

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 708999 (S/N 112358-1216) - Diesel Engine

Sample No: LH0257858

Oil Type: 10W30 LOW ASH



SAMPLE INFORMATION

Sample Number	LH0257858	LH0245164	---	---
Sample Date	13 Nov 2023	20 Dec 2022	---	---
Machine Hours	0	2000	---	---
Oil Hours	0	500	---	---
Oil Changed	N/A	Changed	---	---
Sample Status	NORMAL	ABNORMAL	---	---

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OIL CONDITION

Visc @ 100°C	cSt	11.0	11.2	---	---
Base Number (BN)	mg KOH/g	5.4	5.9	---	---
Oxidation (PA)	%	74	102	---	---

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.



CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.1	0.1	---	---
Nitration (PA)	%	85	107	---	---
Sulfation (PA)	%	65	76	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	13	9	---	---
Sodium	ppm	3	4	---	---
Potassium	ppm	7	5	---	---



WEAR METALS

Iron	ppm	11	15	---	---
Copper	ppm	31	390	---	---
Lead	ppm	10	17	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	3	<1	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	32	19	---	---
Nickel	ppm	<1	0	---	---
Titanium	ppm	<1	0	---	---
Silver	ppm	<1	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

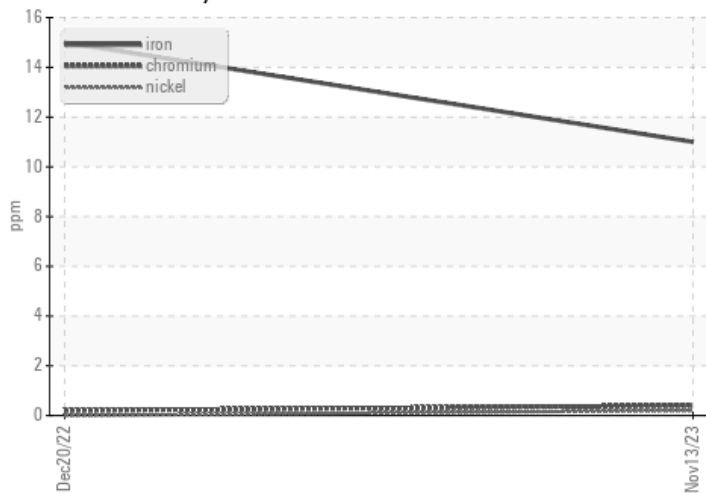
Calcium	ppm	1916	1570	---	---
Magnesium	ppm	969	628	---	---
Zinc	ppm	1096	938	---	---
Phosphorus	ppm	945	749	---	---
Barium	ppm	0	0	---	---
Boron	ppm	43	27	---	---

Depot: HEATHE
Unique No: 10750541
Signed: Don Baldrige
Report Date: 21 Nov 2023

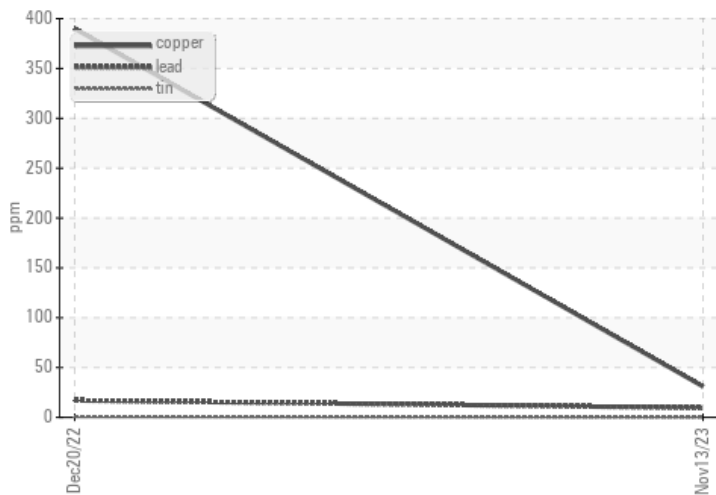


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

