



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(335553)
Machine Id
LIEBHERR T60-9s 021026-1709
Component
Front Right Wheel Hub
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0274060	LH	---
Sample Date		Client Info		29 Jun 2023	18 May 2023	---
Machine Age	hrs	Client Info		1000	2330	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>500	95	72	---
Chromium	ppm	ASTM D5185(m)	>8	<1	0	---
Nickel	ppm	ASTM D5185(m)	>5	0	<1	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)		0	0	---
Aluminum	ppm	ASTM D5185(m)	>5	<1	1	---
Lead	ppm	ASTM D5185(m)	>5	0	<1	---
Copper	ppm	ASTM D5185(m)	>50	24	28	---
Tin	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	VLITE	NONE	---

CONTAMINATION

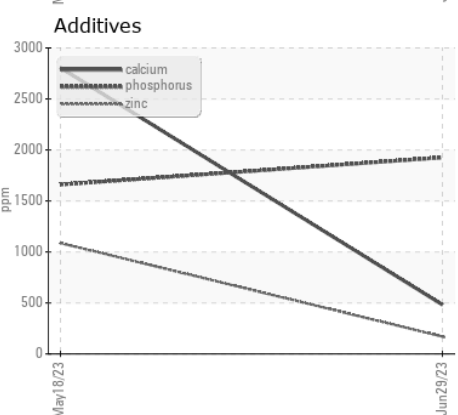
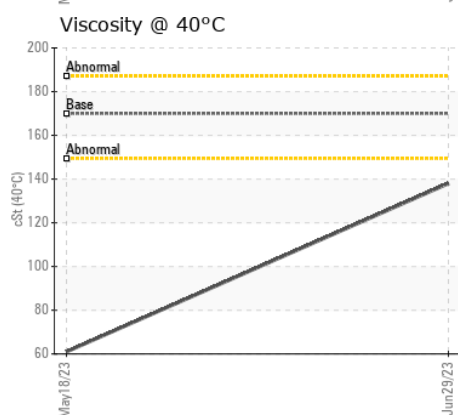
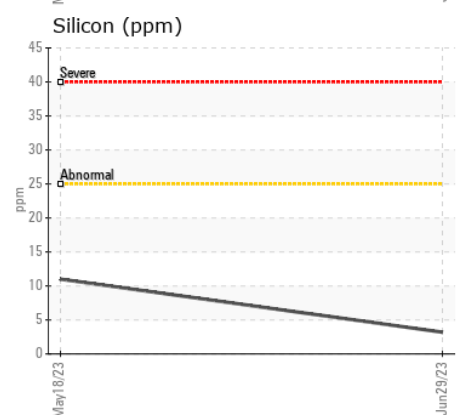
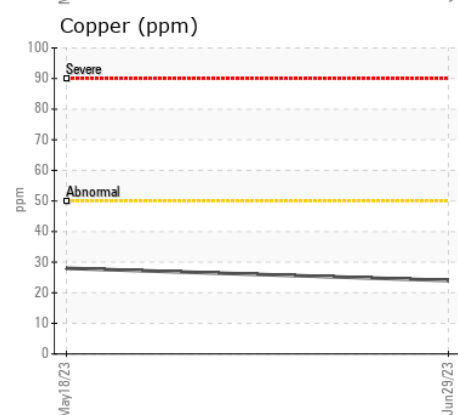
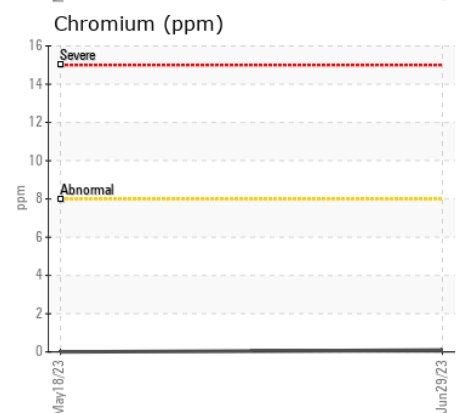
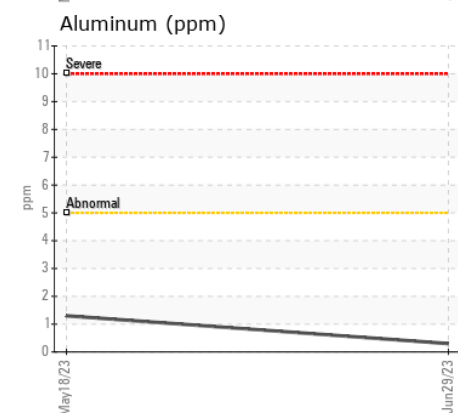
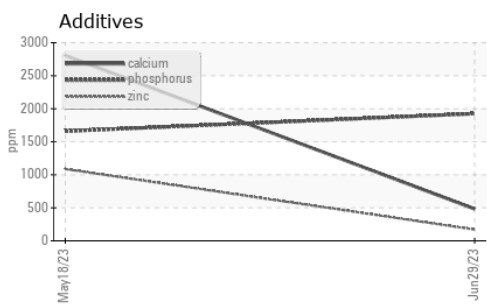
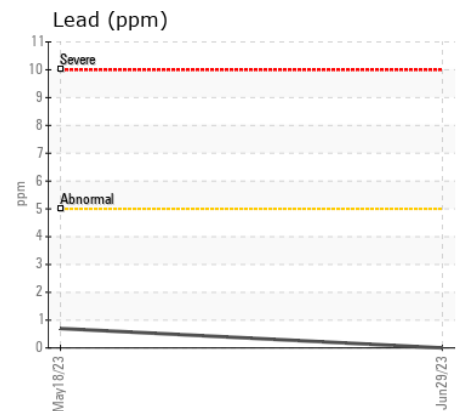
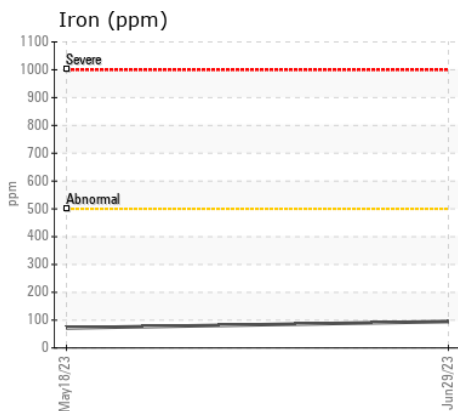
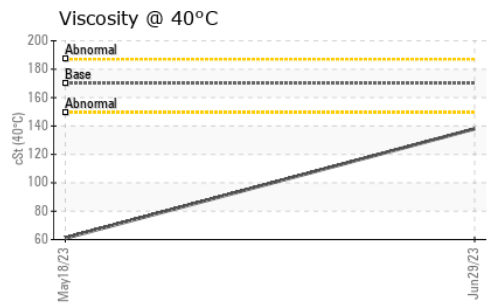
