LIEBHERR
CONSTRUCTION EQUIPMENT

[fondation beliveau] LIEBHERR LH40M 098208 - Energy Recovery

Sample No: LH0269934

Oil Type: {unknown}

LIEBHERR CANADA LTEE
444 AVENUE DE LA FRICHE
DOLBEAU-MISTASSINI, QC
CA G8L 3M7
Contact: Martin Gagnon
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T:
F: (418)276-9844

SAMPLE INFORMATION

Sample Number		**LH0269934**	---	---	---
Sample Date		**01 Mar 2024**	---	---	---
Machine Hours		**6970**	---	---	---
Oil Hours		**0**	---	---	---
Oil Changed		**Changed**	---	---	---
Sample Status		**SEVERE**	---	---	---

OIL CONDITION

Visc @ 40°C	cSt	**239**	---	---	---

CONTAMINATION

Water	%	**NEG**	---	---	---
Particles >4µm		**367104**	---	---	---
Particles >6µm		**60205**	---	---	---
Particles >14µm		**1127**	---	---	---
ISO 4406:1999 (c)		**26/23/17**	---	---	---
Silicon	ppm	**93**	---	---	---
Sodium	ppm	**16**	---	---	---
Potassium	ppm	**22**	---	---	---

WEAR METALS

PQ		**33**	---	---	---
Iron	ppm	**415**	---	---	---
Copper	ppm	**2**	---	---	---
Lead	ppm	**3**	---	---	---
Tin	ppm	**0**	---	---	---
Aluminum	ppm	**39**	---	---	---
Chromium	ppm	**429**	---	---	---
Molybdenum	ppm	**2**	---	---	---
Nickel	ppm	**<1**	---	---	---
Titanium	ppm	**3**	---	---	---
Silver	ppm	**0**	---	---	---
Manganese	ppm	**6**	---	---	---
Vanadium	ppm	**0**	---	---	---

ADDITIVES

Calcium	ppm	**144**	---	---	---
Magnesium	ppm	**21**	---	---	---
Zinc	ppm	**33**	---	---	---
Phosphorus	ppm	**221**	---	---	---
Barium	ppm	**2**	---	---	---
Boron	ppm	**2**	---	---	---

Diagnosis

We advise that you check all areas where contaminants can enter the system. The fluid change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample.Chromium ppm levels are severe. Iron ppm levels are abnormal. Aluminum ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a high amount of particulates (2 to 100 microns in size) present in the fluid. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component. Viscosity of sample indicates oil is within SAE 80W140 range, advise investigate. The fluid is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: LBADOL
Unique No: 5737112
Signed: Kevin Marson
Report Date: 06 Mar 2024

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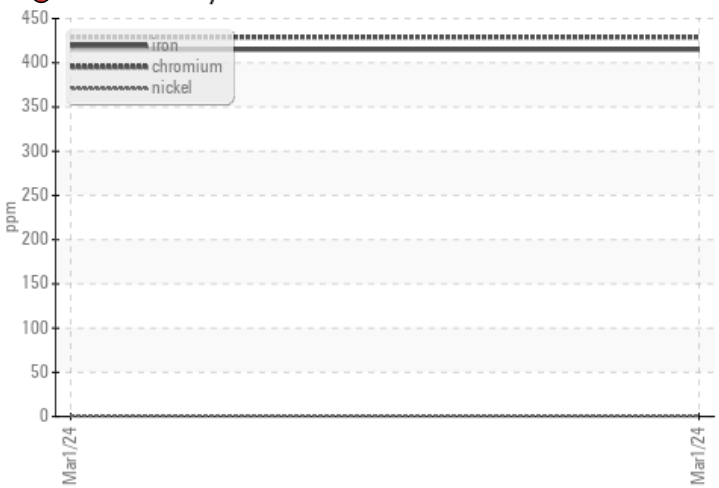
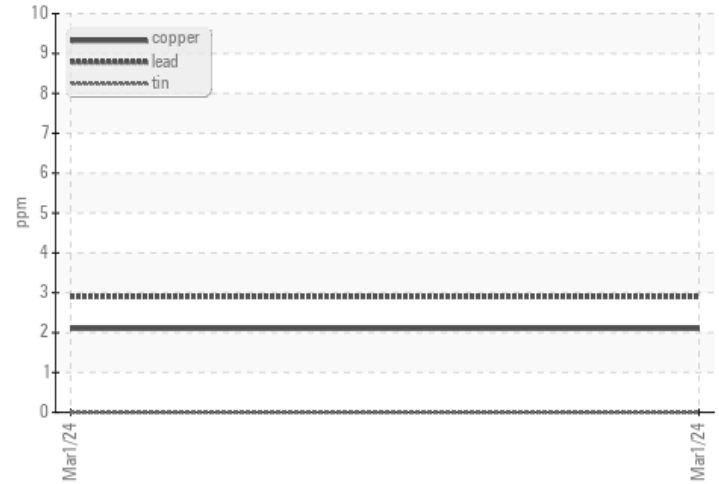
GRAPHS

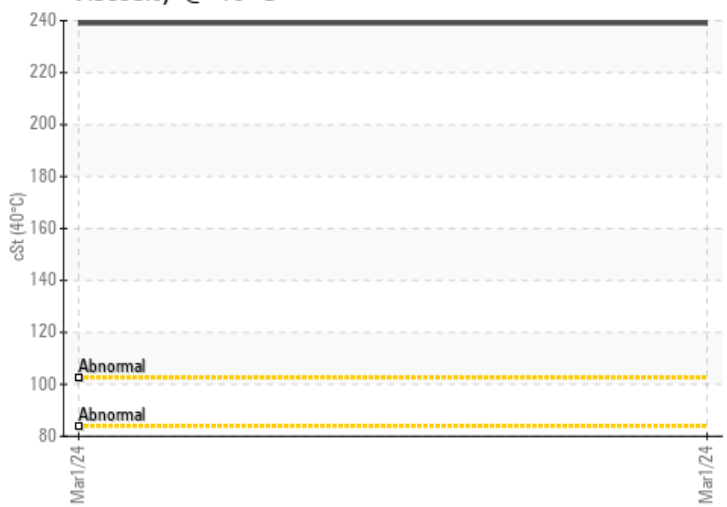
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count