

LIEBHERR

CONSTRUCTION EQUIPMENT



[[S20230805022101]] LIEBHERR TA230 4161 - Hydraulic Syst

Sample No: LH06059246

Oil Type: AW HYDRAULIC OIL ISO 68



SAMPLE INFORMATION

Sample Number	LH06059246	---	---	---
Sample Date	29 Dec 2023	---	---	---
Machine Hours	2804	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

HEAVY MACHINES INC.

3930 EAST RAINES RD
MEMPHIS, TN
US 38118
Contact: J. DAVIS
JDAVIS@HEAVY.LLC.COM
T:
F: (901)260-2245



OIL CONDITION

Visc @ 40°C	cSt	46.9	---	---	---
Acid Number (AN)	mg KOH/g	1.04	---	---	---



CONTAMINATION

Water	%	NEG	---	---	---
Particles >4µm		9039	---	---	---
Particles >6µm		1220	---	---	---
Particles >14µm		37	---	---	---
ISO 4406:1999 (c)		20/17/12	---	---	---
Silicon	ppm	6	---	---	---
Sodium	ppm	3	---	---	---
Potassium	ppm	0	---	---	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.



WEAR METALS

Iron	ppm	3	---	---	---
Copper	ppm	2	---	---	---
Lead	ppm	2	---	---	---
Tin	ppm	0	---	---	---
Aluminum	ppm	0	---	---	---
Chromium	ppm	0	---	---	---
Molybdenum	ppm	0	---	---	---
Nickel	ppm	0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	0	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

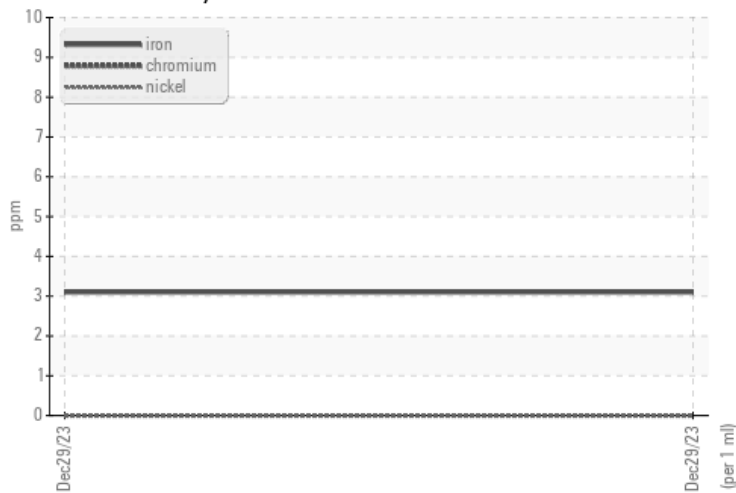
Calcium	ppm	2015	---	---	---
Magnesium	ppm	6	---	---	---
Zinc	ppm	922	---	---	---
Phosphorus	ppm	777	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	29	---	---	---

