

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR ET00417 - Hydraulic System

Sample No: LH0250503

Oil Type: PETRO CANADA 30W



#### SAMPLE INFORMATION

Sample Number	LH0250503	---	---	---
Sample Date	22 Aug 2023	---	---	---
Machine Hours	11323	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Chngd	---	---	---
Sample Status	ABNORMAL	---	---	---

**Schnitzer Steel Canada Ltd.**  
 12195 Musqueam Dr.  
 Surrey, BC  
 CA V3V 3T2  
 Contact: Shirley Bliss  
 sbliss@schn.com  
 T:  
 F: (604)580-1922



#### OIL CONDITION

Visc @ 40°C	cSt	39.6	---	---	---
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#### CONTAMINATION

Particles >4µm		15528	---	---	---
Particles >6µm		313	---	---	---
Particles >14µm		36	---	---	---
ISO 4406:1999 (c)		21/15/12	---	---	---
Silicon	ppm	2	---	---	---
Sodium	ppm	1	---	---	---
Potassium	ppm	1	---	---	---



#### WEAR METALS

PQ		0	---	---	---
Iron	ppm	31	---	---	---
Copper	ppm	2	---	---	---
Lead	ppm	0	---	---	---
Tin	ppm	0	---	---	---
Aluminum	ppm	2	---	---	---
Chromium	ppm	21	---	---	---
Molybdenum	ppm	<1	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	1	---	---	---
Vanadium	ppm	0	---	---	---



#### ADDITIVES

Calcium	ppm	143	---	---	---
Magnesium	ppm	5	---	---	---
Zinc	ppm	208	---	---	---
Phosphorus	ppm	639	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	<1	---	---	---

#### Diagnosis

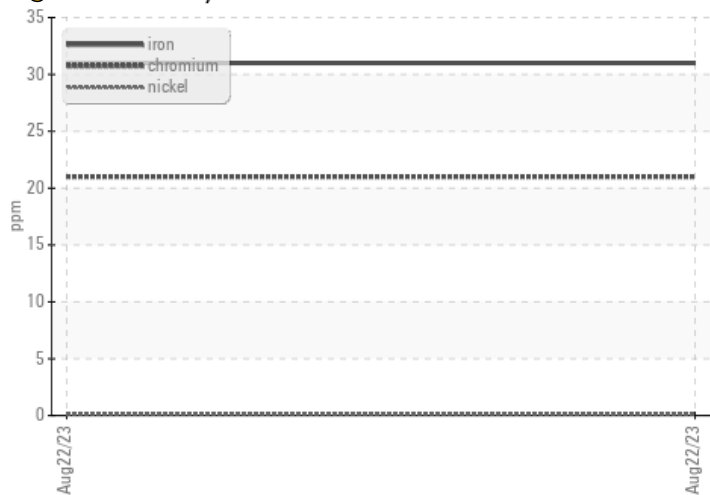
We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Chromium and iron ppm levels are abnormal. Ring wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**Depot:** AMISUR  
**Unique No:** 5642022  
**Signed:** Kevin Marson  
**Report Date:** 08 Sep 2023

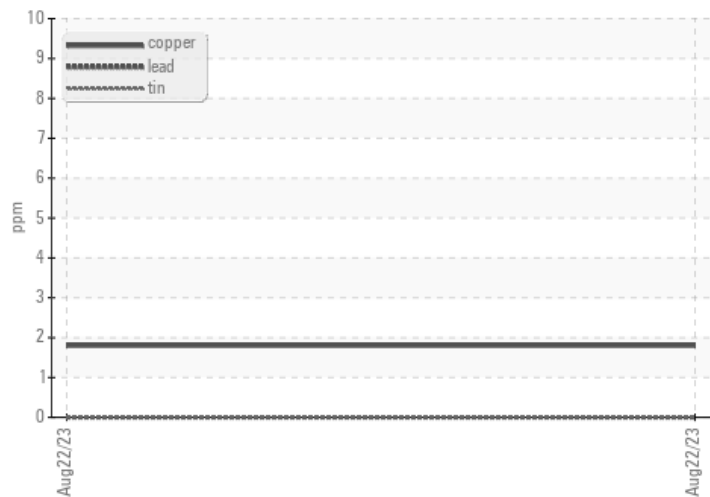


### GRAPHS

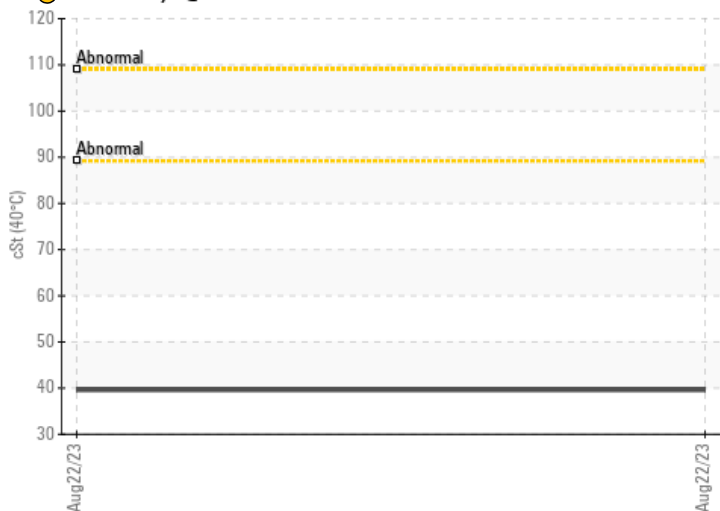
#### ● Ferrous Alloys



#### Non-ferrous Metals



#### ● Viscosity @ 40°C



#### Particle Count

