

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LR636 020166-1275 - Diesel Engine

Sample No: LH0244578

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



SAMPLE INFORMATION

Sample Number	LH0244578	LH0257479	---	---
Sample Date	10 Jan 2024	22 May 2023	---	---
Machine Hours	1535	914	---	---
Oil Hours	622	500	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

LIEBHERR EQUIPMENT SOURCE

8200 FAYETTEVILLE ROAD
RALEIGH, NC

US 27603

Contact: Timothy Bailey

timothy.bailey@liebherr.com

T:

F: (919)329-0084



OIL CONDITION

Visc @ 100°C	cSt	● 11.1	● 12.0	---	---
Base Number (BN)	mg KOH/g	● 5.1	● 4.8	---	---
Oxidation (PA)	%	78	141	---	---

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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	● 0.1	● 0.1	---	---
Nitration (PA)	%	83	93	---	---
Sulfation (PA)	%	65	88	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	● 8	● 7	---	---
Sodium	ppm	● 2	● 3	---	---
Potassium	ppm	● 2	● 5	---	---



WEAR METALS

Iron	ppm	● 5	● 15	---	---
Copper	ppm	● 33	● 119	---	---
Lead	ppm	● 9	● 37	---	---
Tin	ppm	● 1	● 4	---	---
Aluminum	ppm	● 2	● 0	---	---
Chromium	ppm	● <1	● <1	---	---
Molybdenum	ppm	● 5	● 41	---	---
Nickel	ppm	● 2	● <1	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	● <1	● 0	---	---
Manganese	ppm	● 1	● 1	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	● 1308	● 1698	---	---
Magnesium	ppm	● 730	● 630	---	---
Zinc	ppm	● 870	● 989	---	---
Phosphorus	ppm	● 717	● 704	---	---
Barium	ppm	● 3	● 7	---	---
Boron	ppm	● 18	● 47	---	---

Depot: LIEBHERRNC

Unique No: 10830491

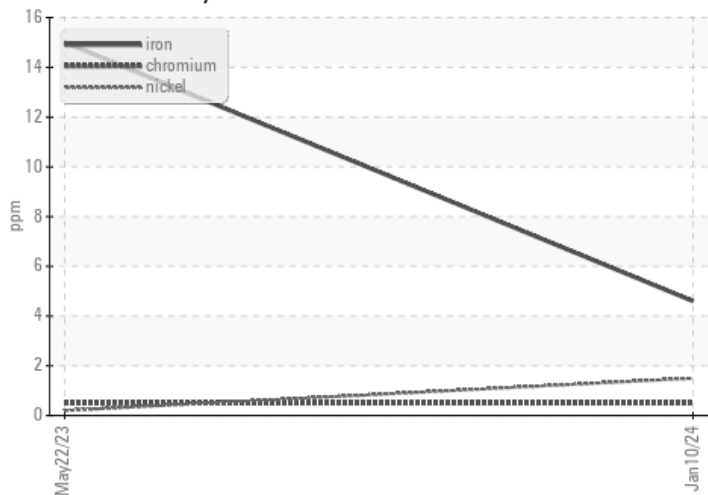
Signed: Don Baldrige

Report Date: 15 Jan 2024

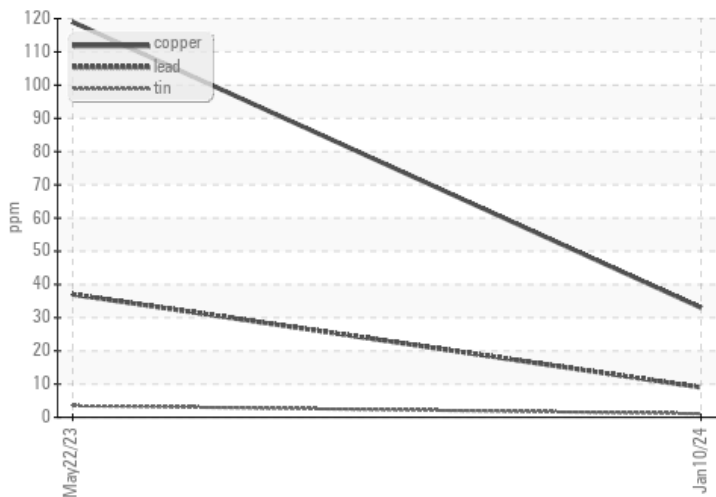


GRAPHS

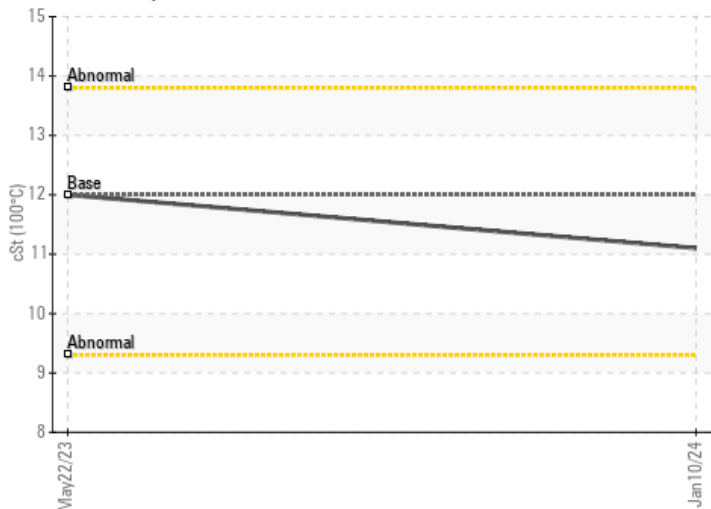
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

