## LIEBHERR

### **CONSTRUCTION EQUIPMENT**



Sample No: LH0258799

Oil Type: CHEVRON DELO GEAR ESI OIL 80W90

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SAMPLEINFORMATION							
Sample Number		LH0258799	LH0272551	LH0254740	LH0243169		
Sample Date		01 Mar 2024	28 Nov 2023	16 Jun 2023	22 Dec 2022		
Machine Hours		20946	20037	18994	17940		
Oil Hours		0	0	0	0		
Oil Changed		Changed	Changed	Changed	Changed		
Sample Status		NORMAL	NORMAL	NORMAL	NORMAL		
OIL CONDITION							
Visc @ 40°C	cSt	<b>118</b>	O 120	O 131	O 133		

CONTAMINATION							
Water	%	NEG	NEG	NEG	NEG		
Silicon	ppm	<b>0</b> <1		O 0	O 1		
Sodium	ppm	<b>2</b>	O 0	O <1	O 0		
Potassium	ppm	<b>0</b>	O 0	O <1	<b>3</b>		

(O) VA/E A					
WEAR METALS					
Iron	ppm	<b>7</b>	0 8	O 2	O 6
Copper	ppm	<b>3</b>	O 10	O 1	O 4
Lead	ppm	<b>0</b>	O 0	O 0	0
Tin	ppm	<b>0</b>	O 0	O	0
Aluminum	ppm	<b>0</b>	O 0	O <1	O <1
Chromium	ppm	<b>0</b>	O 0	O 0	0
Molybdenum	ppm	<b>0</b>	O 0	O <1	O 1
Nickel	ppm	<b>0</b>	O 0	O 0	0
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<b>0</b>	O <1	O <1	O <1
Vanadium	ppm	0	0	0	0

vanadium	ppm	0	U	0	0	
ADDITIVES						
Calcium	ppm	<b>46</b>	O 42	O 41	O 70	
Magnesium	ppm	<b>0</b>	<b>10</b>	<b>5</b>	<b>10</b>	
Zinc	ppm	<b>22</b>	<b>19</b>	<b>1</b> 3	O 27	
Phosphorus	ppm	<b>895</b>		○ 855	<b>780</b>	
Barium	ppm	<b>0</b>	0	O 0	0	
Boron	ppm	<b>○</b> <1	0 2	O 7	<b>1</b> 7	



#### AMERICAN STATE EQUIPMENT CO.

2400 NORTH 14TH AVENUE WAUSAU, WI US 54401

Contact: CHRIS BARTNIK cbartnik@amstate.com T: (715)675-6900 F: (715)675-9748

#### 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. The condition of the oil is acceptable for the time in service.

Depot:LEC0008Unique No:10940054Signed:Angela BorellaReport Date:25 Mar 2024

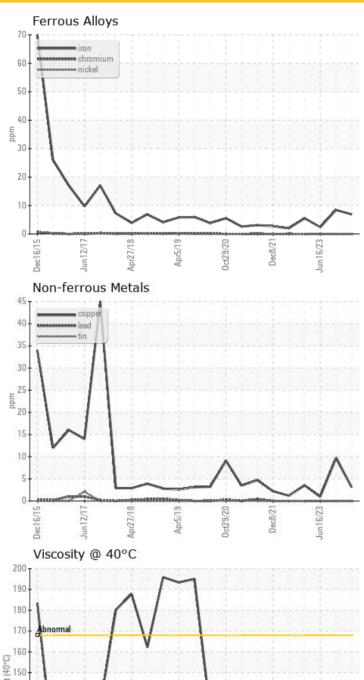
# LIEBHERR

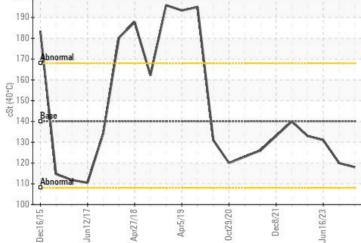
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### **GRAPHS**





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