

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L538P 046205-1559 - Diesel Engine

Sample No: LH0265463

Oil Type: DIESEL ENGINE OIL SAE 30



#### SAMPLE INFORMATION

Sample Number	LH0265463	LH0234729	LH	LH
Sample Date	25 Jul 2023	27 Jul 2022	07 Apr 2021	13 Jan 2021
Machine Hours	5955	0	0	0
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

LES INDUSTRIES MAIBEC INC.

340 ROUTE 173  
ST-THEOPHILLE, QC  
CA G0M 2A0

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F:



#### OIL CONDITION

Visc @ 100°C	cSt	12.9	12.1	13.3	13.4
Oxidation (PA)	%	66	27	64	63



#### CONTAMINATION

Soot %	%	0.4	0	0.1	0.2
Nitration (PA)	%	82	29	73	68
Sulfation (PA)	%	58	32	54	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	0.9	<1.0	<1.0
Silicon	ppm	11	4	7	7
Sodium	ppm	2	4	1	2
Potassium	ppm	2	<1	3	5



#### WEAR METALS

Iron	ppm	29	13	14	14
Copper	ppm	4	8	2	2
Lead	ppm	8	<1	3	2
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	4	2	2	3
Chromium	ppm	<1	0	<1	<1
Molybdenum	ppm	60	57	58	57
Nickel	ppm	0	0	<1	<1
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	1115	851	1042	995
Magnesium	ppm	1005	1075	1014	978
Zinc	ppm	1231	1187	1241	1242
Phosphorus	ppm	1072	984	1052	979
Barium	ppm	0	0	0	0
Boron	ppm	2	42	2	4

#### 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. Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.

Depot: LESSTT

Unique No: 5618218

Signed: Kevin Marson

Report Date: 31 Jul 2023



### GRAPHS

