

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH80 124551 - Diesel Engine

Sample No: LH0243770

Oil Type: MOBIL 15W40



SAMPLE INFORMATION

Sample Number	LH0243770	LH0191225	LH0243772	LH0243763
Sample Date	03 Aug 2023	19 Jul 2023	23 Jun 2023	06 Jun 2023
Machine Hours	8381	8146	7905	7685
Oil Hours	235	241	200	200
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

NUCOR STEEL

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OIL CONDITION

Visc @ 100°C	cSt	13.8	13.8	13.8	13.8
Base Number (BN)	mg KOH/g	9.3	9.9	12.3	9.1
Oxidation (PA)	%	57	58	55	64



CONTAMINATION

Soot %	%	0.1	0.1	0.2	0.1
Nitration (PA)	%	52	53	46	53
Sulfation (PA)	%	49	51	47	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	5	5	5
Sodium	ppm	1	1	<1	0
Potassium	ppm	4	0	<1	1



WEAR METALS

Iron	ppm	3	3	3	3
Copper	ppm	<1	<1	<1	<1
Lead	ppm	<1	<1	<1	<1
Tin	ppm	0	0	0	<1
Aluminum	ppm	1	1	0	0
Chromium	ppm	0	0	<1	0
Molybdenum	ppm	61	65	61	62
Nickel	ppm	0	0	0	<1
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	0	<1
Vanadium	ppm	0	<1	0	0



ADDITIVES

Calcium	ppm	1210	1230	1101	1132
Magnesium	ppm	1030	1039	956	981
Zinc	ppm	1363	1332	1241	1293
Phosphorus	ppm	1088	1100	1036	1065
Barium	ppm	0	0	0	0
Boron	ppm	2	2	2	3

Diagnosis

Resample at the next service interval to monitor. 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.

Depot: NUCOR

Unique No: 10603861

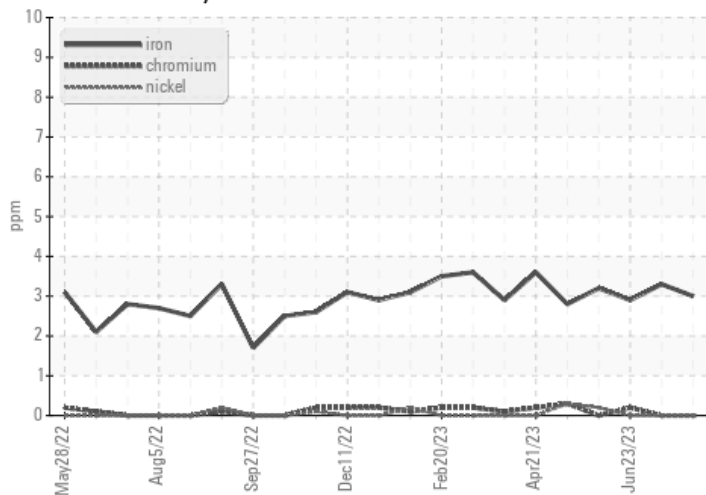
Signed: Wes Davis

Report Date: 15 Aug 2023

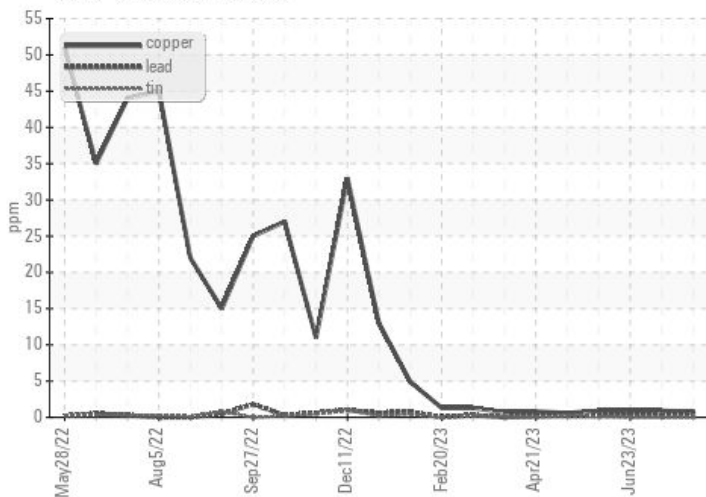


GRAPHS

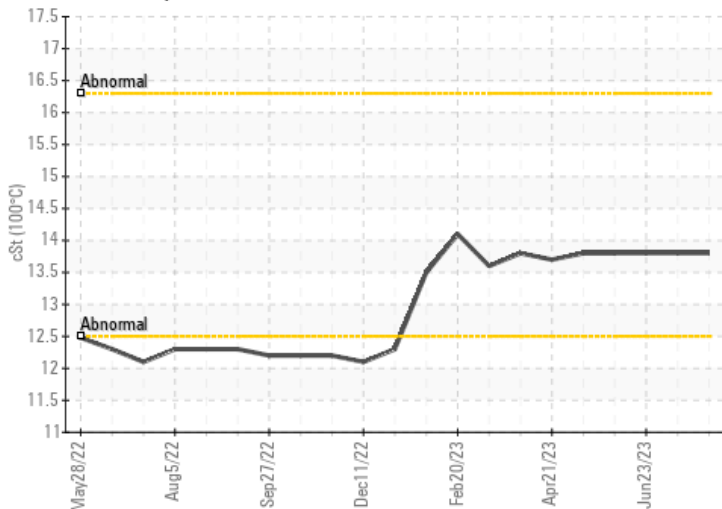
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

