

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH60 109095 - Diesel Engine

Sample No: LH0258244

Oil Type: DIESEL ENGINE OIL SAE 5W30



SAMPLE INFORMATION

Sample Number	LH0258244	LH0244882	---	---
Sample Date	09 Oct 2023	03 Apr 2023	---	---
Machine Hours	10694	10147	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	ATTENTION	---	---

INTEGRITY METALS

835 EAST INDUSTRIAL

MORRISTOWN, IN

US 46161

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OIL CONDITION

Visc @ 100°C	cSt	● 11.8	● 13.1	---	---
Base Number (BN)	mg KOH/g	● 5.8	● 6.5	---	---
Oxidation (PA)	%	98	68	---	---



CONTAMINATION

Soot %	%	● 0.1	● 0.1	---	---
Nitration (PA)	%	97	89	---	---
Sulfation (PA)	%	62	54	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	● 6	● 7	---	---
Sodium	ppm	● 1	● 2	---	---
Potassium	ppm	● 3	● 2	---	---



WEAR METALS

Iron	ppm	● 7	● 10	---	---
Copper	ppm	● 3	● 4	---	---
Lead	ppm	● <1	● 2	---	---
Tin	ppm	● 0	● <1	---	---
Aluminum	ppm	● 2	● <1	---	---
Chromium	ppm	● <1	● <1	---	---
Molybdenum	ppm	● 49	● 64	---	---
Nickel	ppm	● 0	● <1	---	---
Titanium	ppm	● <1	● 0	---	---
Silver	ppm	● 0	● 0	---	---
Manganese	ppm	● <1	● <1	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	● 1568	● 2785	---	---
Magnesium	ppm	● 813	20	---	---
Zinc	ppm	● 920	● 1181	---	---
Phosphorus	ppm	● 670	● 1015	---	---
Barium	ppm	● 0	● 2	---	---
Boron	ppm	● 63	● 170	---	---

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: INTMORLH

Unique No: 10702606

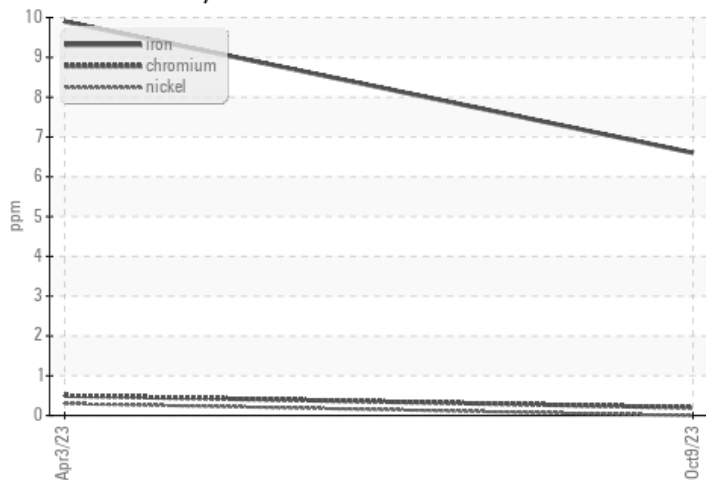
Signed: Wes Davis

Report Date: 23 Oct 2023

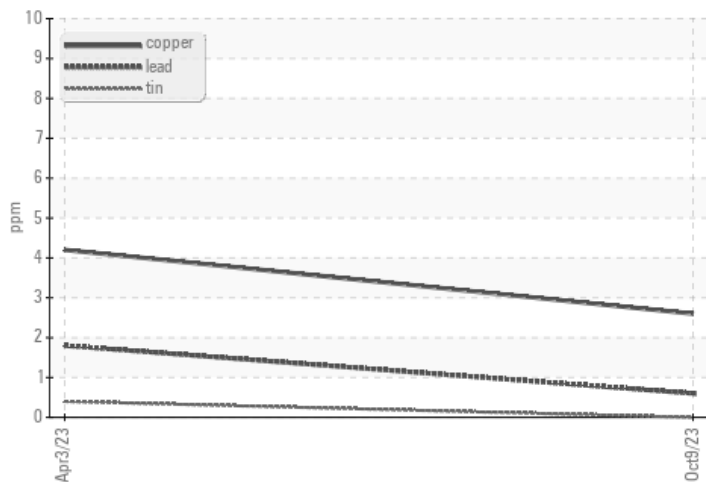


GRAPHS

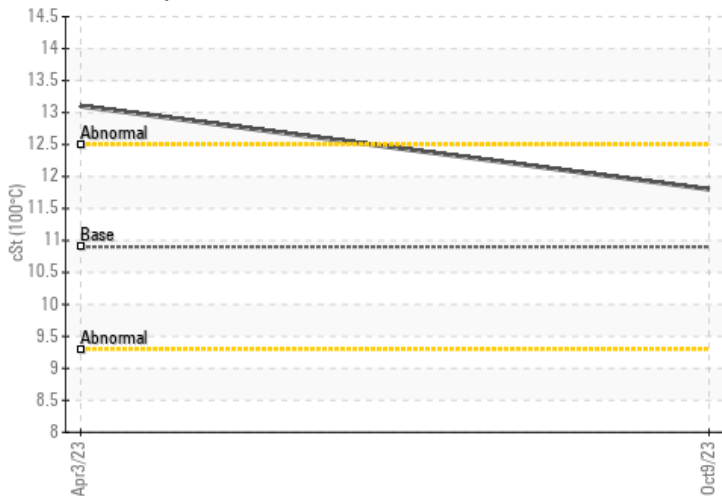
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

