

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L586 068244 - Diesel Engine

Sample No: LH

Oil Type: PETRO CANADA SUPREME 5W30



#### SAMPLE INFORMATION

Sample Number	LH	LH0265760	LH0234434	LH0250035
Sample Date	15 Sep 2023	21 Aug 2023	21 Jun 2023	28 May 2023
Machine Hours	0	5330	4612	4345
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Not Changd	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

**Gerdau - Mandak Metal Processors Ltd.,**  
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#### OIL CONDITION

Visc @ 100°C	cSt	13.5	13.3	13.9	11.9
Oxidation (PA)	%	59	65	58	78



#### CONTAMINATION

Soot %	%	0	0	0	0
Nitration (PA)	%	55	65	48	79
Sulfation (PA)	%	50	53	51	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	10	5	6
Sodium	ppm	2	2	2	5
Potassium	ppm	<1	2	<1	2

#### 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.



#### WEAR METALS

Iron	ppm	3	4	2	4
Copper	ppm	2	2	1	2
Lead	ppm	<1	<1	<1	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	1	2	<1	2
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	57	54	54	60
Nickel	ppm	0	0	0	<1
Titanium	ppm	0	0	0	<1
Silver	ppm	<1	0	<1	0
Manganese	ppm	0	<1	0	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	1035	1067	1069	895
Magnesium	ppm	922	938	930	1155
Zinc	ppm	1159	1195	1178	1264
Phosphorus	ppm	987	1044	1066	1138
Barium	ppm	<1	<1	0	0
Boron	ppm	2	8	10	33

Depot: MANSEL  
 Unique No: 5669022  
 Signed: Kevin Marson  
 Report Date: 26 Oct 2023



### GRAPHS

