

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR 8130.1185341 - Diesel Engine

Sample No: LH0264479

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



Sample Information

Sample Number	LH0264479	LH0272552	---	---
Sample Date	24 Apr 2024	21 Oct 2023	---	---
Machine Hours	2622	464	---	---
Oil Hours	1000	464	---	---
Oil Changed	N/A	Changed	---	---
Sample Status	ABNORMAL	NORMAL	---	---

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Oil Condition

Visc @ 100°C	cSt	11.0	11.8	---	---
Base Number (BN)	mg KOH/g	6.7	6.9	---	---
Oxidation (PA)	%	64	195	---	---

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). 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 suitable for further service.



Contamination

Water	%	NEG	NEG	---	---
Soot %	%	0	0.1	---	---
Nitration (PA)	%	75	77	---	---
Sulfation (PA)	%	55	108	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	6	6	---	---
Sodium	ppm	5	<1	---	---
Potassium	ppm	3	<1	---	---



Wear Metals

Iron	ppm	8	10	---	---
Copper	ppm	564	29	---	---
Lead	ppm	11	<1	---	---
Tin	ppm	5	1	---	---
Aluminum	ppm	1	2	---	---
Chromium	ppm	<1	0	---	---
Molybdenum	ppm	6	41	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	<1	0	---	---
Silver	ppm	0	<1	---	---
Manganese	ppm	1	2	---	---
Vanadium	ppm	0	0	---	---



Additives

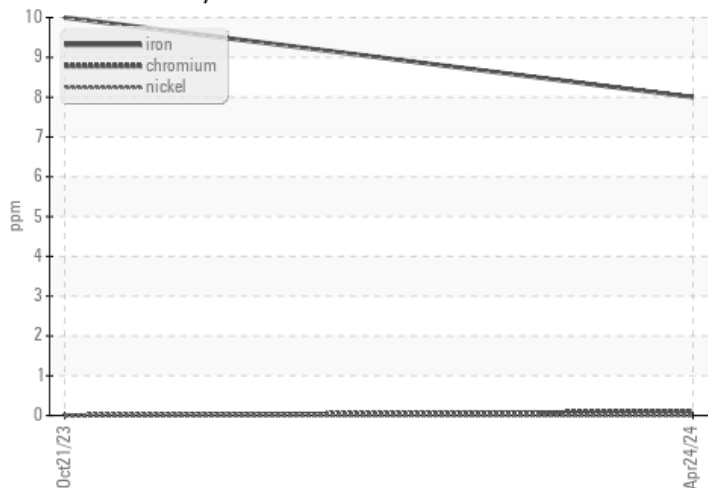
Calcium	ppm	1415	1218	---	---
Magnesium	ppm	734	842	---	---
Zinc	ppm	867	825	---	---
Phosphorus	ppm	802	705	---	---
Barium	ppm	2	11	---	---
Boron	ppm	100	117	---	---

Depot: OBAWES
Unique No: 11009967
Signed: Jonathan Hester
Report Date: 08 May 2024

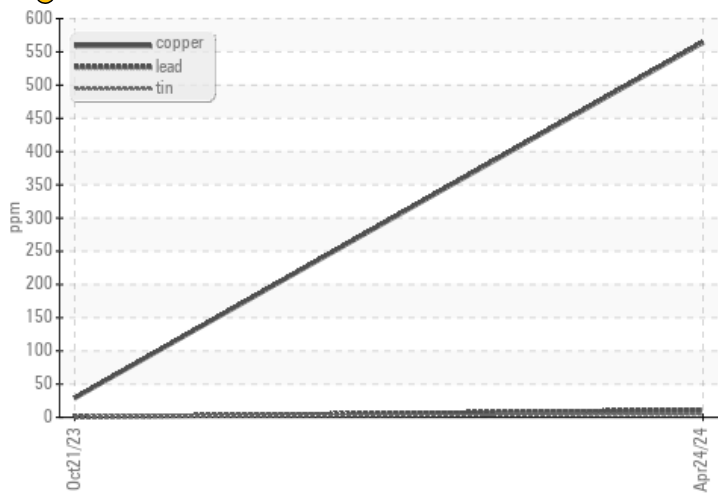


Graphs

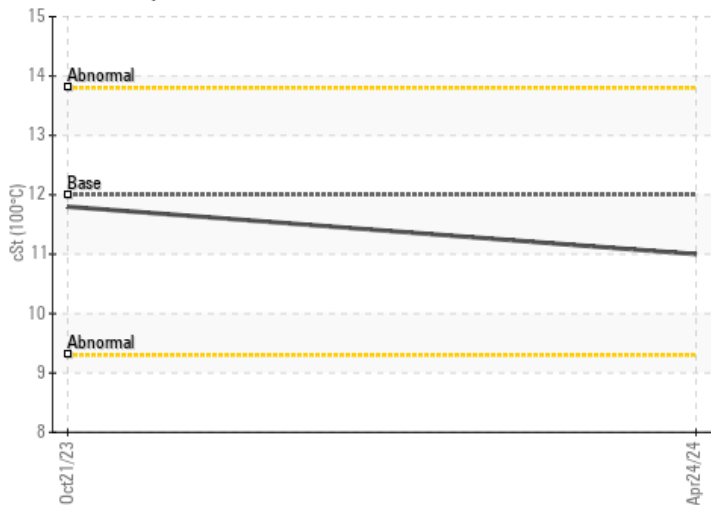
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

