LIEBHERR
CONSTRUCTION EQUIPMENT

[[AMG RESOURCES]] LIEBHERR LH40M 124711-1215 - Hydraulic

Sample No: LHMC155857

Oil Type: LIEBHERR HYDRAULIC HVI

SAMPLE INFORMATION

Sample Number		**LHMC155857**	LH0253933	LH0253918	LH0236481
Sample Date		**20 Dec 2023**	26 Sep 2023	12 Jul 2023	21 Apr 2023
Machine Hours		**4494**	4000	3502	3125
Oil Hours		**4494**	0	0	3125
Oil Changed		**N/A**	Not Changd	Not Changd	Not Changd
Sample Status		**NORMAL**	NORMAL	NORMAL	NORMAL

OIL CONDITION

Visc @ 40°C	cSt	**41.4**	42.2	41.8	41.8
Acid Number (AN)	mg KOH/g	**0.99**	1.12	1.16	0.14

CONTAMINATION

Water	%	**NEG**	NEG	NEG	NEG
Particles >4µm		**574**	13565	442	777
Particles >6µm		**112**	3674	131	226
Particles >14µm		**11**	266	16	17
ISO 4406:1999 (c)		**16/14/11**	21/19/15	16/14/11	17/15/11
Silicon	ppm	**2**	<1	<1	3
Sodium	ppm	**0**	2	3	4
Potassium	ppm	**2**	0	0	4

WEAR METALS

Iron	ppm	**35**	22	16	23
Copper	ppm	**5**	2	3	4
Lead	ppm	**1**	<1	0	2
Tin	ppm	**<1**	0	0	<1
Aluminum	ppm	**2**	0	<1	1
Chromium	ppm	**<1**	0	0	<1
Molybdenum	ppm	**0**	0	0	0
Nickel	ppm	**0**	0	0	<1
Titanium	ppm	**<1**	0	0	0
Silver	ppm	**0**	0	0	0
Manganese	ppm	**<1**	0	<1	<1
Vanadium	ppm	**0**	0	0	0

ADDITIVES

Calcium	ppm	**1734**	1350	1461	1442
Magnesium	ppm	**5**	10	5	7
Zinc	ppm	**871**	697	742	735
Phosphorus	ppm	**658**	607	625	610
Barium	ppm	**0**	0	0	0
Boron	ppm	**0**	0	0	0

AMERICAN STATE EQUIPMENT CO.
2400 NORTH 14TH AVENUE
WAUSAU, WI
US 54401
Contact: CHRIS BARTNIK
cbartnik@amstate.com
T: (715)675-6900
F: (715)675-9748

Diagnosis

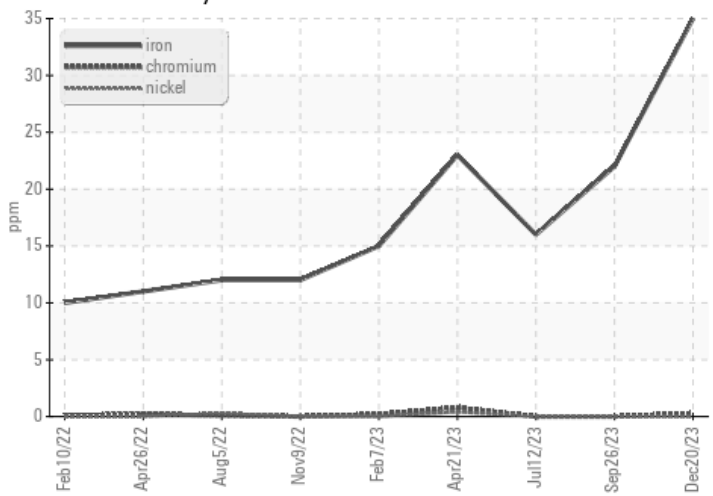
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: LEC0008
Unique No: 10833280
Signed: Jonathan Hester
Report Date: 18 Jan 2024

