



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR A934C 061188-1419
Component
Front Right Wheel Hub
Fluid
GEAR OIL SAE 80W90 (3 LTR)

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.

WEAR

All component wear rates are normal.

CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

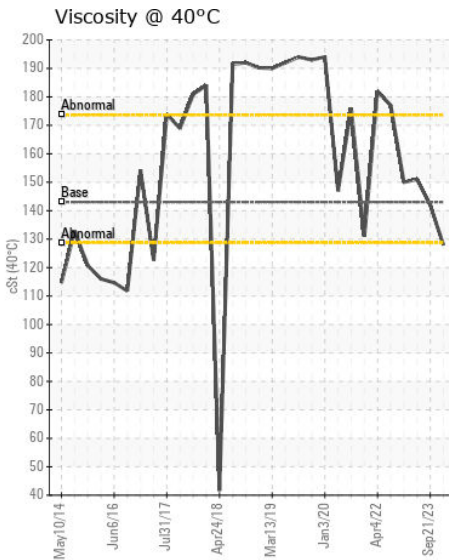
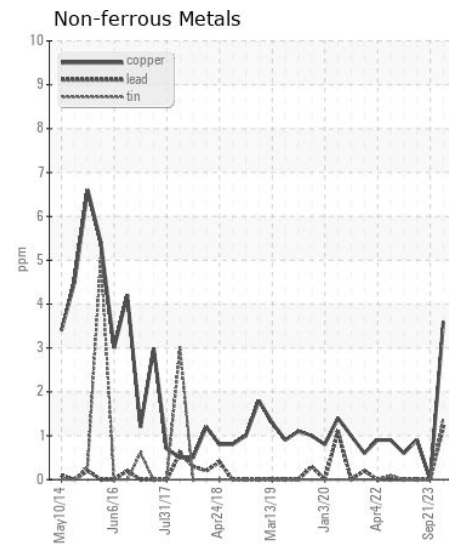
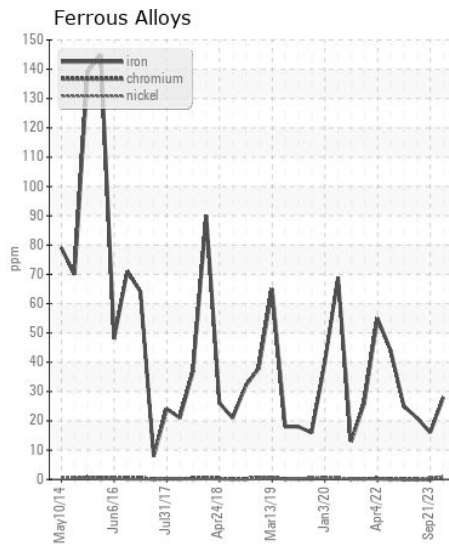
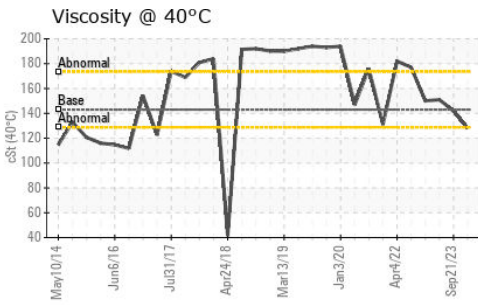
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0272102	LH0253885	LH0253908
Sample Date		Client Info		30 Jan 2024	21 Sep 2023	13 Jul 2023
Machine Age	hrs	Client Info		28174	27222	26744
Oil Age	hrs	Client Info		1000	0	500
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

Iron	ppm	ASTM D5185m	>500	28	16	21
Chromium	ppm	ASTM D5185m	>4	<1	0	0
Nickel	ppm	ASTM D5185m	>3	1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>15	2	<1	<1
Lead	ppm	ASTM D5185m	>4	1	0	0
Copper	ppm	ASTM D5185m	>100	4	0	<1
Tin	ppm	ASTM D5185m	>3	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

Silicon	ppm	ASTM D5185m	>65	2	<1	<1
Potassium	ppm	ASTM D5185m	>20	3	4	3
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

Sodium	ppm	ASTM D5185m	>170	0	2	2
Boron	ppm	ASTM D5185m	400	8	14	14
Barium	ppm	ASTM D5185m	200	0	0	0
Molybdenum	ppm	ASTM D5185m	12	2	<1	2
Manganese	ppm	ASTM D5185m		1	0	<1
Magnesium	ppm	ASTM D5185m	12	6	13	9
Calcium	ppm	ASTM D5185m	150	29	40	37
Phosphorus	ppm	ASTM D5185m	1650	909	1133	1398
Zinc	ppm	ASTM D5185m	125	13	19	21
Sulfur	ppm	ASTM D5185m	22500	25781	25767	33325
Visc @ 40°C	cSt	ASTM D445	143	128	142	151



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0272102
Lab Number : 06159927
Unique Number : 10995350
Test Package : CONST

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Wes Davis

NORTHERN METAL RECYCLING
 2800 PACIFIC ST N
 MINNEAPOLIS, MN
 US 55411
 Contact: CHRIS GILMER
 chris.gilmer@emrgroup.com
 T: (612)305-7338
 F:

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)