**CONSTRUCTION EQUIPMENT** 

# LIEBHERR LH60M 107906 - Diesel Engine

Sample No: LH

{unknown}



Sample Information						
Sample Number	LH	LH	LH0250242			
Sample Date	17 Jun 2024	12 Apr 2023	09 Jan 2023			
Machine Hours	3725	3721	3715			
Oil Hours	0	0	0			
Oil Changed	N/A	N/A	Not Changd			
Sample Status	ABNORMAL	MARGINAL	ABNORMAL			
400						

OilC	ondition	1			
Visc @ 100°C	cSt	<u> </u>	O 11.7	O 11.5	
Oxidation (PA)	%	67	104	106	

Contamination						
Water	%	NEG	NEG	NEG		
Soot %	%	<b>0</b>	O 0	O 0		
Nitration (PA)	%	57	130	129		
Sulfation (PA)	%	53	80	76		
Glycol	%	NEG	NEG	NEG		
Fuel	%	<b>0.0</b>	<b>2.4</b>	<b>2.4</b>		
Silicon	ppm	<b>10</b>	O 16	<b>1</b> 3		
Sodium	ppm	<b>4</b>	○ 5	<b>4</b>		
Potassium	ppm	<b>()</b> <1	O 0	0 8		

Wee	ar Metals				
Iron	ppm	<b>3</b>	O 23	<b>1</b> 9	
Copper	ppm	<b>3</b>	O 16	<b>15</b>	
Lead	ppm	<b>0</b>	<b>O</b> 4	<b>3</b>	
Tin	ppm	<b>0</b>	O <1	O <1	
Aluminum	ppm	<b></b> <1	<b>4</b>	<b>4</b>	
Chromium	ppm	<b>0</b>	O <1	O <1	
Molybdenum	ppm	<b>55</b>	20	<b>18</b>	
Nickel	ppm	<b>()</b> <1	O <1	<b>0</b>	
Titanium	ppm	0	<1	<1	
Silver	ppm	<b>()</b> <1	O <1	<b>0</b>	
Manganese	ppm	<1	<b>2</b>	1	
Vanadium	ppm	0	0	0	

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Add	litives				
Calcium	ppm	<b>802</b>	O 1297	O 1273	
Magnesium	ppm	<b>1019</b>	861	○ 843	
Zinc	ppm	<b>1108</b>	958	<b>905</b>	
Phosphorus	ppm	<b>978</b>	○ 874	○ 846	
Barium	ppm	<b>O</b> <1	<b>3</b>	O 2	
Boron	ppm	<b>59</b>	○ 34	○ 34	



LIEBHERR CANADA 10 LYNDS AVENUE MONCTON, NB CA E1H 3K2 Contact: Bryan Wood

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### Diagnosis

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Depot: LIEMON Unique No: 5800376 Signed: Kevin Marson **Report Date:** 21 Jun 2024

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## **Graphs**