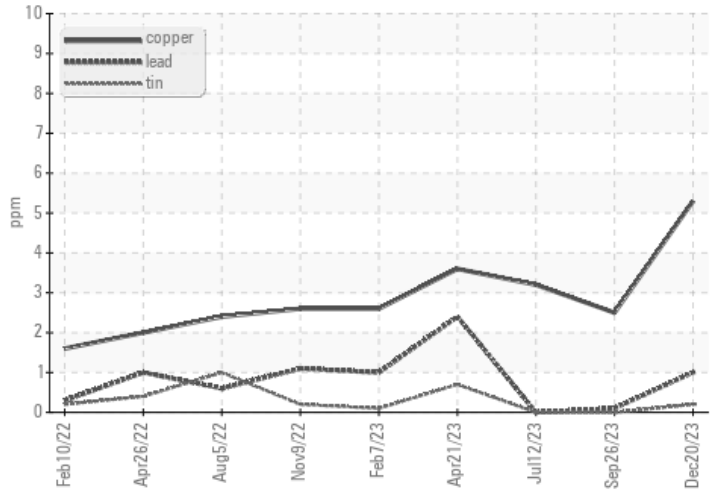
LIEBHERR
CONSTRUCTION EQUIPMENT

GRAPHS

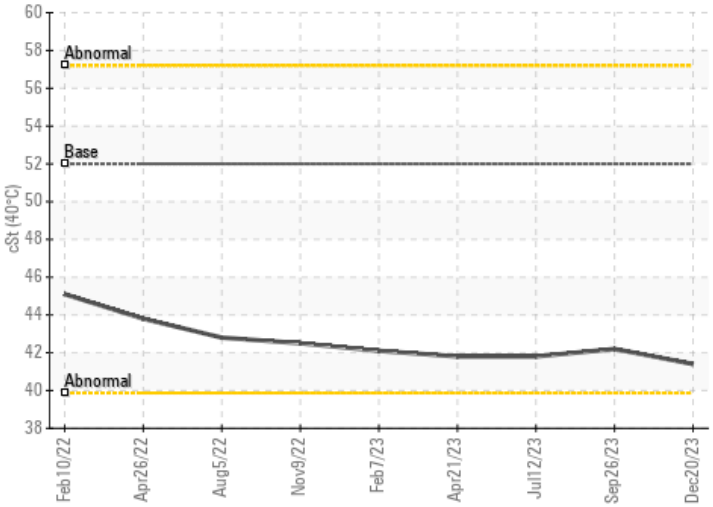
Ferrous Alloys



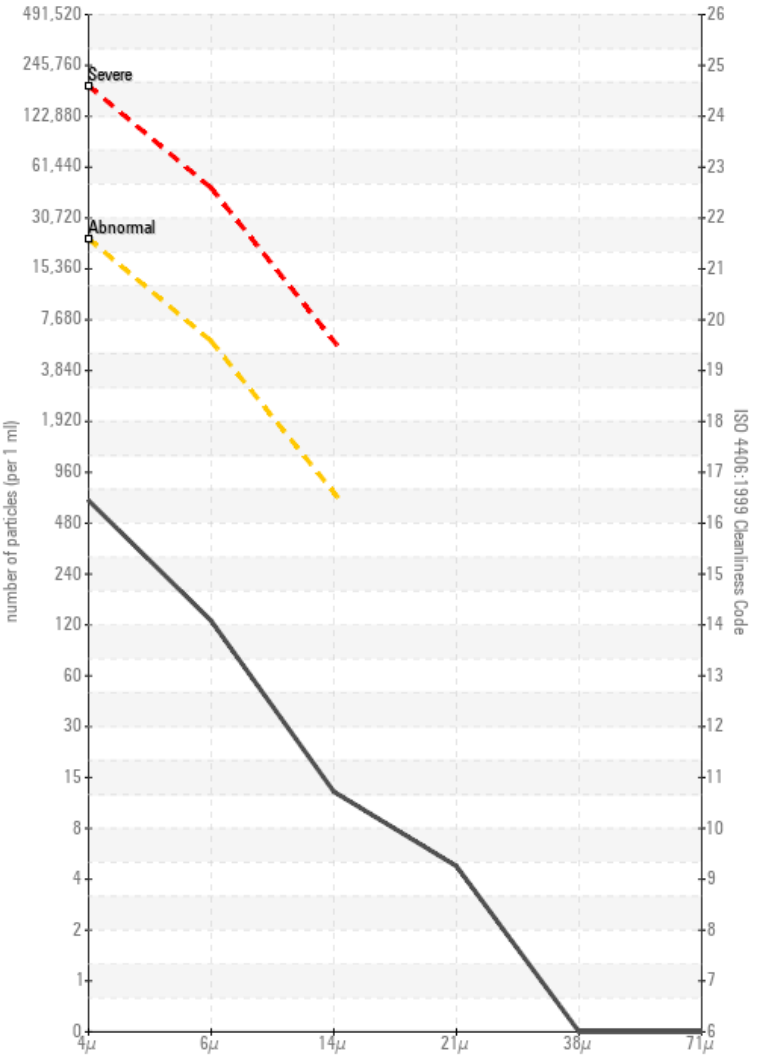
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number