LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH50M 144587-1216 - Hydraulic System

Sample No: LH

Oil Type: NOT GIVEN

Industrial Metals
550 Messier St.
Winnipeg, MB
CA R2J 0G5
Contact: Service Manager

T:
F:

Sample Information

Sample Number		**LH**	LH	LH0234461	LH0250061
Sample Date		**17 Jun 2024**	12 Dec 2023	21 Jun 2023	23 Mar 2023
Machine Hours		**3191**	2050	1004	500
Oil Hours		**0**	0	0	0
Oil Changed		**Not Changd**	Not Changd	Not Changd	N/A
Sample Status		**ABNORMAL**	SEVERE	ABNORMAL	ABNORMAL

Oil Condition

Visc @ 40°C	cSt	**42.2**	42.5	41.7	46.0

Contamination

Water	%	**0.159**	0.057	NEG	NEG
Particles >4µm		**71285**	151529	23363	21447
Particles >6µm		**26991**	89584	8769	5908
Particles >14µm		**2030**	7632	770	144
ISO 4406:1999 (c)		**23/22/18**	24/24/20	22/20/17	22/20/14
Silicon	ppm	**4**	4	3	2
Sodium	ppm	**2**	2	2	2
Potassium	ppm	**<1**	<1	1	<1

Wear Metals

Iron	ppm	**15**	14	12	9
Copper	ppm	**5**	5	3	4
Lead	ppm	**1**	1	1	20
Tin	ppm	**0**	0	0	0
Aluminum	ppm	**<1**	<1	<1	<1
Chromium	ppm	**3**	2	<1	<1
Molybdenum	ppm	**0**	0	0	0
Nickel	ppm	**<1**	<1	<1	<1
Titanium	ppm	**0**	0	0	0
Silver	ppm	**0**	<1	<1	0
Manganese	ppm	**<1**	0	<1	<1
Vanadium	ppm	**0**	0	0	0

Additives

Calcium	ppm	**1139**	1117	1273	1395
Magnesium	ppm	**5**	4	4	4
Zinc	ppm	**724**	728	722	726
Phosphorus	ppm	**627**	618	673	732
Barium	ppm	**<1**	<1	0	0
Boron	ppm	**1**	2	1	2

Diagnosis

Check seals and/or filters for points of contaminant entry. We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. There is a moderate concentration of water present in the oil. The oil is no longer serviceable due to the presence of contaminants.

Depot: IND550WIN
Unique No: 5800526
Signed: Kevin Marson
Report Date: 21 Jun 2024

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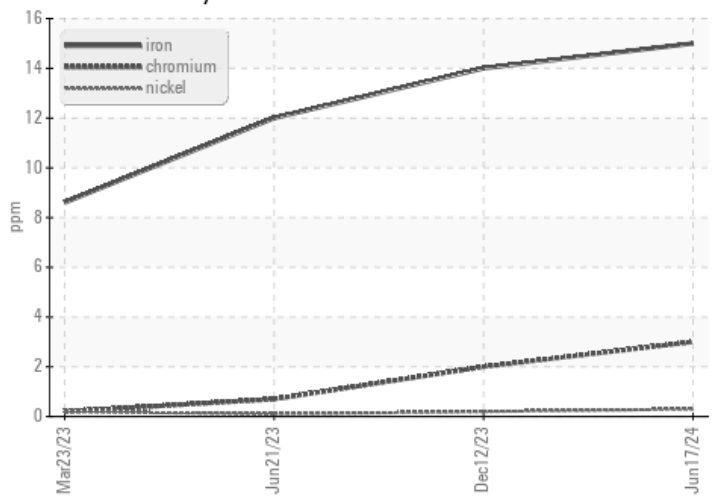
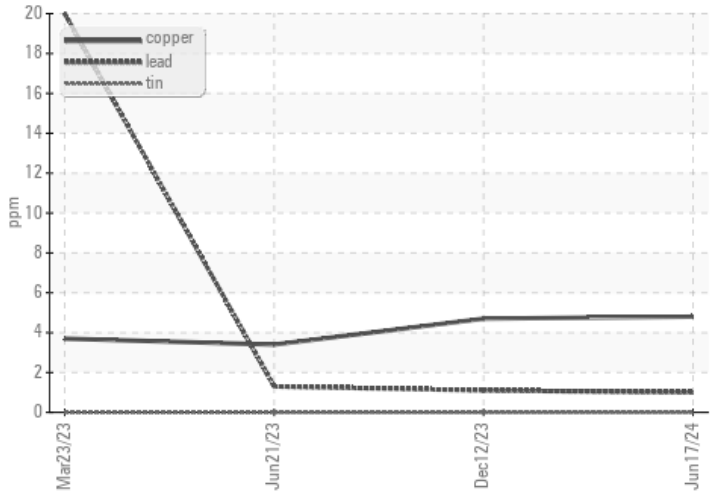
Graphs

