LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR L556 055501-1332 - Hydraulic System

Sample No: LH0254831

Oil Type: LIEBHERR HYDRAULIC HVI

INTERSTATE POWER SYSTEMS
407 ADVENTURLAND DR NE
ALTOONA, IA
US 50009
Contact: DALTON JOHNSON
dalton.johnson@istate.com
T: (515)957-3300
F:

SAMPLE INFORMATION

Sample Number		**LH0254831**	LH0254716	LH0254851	LH0220832
Sample Date		**06 Feb 2024**	24 Sep 2023	22 Feb 2023	12 Aug 2022
Machine Hours		**7216**	6554	5381	4360
Oil Hours		**0**	0	0	0
Oil Changed		**Not Changd**	N/A	Not Changd	Not Changd
Sample Status		**NORMAL**	NORMAL	ATTENTION	ABNORMAL

OIL CONDITION

Visc @ 40°C	cSt	**43.4**	42.2	40.3	43.0
Acid Number (AN)	mg KOH/g	**1.21**	0.51	0.71	0.64

CONTAMINATION

Water	%	**NEG**	NEG	NEG	NEG
Particles >4µm		**13213**	19181	27685	52959
Particles >6µm		**1519**	4427	2715	6925
Particles >14µm		**70**	215	91	311
ISO 4406:1999 (c)		**21/18/13**	21/19/15	22/19/14	23/20/15
Silicon	ppm	**3**	4	3	3
Sodium	ppm	**2**	4	0	<1
Potassium	ppm	**0**	1	1	0

WEAR METALS

Iron	ppm	**7**	8	7	10
Copper	ppm	**1**	2	1	2
Lead	ppm	**0**	<1	<1	2
Tin	ppm	**<1**	<1	0	0
Aluminum	ppm	**1**	<1	1	1
Chromium	ppm	**2**	2	2	2
Molybdenum	ppm	**2**	6	6	5
Nickel	ppm	**0**	0	0	0
Titanium	ppm	**0**	0	0	0
Silver	ppm	**0**	0	0	<1
Manganese	ppm	**<1**	<1	0	<1
Vanadium	ppm	**0**	0	0	0

ADDITIVES

Calcium	ppm	**827**	453	397	406
Magnesium	ppm	**28**	55	49	68
Zinc	ppm	**630**	572	535	535
Phosphorus	ppm	**540**	461	432	454
Barium	ppm	**<1**	0	2	0
Boron	ppm	**4**	11	8	0

Diagnosis

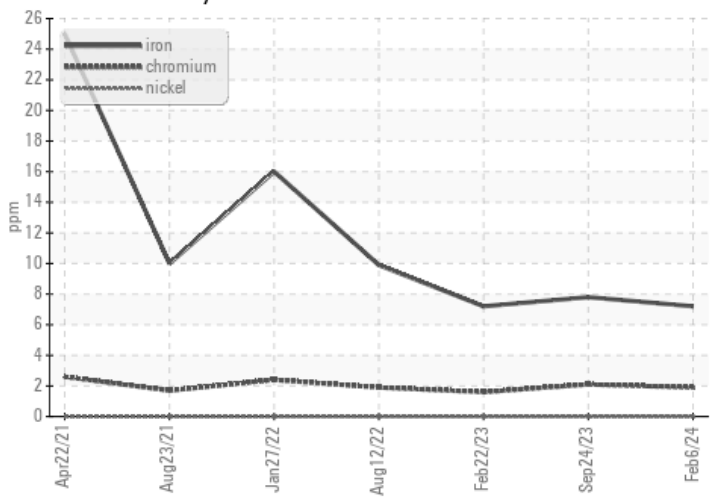
Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further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

Depot: INTALT
Unique No: 10910187
Signed: Jonathan Hester
Report Date: 07 Mar 2024

