

LIEBHERR

CONSTRUCTION EQUIPMENT



20159 - Hydraulic System

Sample No: LH0284903

Oil Type: {unknown}



SAMPLE INFORMATION

Sample Number	LH0284903	---	---	---
Sample Date	08 Feb 2024	---	---	---
Machine Hours	8331	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Changd	---	---	---
Sample Status	ABNORMAL	---	---	---

LIEBHERR CANADA LTD.
 1015 SUTTON DRIVE
 BURLINGTON, ON
 CA L7L 5Z8
 Contact: Joseph Rodgers
 joseph.rodgers@liebherr.com
 T:
 F: (905)319-6622



OIL CONDITION

Visc @ 40°C	cSt	● 40.4	---	---	---
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CONTAMINATION

Water	%	NEG	---	---	---
Particles >4µm		● 48792	---	---	---
Particles >6µm		● 2240	---	---	---
Particles >14µm		● 53	---	---	---
ISO 4406:1999 (c)		23/18/13	---	---	---
Silicon	ppm	● 4	---	---	---
Sodium	ppm	● 1	---	---	---
Potassium	ppm	● 3	---	---	---

Diagnosis

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



WEAR METALS

Iron	ppm	● 13	---	---	---
Copper	ppm	● 7	---	---	---
Lead	ppm	● <1	---	---	---
Tin	ppm	● 0	---	---	---
Aluminum	ppm	● 2	---	---	---
Chromium	ppm	● 3	---	---	---
Molybdenum	ppm	4	---	---	---
Nickel	ppm	● <1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	0	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

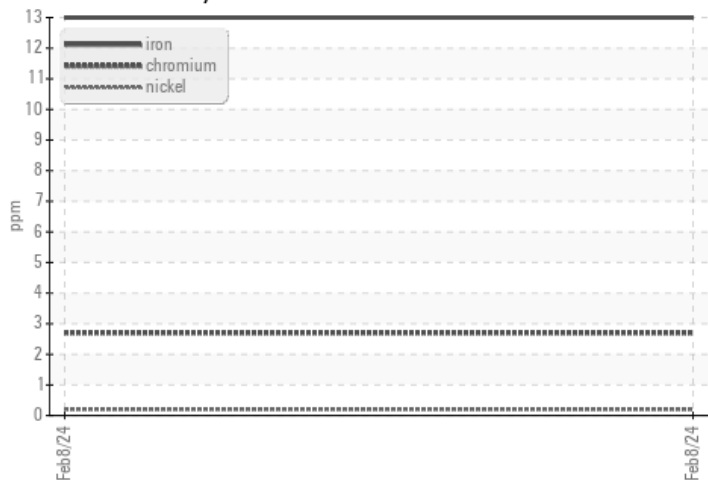
Calcium	ppm	1079	---	---	---
Magnesium	ppm	24	---	---	---
Zinc	ppm	754	---	---	---
Phosphorus	ppm	681	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	10	---	---	---

Depot: LIEMIS
 Unique No: 5723753
 Signed: Wes Davis
 Report Date: 12 Feb 2024

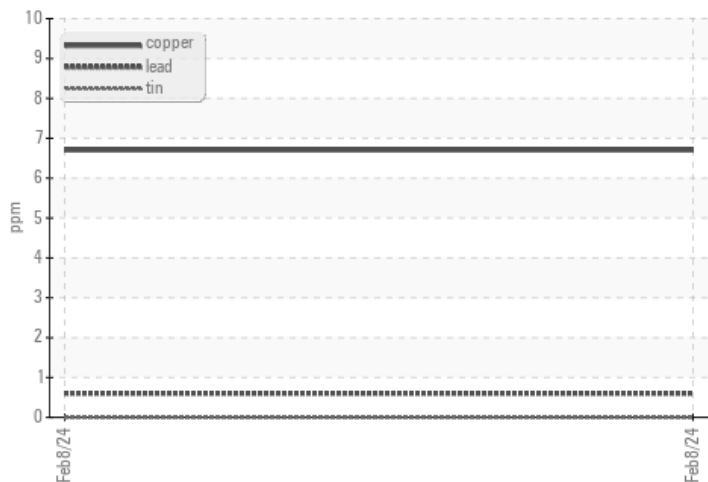


GRAPHS

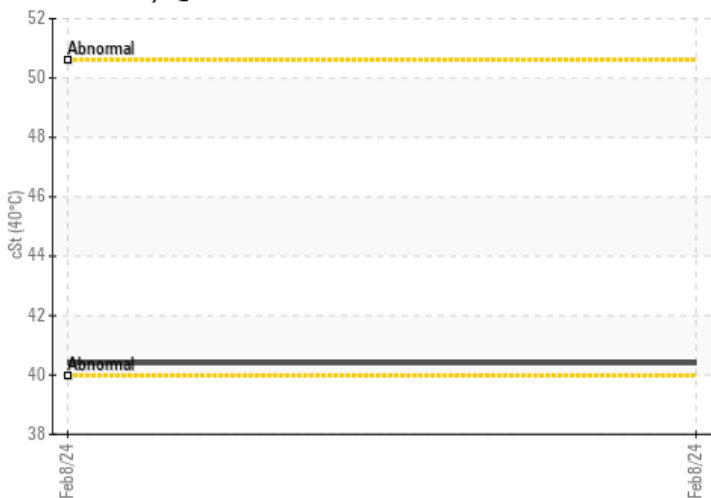
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

