

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH30 097842-1253 - Diesel Engine

Sample No: LH0258246

Oil Type: PETRO CANADA DURON UHP 5W30



#### SAMPLE INFORMATION

Sample Number	LH0258246	LH0230036	LH0230020	LH0229971
Sample Date	08 Nov 2023	04 Jan 2023	08 Dec 2022	11 Aug 2022
Machine Hours	12403	10714	10567	9932
Oil Hours	500	147	0	0
Oil Changed	Changed	Not Changd	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

#### MIDWEST METALS CORP

40 WINDHURST WAY  
SHELBYVILLE, KY  
US 40065

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#### OIL CONDITION

Visc @ 100°C	cSt	11.1	11.6	11.4	11.6
Base Number (BN)	mg KOH/g	7.6	10.4	8.1	8.9
Oxidation (PA)	%	85	73	86	86



#### CONTAMINATION

Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	82	65	86	92
Sulfation (PA)	%	55	49	54	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	7	6	6
Sodium	ppm	2	<1	0	0
Potassium	ppm	2	1	0	0



#### WEAR METALS

Iron	ppm	2	2	4	3
Copper	ppm	3	<1	1	1
Lead	ppm	<1	<1	<1	<1
Tin	ppm	0	0	<1	<1
Aluminum	ppm	2	<1	1	<1
Chromium	ppm	0	0	<1	<1
Molybdenum	ppm	41	46	45	50
Nickel	ppm	<1	<1	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	1164	1334	1259	1349
Magnesium	ppm	840	896	870	803
Zinc	ppm	801	926	838	878
Phosphorus	ppm	667	752	653	696
Barium	ppm	0	0	0	<1
Boron	ppm	58	129	76	64

#### 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: MIDSHELH

Unique No: 10742703

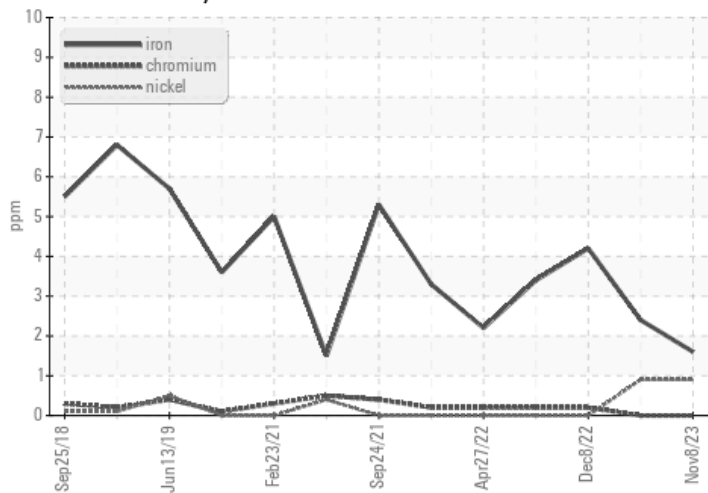
Signed: Wes Davis

Report Date: 16 Nov 2023

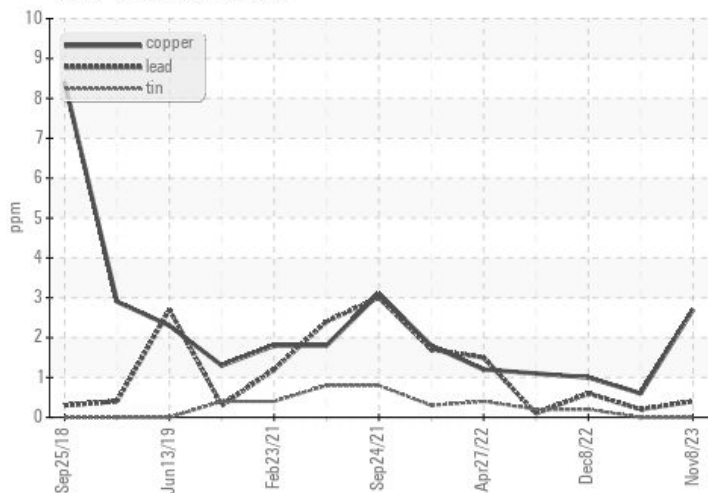


### GRAPHS

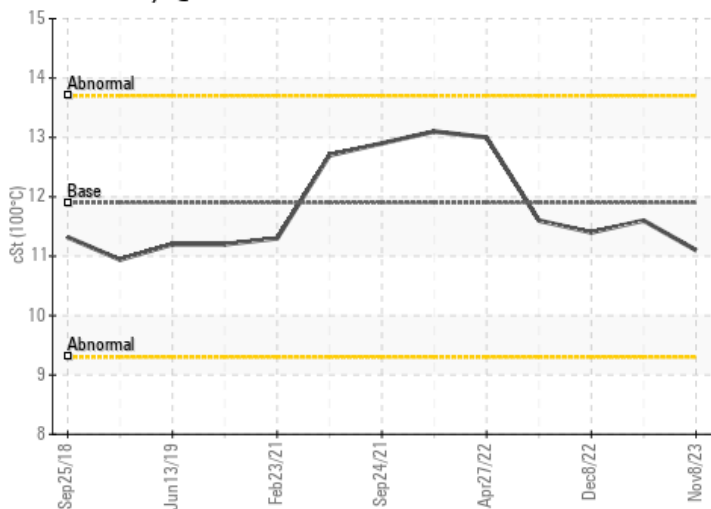
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number