Depot: LEC0051
Unique No: 10830628
Signed: Don Baldrige
Report Date: 15 Jan 2024

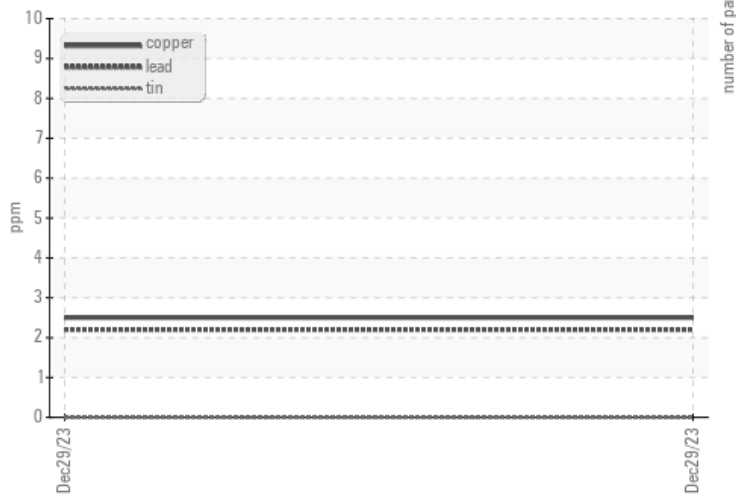


GRAPHS

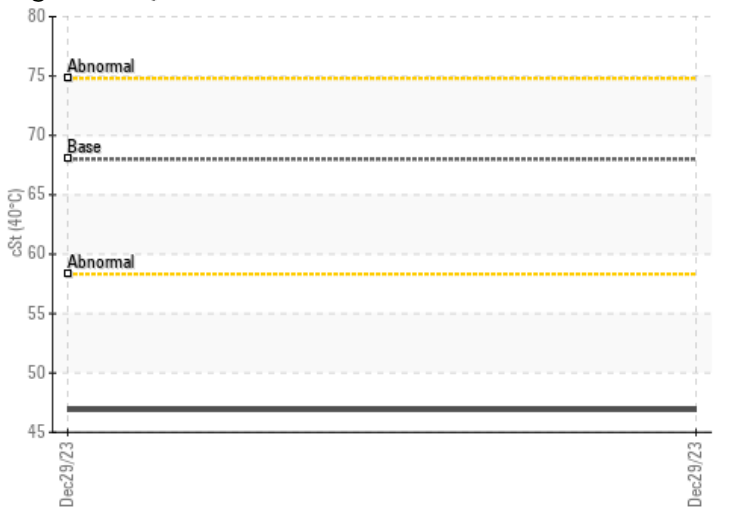
Ferrous Alloys



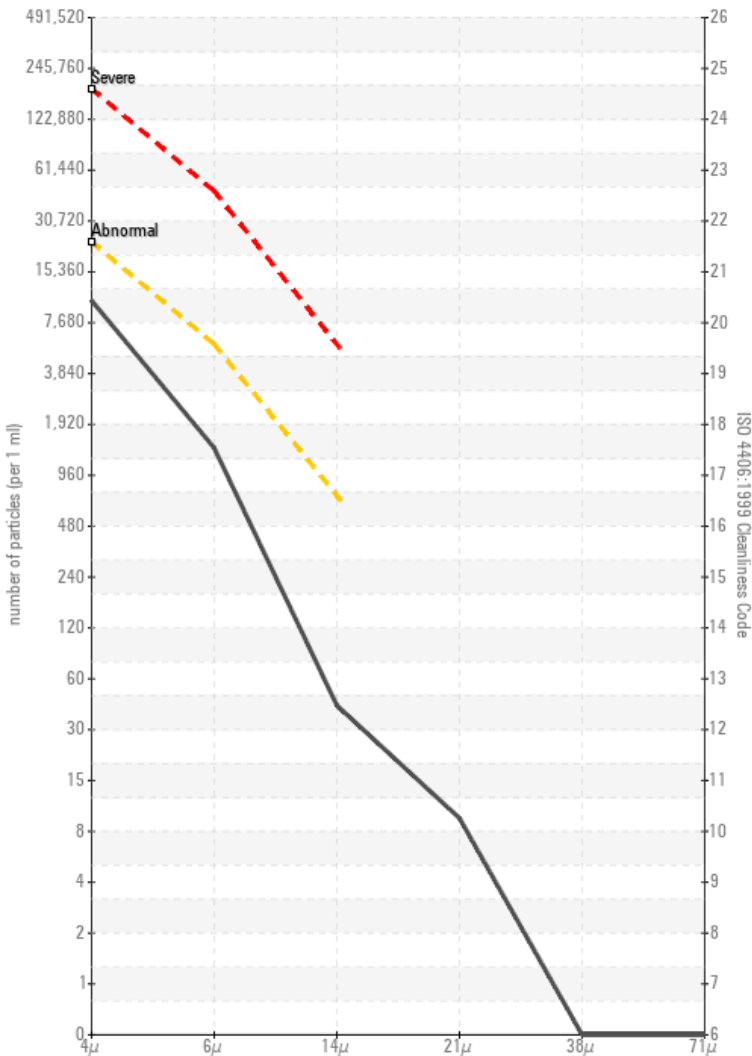
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

