

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 1216-118289 - Front Left Wheel Hub

Sample No: LH06135812

Oil Type: GEAR OIL SAE 80W90



KOVALCHICK CORP
1060 WAYNE AVENUE
INDIANA, PA
US 15701
Contact: Service Manager



Sample Information

Sample Number	LH06135812	LH05693568	LH05370571	---
Sample Date	31 Mar 2024	13 Nov 2022	10 Oct 2021	---
Machine Hours	5050	0	1635	---
Oil Hours	0	0	0	---
Oil Changed	Not Chngd	N/A	N/A	---
Sample Status	SEVERE	ABNORMAL	SEVERE	---



Oil Condition

Visc @ 40°C	cSt	59.0	156	121	---
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Contamination

Water	%	NEG	NEG	NEG	---
Silicon	ppm	219	215	488	---
Sodium	ppm	13	11	14	---
Potassium	ppm	4	0	5	---



Wear Metals

Iron	ppm	638	573	714	---
Copper	ppm	25	47	52	---
Lead	ppm	0	0	<1	---
Tin	ppm	0	0	<1	---
Aluminum	ppm	14	15	37	---
Chromium	ppm	4	3	5	---
Molybdenum	ppm	0	1	1	---
Nickel	ppm	<1	0	1	---
Titanium	ppm	<1	<1	2	---
Silver	ppm	0	0	<1	---
Manganese	ppm	6	6	8	---
Vanadium	ppm	<1	0	<1	---



Additives

Calcium	ppm	839	208	339	---
Magnesium	ppm	12	5	10	---
Zinc	ppm	499	81	235	---
Phosphorus	ppm	924	1958	1599	---
Barium	ppm	0	0	<1	---
Boron	ppm	0	4	8	---

T:
F:

Diagnosis

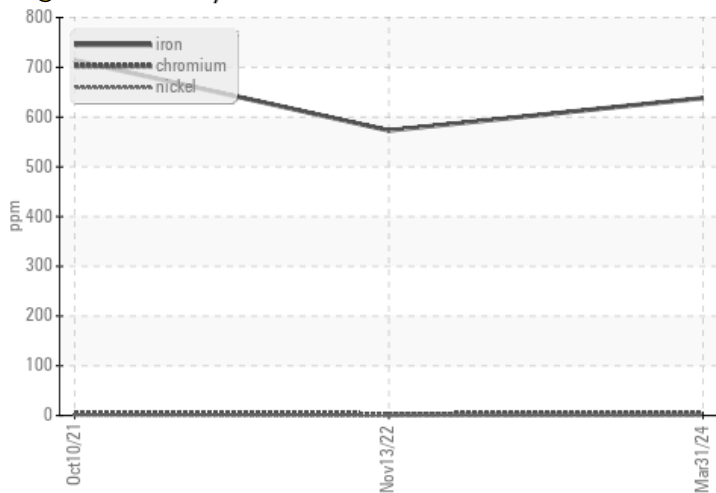
We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is lower than normal. Confirm oil type. The oil is no longer serviceable due to the presence of contaminants.

Depot: KOVIND
Unique No: 10955277
Signed: Don Baldrige
Report Date: 04 Apr 2024

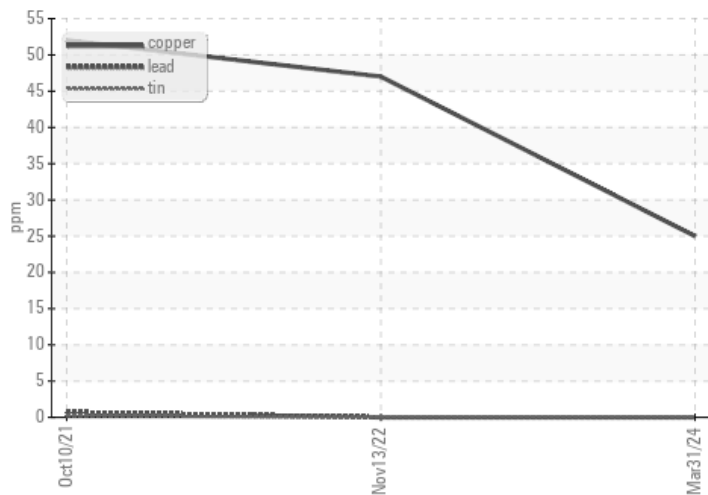


Graphs

● Ferrous Alloys



Non-ferrous Metals



● Viscosity @ 40°C

