

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### [(365672)] LIEBHERR LH50M 135585-1216 - Diesel Engine

Sample No: LH0223047

Oil Type: MOBIL 1 FS 0W40



#### Sample Information

Sample Number	LH0223047	LH0223044	LH0223035	LH0223032
Sample Date	25 Oct 2022	26 Sep 2022	25 Aug 2022	23 Jul 2022
Machine Hours	4976	4438	3930	3450
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

#### Weyerhaeuser

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#### Oil Condition

Visc @ 100°C	cSt	13.8	13.5	13.5	13.5
Oxidation (PA)	%	65	61	57	59



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	71	70	68	70
Sulfation (PA)	%	52	50	48	48
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	11	9	10	11
Sodium	ppm	2	2	2	2
Potassium	ppm	<1	<1	1	2

#### Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.



#### Wear Metals

Iron	ppm	3	3	3	3
Copper	ppm	15	13	13	23
Lead	ppm	<1	<1	<1	1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	2	3	2	3
Chromium	ppm	0	0	0	0
Molybdenum	ppm	<1	<1	<1	<1
Nickel	ppm	<1	0	0	<1
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



#### Additives

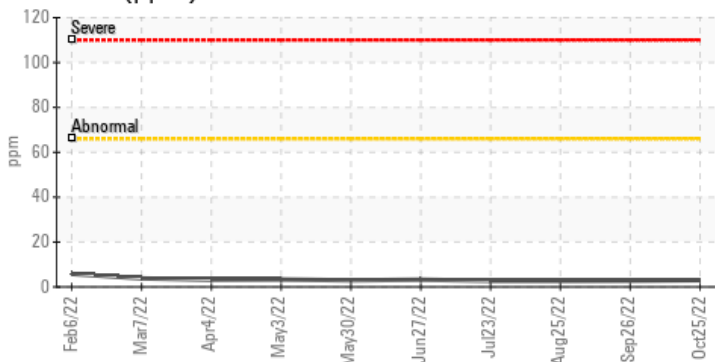
Calcium	ppm	2234	2246	2155	2216
Magnesium	ppm	16	11	11	10
Zinc	ppm	1090	1097	1055	1115
Phosphorus	ppm	973	1010	902	918
Barium	ppm	0	0	0	0
Boron	ppm	4	2	2	2

Depot: WEY100KEN  
Unique No: 5477148  
Signed: Kevin Marson  
Report Date: 02 Nov 2022

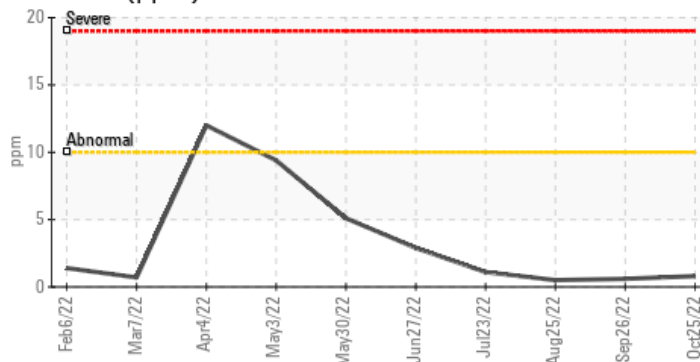


### Graphs

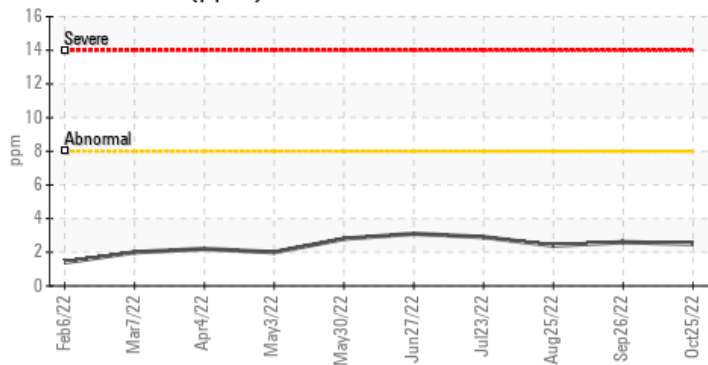
Iron (ppm)



