

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L546 052862-1560 - Hydraulic System

Sample No: LH0260773

Oil Type: R&O OIL ISO 46



#### SAMPLE INFORMATION

Sample Number	LH0260773	LH0227045	LH0184143	LH0194254
Sample Date	01 Sep 2023	08 May 2022	30 Sep 2021	16 Mar 2021
Machine Hours	2484	1450	500	0
Oil Hours	0	0	0	0
Oil Changed	N/A	N/A	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	NORMAL

**LIEBHERR CANADA LTEE**  
 4250 AUTOROUTE CHOMEDEY 13  
 LAVAL, QC  
 CA H7R 6E9  
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#### OIL CONDITION

Visc @ 40°C	cSt	42.0	46.5	46.5	46.3
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#### CONTAMINATION

Water	%	---	---	0.078	---
Particles >4µm		3037	21116	1986	8045
Particles >6µm		641	1410	288	1142
Particles >14µm		48	56	21	52
ISO 4406:1999 (c)		19/17/13	22/18/13	18/15/12	20/17/13
Silicon	ppm	2	<1	0	<1
Sodium	ppm	<1	<1	0	<1
Potassium	ppm	1	4	<1	0



#### WEAR METALS

PQ		0	---	---	---
Iron	ppm	40	18	3	3
Copper	ppm	2	2	1	1
Lead	ppm	2	2	<1	<1
Tin	ppm	1	1	<1	<1
Aluminum	ppm	2	2	<1	<1
Chromium	ppm	2	2	<1	<1
Molybdenum	ppm	0	0	0	0
Nickel	ppm	0	<1	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	<1	0	0
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	10	11	2	5
Magnesium	ppm	2	1	0	<1
Zinc	ppm	53	32	15	6
Phosphorus	ppm	196	197	179	163
Barium	ppm	0	0	0	0
Boron	ppm	<1	1	3	<1

#### Diagnosis

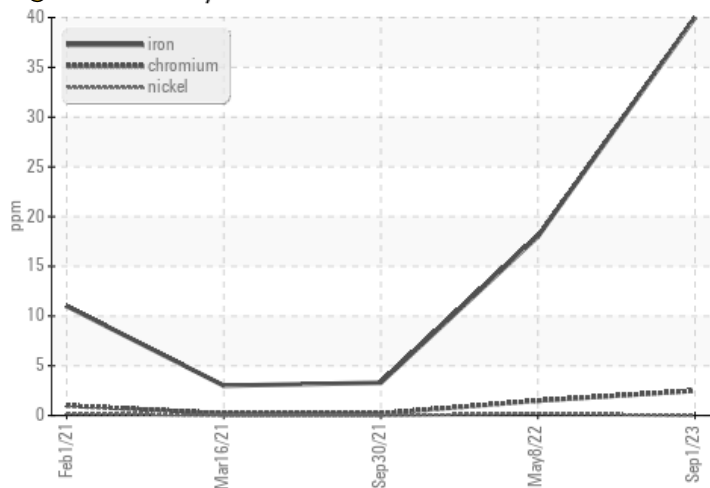
Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation. Le taux de fer est anormal. Le bas indice ferreux (PQ) indique que l'usure ferreuse est due à de la corrosion. La propreté du système est acceptable pour votre objectif de propreté ISO 4406. La propreté du système et du fluide est acceptable. l'huile n'est plus en état de service en raison d'une usure anormale et/ou sévère.

Depot: LIESTL  
 Unique No: 5633779  
 Signed: Kevin Marson  
 Report Date: 07 Sep 2023

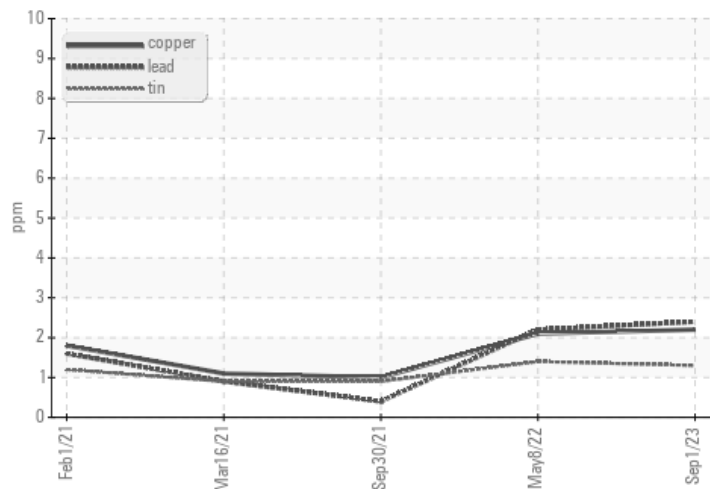


### GRAPHS

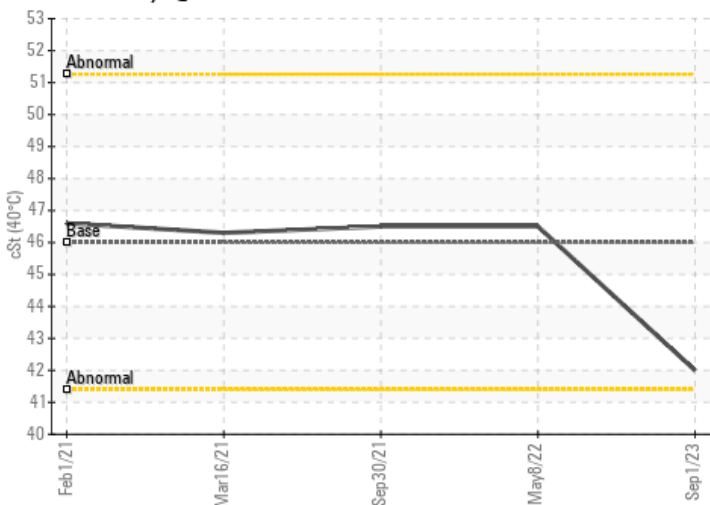
#### ● Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count

