

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 1216-98638 - Hydraulic System

Sample No: LH0268269

Oil Type: CHEVRON RANDO HD 46



AMERICAN STATE EQUIPMENT CO.
 2055 SOUTH 108TH STREET
 MILWAUKEE, WI
 US 53227
 Contact: RAY SCHMIDT
 RSCHMIDT@AMSTATE.COM
 T: (414)234-0854
 F: (414)541-1892



SAMPLE INFORMATION

Sample Number	LH0268269	LH0263878	LH0245053	LH0221008
Sample Date	25 Jan 2024	17 Aug 2023	29 Mar 2023	29 Sep 2022
Machine Hours	13406	12191	11277	10101
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	N/A	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



OIL CONDITION

Visc @ 40°C	cSt	63.1	63.2	62.4	62.4
Acid Number (AN)	mg KOH/g	0.44	0.39	0.40	0.42



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		873	597	2728	526
Particles >6µm		224	130	526	137
Particles >14µm		30	14	37	20
ISO 4406:1999 (c)		17/15/12	16/14/11	19/16/12	16/14/11
Silicon	ppm	<1	<1	<1	0
Sodium	ppm	0	2	2	2
Potassium	ppm	2	1	0	0



WEAR METALS

Iron	ppm	20	12	11	7
Copper	ppm	4	3	4	3
Lead	ppm	<1	<1	0	0
Tin	ppm	<1	<1	0	0
Aluminum	ppm	2	<1	<1	0
Chromium	ppm	1	<1	1	<1
Molybdenum	ppm	1	1	<1	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	<1	0	0



ADDITIVES

Calcium	ppm	129	132	123	113
Magnesium	ppm	9	12	8	4
Zinc	ppm	431	441	450	415
Phosphorus	ppm	309	357	370	351
Barium	ppm	0	0	0	0
Boron	ppm	0	0	0	0

Diagnosis

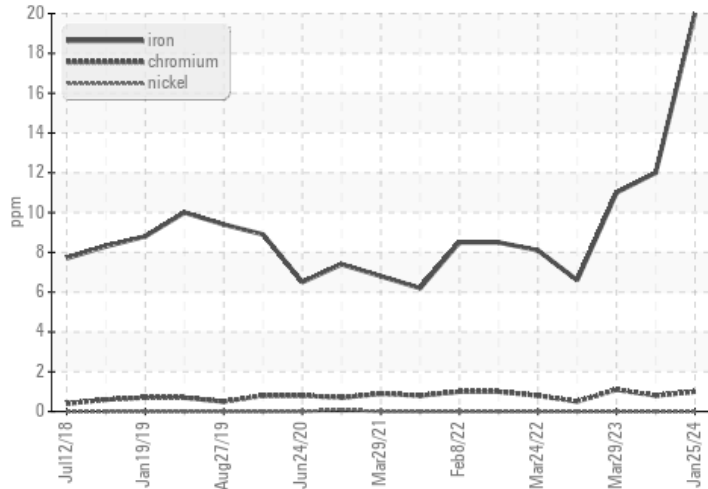
Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: LEC007
Unique No: 10856730
Signed: Wes Davis
Report Date: 01 Feb 2024

