

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH30 1200-72685 - Diesel Engine

Sample No: LH0263902

Oil Type: DIESEL ENGINE OIL SAE 5W30



SAMPLE INFORMATION

Sample Number	LH0263902	LH0244926	LH0230035	LH0229937
Sample Date	22 Sep 2023	07 Apr 2023	01 Feb 2023	09 Jun 2022
Machine Hours	16368	15487	15074	13668
Oil Hours	0	0	0	126
Oil Changed	Changed	Changed	Changed	Not Changd
Sample Status	NORMAL	NORMAL	ABNORMAL	ABNORMAL

GREEN METALS INC

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OIL CONDITION

Visc @ 100°C	cSt	11.7	11.5	11.4	13.37
Base Number (BN)	mg KOH/g	9.2	8.0	7.8	7.5
Oxidation (PA)	%	78	75	91	58



CONTAMINATION

Soot %	%	0.1	0.1	0.2	0.1
Nitration (PA)	%	74	72	90	66
Sulfation (PA)	%	51	48	58	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	7	8	9
Sodium	ppm	<1	0	<1	2
Potassium	ppm	0	1	<1	1

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.



WEAR METALS

Iron	ppm	6	9	20	9
Copper	ppm	7	59	235	9
Lead	ppm	<1	<1	2	5
Tin	ppm	<1	1	2	<1
Aluminum	ppm	0	1	3	10
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	46	46	47	87
Nickel	ppm	0	<1	0	<1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	1	<1
Vanadium	ppm	<1	0	0	<1



ADDITIVES

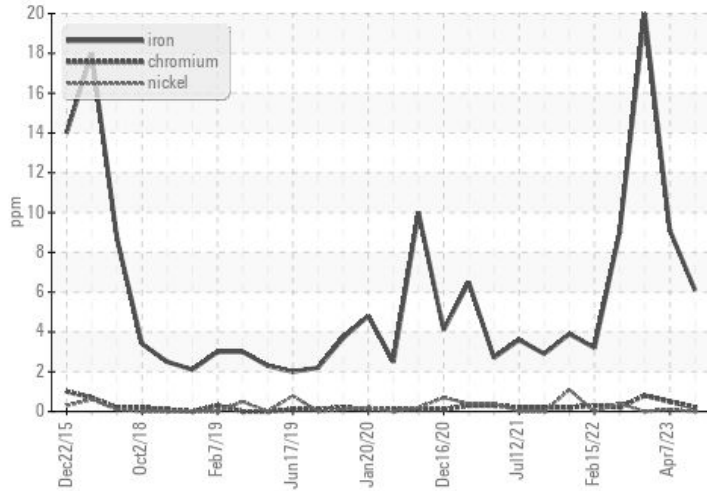
Calcium	ppm	1302	1297	1332	2140
Magnesium	ppm	894	866	837	55
Zinc	ppm	885	901	847	1204
Phosphorus	ppm	732	721	629	1014
Barium	ppm	0	0	4	<1
Boron	ppm	71	83	47	95

Depot: GREPRILH
Unique No: 10673427
Signed: Wes Davis
Report Date: 03 Oct 2023

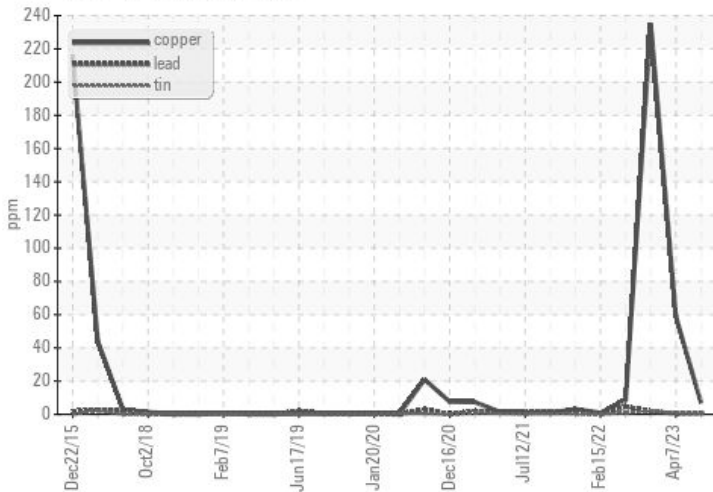


GRAPHS

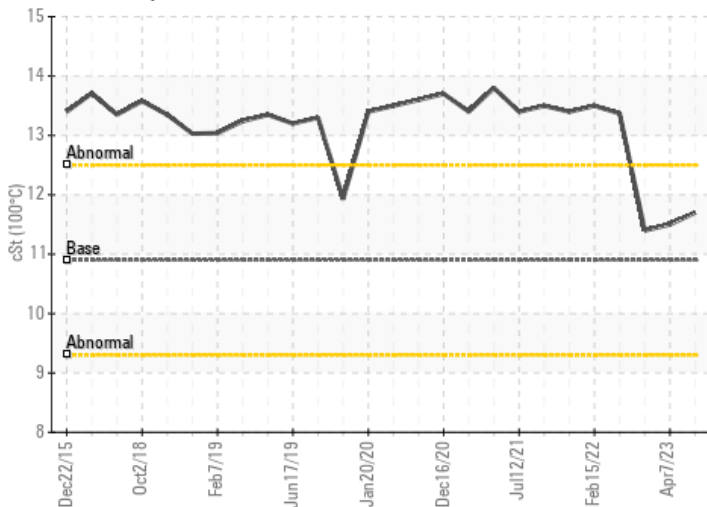
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