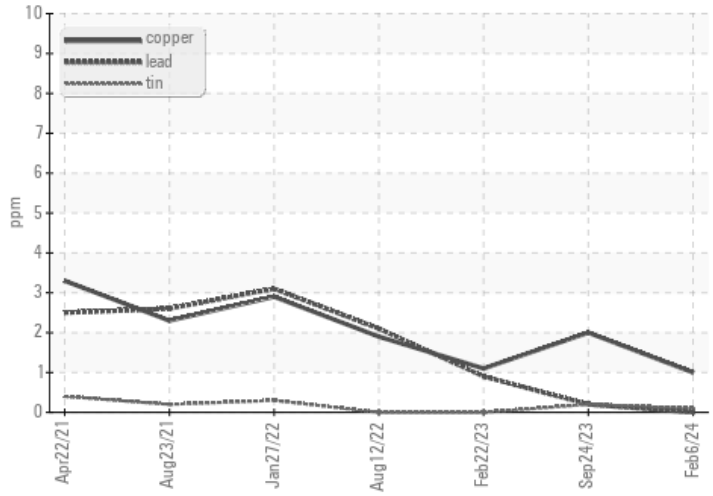
LIEBHERR
CONSTRUCTION EQUIPMENT

GRAPHS

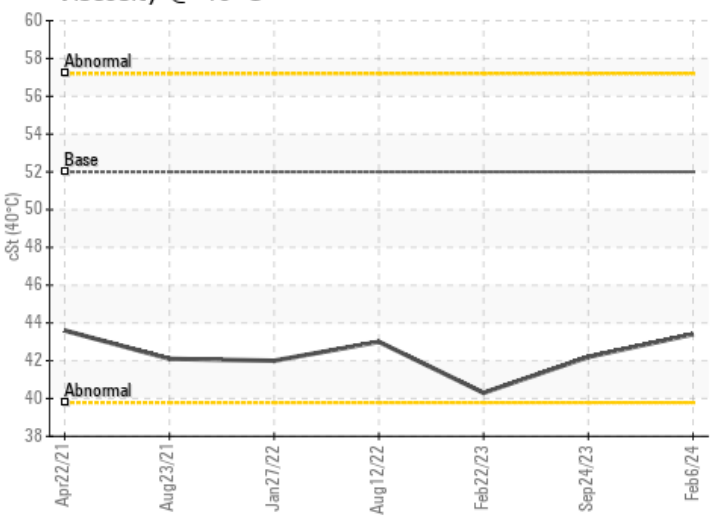
Ferrous Alloys



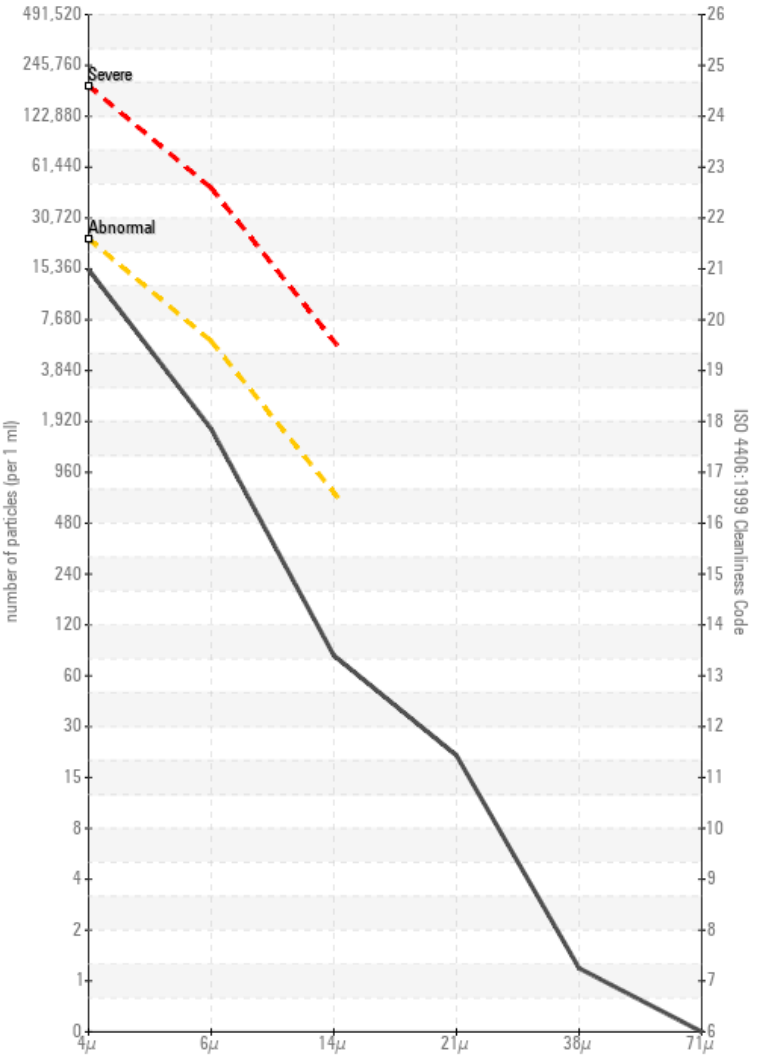
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number