# LIEBHERR

**CONSTRUCTION EQUIPMENT** 

## LIEBHERR LH50 1216-115017 - Front Left Wheel Hub

Sample No: LH0263957

Oil Type: CHEVRON DELO GEAR ESI OIL 80W90

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U SAN	IPLE INFO	ORMATION			
Sample Number		LH0263957	LH0243324	LH0243377	LH0153421
Sample Date		30 Jan 2024	29 Sep 2023	03 Apr 2023	21 Sep 2022
Machine Hours		8879	8189	7172	6081
Oil Hours		0	0	0	0
Oil Changed		Changed	Changed	Changed	Changed
Sample Status		ATTENTION	NORMAL	ABNORMAL	NORMAL
OIL	ONDITIO	ON			
Visc @ 40°C	cSt	<b>133</b>	O 125	O 143	O 133
**					
CON	TAMINA	ATION			
Water	%	NEG	NEG	NEG	NEG
Silicon	nnm	<b>○ 67</b>	O 22	O 140	O 10

CONT	AMINATIO	N			
Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	<b>67</b>	O 22	<u>140</u>	<b>10</b>
Sodium	ppm	<b>0</b>	<b>3</b>	O 12	O 2
Potassium	ppm	<b>17</b>	<b>7</b>	<b>26</b>	<b>4</b>
***					

WEA	AR METAI	LS			
Iron	ppm	<b>224</b>	O 111	513	<b>45</b>
Copper	ppm	<b>52</b>	<b>29</b>	<ul><li>86</li></ul>	0 8
Lead	ppm	<b>2</b>	O <1	O 1	O <1
Tin	ppm	<b>○</b> <1	O 0	O 0	0
Aluminum	ppm	<b>15</b>	O 0	○ 36	O 2
Chromium	ppm	<b>2</b>	O <1	O 2	O <1
Molybdenum	ppm	<b>2</b>	O <1	O 2	O 2
Nickel	ppm	<b>2</b>	O <1	<1	0
Titanium	ppm	2	1	2	<1
Silver	ppm	<1	0	0	0
Manganese	ppm	<b>5</b>	O 2	<b>9</b>	O <1
Vanadium	ppm	<1	0	0	0

Vanadium         ppm         <1	9	1-1-	<u> </u>		0		
Calcium         ppm         145         73         331         159           Magnesium         ppm         55         32         123         39	Vanadium	ppm	<1	0	0	0	
Calcium         ppm         145         73         331         159           Magnesium         ppm         55         32         123         39	WII.						
Magnesium         ppm         ◯ 55         32         ◯ 123         ◯ 39	ADDI	TIVES					
	Calcium	ppm	<b>145</b>	O 73	○ 331	O 159	
Zinc ppm 68 35 125 85	Magnesium	ppm	<b>55</b>	32	O 123	○ 39	
	Zinc	ppm	<b>68</b>	O 35	O 125	<b>85</b>	
<b>Phosphorus</b> ppm <b>762</b> 0 717 0 932 0 1106	Phosphorus	ppm	762	O 717	932	O 1106	
<b>Barium</b> ppm <b>○ 0</b> ○ 0	Barium	ppm	<b>0</b>	O 0	0	0	
Boron ppm <b>() 13</b> () 6 28	Boron	ppm	<b>13</b>	<b>6</b>	28	34	



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#### Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other 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:ALTGREUnique No:10869549Signed:Angela BorellaReport Date:08 Feb 2024

# LIEBHERR







### **GRAPHS**

