

LIEBHERR

CONSTRUCTION EQUIPMENT



CATERPILLAR TL943 TL943 - Diesel Engine

Sample No: LH0243769

Oil Type: DIESEL ENGINE OIL SAE 15W40



SAMPLE INFORMATION

Sample Number	LH0243769	---	---	---
Sample Date	24 Jan 2024	---	---	---
Machine Hours	0	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	SEVERE	---	---	---

NUCOR STEEL

2911 E NUCOR RD
NORFOLK, NE
US 68702

Contact: NICOLE IRISH
nicole.irish@nucor.com
T: (402)500-9035
F: (402)644-0389



OIL CONDITION

Visc @ 100°C	cSt	6.95	---	---	---
Base Number (BN)	mg KOH/g	7.7	---	---	---
Oxidation (PA)	%	14	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Cylinder, crank, or cam shaft wear is indicated. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	0.1	---	---	---
Nitration (PA)	%	30	---	---	---
Sulfation (PA)	%	43	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	0.3	---	---	---
Silicon	ppm	23	---	---	---
Sodium	ppm	2	---	---	---
Potassium	ppm	0	---	---	---



WEAR METALS

Iron	ppm	825	---	---	---
Copper	ppm	15	---	---	---
Lead	ppm	0	---	---	---
Tin	ppm	<1	---	---	---
Aluminum	ppm	3	---	---	---
Chromium	ppm	2	---	---	---
Molybdenum	ppm	1	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	6	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

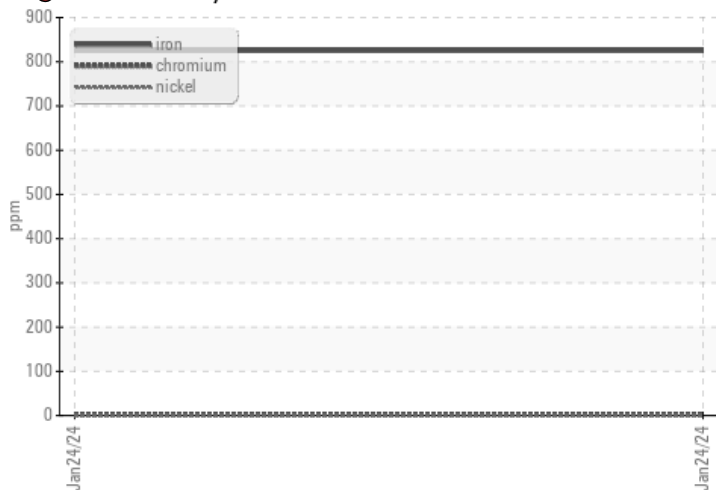
Calcium	ppm	2368	---	---	---
Magnesium	ppm	76	---	---	---
Zinc	ppm	1180	---	---	---
Phosphorus	ppm	1076	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	8	---	---	---

Depot: NUCNOR
Unique No: 10871710
Signed: Jonathan Hester
Report Date: 13 Feb 2024

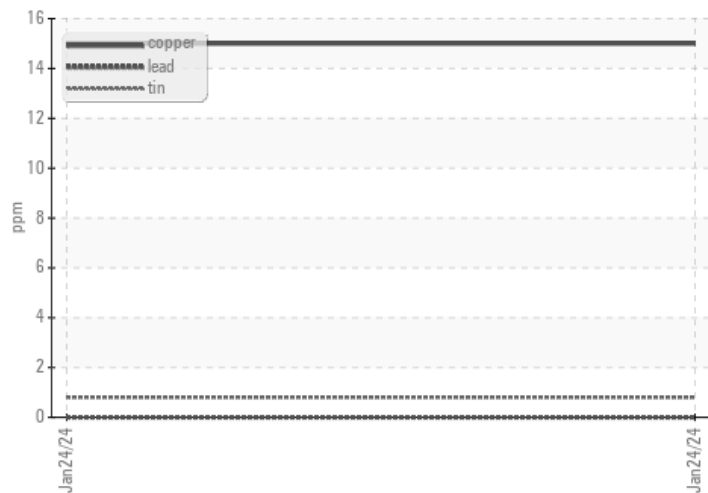


GRAPHS

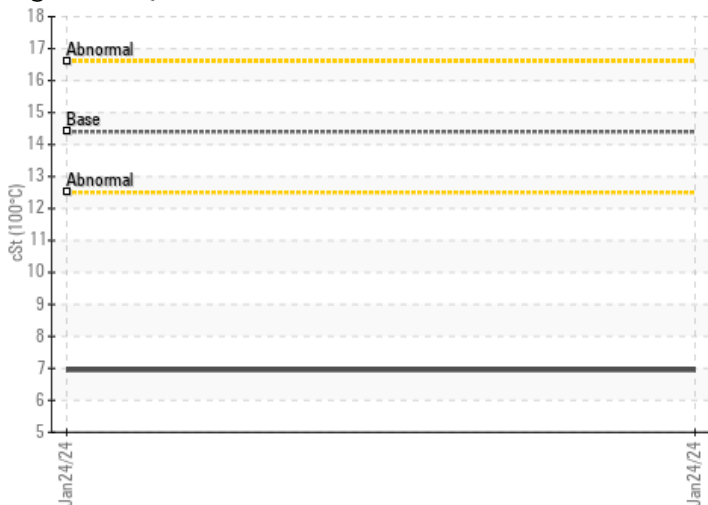
● Ferrous Alloys



Non-ferrous Metals



● Viscosity @ 100°C



Base Number

