LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR 141909 - Hydraulic System

Sample No: LH0151329

Oil Type: LIEBHERR HYDRAULIC 37

Sample Information

Sample Number		**LH0151329**	LH0183582	---	---
Sample Date		**04 Jun 2024**	15 May 2024	---	---
Machine Hours		**545**	500	---	---
Oil Hours		**0**	0	---	---
Oil Changed		**Not Changd**	Changed	---	---
Sample Status		**NORMAL**	NORMAL	---	---

Oil Condition

Visc @ 40°C	cSt	**37.0**	37.0	---	---

Contamination

Water	%	**NEG**	NEG	---	---
Particles >4µm		**1967**	4909	---	---
Particles >6µm		**504**	699	---	---
Particles >14µm		**45**	46	---	---
ISO 4406:1999 (c)		**18/16/13**	19/17/13	---	---
Silicon	ppm	**2**	1	---	---
Sodium	ppm	**0**	0	---	---
Potassium	ppm	**<1**	<1	---	---

Wear Metals

Iron	ppm	**<1**	<1	---	---
Copper	ppm	**3**	3	---	---
Lead	ppm	**0**	0	---	---
Tin	ppm	**0**	0	---	---
Aluminum	ppm	**0**	0	---	---
Chromium	ppm	**0**	0	---	---
Molybdenum	ppm	**0**	0	---	---
Nickel	ppm	**0**	0	---	---
Titanium	ppm	**0**	0	---	---
Silver	ppm	**0**	0	---	---
Manganese	ppm	**0**	0	---	---
Vanadium	ppm	**0**	0	---	---

Additives

Calcium	ppm	**39**	39	---	---
Magnesium	ppm	**0**	<1	---	---
Zinc	ppm	**325**	318	---	---
Phosphorus	ppm	**265**	266	---	---
Barium	ppm	**0**	0	---	---
Boron	ppm	**0**	0	---	---

LIEBHERR CANADA LTD.
49C MEWS PLACE
ST. JOHN`S, NL
CA A1B 4N2
Contact: Warren Coombs
warren.coombs@liebherr.com
T:
F: (709)368-6494

Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. 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. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Depot: LIE49STJ
Unique No: 5798714
Signed: Wes Davis
Report Date: 12 Jun 2024

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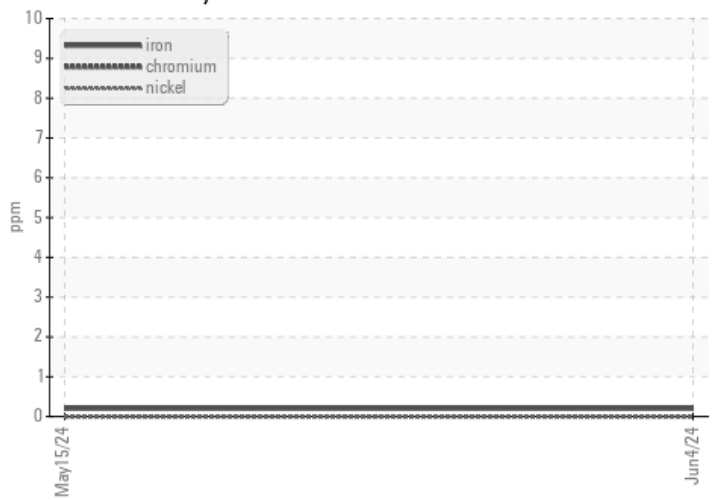
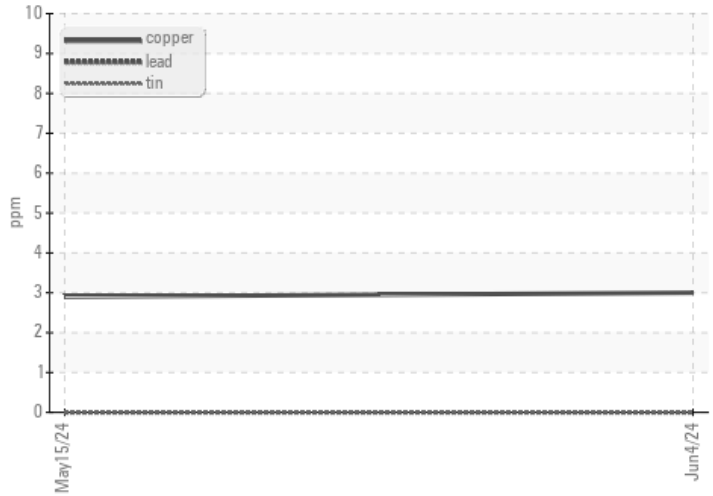
Graphs

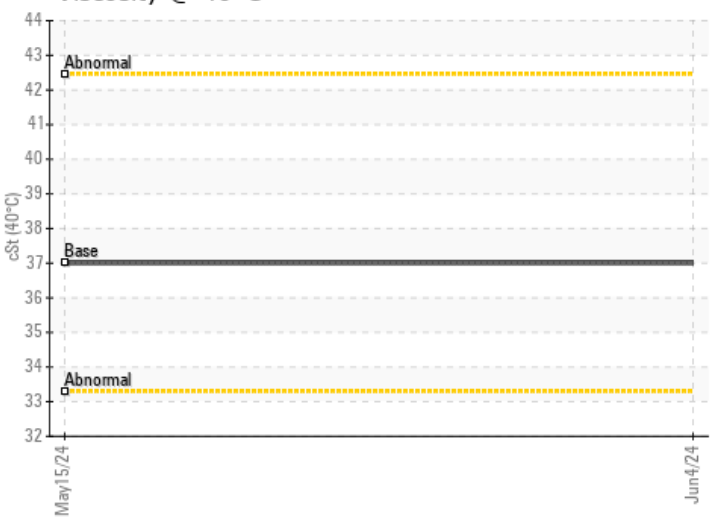
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count