# LIEBHERR

**CONSTRUCTION EQUIPMENT** 



Sample No: LH0274610

Oil Type: GEAR OIL SAE 80W90

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INFORMATION SUR L'ÉCHANTILLON					
Numéro d'échant.		LH0274610	LH		
Date d'échant.		14 Sep 2023	20 Jan 2022		
Heures de la Machine		1959	637		
Heures de l'huile		0	0		
Huile changée		Changed	Changed		
Statut de l'echant.		SEVERE	NORMAL		
ÉTAT	D'HUILE				
Visc 40°C	cSt	<u>1.1</u>	O 192		
VISC 40°C	CSI	U 1.1	0 192		
CONT	AMINATIO	ON			
Silicium	ppm	<b>39</b>	O 2		
Sodium	ppm	<b>139</b>	<b>4</b>		
Potassium	ppm	<b>48</b>	O 2		
MéTAUX D'USURE					
Fer			O 353		
Cuivre	ppm	<ul><li>○ 463</li><li>○ 0</li></ul>	0 353 0 49		
Plomb	ppm	0	0 2		
Étain	ppm	0	01		
Aluminium	ppm	0	0 <1		
Chrome	ppm	O <1	03		
Molybdène	ppm	0<1	02		
Nickel	ppm	22	0 <1		
Titane	ppm	0	0		
Argent	ppm	<1	<1		
Manganèse	ppm	<b>3</b>	03		
Vanadium	ppm	0	0		
	ρρ				
ADDI'	TIFC				
	IIFS				
Calcium	ppm	<b>53</b>	○ 35		
Magnésium	ppm	<b>30</b>	O <1		
Zinc	ppm	<b>153</b>	○ 28		
Phosphore	ppm	<b>2158</b>	2287		
Baryum	ppm	<b>0</b> <1	0		
Bore	ppm	<b>77867</b>	O 5		



#### Zancon Holdings Inc.

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### Diagnostic

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition.

Diagnostician's Note: Suspect this

biagnostician's Note: Suspect this sample has been contaminated with ethylene glycol (likely brakefluid). Nickel ppm levels are severe. High concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component. Boron ppm levels are abnormally high. Sulfur ppm levels are abnormally low. Visco @ 40°C is abnormally low. Viscosity of sample indicates oil is within ISO 2 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot:ZANKINUnique No:5644069Signed:Bill QuesnelReport Date:19 Sep 2023







## **GRAPHS**

