

LIEBHERR

CONSTRUCTION EQUIPMENT



[AMR-Cheyenne [GABY IRON]] LIEBHERR LH60M 1204-69983 - Dies

Sample No: LH0254403

Oil Type: DIESEL ENGINE OIL SAE 5W40



FINKBINER EQUIPMENT CO.
 15 W 400 N FRONTAGE RD
 BURR RIDGE, IL
 US 60527
 Contact: DON FITZGERALD
 dfitzgerald@finkbiner.com
 T: (815)546-8991
 F: (630)654-3792



SAMPLE INFORMATION

Sample Number	LH0254403	LH0220088	DJJ0002892	DJJ0001315
Sample Date	20 Apr 2023	04 Jan 2023	26 Jun 2020	02 Jan 2020
Machine Hours	17642	17121	15094	14722
Oil Hours	500	500	250	250
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	SEVERE	ABNORMAL	NORMAL	NORMAL



OIL CONDITION

Visc @ 100°C	cSt	12.3	13.7	12.7	13.7
Base Number (BN)	mg KOH/g	6.4	7.0	---	---
Oxidation (PA)	%	69	73	63	67



CONTAMINATION

Soot %	%	1.2	1.2	1	0.7
Nitration (PA)	%	97	95	68	68
Sulfation (PA)	%	65	65	60	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	9.1	<1.0	<1.0	<1.0
Silicon	ppm	8	6	8	8
Sodium	ppm	3	2	2	2
Potassium	ppm	2	1	0	7



WEAR METALS

Iron	ppm	18	19	10	9
Copper	ppm	28	112	1	<1
Lead	ppm	2	2	0	0
Tin	ppm	<1	<1	0	0
Aluminum	ppm	3	4	4	5
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	19	35	98	109
Nickel	ppm	<1	0	0	<1
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1251	1503	1210	1425
Magnesium	ppm	551	536	468	565
Zinc	ppm	793	926	710	788
Phosphorus	ppm	667	722	618	692
Barium	ppm	0	0	<1	0
Boron	ppm	31	42	218	232

Diagnosis

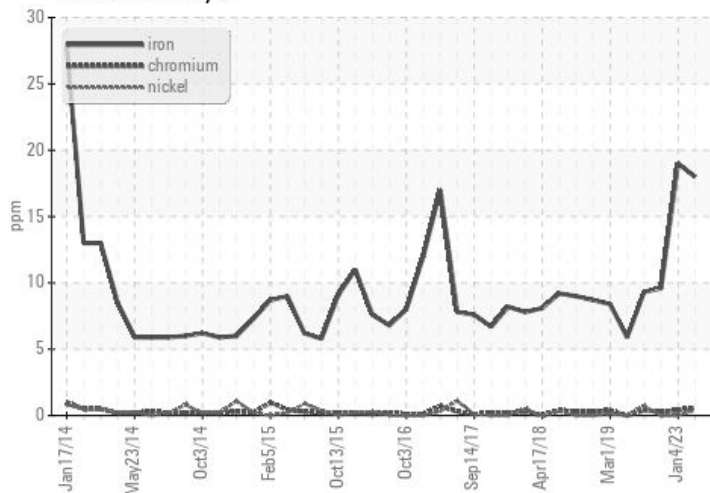
We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Depot: LEC0033
 Unique No: 10548602
 Signed: Wes Davis
 Report Date: 11 Jul 2023

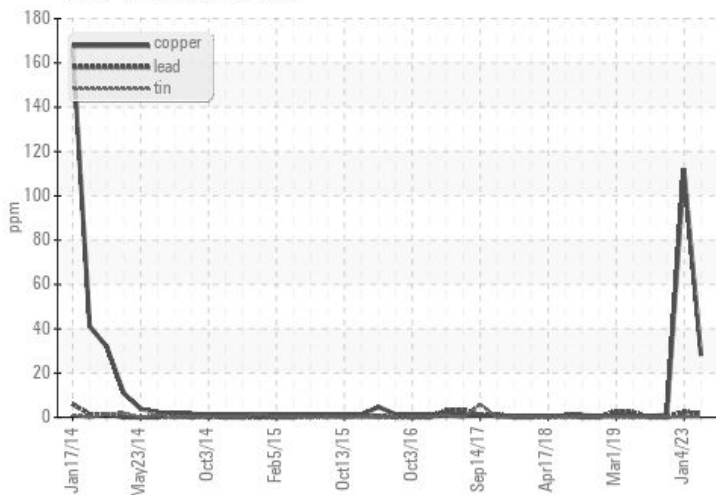


GRAPHS

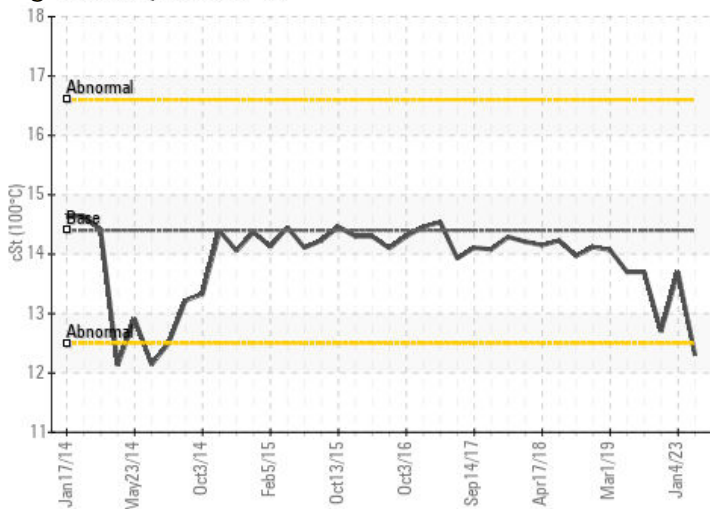
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

