

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LR636 018687-1275 - Diesel Engine

Sample No: LH0273230

Oil Type: LIEBHERR MOTOROIL 5W30



SAMPLE INFORMATION

Sample Number	LH0273230	LHMC100333	LHMC101256	LHMC79600
Sample Date	02 Jan 2024	14 Jun 2023	21 Dec 2022	13 Sep 2022
Machine Hours	3251	2868	2276	1856
Oil Hours	383	592	420	550
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ATTENTION	SEVERE

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OIL CONDITION

Visc @ 100°C	cSt	12.6	13.2	11.5	11.4
Base Number (BN)	mg KOH/g	5.0	7.4	13.9	2.4
Oxidation (PA)	%	76	86	67	224

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.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.2
Nitration (PA)	%	80	87	116	186
Sulfation (PA)	%	62	59	57	120
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	1.8	<1.0
Silicon	ppm	8	8	9	15
Sodium	ppm	2	2	3	5
Potassium	ppm	1	2	0	3



WEAR METALS

Iron	ppm	37	6	12	37
Copper	ppm	4	8	32	291
Lead	ppm	<1	<1	8	85
Tin	ppm	<1	<1	<1	4
Aluminum	ppm	3	2	2	4
Chromium	ppm	4	<1	<1	2
Molybdenum	ppm	19	5	3	37
Nickel	ppm	2	0	0	0
Titanium	ppm	<1	<1	0	<1
Silver	ppm	<1	<1	0	<1
Manganese	ppm	<1	<1	<1	2
Vanadium	ppm	<1	<1	0	0



ADDITIVES

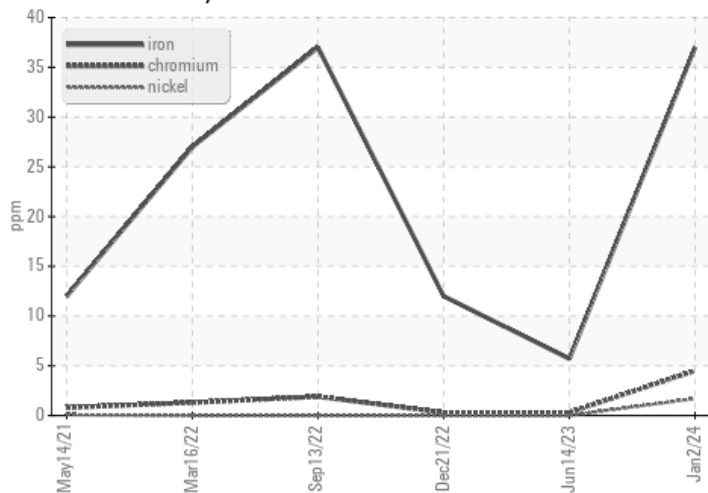
Calcium	ppm	2485	1742	4189	2072
Magnesium	ppm	514	813	85	738
Zinc	ppm	1282	1021	1204	973
Phosphorus	ppm	1131	875	979	808
Barium	ppm	0	0	0	51
Boron	ppm	138	137	228	63

Depot: LEC0070
Unique No: 10820512
Signed: Sean Felton
Report Date: 10 Jan 2024

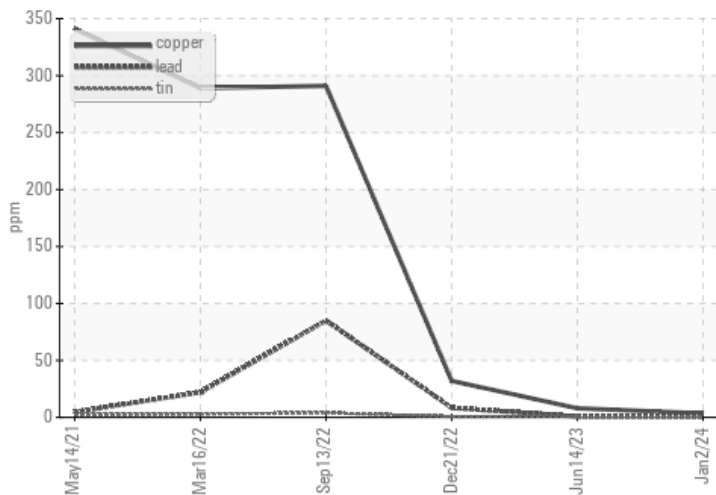


GRAPHS

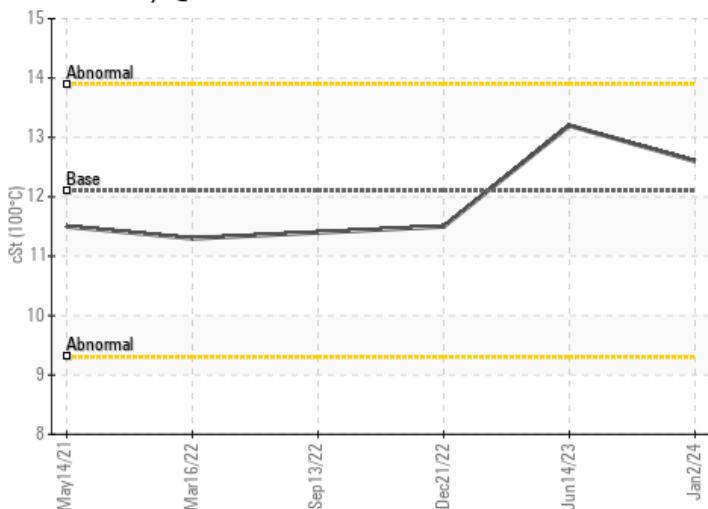
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