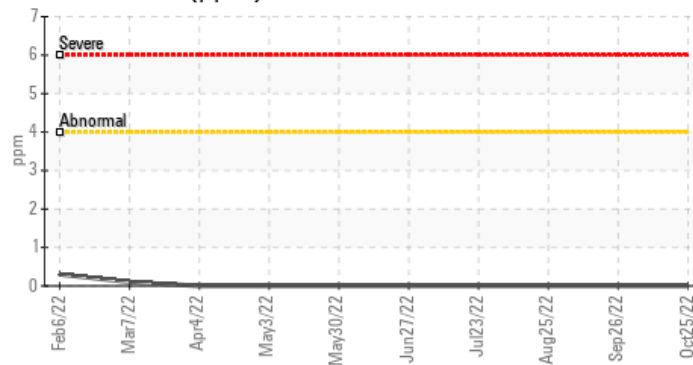
Lead (ppm)



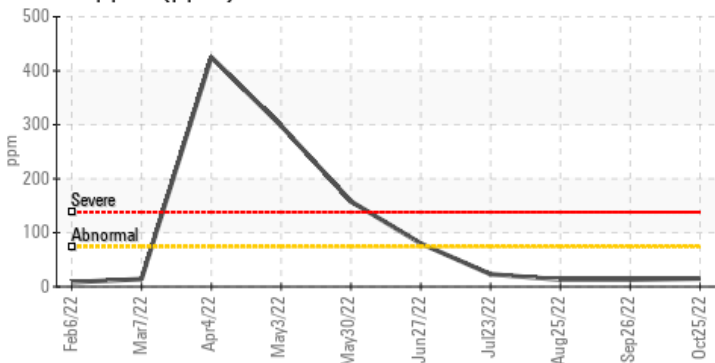
Aluminum (ppm)



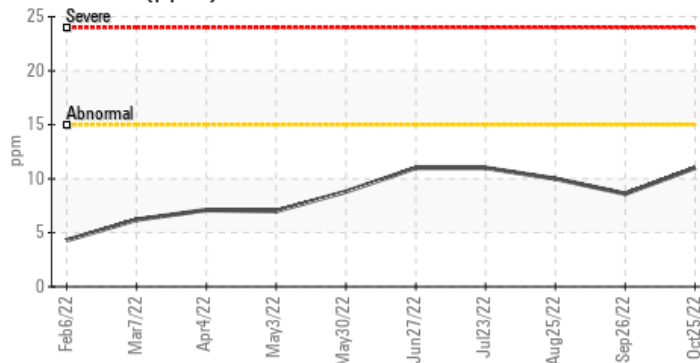
Chromium (ppm)



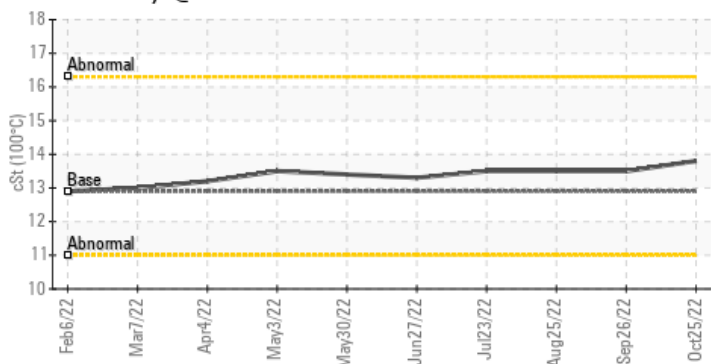
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Soot %

