



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH30M 121854-1253
Component
Front Left Wheel Hub
Fluid
CHEVRON DELO GEAR ESI OIL 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0272745	LH0264395	LH0220806
Sample Date		Client Info		02 Jan 2024	04 Aug 2023	05 Dec 2022
Machine Age	hrs	Client Info		6976	6007	3974
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	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>450	55	104	70
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	1	2
Lead	ppm	ASTM D5185m	>4	<1	0	0
Copper	ppm	ASTM D5185m	>75	2	5	2
Tin	ppm	ASTM D5185m		<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

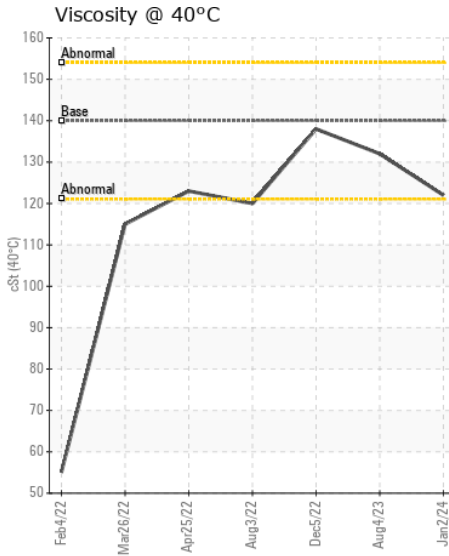
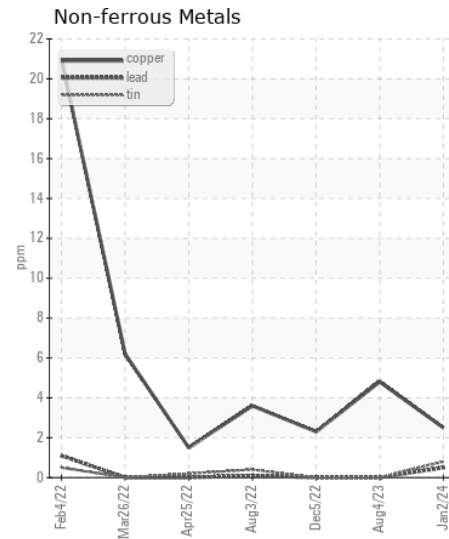
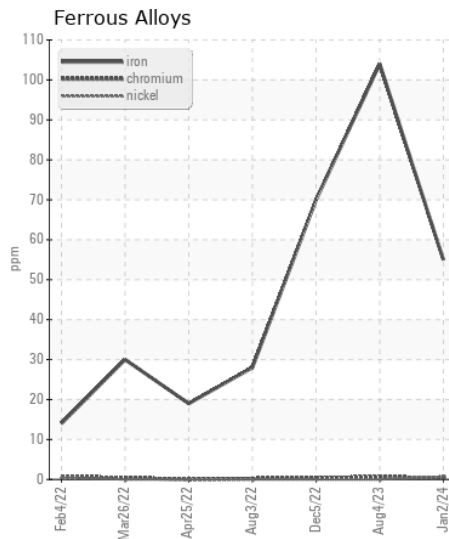
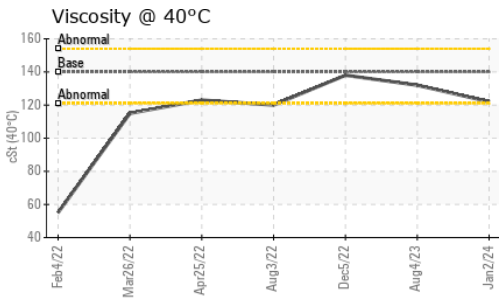
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	2	3	1
Potassium	ppm	ASTM D5185m	>20	2	4	<1
Water		WC Method	>0.2	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	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<1	8	3
Boron	ppm	ASTM D5185m	15	2	8	9
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	1	<1	<1
Manganese	ppm	ASTM D5185m		1	1	<1
Magnesium	ppm	ASTM D5185m	0	5	10	8
Calcium	ppm	ASTM D5185m	5	40	66	54
Phosphorus	ppm	ASTM D5185m	600	786	1047	631
Zinc	ppm	ASTM D5185m	0	0	7	10
Sulfur	ppm	ASTM D5185m	22000	26789	36730	25056
Visc @ 40°C	cSt	ASTM D445	140	122	132	138



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0272745
Lab Number : 06055087
Unique Number : 10821036
Test Package : CONST

Received : 08 Jan 2024
Diagnosed : 10 Jan 2024
Diagnostician : 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)