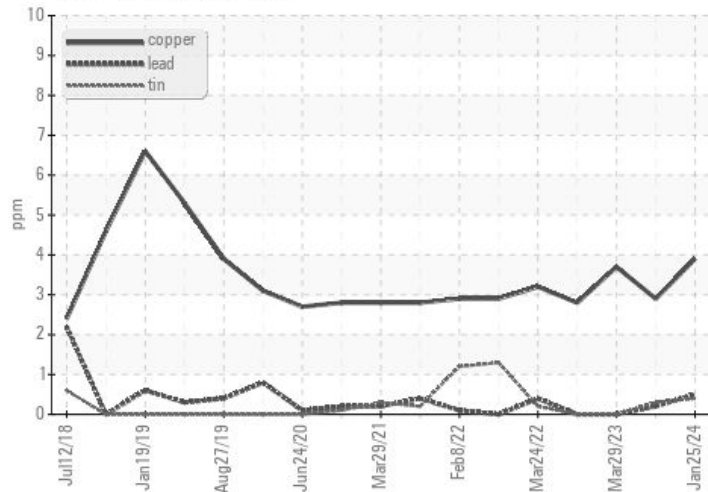


GRAPHS

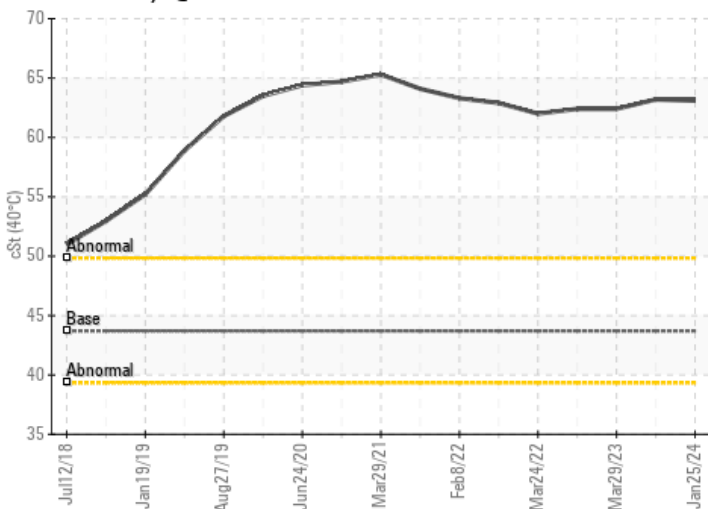
Ferrous Alloys



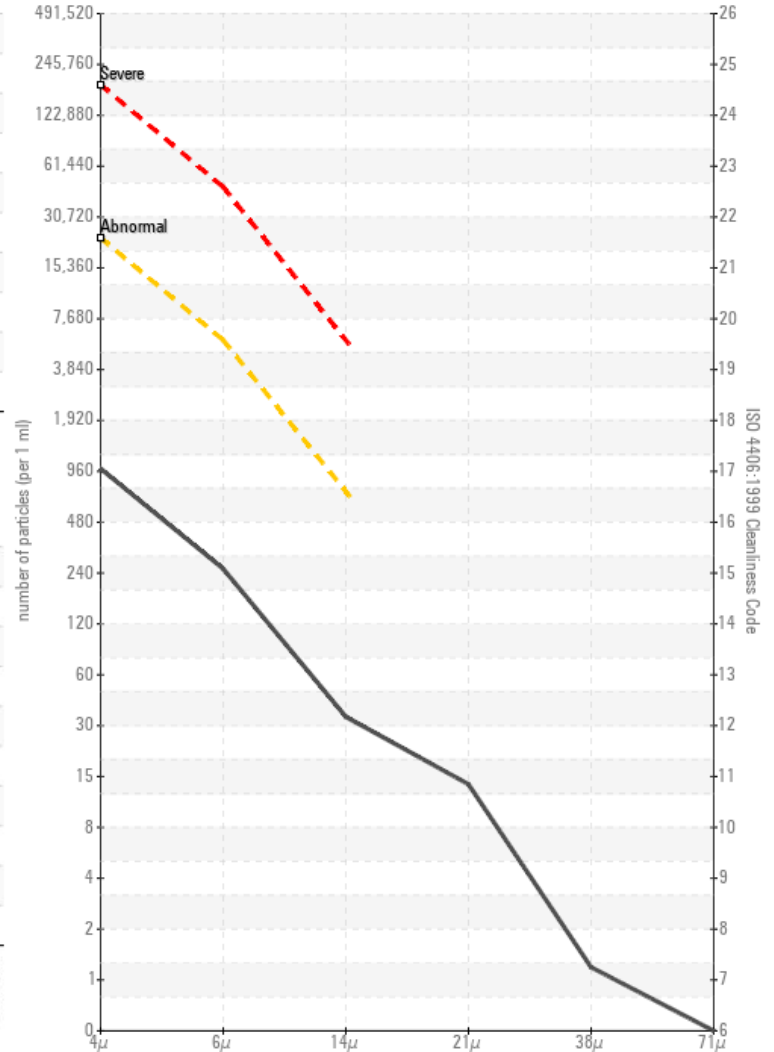
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

