

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH60M 114835-1217 - Diesel Engine

Sample No: LH0268847

Oil Type: LIEBHERR MOTOROIL 5W30



SAMPLE INFORMATION

Sample Number	LH0268847	LH0229409	LH0207434	LH0199820
Sample Date	05 Feb 2024	20 Feb 2023	06 Dec 2021	07 Jul 2021
Machine Hours	8546	6572	3985	3111
Oil Hours	0	500	874	0
Oil Changed	Not Changd	Changed	Changed	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

SIMS METAL MANAGEMENT

3220 DEEPWATER TERMINAL RD
RICHMOND, VA
US 23234
Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	12.6	11.8	11.2	11.3
Base Number (BN)	mg KOH/g	6.6	14.9	9.04	---
Oxidation (PA)	%	116	49	39	73

T: (703)392-0111
F:



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.1	0.1	0.1
Nitration (PA)	%	176	115	86	145
Sulfation (PA)	%	76	45	41	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	7	8	7	8
Sodium	ppm	3	3	2	4
Potassium	ppm	16	<1	0	20

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.



WEAR METALS

Iron	ppm	21	9	5	19
Copper	ppm	4	1	<1	14
Lead	ppm	2	<1	1	2
Tin	ppm	1	<1	<1	0
Aluminum	ppm	12	3	2	5
Chromium	ppm	1	<1	<1	2
Molybdenum	ppm	27	5	1	<1
Nickel	ppm	0	0	0	2
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	<1	0	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	<1



ADDITIVES

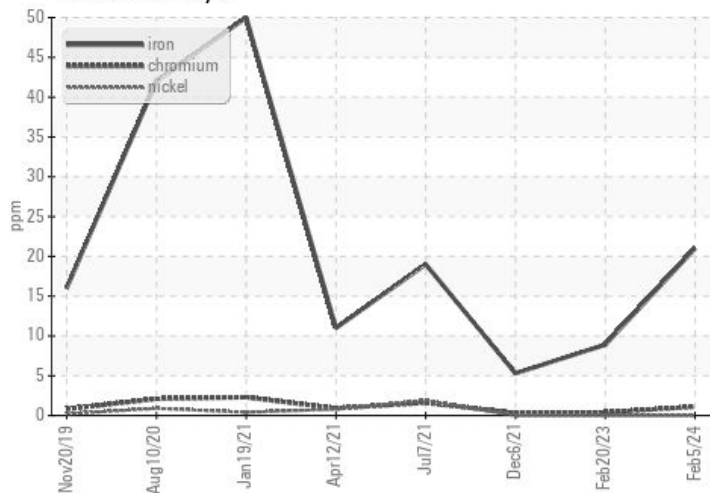
Calcium	ppm	3548	4208	3951	4515
Magnesium	ppm	165	48	24	60
Zinc	ppm	1177	1181	1083	1183
Phosphorus	ppm	1065	979	935	1086
Barium	ppm	0	<1	0	2
Boron	ppm	175	244	253	169

Depot: SIMRCLH
Unique No: 10903269
Signed: Sean Felton
Report Date: 04 Mar 2024

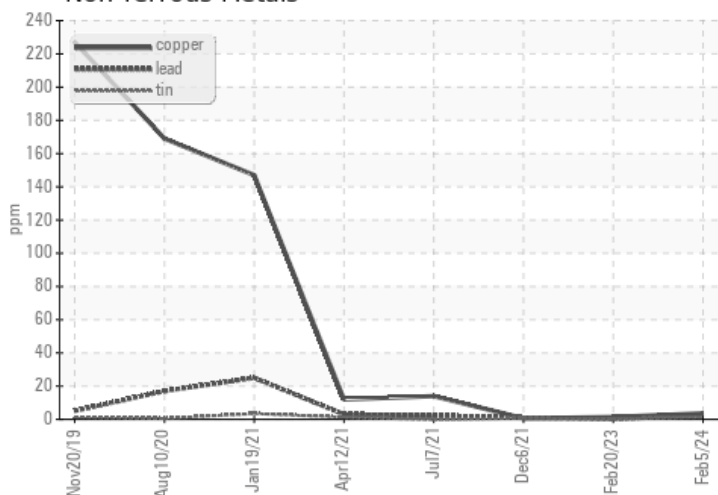


GRAPHS

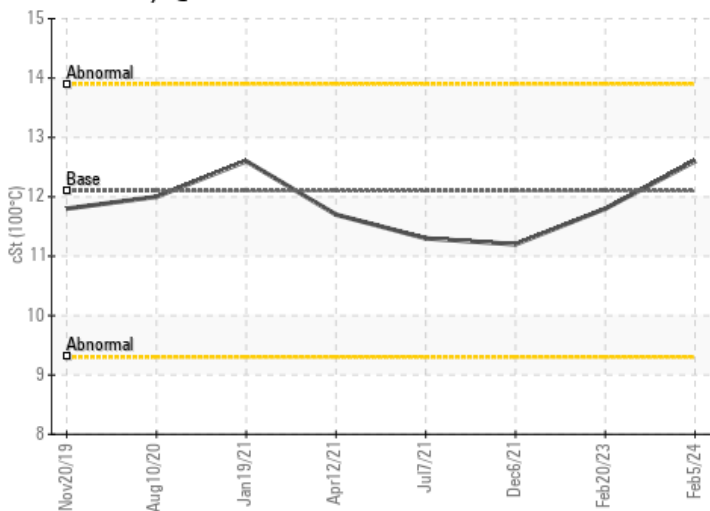
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

