



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**LIEBHERR CR6611**  
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>WC0873394</b>	WC0746706	WC0448181
Sample Date		Client Info		<b>04 Jan 2024</b>	06 Apr 2023	05 May 2020
Machine Age	hrs	Client Info		<b>13889</b>	13215	10812
Oil Age	hrs	Client Info		<b>0</b>	805	0
Filter Age	hrs	Client Info		<b>0</b>	805	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>10</b>	18	6
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	13	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>3</b>	3	<1
Tin	ppm	ASTM D5185m	>15	<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

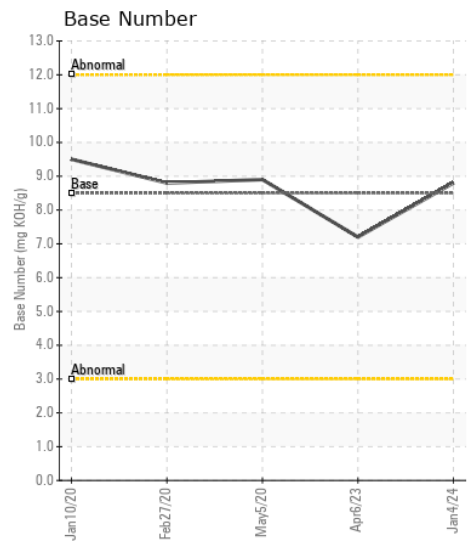
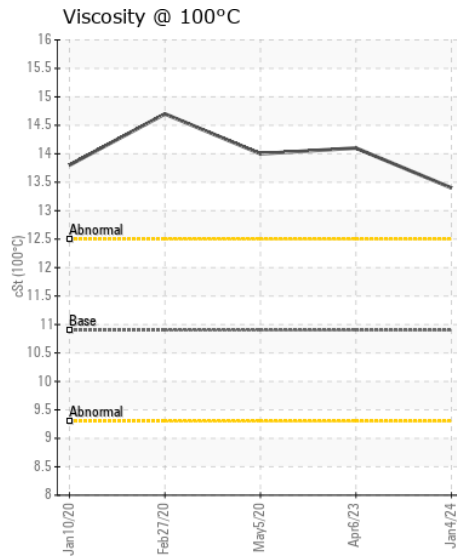
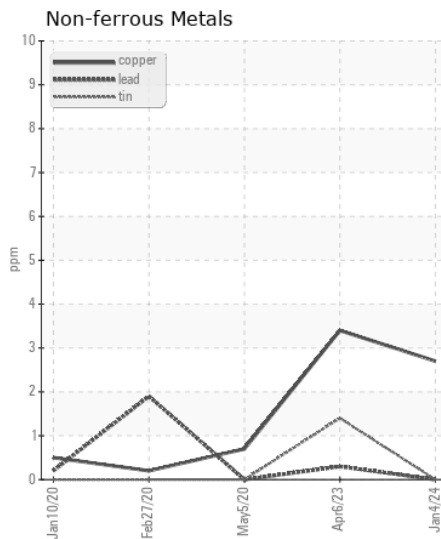
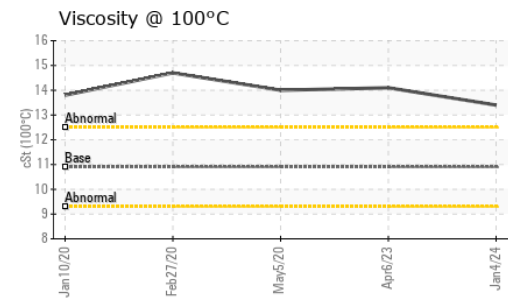
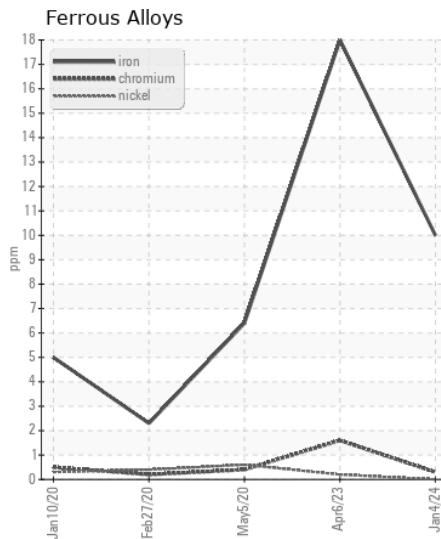
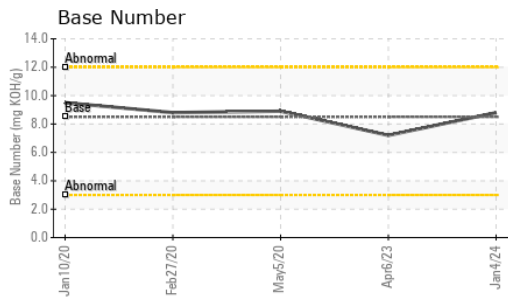
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	7	4
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	8	8
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>0.3</b>	0.7	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.3</b>	9.9	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.8</b>	21.7	20.2
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. Confirm oil type. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	3	2
Boron	ppm	ASTM D5185m	250	<b>132</b>	119	110
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>55</b>	20	28
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>441</b>	82	415
Calcium	ppm	ASTM D5185m	3000	<b>1707</b>	2233	1822
Phosphorus	ppm	ASTM D5185m	1150	<b>985</b>	1000	938
Zinc	ppm	ASTM D5185m	1350	<b>1214</b>	1276	1058
Sulfur	ppm	ASTM D5185m	4250	<b>3362</b>	4228	2735
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.0</b>	16.6	15.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.8</b>	7.2	8.9
Visc @ 100°C	cSt	ASTM D445	10.9	<b>13.4</b>	14.1	14.0



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0873394 **Received** : 10 Jan 2024  
**Lab Number** : 06057284 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10823233 **Diagnostician** : Sean Felton  
**Test Package** : CONST ( Additional Tests: TBN )

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)

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