

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1216-139058 - Hydraulic System

Sample No: LHMC85450

Oil Type: MOBIL DTE 10 EXCEL 46



SAMPLE INFORMATION

Sample Number	LHMC85450	LHMC85067	LHMC51606	LHMC51595
Sample Date	11 Oct 2023	17 Aug 2023	23 Jun 2023	04 May 2023
Machine Hours	4598	4098	3586	3081
Oil Hours	500	2000	1500	1000
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	ABNORMAL	NORMAL	ABNORMAL	ABNORMAL

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OIL CONDITION

Visc @ 40°C	cSt	● 44.7	● 44.9	● 45.4	● 45.2
Acid Number (AN)	mg KOH/g	● 0.394	● 0.22	● 0.48	● 0.39



CONTAMINATION

Water	%	● 0.167	---	● 0.374	● 0.125
Particles >4µm		---	● 1329	---	● 522
Particles >6µm		---	● 339	---	● 284
Particles >14µm		---	● 25	---	● 48
ISO 4406:1999 (c)		---	18/16/12	---	16/15/13
Silicon	ppm	● 1	● 1	● <1	● 1
Sodium	ppm	● 0	● 0	● <1	● 0
Potassium	ppm	● 1	● 2	● 1	● 1

Diagnosis

We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	● 5	● 7	● 5	● 4
Copper	ppm	● <1	● 2	● 2	● 2
Lead	ppm	● 0	● 0	● 0	● <1
Tin	ppm	● 0	● 0	● <1	● 0
Aluminum	ppm	● <1	● 0	● <1	● 0
Chromium	ppm	● 0	● <1	● <1	● <1
Molybdenum	ppm	● 0	● <1	● 0	● 0
Nickel	ppm	● <1	● <1	● <1	● 0
Titanium	ppm	0	0	0	0
Silver	ppm	0	1	0	0
Manganese	ppm	● 0	● <1	● <1	● 0
Vanadium	ppm	0	<1	0	0



ADDITIVES

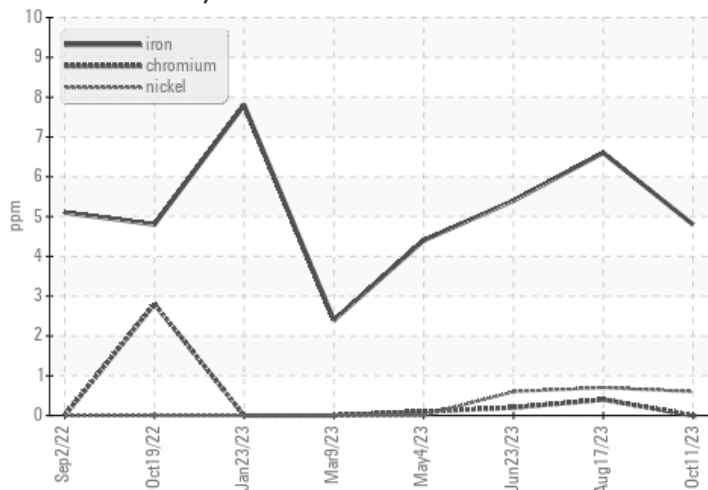
Calcium	ppm	● 361	● 429	448	480
Magnesium	ppm	● 4	● 2	● 2	● 2
Zinc	ppm	● 176	● 197	● 221	● 228
Phosphorus	ppm	● 257	● 252	● 279	● 279
Barium	ppm	● 0	● 0	● <1	● 0
Boron	ppm	● 0	● 0	● 0	● 0

Depot: PACTOM
Unique No: 10709974
Signed: Don Baldrige
Report Date: 25 Oct 2023

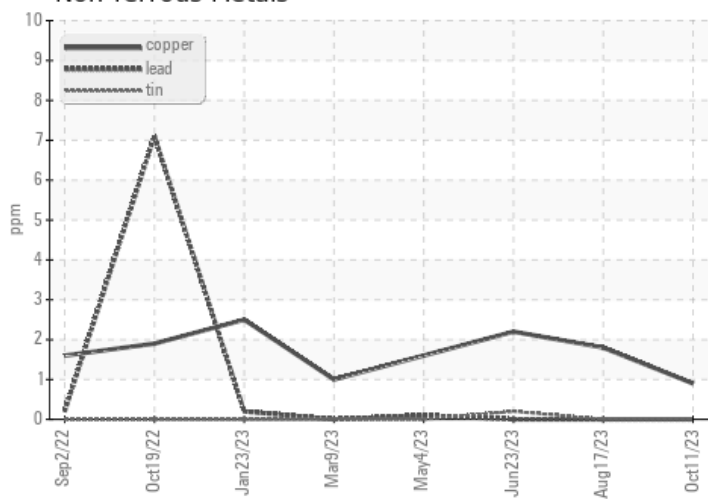


GRAPHS

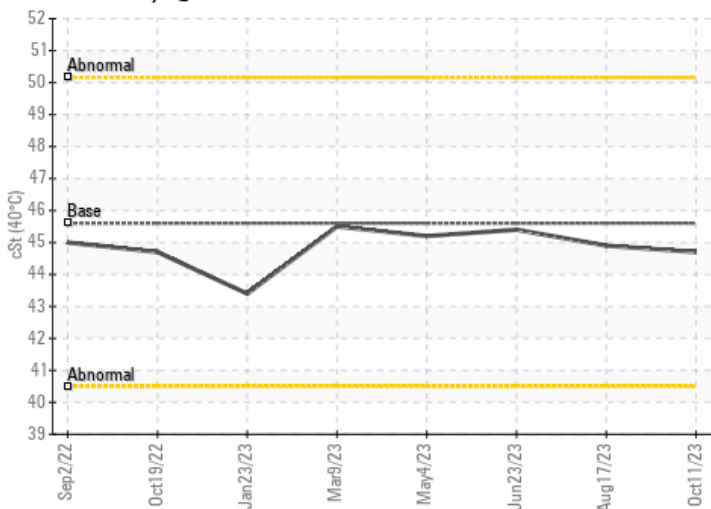
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Acid Number

