



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L550 050779-1214
Component
Diesel Engine
Fluid
LIEBHERR MOTOROIL 5W-30 LOW ASH (7 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0243139	LH0207890	---
Sample Date		Client Info		13 Dec 2022	08 Apr 2022	---
Machine Age	hrs	Client Info		939	476	---
Oil Age	hrs	Client Info		939	476	---
Filter Age	hrs	Client Info		939	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	5	11	---
Chromium	ppm	ASTM D5185m	>5	0	<1	---
Nickel	ppm	ASTM D5185m	>5	0	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	1	---
Aluminum	ppm	ASTM D5185m	>15	3	2	---
Lead	ppm	ASTM D5185m	>30	<1	5	---
Copper	ppm	ASTM D5185m	>125	136	185	---
Tin	ppm	ASTM D5185m	>5	<1	2	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

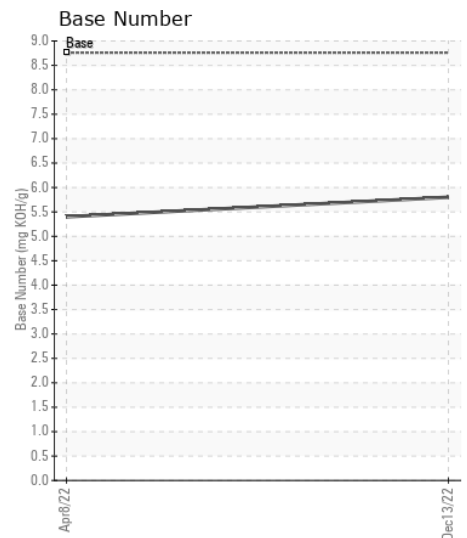
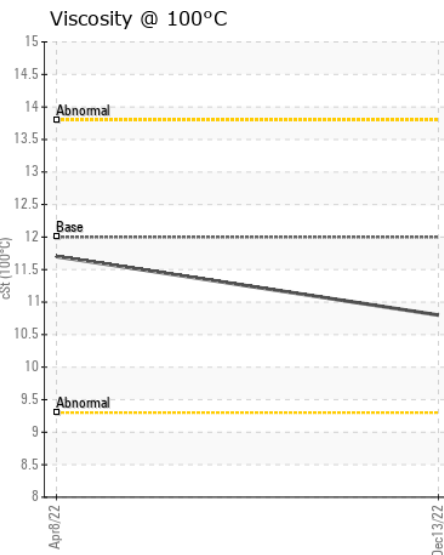
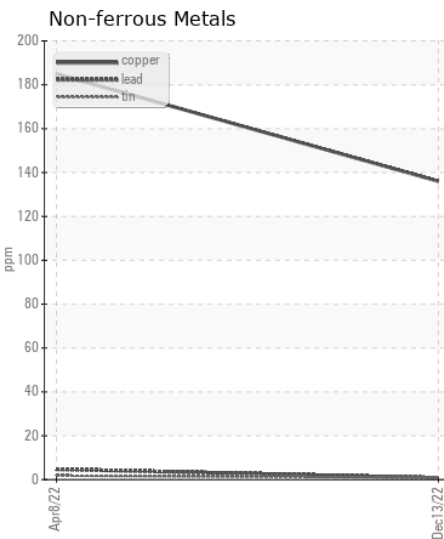
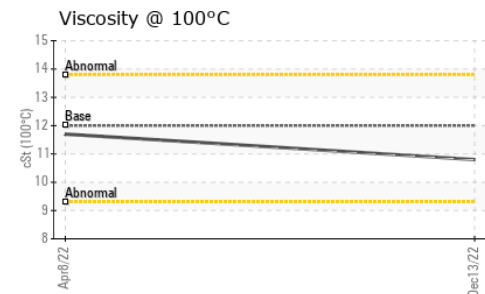
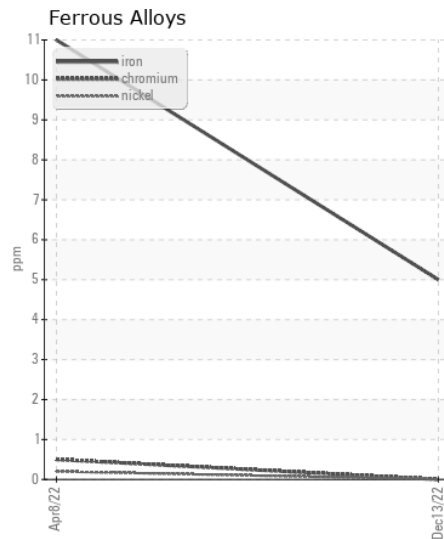
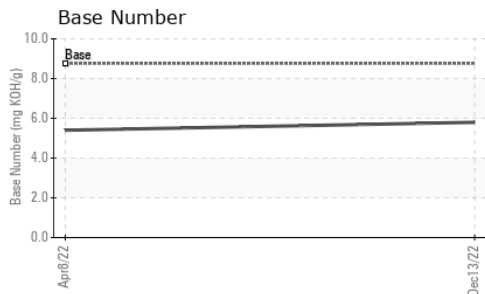
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	8	11	---
Potassium	ppm	ASTM D5185m	>20	22	8	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	8.2	10.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	37.4	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	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		3	3	---
Boron	ppm	ASTM D5185m	2	76	114	---
Barium	ppm	ASTM D5185m	0	5	31	---
Molybdenum	ppm	ASTM D5185m	<1	14	42	---
Manganese	ppm	ASTM D5185m	<1	<1	2	---
Magnesium	ppm	ASTM D5185m	12	590	876	---
Calcium	ppm	ASTM D5185m	2224	1173	1386	---
Phosphorus	ppm	ASTM D5185m	635	655	714	---
Zinc	ppm	ASTM D5185m	718	662	862	---
Sulfur	ppm	ASTM D5185m	1694	2427	2245	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	44.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.76	5.8	5.4	---
Visc @ 100°C	cSt	ASTM D445	12.0	10.8	11.7	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0243139 **Received** : 23 Feb 2024
Lab Number : 06098240 **Tested** : 26 Feb 2024
Unique Number : 10896470 **Diagnosed** : 26 Feb 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

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)

TIMBER PRODUCTS
 11256 E STATE HWY M28
 MUNISING, MI
 US 49862

Contact: RICH ALDRICH
 raldrich@timberproducts.com

T: (906)452-7013

F: