

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L580 067666-1760 - Hydraulic System

Sample No: LH0233937

Oil Type: AW HYDRAULIC OIL ISO 46



#### SAMPLE INFORMATION

Sample Number	LH0233937	LH0176020	LH0234003	---
Sample Date	22 Jan 2024	02 Aug 2023	15 Dec 2022	---
Machine Hours	5478	1520	1081	---
Oil Hours	0	0	0	---
Oil Changed	Changed	Changed	Not Changd	---
Sample Status	ABNORMAL	NORMAL	ABNORMAL	---

**WEST CARLETON SAND & GRAVEL INC.**  
 3232 CARP ROAD  
 CARP, ON  
 CA K0A 1L0  
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#### OIL CONDITION

Visc @ 40°C	cSt	42.0	43.8	42.5	---
Acid Number (AN)	mg KOH/g	1.11	---	1.71	---



#### CONTAMINATION

Water	%	NEG	NEG	NEG	---
Particles >4µm		36742	6967	104718	---
Particles >6µm		1052	1019	20270	---
Particles >14µm		7	40	18	---
ISO 4406:1999 (c)		22/17/10	20/17/12	24/22/11	---
Silicon	ppm	4	4	8	---
Sodium	ppm	4	2	18	---
Potassium	ppm	2	<1	3	---

#### Diagnosis

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.



#### WEAR METALS

PQ		0	---	0	---
Iron	ppm	22	5	22	---
Copper	ppm	5	2	3	---
Lead	ppm	<1	6	<1	---
Tin	ppm	0	<1	0	---
Aluminum	ppm	1	1	1	---
Chromium	ppm	<1	<1	0	---
Molybdenum	ppm	0	0	0	---
Nickel	ppm	0	0	<1	---
Titanium	ppm	0	0	<1	---
Silver	ppm	0	0	0	---
Manganese	ppm	0	0	<1	---
Vanadium	ppm	0	0	0	---



#### ADDITIVES

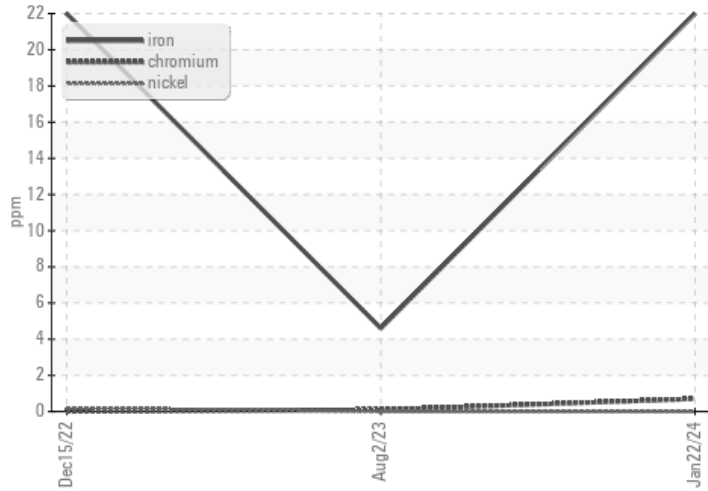
Calcium	ppm	1177	1289	3395	---
Magnesium	ppm	6	11	8	---
Zinc	ppm	620	701	1394	---
Phosphorus	ppm	528	650	1220	---
Barium	ppm	0	0	0	---
Boron	ppm	<1	<1	98	---

Depot: WES654STI  
 Unique No: 5723158  
 Signed: Kevin Marson  
 Report Date: 08 Feb 2024

