

LIEBHERR

CONSTRUCTION EQUIPMENT



[[MCDONAGH]] LIEBHERR R956 056876-1728 - Diesel Engine

Sample No: LH0258538

Oil Type: DIESEL ENGINE OIL SAE 5W40



SAMPLE INFORMATION

Sample Number	LH0258538	LH0267589	---	---
Sample Date	12 Feb 2024	28 Oct 2023	---	---
Machine Hours	1075	552	---	---
Oil Hours	500	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	ATTENTION	---	---

FINKBINER EQUIPMENT CO.

15 W 400 N FRONTAGE RD
BURR RIDGE, IL
US 60527
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OIL CONDITION

Visc @ 100°C	cSt	13.3	12.4	---	---
Base Number (BN)	mg KOH/g	5.7	4.6	---	---
Oxidation (PA)	%	78	191	---	---



CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.1	0.1	---	---
Nitration (PA)	%	73	96	---	---
Sulfation (PA)	%	60	104	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	1.0	---	---
Silicon	ppm	8	10	---	---
Sodium	ppm	3	0	---	---
Potassium	ppm	4	9	---	---

Diagnosis

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



WEAR METALS

Iron	ppm	1	18	---	---
Copper	ppm	70	200	---	---
Lead	ppm	2	3	---	---
Tin	ppm	<1	1	---	---
Aluminum	ppm	2	4	---	---
Chromium	ppm	<1	1	---	---
Molybdenum	ppm	21	46	---	---
Nickel	ppm	0	<1	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	1	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

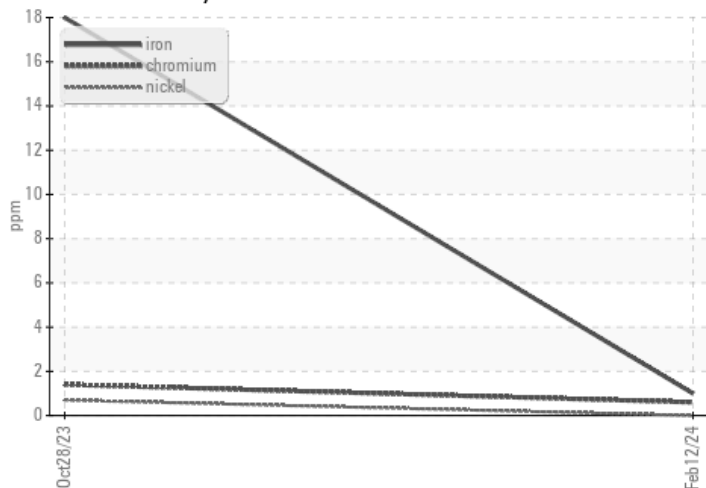
Calcium	ppm	1377	1272	---	---
Magnesium	ppm	748	882	---	---
Zinc	ppm	933	907	---	---
Phosphorus	ppm	777	753	---	---
Barium	ppm	5	28	---	---
Boron	ppm	71	84	---	---

Depot: LEC0033
Unique No: 10899047
Signed: Wes Davis
Report Date: 27 Feb 2024

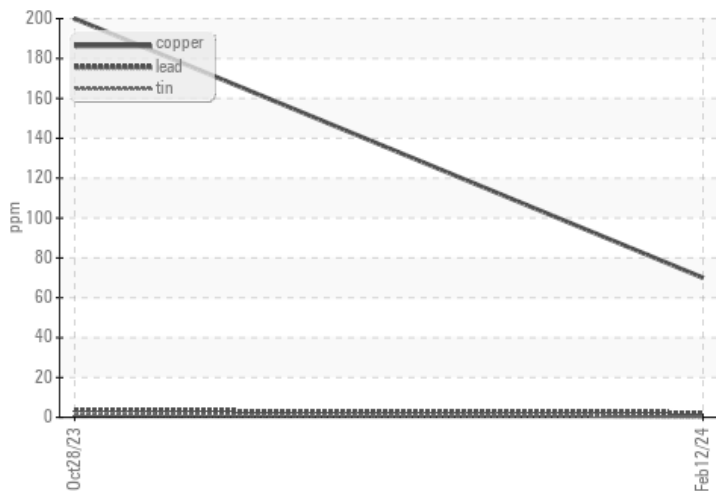


GRAPHS

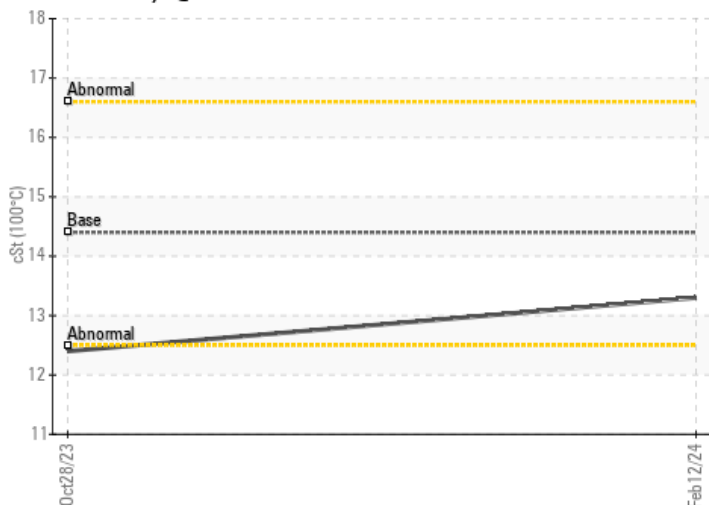
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

