14 May 2024 | --- | --- | --- |
| Machine Hours | 549 | --- | --- | --- |
| Oil Hours | 549 | --- | --- | --- |
| Oil Changed | N/A | --- | --- | --- |
| Sample Status | ABNORMAL | --- | --- | --- |



Oil Condition

| | | | | | |
|------------------|----------|------|-----|-----|-----|
| Visc @ 100°C | cSt | 12.0 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | 5.1 | --- | --- | --- |
| Oxidation (PA) | % | 202 | --- | --- | --- |



Contamination

| | | | | | |
|----------------|-----|------|-----|-----|-----|
| Water | % | NEG | --- | --- | --- |
| Soot % | % | 0.1 | --- | --- | --- |
| Nitration (PA) | % | 99 | --- | --- | --- |
| Sulfation (PA) | % | 108 | --- | --- | --- |
| Glycol | % | NEG | --- | --- | --- |
| Fuel | % | <1.0 | --- | --- | --- |
| Silicon | ppm | 9 | --- | --- | --- |
| Sodium | ppm | 3 | --- | --- | --- |
| Potassium | ppm | 5 | --- | --- | --- |



Wear Metals

| | | | | | |
|------------|-----|-----|-----|-----|-----|
| Iron | ppm | 8 | --- | --- | --- |
| Copper | ppm | 216 | --- | --- | --- |
| Lead | ppm | <1 | --- | --- | --- |
| Tin | ppm | 1 | --- | --- | --- |
| Aluminum | ppm | 3 | --- | --- | --- |
| Chromium | ppm | <1 | --- | --- | --- |
| Molybdenum | ppm | 43 | --- | --- | --- |
| Nickel | ppm | 0 | --- | --- | --- |
| Titanium | ppm | <1 | --- | --- | --- |
| Silver | ppm | 0 | --- | --- | --- |
| Manganese | ppm | 1 | --- | --- | --- |
| Vanadium | ppm | 0 | --- | --- | --- |



Additives

| | | | | | |
|------------|-----|------|-----|-----|-----|
| Calcium | ppm | 1326 | --- | --- | --- |
| Magnesium | ppm | 912 | --- | --- | --- |
| Zinc | ppm | 854 | --- | --- | --- |
| Phosphorus | ppm | 708 | --- | --- | --- |
| Barium | ppm | 26 | --- | --- | --- |
| Boron | ppm | 103 | --- | --- | --- |

T:
F:

Diagnosis

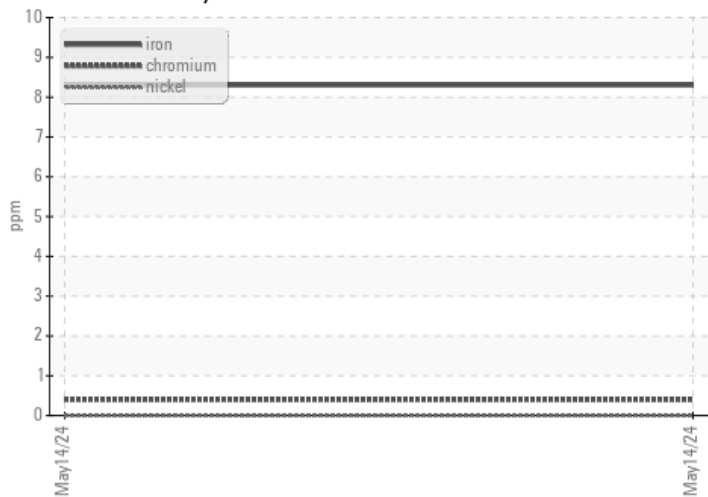
No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Depot: STALAGKY
 Unique No: 11087311
 Signed: Don Baldrige
 Report Date: 21 Jun 2024

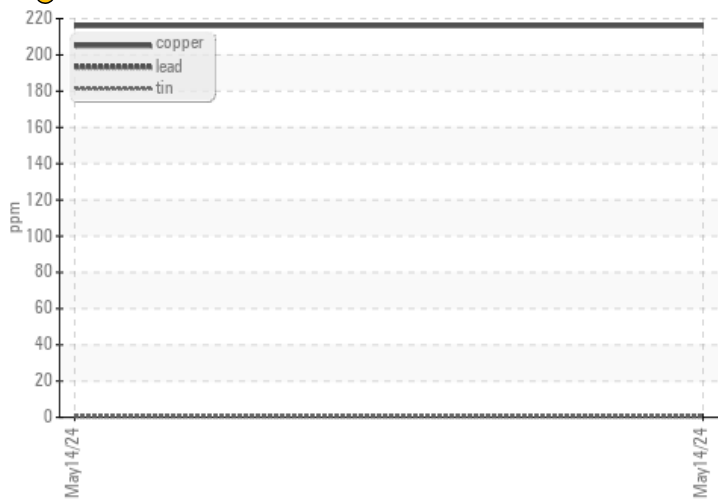


Graphs

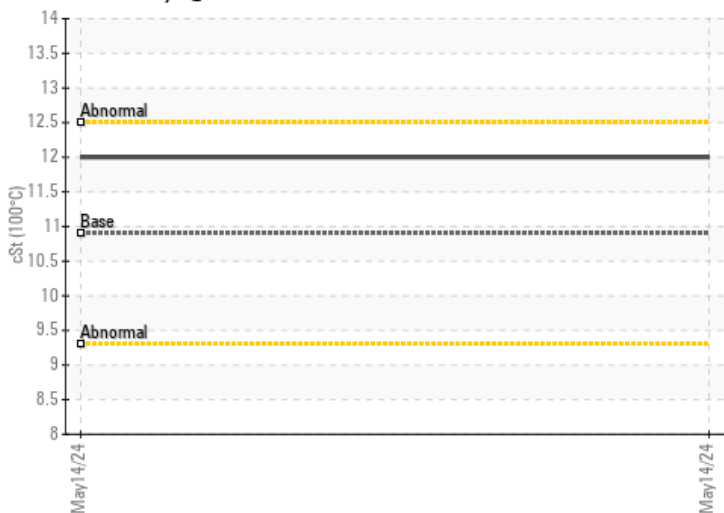
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

