

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R934 030095 - Hydraulic System

Sample No: LH0178219

Oil Type: KENDALL FOUR SEASONS AW ISO 46



SAMPLE INFORMATION

Sample Number	LH0178219	LH0235019	LH0186971	---
Sample Date	28 Sep 2023	27 Oct 2022	20 Apr 2021	---
Machine Hours	18600	17569	15200	---
Oil Hours	3400	2369	5000	---
Oil Changed	Not Chngd	Not Chngd	Changed	---
Sample Status	NORMAL	NORMAL	SEVERE	---

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OIL CONDITION

Visc @ 40°C	cSt	44.4	44.9	43.2	---
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CONTAMINATION

Particles >4µm		13546	14412	65382	---
Particles >6µm		2609	3207	21861	---
Particles >14µm		120	193	2022	---
ISO 4406:1999 (c)		21/19/14	21/19/15	23/22/18	---
Silicon	ppm	<1	<1	<1	---
Sodium	ppm	<1	0	<1	---
Potassium	ppm	<1	0	<1	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	7	6	11	---
Copper	ppm	2	1	3	---
Lead	ppm	<1	0	<1	---
Tin	ppm	0	0	0	---
Aluminum	ppm	0	<1	<1	---
Chromium	ppm	9	7	15	---
Molybdenum	ppm	0	0	<1	---
Nickel	ppm	<1	<1	<1	---
Titanium	ppm	0	0	0	---
Silver	ppm	<1	0	<1	---
Manganese	ppm	0	<1	<1	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	57	58	83	---
Magnesium	ppm	1	<1	2	---
Zinc	ppm	418	399	460	---
Phosphorus	ppm	334	364	354	---
Barium	ppm	<1	0	0	---
Boron	ppm	<1	0	1	---

Depot: DOMBUR

Unique No: 5681954

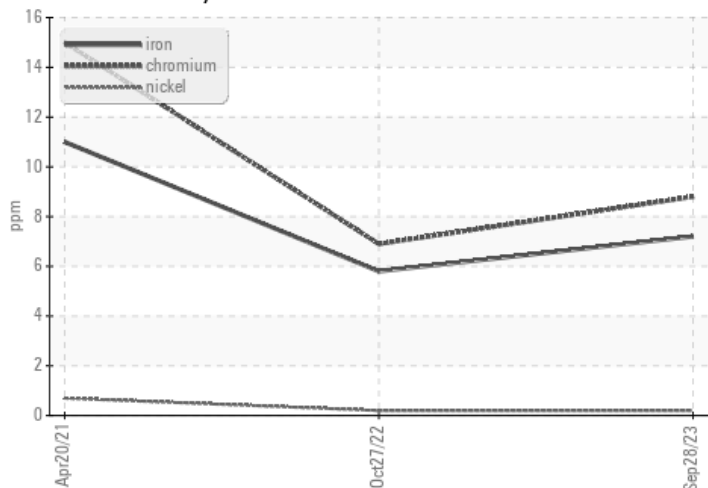
Signed: Wes Davis

Report Date: 17 Nov 2023

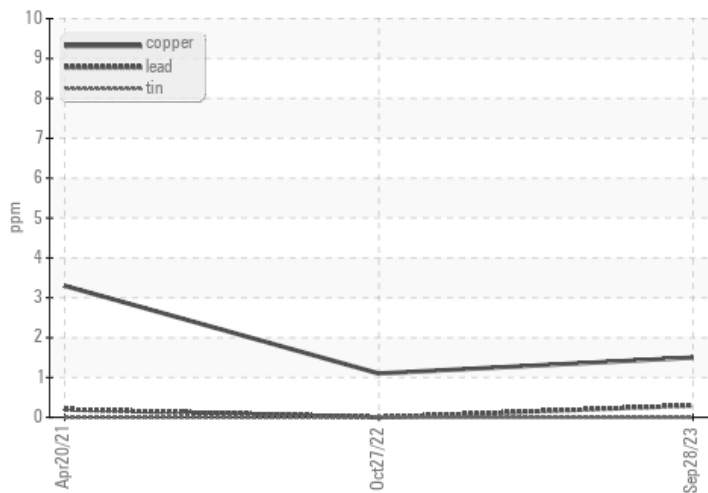


GRAPHS

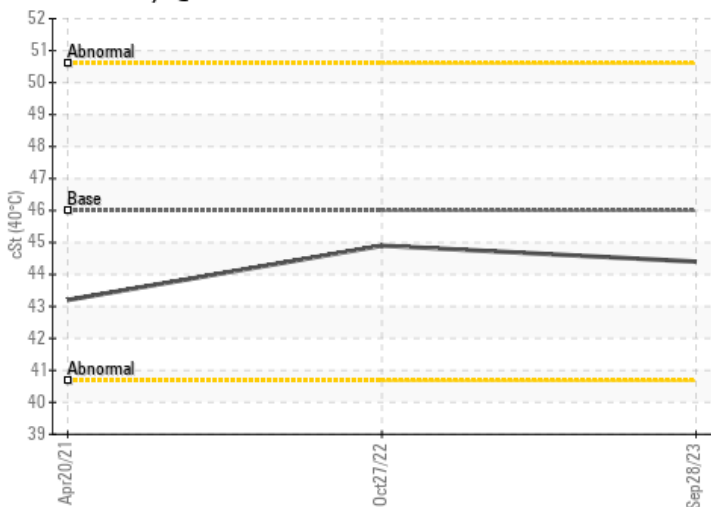
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

