



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH50 142548-1216
Component
Transmission
Fluid
DIESEL ENGINE OIL SAE 5W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0264763	LH0272490	LH0254793
Sample Date		Client Info		20 May 2024	30 Oct 2023	14 Apr 2023
Machine Age	hrs	Client Info		3013	1993	1008
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>148	30	23	21
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		87	57	27
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	0	<1	1
Lead	ppm	ASTM D5185m	>203	0	0	0
Copper	ppm	ASTM D5185m	>520	14	19	17
Tin	ppm	ASTM D5185m	>7	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	▲ MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

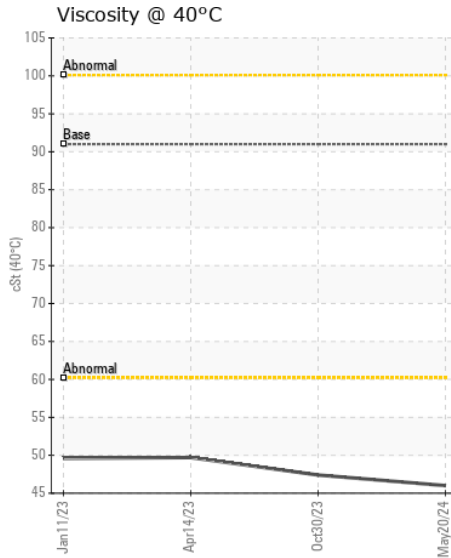
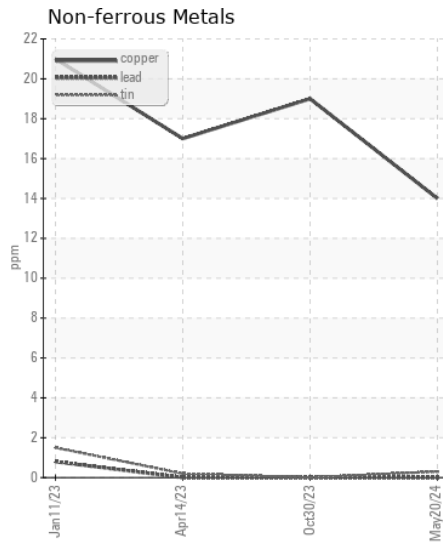
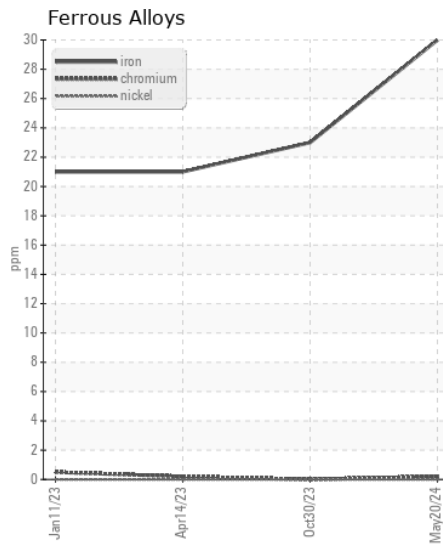
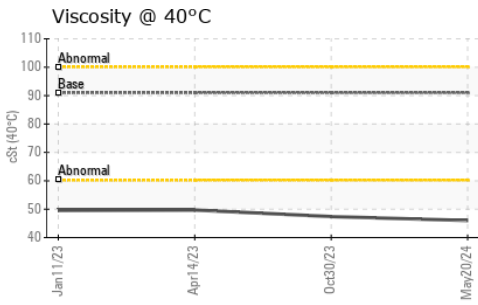
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185m	>15	6	5	5
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

The condition of the fluid is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>44	6	9	16
Boron	ppm	ASTM D5185m	250	194	109	51
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	13	16	26
Manganese	ppm	ASTM D5185m		5	6	25
Magnesium	ppm	ASTM D5185m	450	774	644	525
Calcium	ppm	ASTM D5185m	3000	1538	1539	1906
Phosphorus	ppm	ASTM D5185m	1150	1169	1059	1047
Zinc	ppm	ASTM D5185m	1350	1256	1194	1167
Sulfur	ppm	ASTM D5185m	4250	4782	4298	6005
Visc @ 40°C	cSt	ASTM D445	91	46.0	47.4	49.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0264763
Lab Number : 06191405
Unique Number : 11048157
Test Package : CONST

Received : 24 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Sean Felton

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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)