



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR A934C 061188-1419
Component
Front Differential
Fluid
GEAR OIL SAE 80W90 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0272392	LH0253881	LH0220537
Sample Date		Client Info		30 Jan 2024	21 Sep 2023	23 Nov 2022
Machine Age	hrs	Client Info		28174	27222	25468
Oil Age	hrs	Client Info		0	0	1000
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	>190	16	0	2
Chromium	ppm	ASTM D5185m	>2	<1	0	0
Nickel	ppm	ASTM D5185m	>2	1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>5	2	0	0
Lead	ppm	ASTM D5185m	>15	1	0	0
Copper	ppm	ASTM D5185m	>70	9	<1	1
Tin	ppm	ASTM D5185m	>2	1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

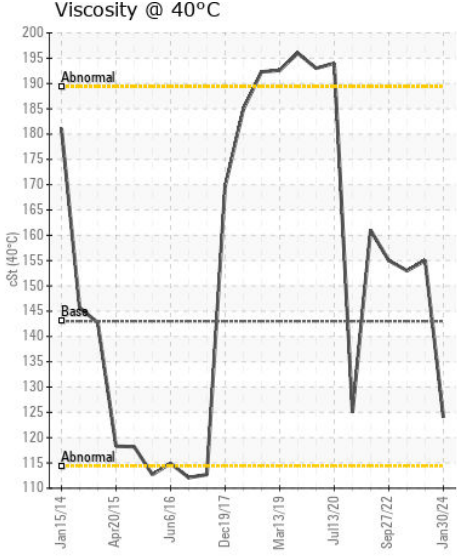
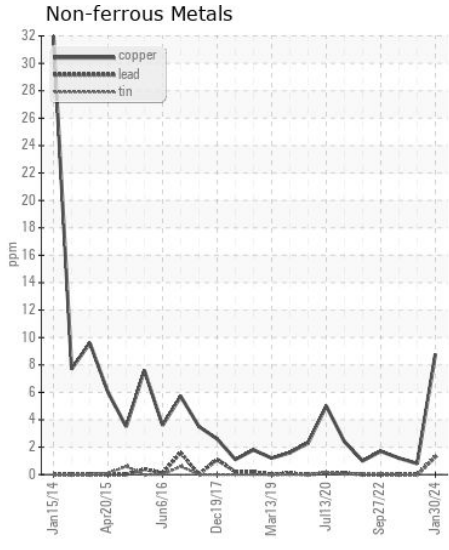
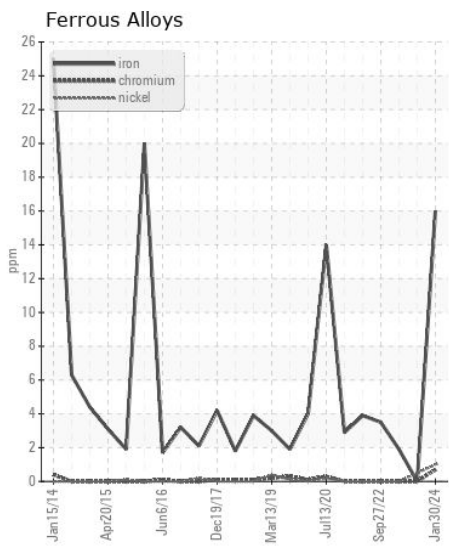
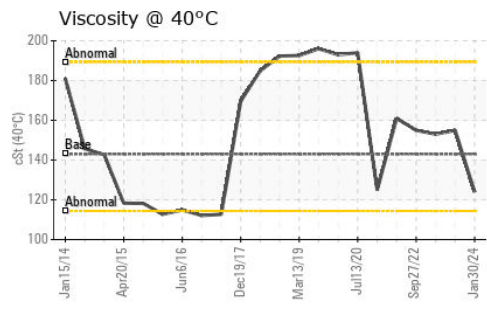
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	1	<1	<1
Potassium	ppm	ASTM D5185m	>20	2	1	0
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	VLITE
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	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>170	0	1	2
Boron	ppm	ASTM D5185m	400	<1	2	4
Barium	ppm	ASTM D5185m	200	0	0	0
Molybdenum	ppm	ASTM D5185m	12	2	0	2
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	12	4	9	5
Calcium	ppm	ASTM D5185m	150	24	26	18
Phosphorus	ppm	ASTM D5185m	1650	876	1421	1041
Zinc	ppm	ASTM D5185m	125	12	15	3
Sulfur	ppm	ASTM D5185m	22500	25662	26749	25056
Visc @ 40°C	cSt	ASTM D445	143	124	155	153



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0272392
Lab Number : 06159922
Unique Number : 10995345
Test Package : CONST
Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Wes Davis

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 2800 PACIFIC ST N
 MINNEAPOLIS, MN
 US 55411
 Contact: CHRIS GILMER
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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)