

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L580 1414-56018 - Hydraulic System

Sample No: LH06224999

Oil Type: FIRE-RESISTANT FLUID ISO 46



Sample Information

Sample Number	LH06224999	LH06027141	LH05835903	LH05785580
Sample Date	30 Jun 2024	05 Dec 2023	01 May 2023	06 Mar 2023
Machine Hours	17000	0	13020	12081
Oil Hours	0	15017	0	1208
Oil Changed	Not Changd	Not Changd	Changed	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

VERSO CORP - QUINNESEC MILL
 W6791 US HWY 2
 QUINNESEC, MI
 US 49876
 Contact: ERIC LARSON
 eric.larson@versoco.com

T:
 F:



Oil Condition

Visc @ 40°C	cSt	42.7	43.7	45.1	44.0
Acid Number (AN)	mg KOH/g	1.15	0.93	1.07	0.78



Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		15575	14484	12123	8973
Particles >6µm		225	149	1275	472
Particles >14µm		4	7	71	25
ISO 4406:1999 (c)		21/15/9	21/14/10	21/17/13	20/16/12
Silicon	ppm	2	1	2	2
Sodium	ppm	1	0	0	<1
Potassium	ppm	2	1	1	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. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



Wear Metals

Iron	ppm	24	20	16	23
Copper	ppm	1	1	<1	<1
Lead	ppm	2	2	1	1
Tin	ppm	<1	0	0	0
Aluminum	ppm	1	2	0	<1
Chromium	ppm	3	4	2	3
Molybdenum	ppm	0	<1	<1	<1
Nickel	ppm	<1	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	1	0	<1	<1
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	1448	1330	1370	1347
Magnesium	ppm	7	4	4	9
Zinc	ppm	747	663	696	580
Phosphorus	ppm	662	572	596	487
Barium	ppm	0	0	0	0
Boron	ppm	<1	0	0	0

