

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L580 042899-1464 - Diesel Engine

Sample No: LH0258942

Oil Type: LIEBHERR MOTOROIL 5W30



SAMPLE INFORMATION

Sample Number	LH0258942	LH0220860	LHMC117898	---
Sample Date	19 Oct 2023	08 Mar 2022	19 Feb 2018	---
Machine Hours	6240	3115	1156	---
Oil Hours	3250	3115	0	---
Oil Changed	Changed	Changed	N/A	---
Sample Status	NORMAL	NORMAL	NORMAL	---

LIEBHERR EQUIPMENT SOURCE

10119 RESIDENCY ROAD
MANASSAS, VA
US 20110
Contact: TOM HEINEY
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OIL CONDITION

Visc @ 100°C	cSt	12.4	11.6	12.12	---
Base Number (BN)	mg KOH/g	5.1	16.1	---	---
Oxidation (PA)	%	106	68	108	---



CONTAMINATION

Soot %	%	0.2	0.1	0	---
Nitration (PA)	%	130	118	92	---
Sulfation (PA)	%	73	57	78	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	10	6	12	---
Sodium	ppm	<1	1	3	---
Potassium	ppm	3	0	16	---

Diagnosis

Resample at the next service interval to monitor. 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.



WEAR METALS

Iron	ppm	24	16	16	---
Copper	ppm	8	20	17	---
Lead	ppm	9	2	1	---
Tin	ppm	<1	2	2	---
Aluminum	ppm	2	2	2	---
Chromium	ppm	1	2	2	---
Molybdenum	ppm	13	1	8	---
Nickel	ppm	0	0	0	---
Titanium	ppm	0	<1	<1	---
Silver	ppm	0	0	<1	---
Manganese	ppm	1	1	2	---
Vanadium	ppm	0	0	0	---



ADDITIVES

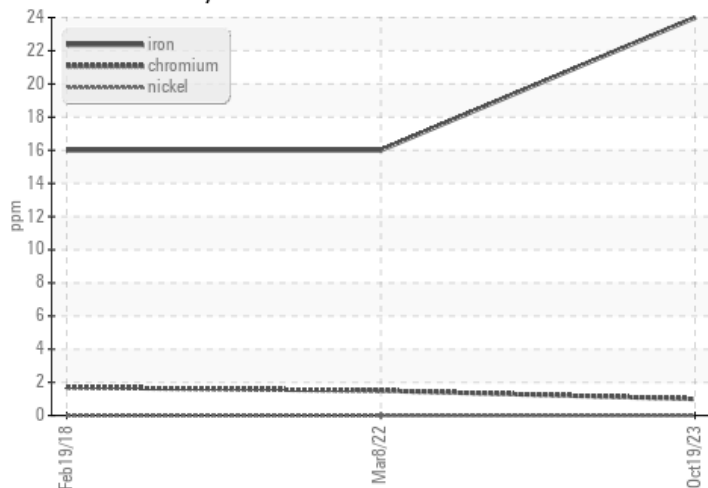
Calcium	ppm	2251	4489	4024	---
Magnesium	ppm	498	39	107	---
Zinc	ppm	1077	1136	1164	---
Phosphorus	ppm	827	1016	991	---
Barium	ppm	1	<1	32	---
Boron	ppm	64	228	186	---

Depot: LIEBHERRVA
Unique No: 10735907
Signed: Angela Borella
Report Date: 10 Nov 2023

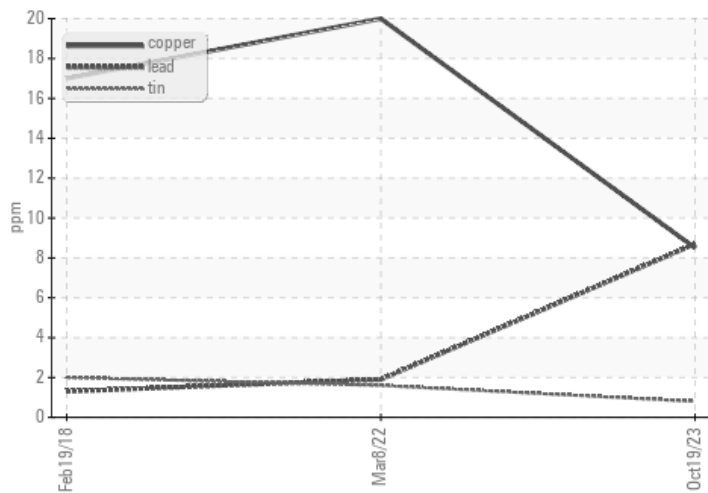


GRAPHS

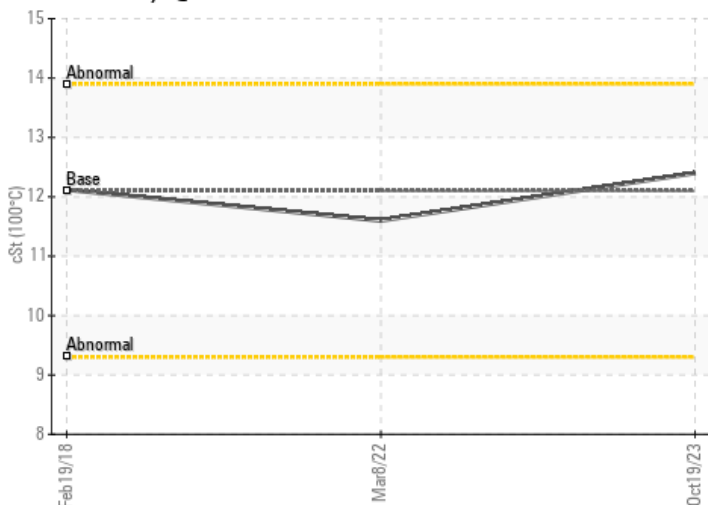
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