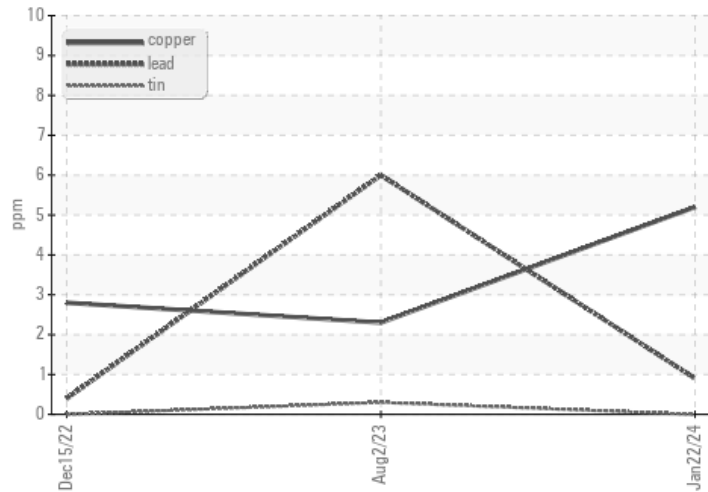


### GRAPHS

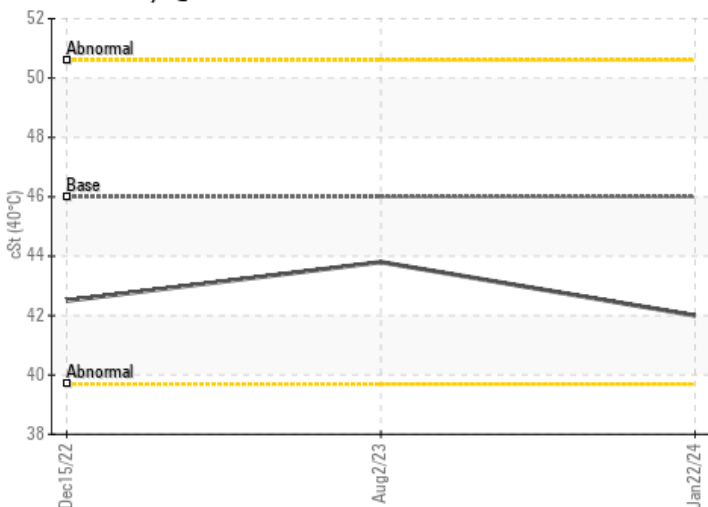
#### ● Ferrous Alloys



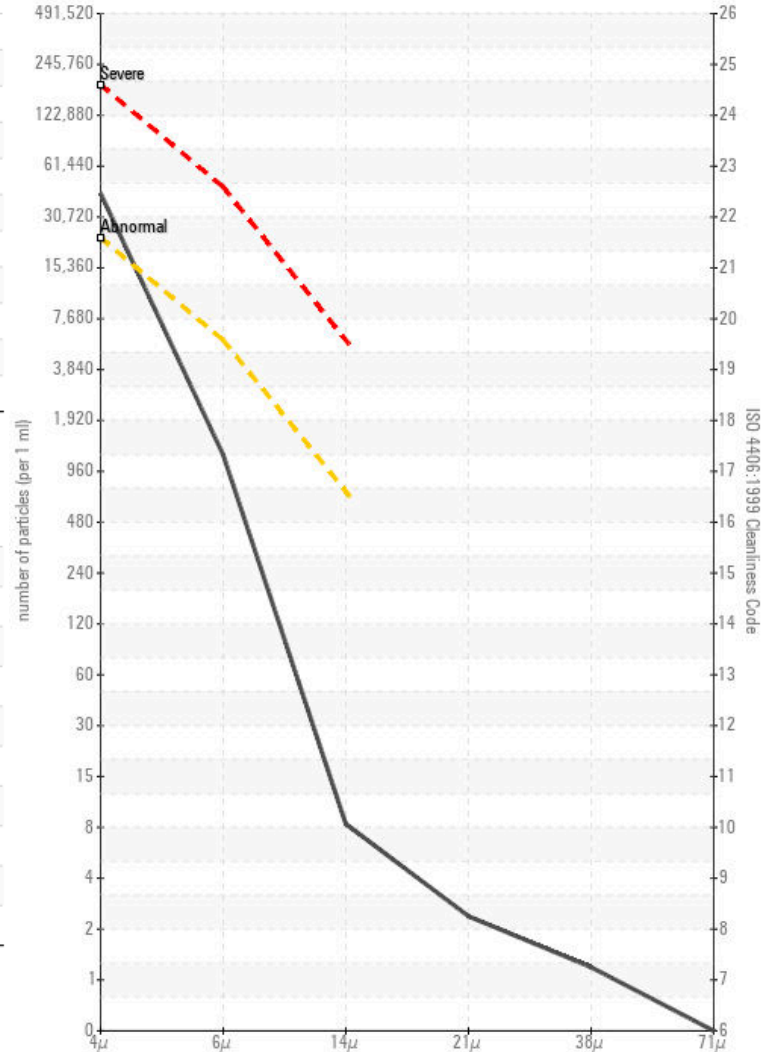
#### Non-ferrous Metals



#### Viscosity @ 40°C



#### ● Particle Count



#### Acid Number

