



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR A918 110890-1184
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0268801	LHMC130935	---
Sample Date		Client Info		18 Jan 2024	16 Sep 2023	---
Machine Age	hrs	Client Info		5772	3968	---
Oil Age	hrs	Client Info		500	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	1	31	---
Chromium	ppm	ASTM D5185m	>5	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>15	2	5	---
Lead	ppm	ASTM D5185m	>30	<1	3	---
Copper	ppm	ASTM D5185m	>125	2	27	---
Tin	ppm	ASTM D5185m	>5	0	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

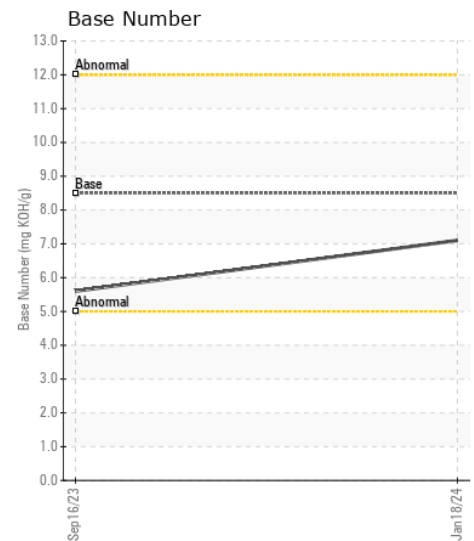
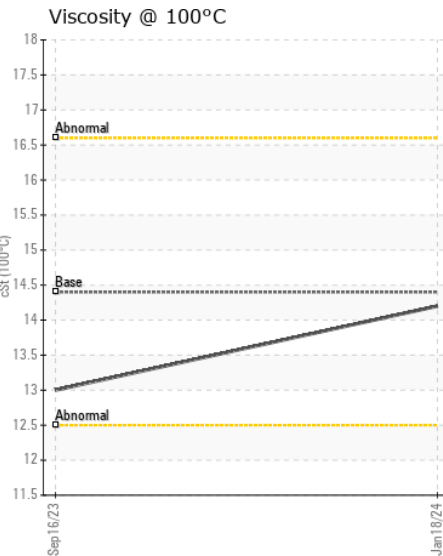
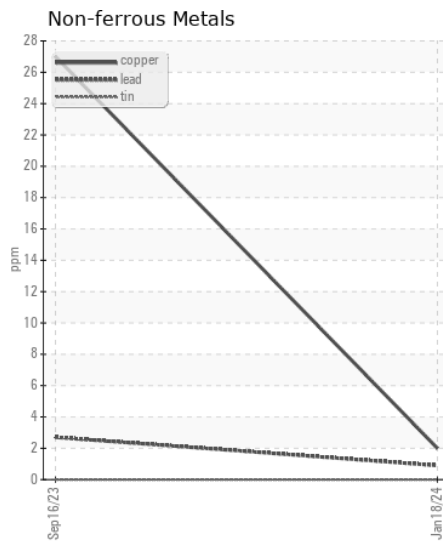
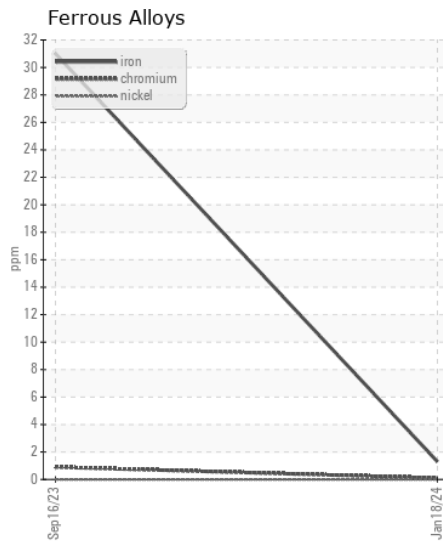
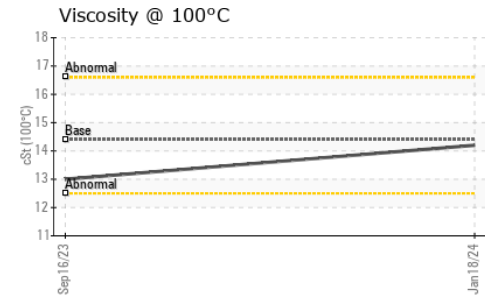
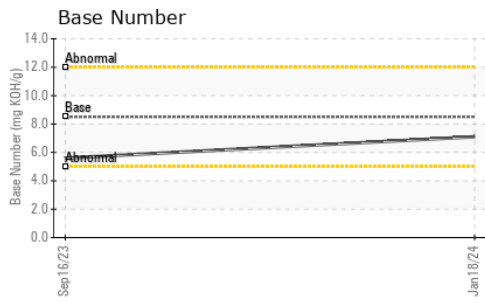
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	9	23	---
Potassium	ppm	ASTM D5185m	>20	4	7	---
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	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	8.0	10.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.9	23.6	---
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	>44	3	2	---
Boron	ppm	ASTM D5185m	250	151	69	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	16	74	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	450	708	643	---
Calcium	ppm	ASTM D5185m	3000	1446	1481	---
Phosphorus	ppm	ASTM D5185m	1150	815	736	---
Zinc	ppm	ASTM D5185m	1350	962	915	---
Sulfur	ppm	ASTM D5185m	4250	3073	3194	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5	20.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.1	5.6	---
Visc @ 100°C	cSt	ASTM D445	14.4	14.2	13.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0268801 **Received** : 26 Feb 2024
Lab Number : 06100818 **Tested** : 27 Feb 2024
Unique Number : 10899048 **Diagnosed** : 27 Feb 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

UNITED SCRAP
 1545 S CICERO AVE
 CHICAGO, IL
 US 60804
 Contact:

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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F: