

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R924 054969-1487 - Hydraulic System

Sample No: LH0286669

Oil Type: LIEBHERR HYDRAULIC HVI



Sample Information

Sample Number	LH0286669	LH0291267	LH0278948	---
Sample Date	26 Jun 2024	27 May 2024	26 Jan 2024	---
Machine Hours	3176	2977	2495	---
Oil Hours	0	0	0	---
Oil Changed	Not Changd	Not Changd	Not Changd	---
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	---

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Oil Condition

Visc @ 40°C	cSt	42.5	42.2	42.9	---
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Contamination

Water	%	NEG	NEG	NEG	---
Particles >4µm		2623	32053	4256	---
Particles >6µm		685	8253	751	---
Particles >14µm		32	274	31	---
ISO 4406:1999 (c)		19/17/12	22/20/15	19/17/12	---
Silicon	ppm	5	5	5	---
Sodium	ppm	4	4	4	---
Potassium	ppm	<1	<1	1	---

Diagnosis

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. Copper and lead ppm levels are abnormal. Bearing and/or bushing wear is indicated. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The oil is no longer serviceable as a result of the abnormal and/or severe wear.



Wear Metals

Iron	ppm	7	7	6	---
Copper	ppm	73	80	63	---
Lead	ppm	10	11	9	---
Tin	ppm	2	3	2	---
Aluminum	ppm	1	<1	1	---
Chromium	ppm	<1	<1	<1	---
Molybdenum	ppm	0	0	0	---
Nickel	ppm	<1	0	0	---
Titanium	ppm	<1	0	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	<1	<1	0	---
Vanadium	ppm	0	0	0	---



Additives

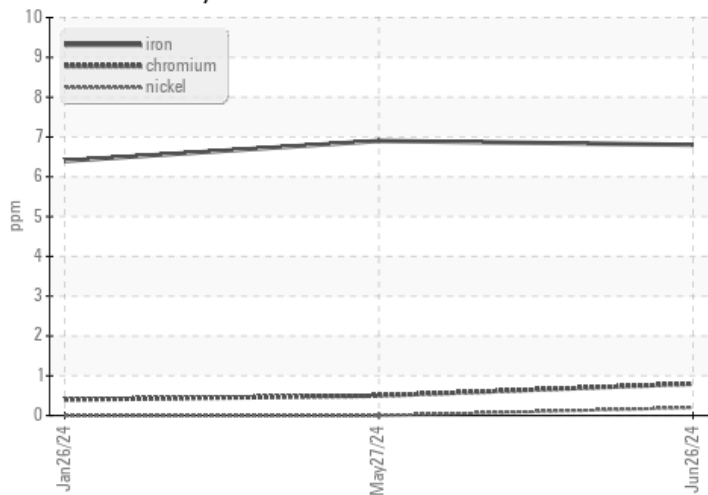
Calcium	ppm	1063	1141	1077	---
Magnesium	ppm	8	4	4	---
Zinc	ppm	691	686	682	---
Phosphorus	ppm	573	578	579	---
Barium	ppm	<1	<1	0	---
Boron	ppm	<1	<1	<1	---

Depot: CLOPEM
 Unique No: 5811469
 Signed: Kevin Marson
 Report Date: 08 Jul 2024

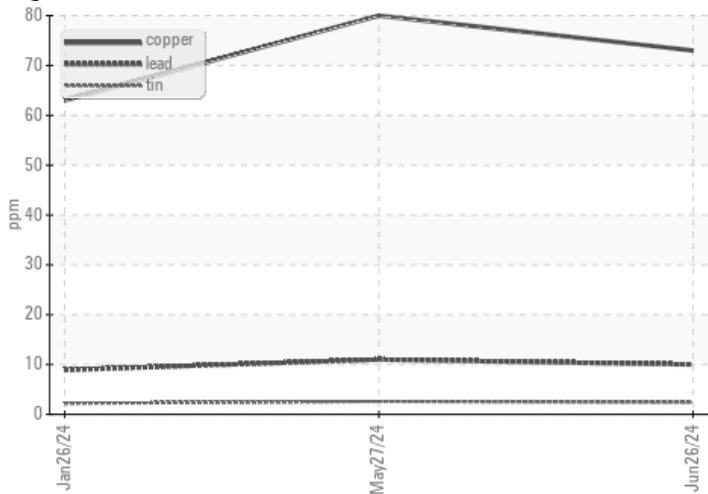


Graphs

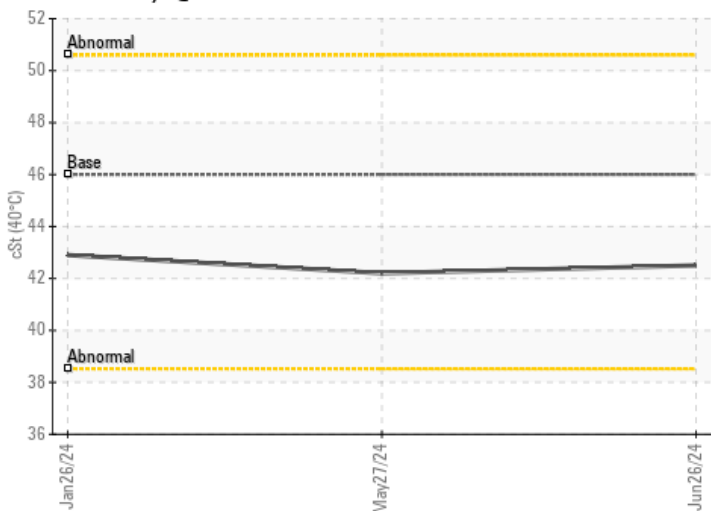
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

