

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L550 072921-1825 - Diesel Engine

Sample No: LH0267673

Oil Type: DIESEL ENGINE OIL SAE 5W40



SAMPLE INFORMATION

Sample Number	LH0267673	LH0254420	---	---
Sample Date	16 Nov 2023	09 Jun 2023	---	---
Machine Hours	1586	563	---	---
Oil Hours	500	563	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	NORMAL	---	---

HOMWOOD DISPOSAL

1501 175TH ST
HOMWOOD, IL
US 60430

Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	13.6	12.0	---	---
Base Number (BN)	mg KOH/g	6.5	5.8	---	---
Oxidation (PA)	%	59	200	---	---

T:
F:

Diagnosis

Oil and filter change at the time of sampling has been noted. 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 %	%	0.1	0.1	---	---
Nitration (PA)	%	70	98	---	---
Sulfation (PA)	%	53	108	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	1.1	---	---
Silicon	ppm	13	11	---	---
Sodium	ppm	3	2	---	---
Potassium	ppm	3	2	---	---



WEAR METALS

Iron	ppm	1	7	---	---
Copper	ppm	175	83	---	---
Lead	ppm	0	2	---	---
Tin	ppm	0	0	---	---
Aluminum	ppm	1	7	---	---
Chromium	ppm	<1	0	---	---
Molybdenum	ppm	6	55	---	---
Nickel	ppm	<1	0	---	---
Titanium	ppm	<1	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	0	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	1361	1438	---	---
Magnesium	ppm	710	987	---	---
Zinc	ppm	922	991	---	---
Phosphorus	ppm	831	771	---	---
Barium	ppm	2	28	---	---
Boron	ppm	71	113	---	---

Depot: HOMHOMLH

Unique No: 10804367

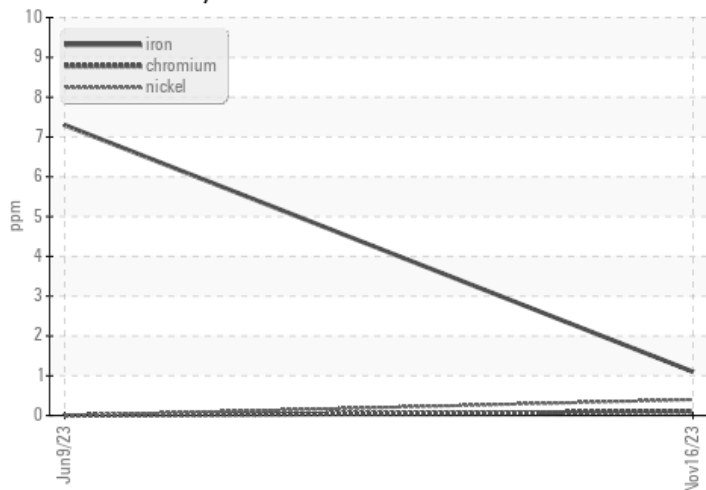
Signed: Jonathan Hester

Report Date: 27 Dec 2023

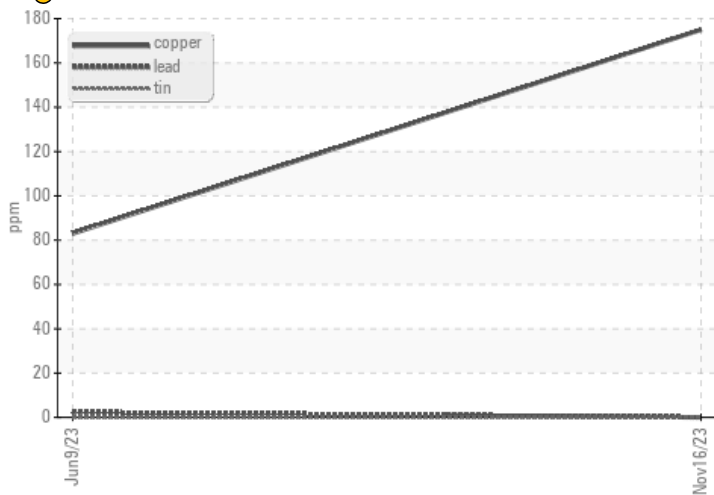


GRAPHS

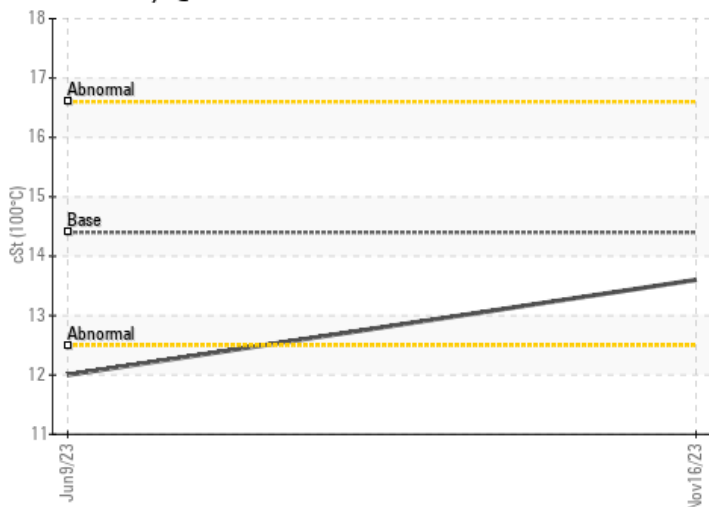
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