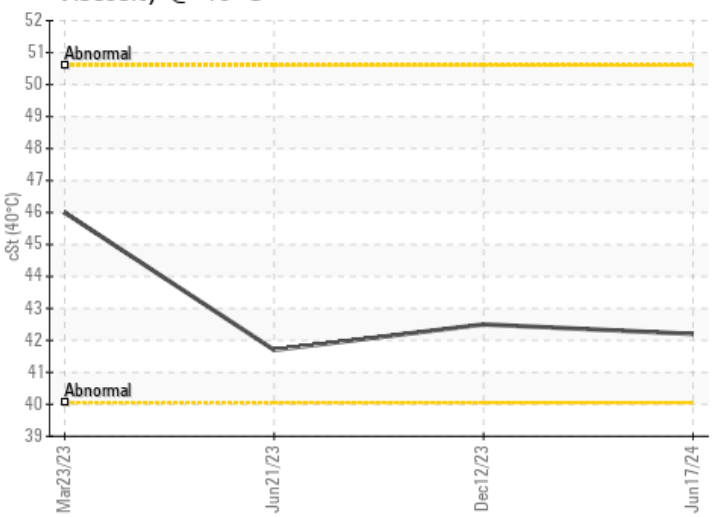
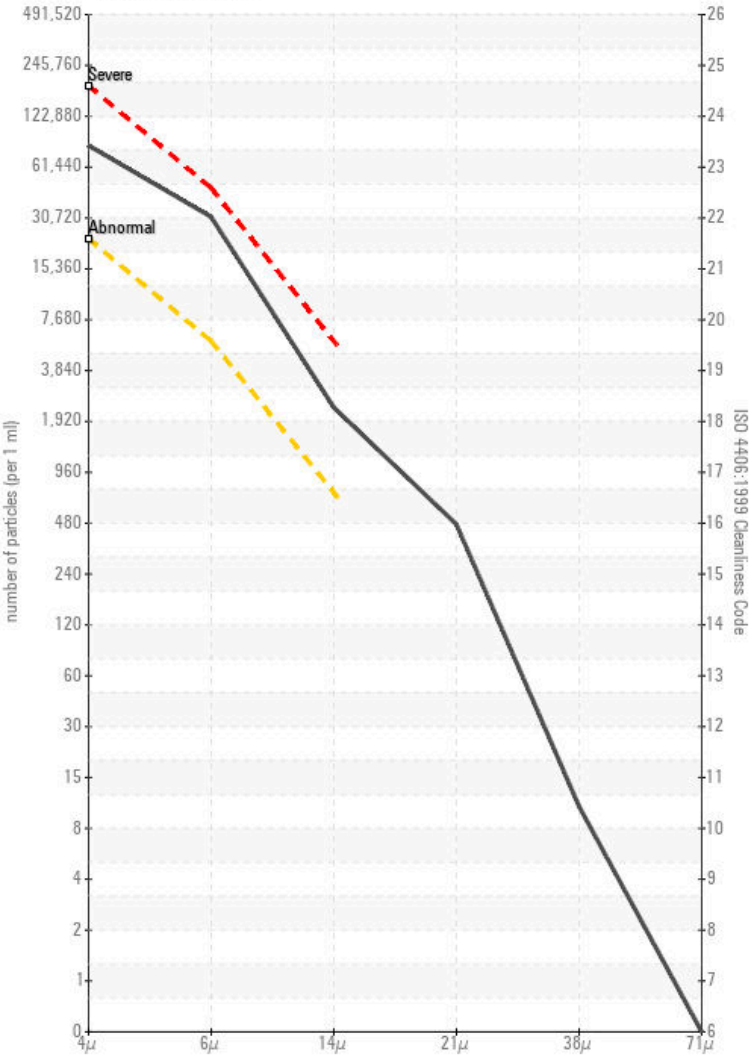
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count