Depot: VERQUI
Unique No: 11103196
Signed: Don Baldrige
Report Date: 03 Jul 2024

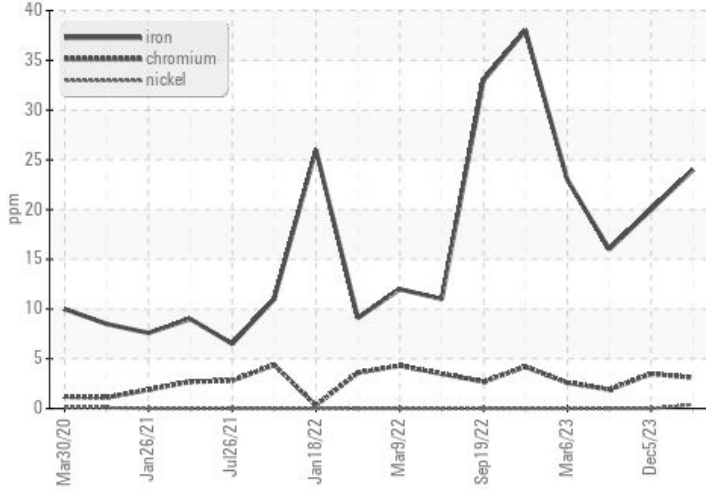
LIEBHERR

CONSTRUCTION EQUIPMENT

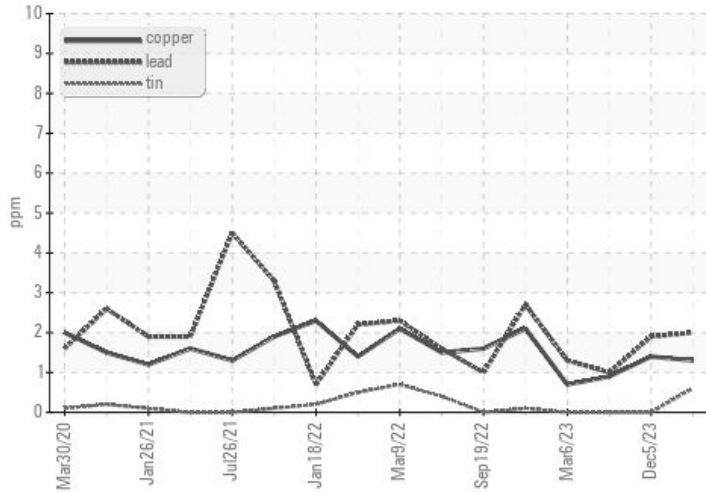


Graphs

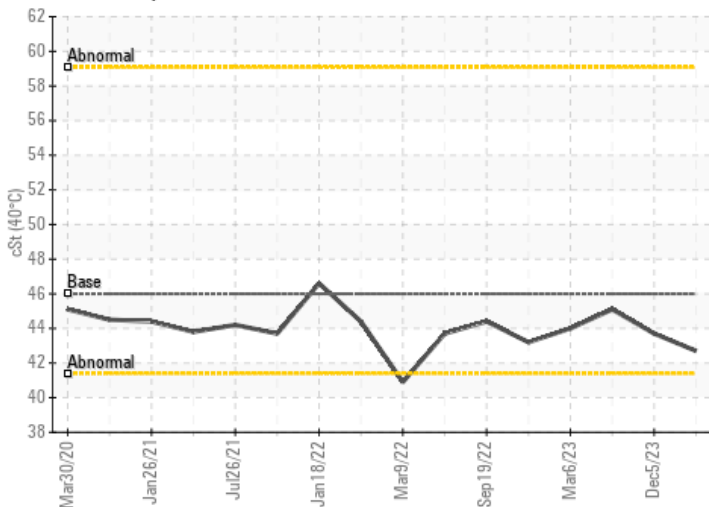
Ferrous Alloys



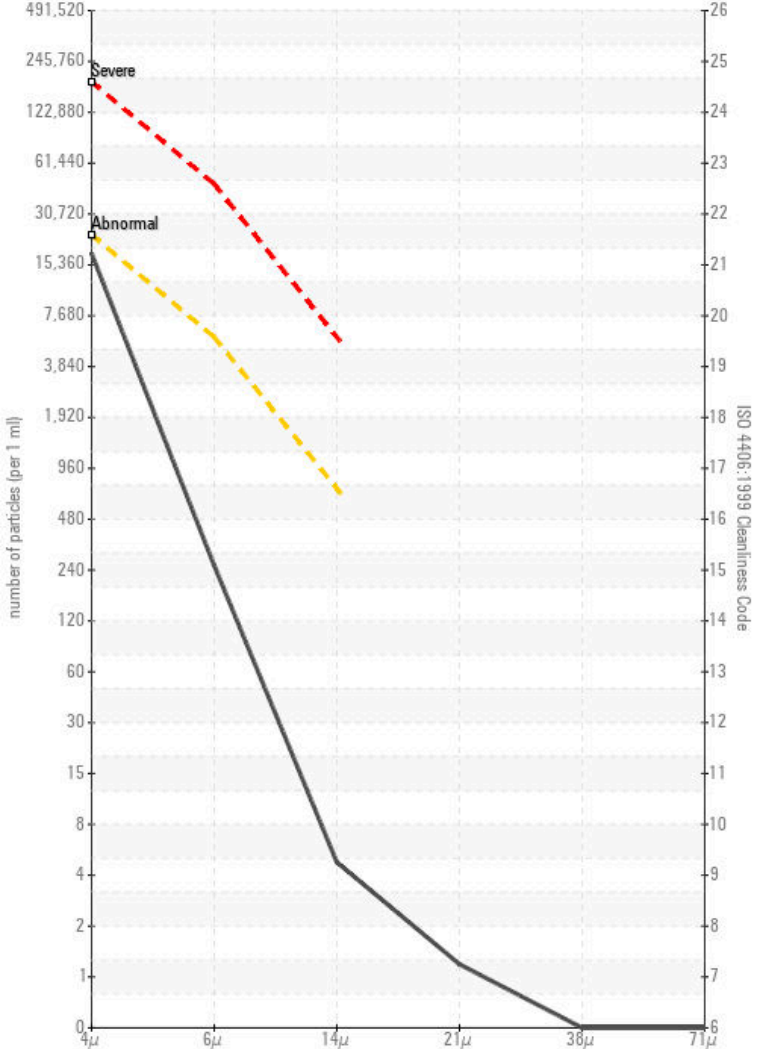
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

