LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH40 121161 - Front Right Wheel Hub

Sample No: LH

Oil Type: LIEBHERR GEAR BASIC 90 LS

Sample Information

Sample Number		**LH**	LH0072847	---	---
Sample Date		**27 Mar 2024**	18 Dec 2020	---	---
Machine Hours		**14060**	1105	---	---
Oil Hours		**0**	0	---	---
Oil Changed		**Changed**	Changed	---	---
Sample Status		**SEVERE**	ABNORMAL	---	---

Oil Condition

Visc @ 40°C	cSt	**127**	103	---	---

Contamination

Water	%	**NEG**	0.145	---	---
Silicon	ppm	**33**	4	---	---
Sodium	ppm	**13**	<1	---	---
Potassium	ppm	**2**	<1	---	---

Wear Metals

PQ		**390**	---	---	---
Iron	ppm	**1024**	31	---	---
Copper	ppm	**13**	15	---	---
Lead	ppm	**<1**	<1	---	---
Tin	ppm	**0**	0	---	---
Aluminum	ppm	**6**	1	---	---
Chromium	ppm	**3**	<1	---	---
Molybdenum	ppm	**0**	0	---	---
Nickel	ppm	**<1**	<1	---	---
Titanium	ppm	**2**	0	---	---
Silver	ppm	**0**	<1	---	---
Manganese	ppm	**7**	1	---	---
Vanadium	ppm	**0**	<1	---	---

Additives

Calcium	ppm	**75**	2	---	---
Magnesium	ppm	**16**	<1	---	---
Zinc	ppm	**114**	13	---	---
Phosphorus	ppm	**1994**	318	---	---
Barium	ppm	**<1**	0	---	---
Boron	ppm	**12**	2	---	---

LIEBHERR CANADA LTEE
444 AVENUE DE LA FRICHE
DOLBEAU-MISTASSINI, QC
CA G8L 3M7
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Diagnosis

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.Iron ppm levels are severe. PQ levels are abnormal. Aluminum ppm levels are abnormal. Gear wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component. The oil viscosity is lower than typical, possibly indicating the addition of lighter grade oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: LBADOL
Unique No: 5763476
Signed: Kevin Marson
Report Date: 22 Apr 2024

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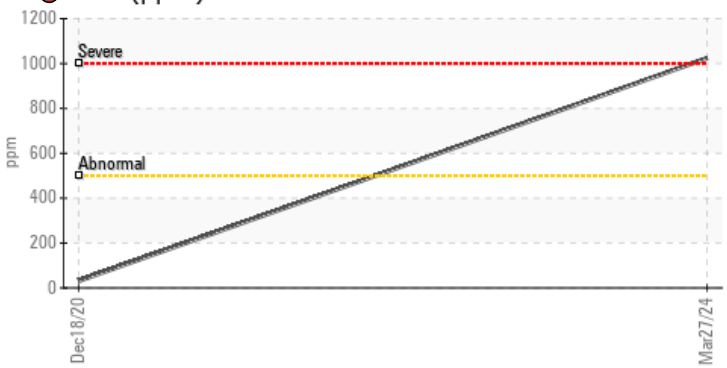
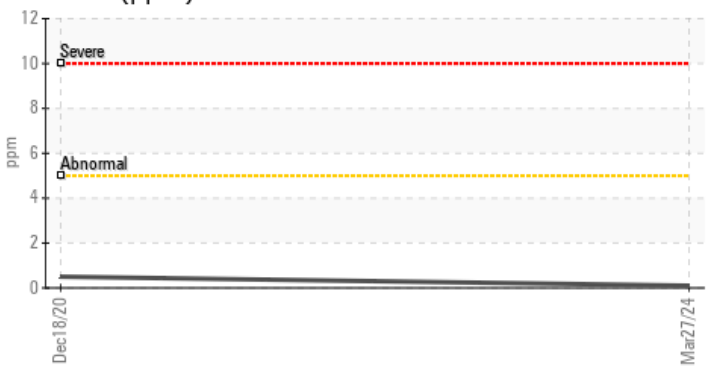
Graphs

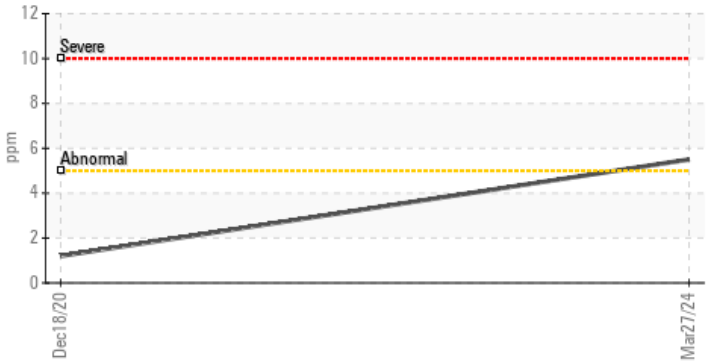
Iron (ppm)



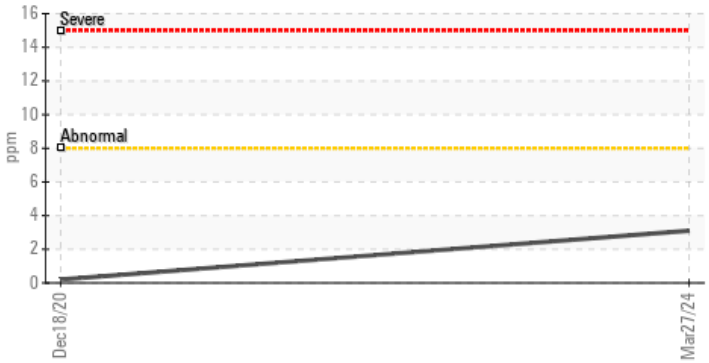
Lead (ppm)



Aluminum (ppm)

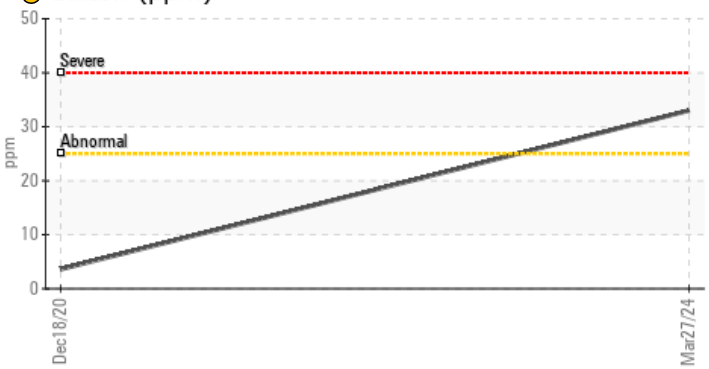


Chromium (ppm)



Copper (ppm)

Silicon (ppm)



Viscosity @ 40°C

PQ