

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R936 045079-1490 - Hydraulic System

Sample No: LH0254090

Oil Type: LIEBHERR HYDRAULIC HVI



SAMPLE INFORMATION

Sample Number	LH0254090	LH0229861	---	---
Sample Date	20 Jul 2023	27 Oct 2022	---	---
Machine Hours	1185	623	---	---
Oil Hours	0	0	---	---
Oil Changed	Not Chngd	Not Chngd	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

ACECO

10119 RESIDENCY ROAD

MANASSAS, VA

US 20110

Contact: RON BROCK



OIL CONDITION

Visc @ 40°C	cSt	46.4	46.6	---	---
Acid Number (AN)	mg KOH/g	1.23	1.31	---	---

T: (703)392-0111

F: (703)331-5604



CONTAMINATION

Particles >4µm		47911	40513	---	---
Particles >6µm		8388	8377	---	---
Particles >14µm		153	303	---	---
ISO 4406:1999 (c)		23/20/14	23/20/15	---	---
Silicon	ppm	5	5	---	---
Sodium	ppm	0	<1	---	---
Potassium	ppm	2	<1	---	---

Diagnosis

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



WEAR METALS

Iron	ppm	12	9	---	---
Copper	ppm	5	3	---	---
Lead	ppm	1	<1	---	---
Tin	ppm	0	0	---	---
Aluminum	ppm	1	<1	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	0	0	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	<1	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	1328	1358	---	---
Magnesium	ppm	18	7	---	---
Zinc	ppm	732	716	---	---
Phosphorus	ppm	604	608	---	---
Barium	ppm	0	0	---	---
Boron	ppm	0	<1	---	---

