CONSTRUCTION EQUIPMENT

LIEBHERR L566 054116-1484 - Front Differential

Sample No: LH0281153

Oil Type: LIEBHERR GEAR BASIC 90 LS

SAMPLE INFORMATION

Sample Number	LH0281153	LH0135641	LH0135639	
Sample Date	04 Jan 2024	21 Jan 2021	10 Dec 2020	
Machine Hours	9598	4000	3800	
Oil Hours	0	0	0	
Oil Changed	Changed	Not Changd	Changed	
Sample Status	SEVERE	NORMAL	ABNORMAL	

OIL CONDITION Visc @ 40°C cSt 193

Water	%	NEG	NEG	NEG		
Silicon	ppm	0 30	02	0 30		
Sodium	ppm	06	01	6		
Potassium	ppm	○ <1	○ <1	○ <1		

86.2

191

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WE/	AR META	LS			
Iron	ppm	281	48	0 479	
Copper	ppm	<u> </u>	0 21	0 134	
Lead	ppm	03	◯ <1	0 4	
Tin	ppm	07	○ <1	07	
Aluminum	ppm	02	◯ <1	2	
Chromium	ppm	03	○ <1	0 4	
Molybdenum	ppm	0 🔘	0 1	21	
Nickel	ppm	0 13	○ <1	2	
Titanium	ppm	0	0	0	
Silver	ppm	0	<1	<1	
Manganese	ppm	44	0 2	43	
Vanadium	ppm	0	0	<1	

ADDITIVES					
Calcium	ppm	5	0 19	0 11	
Magnesium	ppm	04	02	0 4	
Zinc	ppm	26	28	66	
Phosphorus	ppm	0 2247	2473	2238	
Barium	ppm	○ <1	0	◯ <1	
Boron	ppm	0 2	0 196	3	



Abbycel Substrate Ltd. 3545 Ross Road Abbotsford, BC CA V4X 1M6 Contact: Service Manager

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Diagnosis

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.Nickel ppm levels are severe. Tin and copper ppm levels are abnormal. Thrust washer and/or bearing/bushing wear is indicated. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot:	ABE
Unique No:	570
Signed:	Kev
Report Date:	11 .

ABB354ABB 709036 Kevin Marson 1 Jan 2024

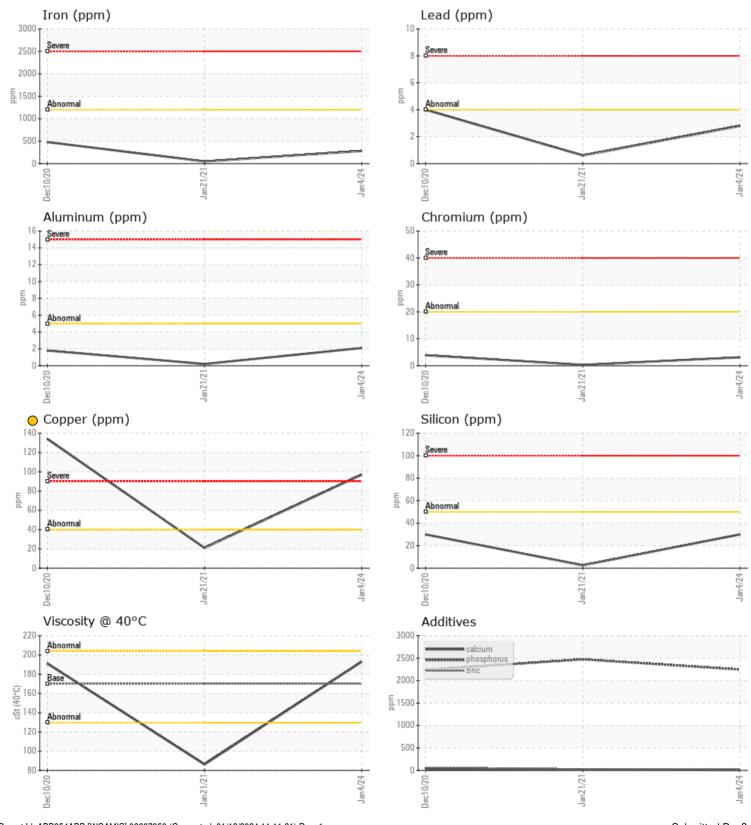
Submitted By: ?





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Report Id: ABB354ABB [WCAMIS] 02607950 (Generated: 01/12/2024 11:11:21) Rev: 1