

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH60M 119208-1217 - Diesel Engine

Sample No: LH0257447

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



SAMPLE INFORMATION

Sample Number	LH0257447	LH0200262	LHMC120076	---
Sample Date	05 Jul 2023	30 Nov 2022	18 Feb 2021	---
Machine Hours	3275	1763	166	---
Oil Hours	700	0	166	---
Oil Changed	Changed	Not Changd	Not Changd	---
Sample Status	NORMAL	NORMAL	NORMAL	---

TT & E IRON

1529 WEST GARNER RD
GARNER, NC
US 27529
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F:



OIL CONDITION

Visc @ 100°C	cSt	11.8	13.6	12.0	---
Base Number (BN)	mg KOH/g	6.4	10.2	---	---
Oxidation (PA)	%	81	84	185	---



CONTAMINATION

Soot %	%	0.1	0.1	0.1	---
Nitration (PA)	%	98	83	75	---
Sulfation (PA)	%	63	57	103	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	0.7	---
Silicon	ppm	8	8	10	---
Sodium	ppm	2	3	1	---
Potassium	ppm	10	6	5	---

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	8	6	12	---
Copper	ppm	4	4	34	---
Lead	ppm	<1	<1	2	---
Tin	ppm	<1	<1	<1	---
Aluminum	ppm	5	3	3	---
Chromium	ppm	<1	<1	2	---
Molybdenum	ppm	1	3	45	---
Nickel	ppm	<1	0	0	---
Titanium	ppm	<1	0	<1	---
Silver	ppm	0	0	<1	---
Manganese	ppm	<1	<1	1	---
Vanadium	ppm	<1	<1	0	---



ADDITIVES

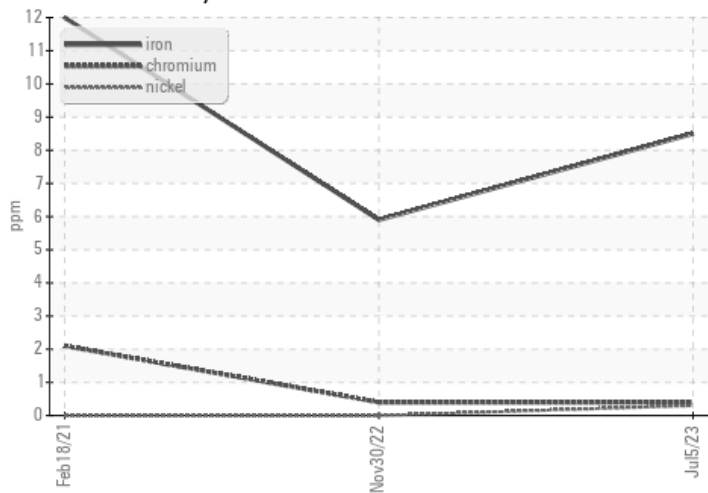
Calcium	ppm	1341	1578	1329	---
Magnesium	ppm	727	811	872	---
Zinc	ppm	813	961	861	---
Phosphorus	ppm	677	842	754	---
Barium	ppm	0	0	16	---
Boron	ppm	32	164	138	---

Depot: TTENEW
Unique No: 10550591
Signed: Wes Davis
Report Date: 11 Jul 2023

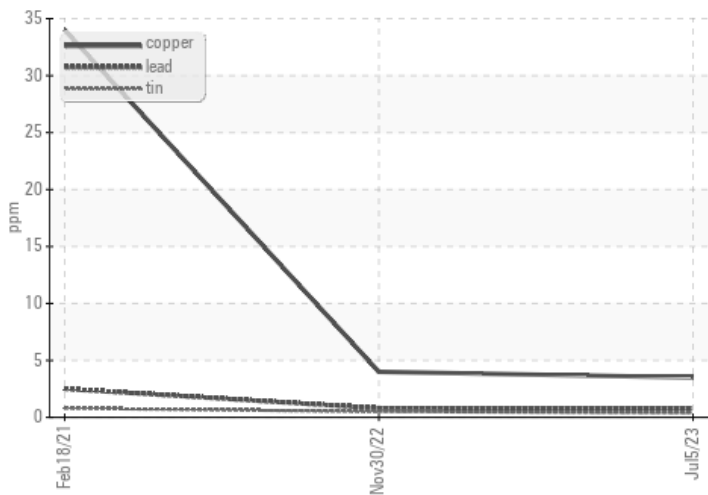


GRAPHS

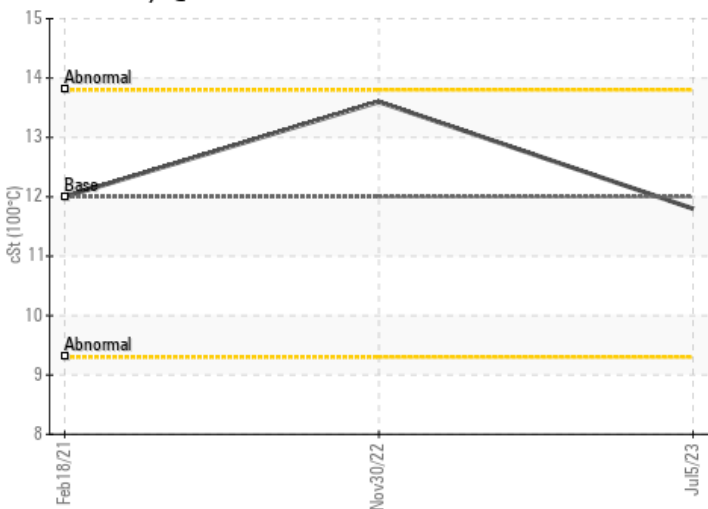
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

