



## U23.04.90019 - Diesel Engine

Sample No: LH0266059

Oil Type: LIEBHERR MOTOROIL 5W30

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	<b>PLE INFOR</b>	MATION		
Sample Number		LH0266059	LH0266058	 
Sample Date		30 Jan 2024	07 Jan 2024	 
Machine Hours		9829	0	 
Oil Hours		0	0	 
Oil Changed		N/A	N/A	 
Sample Status		NORMAL	NORMAL	 
OIL CO	ONDITION	4		
/isc @ 100°C	cSt	0 13.6	0 13.7	 
Base Number (BN)		9.8	0 9.9	 
Dxidation (PA)	%	72	67	 
-	,,,		0.	
CONT	AMINAT	ION		
Nater	%	NEG	NEG	 
Soot %	%	0.3	0.1	 
Vitration (PA)	%	83	63	 
Sulfation (PA)	%	52	50	 
Glycol	%	NEG	NEG	 
Fuel	%	<1.0	<1.0	 
Silicon	ppm	0 10	0 10	 
Sodium	ppm	0 29	0 22	 
Potassium	ppm	Q <1	0 2	 
	le le	0	0 -	
<b>Ø</b> WEAE	R METALS			
			0.0	
ron	ppm	0 29	08	 
Copper	ppm	0 32	0 18	 
_ead	ppm	03	05	 
Гin	ppm	04	0 2	 
Aluminum	ppm	03	2	 
Chromium	ppm	<mark></mark> <1	○ <1	 
Volybdenum	ppm	<b>5</b>	0 4	 
Nickel	ppm	0	0	 
Fitanium	ppm	0	0	 
Silver	ppm	<b>○</b> <1	0	 
Manganese	ppm	01	<1	 
/anadium	ppm	0	0	 
ADDI	TIVES			
Calcium	ppm	0 1562	0 1699	 
Magnesium	ppm	<b>640</b>	678	 
Zinc	ppm	807	943	 
Phosphorus	ppm	0 777	0 874	 
Barium	ppm	0 33	0 27	 
-		0 150	0 170	

0 176

## LIEBHERR CANADA LTD. - REMAN

1015 SUTTON DRIVE BURLINGTON, ON CA L7L 5Z8 Contact: Morteza Mahmoudi morteza.mahmoudi@liebherr.com T: (905)319-9222 F: (905)319-6622

## 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

 Depot:
 REMAN

 Unique No:
 10896463

 Signed:
 Don Baldridge

 Report Date:
 26 Feb 2024

ppm

0 152

Boron

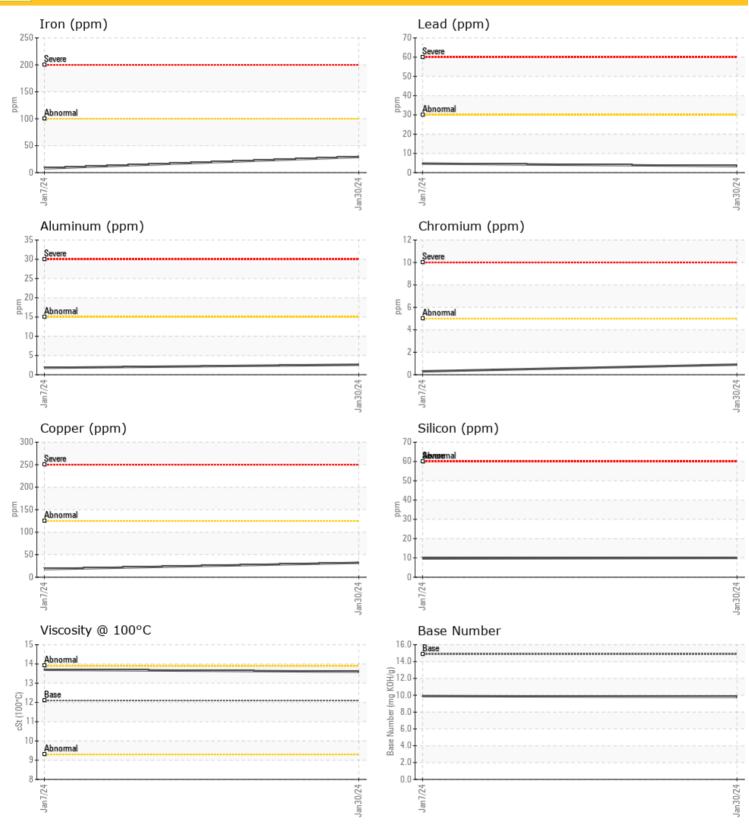
Contact/Location: Morteza Mahmoudi - REMAN

## CONSTRUCTION EQUIPMENT



GRAPHS

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Report Id: REMAN [WUSCAR] 06098233 (Generated: 02/26/2024 11:55:20) Rev: 1

Contact/Location: Morteza Mahmoudi - REMAN