## LIEBHERR

### **CONSTRUCTION EQUIPMENT**



Sample No: LH0263945

Oil Type: GEAR OIL SAE 80W90

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SAMPLEI	NFORMATION				
Sample Number	LH0263945	LHMC142202	LHMC106324		
Sample Date	19 Dec 2023	03 May 2019	02 Jun 2017		
Machine Hours	31068	22895	17893		
Oil Hours	2000	500	500		
Oil Changed	Changed	Changed	Changed		
Sample Status	NORMAL	NORMAL	NORMAL		
<b>A</b>					
OIL COND	ITION				
Visc @ 40°C cSt	<b>138</b>	332	325.4		
CONTAMINATION					

CONTAMINATION						
%	NEG	NEG	NEG			
ppm	<b>5</b>	O 5	<b>6</b>			
ppm	<b>4</b>	<b>1</b>	O 2			
ppm	<b>0</b>	<b>9</b>	O 2			
	% ppm ppm	% NEG ppm	% NEG NEG ppm	%         NEG         NEG         NEG           ppm         5         5         6           ppm         4         1         2		

WEA	R METAL	S			
Iron	ppm	<b>51</b>	O 25	O 13	
Copper	ppm	<b>8</b>	O <1	O <1	
Lead	ppm	<b>0</b>	O 0	O	
Tin	ppm	<1	0	0	
Aluminum	ppm	<1	O <1	<1	
Chromium	ppm	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	O <1	<1	
Molybdenum	ppm	<b>2</b>	O 2	<1	
Nickel	ppm	<b>0</b>	O 0	0	
Titanium	ppm	<1	<1	<1	
Silver	ppm	0	0	0	
Manganese	ppm	<1	O <1	<1	
Vanadium	ppm	<1	0	0	

Vanadium	ppm	<1	0	0	
ADD	ITIVES				
Calcium	ppm	<b>97</b>	<b>5</b> 5	<b>46</b>	
Magnesium	ppm	<b>13</b>	O 7	<b>3</b>	
Zinc	ppm	<b>43</b>	O 25	<b>3</b> 1	
Phosphorus	ppm	<b>1046</b>	983	O 848	
Barium	ppm	<b>0</b>	<b>O</b> 0	O 0	
Boron	ppm	<b>151</b>	O 161	<b>137</b>	



#### **NORTHERN METAL RECYCLING**

2800 PACIFIC ST N MINNEAPOLIS, MN US 55411

Contact: CHRIS GILMER chris.gilmer@emrgroup.com T: (612)305-7338

F:

#### Diagnosis

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

All 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:NORMINLHUnique No:10844612Signed:Wes DavisReport Date:23 Jan 2024

# LIEBHERR







### **GRAPHS**

