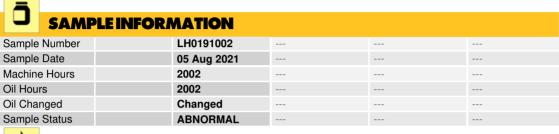
## LIEBHERR

**CONSTRUCTION EQUIPMENT** 

### LIEBHERR LH30 114399-1253 - Diesel Engine

Sample No: LH0191002

Oil Type: LIEBHERR MOTOROIL 5W30



OIL CO	ONDITION			
Visc @ 100°C	cSt	<b>12.2</b>	 	
Oxidation (PA)	%	202	 	

CONT	<b>TAMIN</b>	ATION		
- COM		AIION		
Water	%	<b>0.13</b>	 	
Soot %	%	<b>0.2</b>	 	
Nitration (PA)	%	158	 	
Sulfation (PA)	%	107	 	
Glycol	%	NEG	 	
Fuel	%	<1.0	 	
Silicon	ppm	<b>8</b>	 	
Sodium	ppm	<b>4</b>	 	
Potassium	ppm	<b>12</b>	 	

<b>(</b> )				
WE!	AR META	LS		
Iron	ppm	<b>24</b>	 	
Copper	ppm	<b>O</b> 194	 	
Lead	ppm	<b>18</b>	 	
Tin	ppm	<b>()</b> <1	 	
Aluminum	ppm	<b>4</b>	 	
Chromium	ppm	○ <1	 	
Molybdenum	ppm	<b>48</b>	 	
Nickel	ppm	<b>()</b> <1	 	
Titanium	ppm	6	 	
Silver	ppm	<1	 	
Manganese	ppm	<b>1</b>	 	
Vanadium	ppm	0	 	

Calcium         ppm         1438             Magnesium         ppm         816             Zinc         ppm         794	
Zinc ppm <b>794</b>	
Dhaanhawaa	
Phosphorus ppm 0684	
Barium ppm <b>24</b>	
Boron ppm <b>43</b>	



SIMS METAL MANAGEMENT
3220 DEEPWATER TERMINAL RD
RICHMOND, VA
US 23234
Contact: Service Manager

T: (703)392-0111

F:

#### Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. Elemental level of copper (Cu) probably due to leaching of copper from copper components (i.e. cooling core) by the oil additives. All other component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot:SIMRICLHUnique No:9633903Signed:Jonathan HesterReport Date:26 Aug 2021

# LIEBHERR

CONSTRUCTION EQUIPMENT





#### **GRAPHS**

