



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR LH50 1216-139058**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LHMC50265</b>	LHMC85084	LHMC85075
Sample Date		Client Info		<b>19 Jan 2024</b>	23 Nov 2023	11 Oct 2023
Machine Age	hrs	Client Info		<b>5606</b>	5101	4598
Oil Age	hrs	Client Info		<b>500</b>	500	500
Filter Age	hrs	Client Info		<b>500</b>	500	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>66	<b>3</b>	3	2
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>8	<b>1</b>	2	1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>74	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

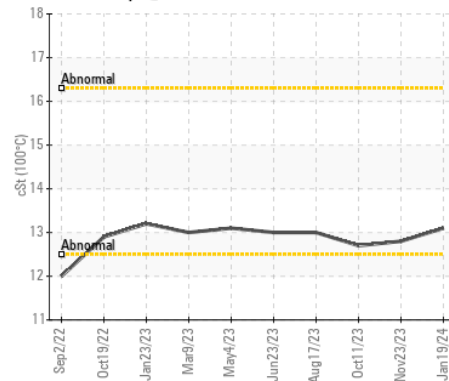
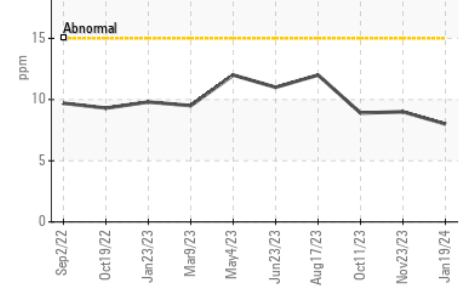
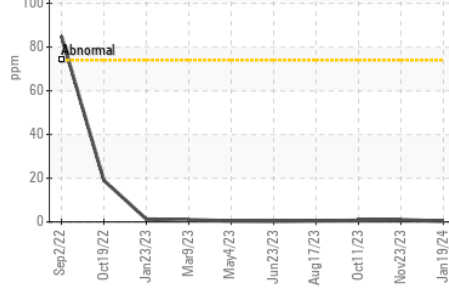
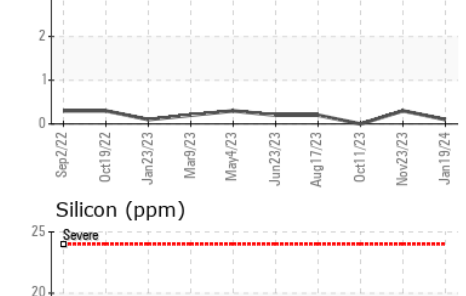
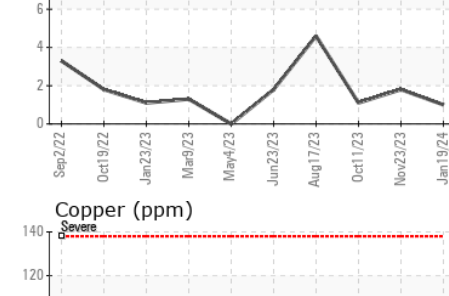
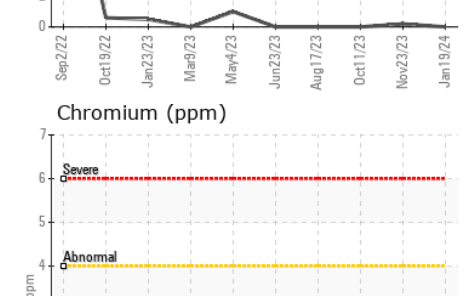
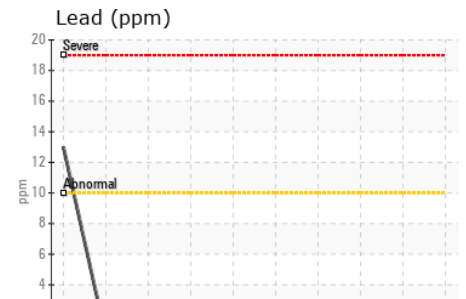
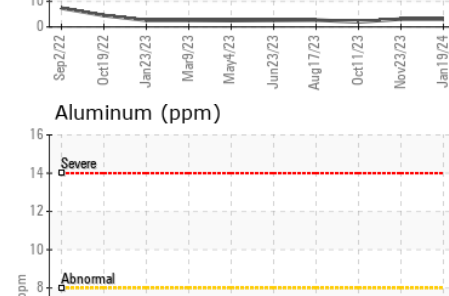
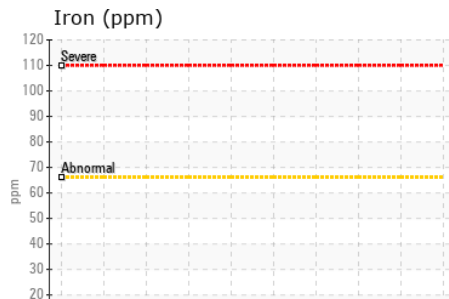
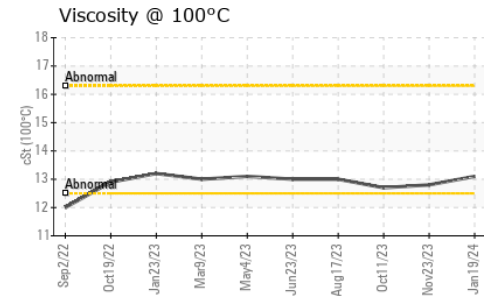
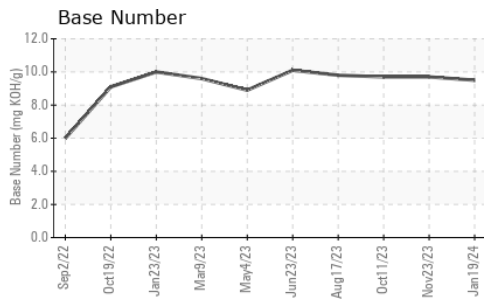
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>8</b>	9	9
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	3	3
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.7</b>	7.9	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.4</b>	21.5	21.5
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>118	<b>&lt;1</b>	0	3
Boron	ppm	ASTM D5185m		<b>47</b>	48	39
Barium	ppm	ASTM D5185m		<b>0</b>	12	0
Molybdenum	ppm	ASTM D5185m		<b>45</b>	41	39
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>503</b>	494	485
Calcium	ppm	ASTM D5185m		<b>1619</b>	1600	1621
Phosphorus	ppm	ASTM D5185m		<b>689</b>	769	693
Zinc	ppm	ASTM D5185m		<b>923</b>	894	855
Sulfur	ppm	ASTM D5185m		<b>2467</b>	2779	2289
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.4</b>	22.0	22.0
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.5</b>	9.7	9.7
Visc @ 100°C	cSt	ASTM D445		<b>13.1</b>	12.8	12.7



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LHMC50265 **Received** : 14 Feb 2024  
**Lab Number** : 06089233 **Tested** : 15 Feb 2024  
**Unique Number** : 10876678 **Diagnosed** : 15 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)