



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH30M 1200-79283**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 5W30 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0267328</b>	LH0203825	LH0208036
Sample Date		Client Info		<b>14 Mar 2024</b>	22 Dec 2022	08 Nov 2021
Machine Age	hrs	Client Info		<b>20566</b>	17772	14523
Oil Age	hrs	Client Info		<b>1000</b>	0	0
Filter Age	hrs	Client Info		<b>1000</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>66	<b>5</b>	7	26
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>8	<b>7</b>	2	4
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	7
Copper	ppm	ASTM D5185m	>74	<b>1</b>	2	3
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

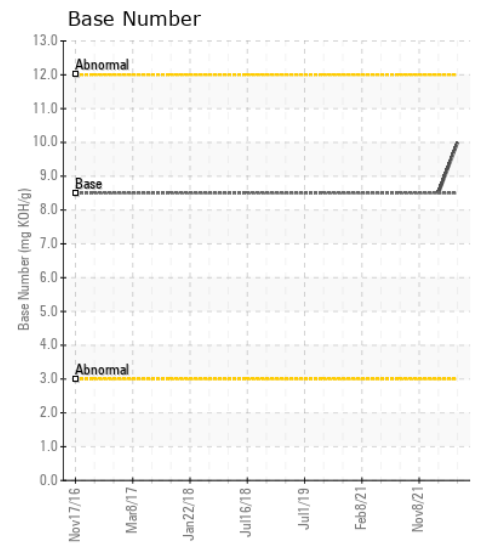
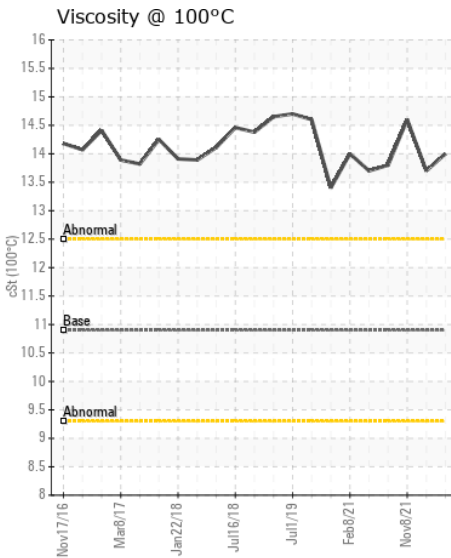
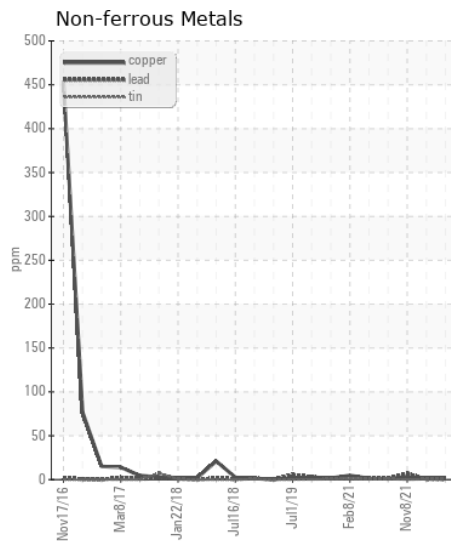
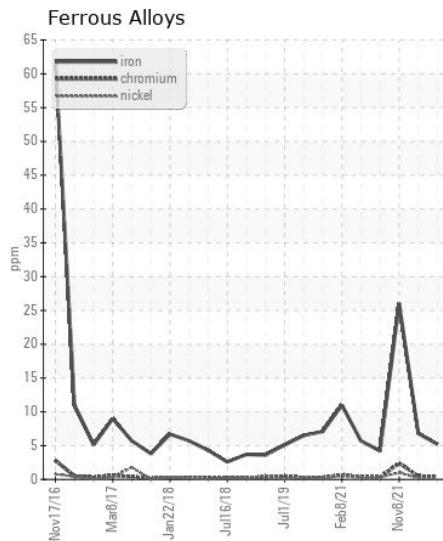
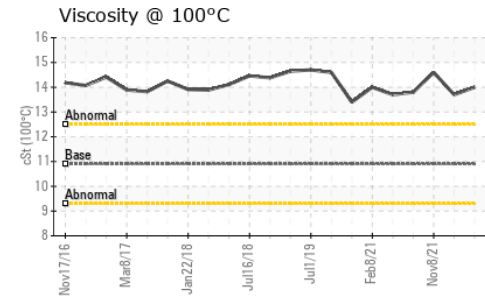
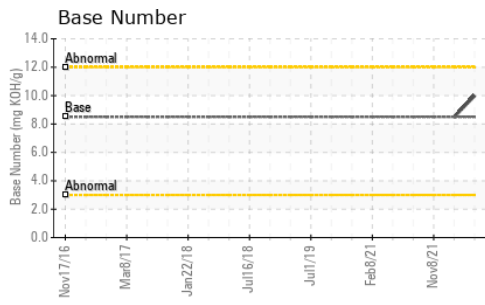
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>7</b>	5	7
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	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>0.2</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.9</b>	9.3	12
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.4</b>	19.4	24.7
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		<b>0</b>	6	23
Boron	ppm	ASTM D5185m	250	<b>6</b>	2	0
Barium	ppm	ASTM D5185m	10	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>63</b>	63	71
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>969</b>	981	1027
Calcium	ppm	ASTM D5185m	3000	<b>1208</b>	1226	1420
Phosphorus	ppm	ASTM D5185m	1150	<b>1031</b>	1047	1122
Zinc	ppm	ASTM D5185m	1350	<b>1286</b>	1381	1400
Sulfur	ppm	ASTM D5185m	4250	<b>3539</b>	3530	2867
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	16.6	22.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>10.0</b>	8.5	---
Visc @ 100°C	cSt	ASTM D445	10.9	<b>14.0</b>	13.7	14.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0267328 **Received** : 21 Mar 2024  
**Lab Number** : 06125369 **Tested** : 25 Mar 2024  
**Unique Number** : 10939520 **Diagnosed** : 25 Mar 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: TBN )

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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)