Depot: ACEMAN

Unique No: 10608701

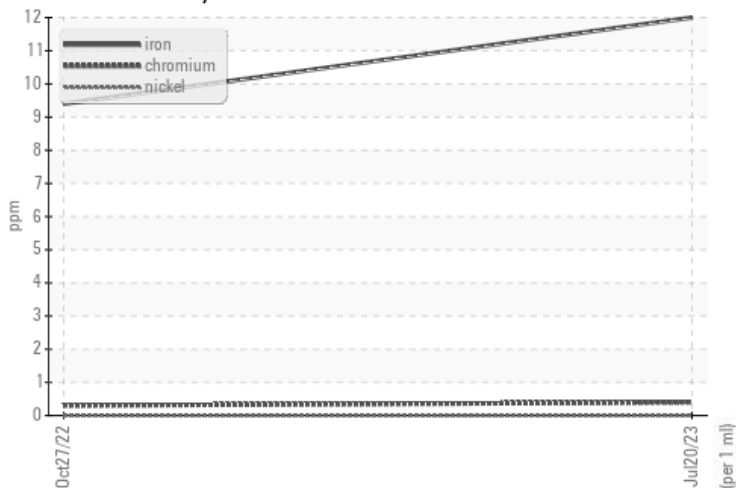
Signed: Wes Davis

Report Date: 21 Aug 2023

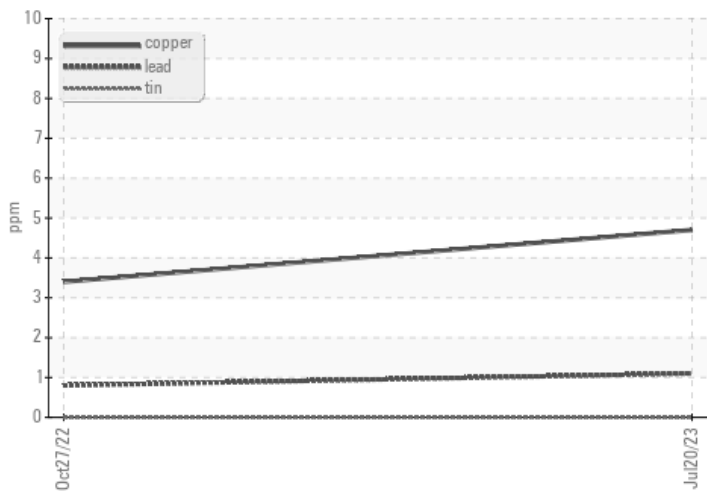


GRAPHS

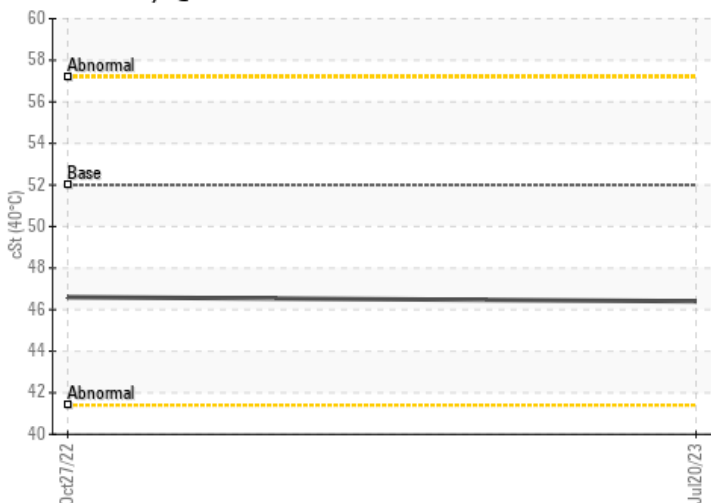
Ferrous Alloys



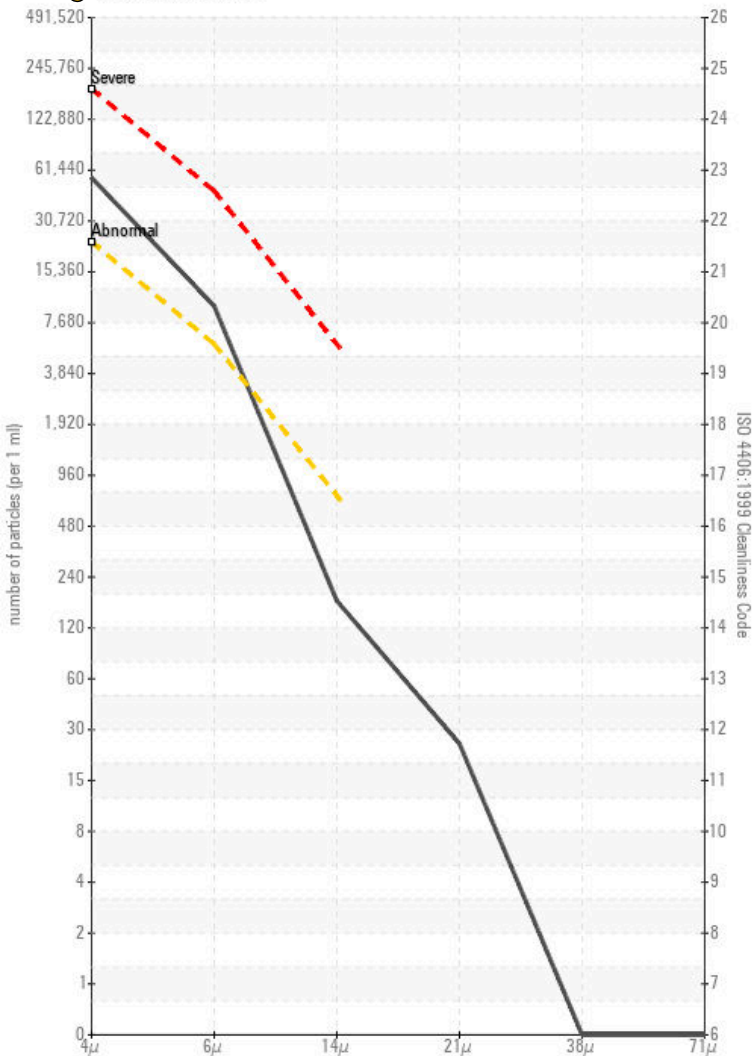
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