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	11	---
Potassium	ppm	ASTM D5185(m)	>20	<1	0	---
Water		WC Method	>0.2	NEG	NEG	---
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

Additive levels indicate the addition of a different brand, or type of oil.
Viscosity of sample indicates oil is within SAE 90 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	<1	---
Boron	ppm	ASTM D5185(m)	0	13	78	---
Barium	ppm	ASTM D5185(m)	0	0	0	---
Molybdenum	ppm	ASTM D5185(m)	0	0	<1	---
Manganese	ppm	ASTM D5185(m)	0	<1	<1	---
Magnesium	ppm	ASTM D5185(m)	<1	4	12	---
Calcium	ppm	ASTM D5185(m)	<1	483	2806	---
Phosphorus	ppm	ASTM D5185(m)	2143	1926	1660	---
Zinc	ppm	ASTM D5185(m)	<1	170	1087	---
Sulfur	ppm	ASTM D5185(m)	23468	21724	10124	---
Visc @ 40°C	cSt	ASTM D7279(m)	170	138	61.0	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0274060 **Received** : 31 May 2024
Lab Number : 02639231 **Tested** : 31 May 2024
Unique Number : 5788393 **Diagnosed** : 31 May 2024 - Kevin Marson
Test Package : MOB 1

9168-3094 QC INC.
 379 DU COLLEGE
 St Donat de Montcalm, QC
 CA J0T 2C0
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

T:
F: