



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
AMR-Manchester
Machine Id
146889 LIEBHERR 146889
Component
Front Left Wheel Hub
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

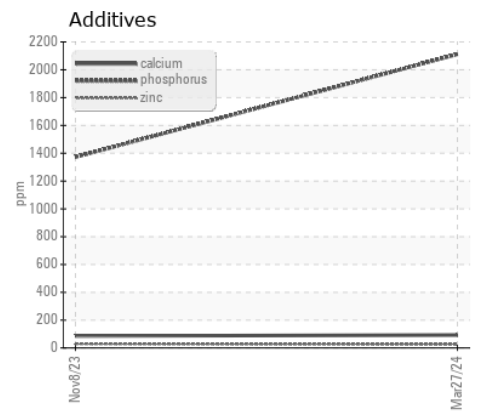
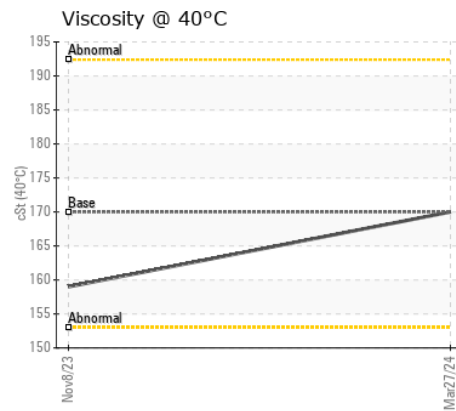
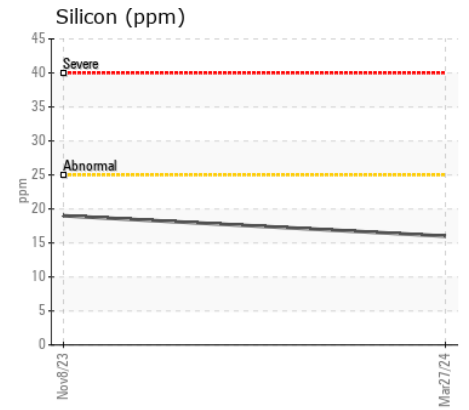
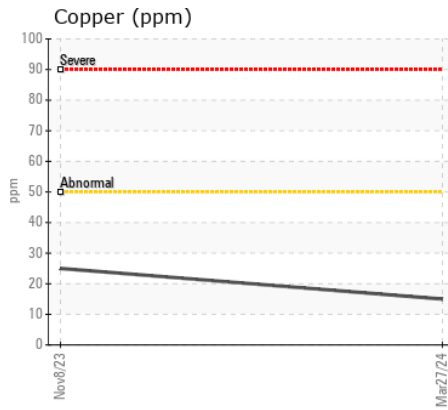
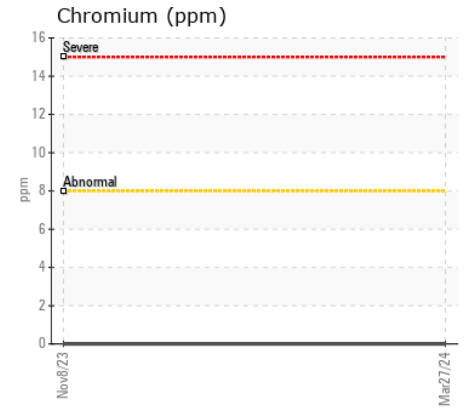
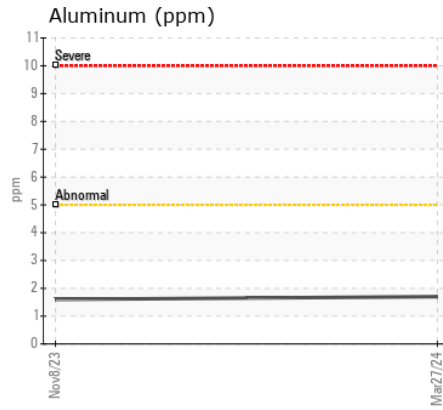
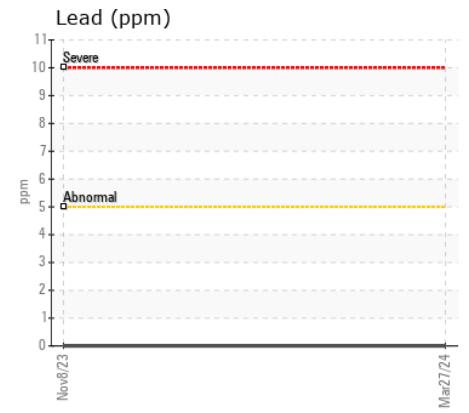
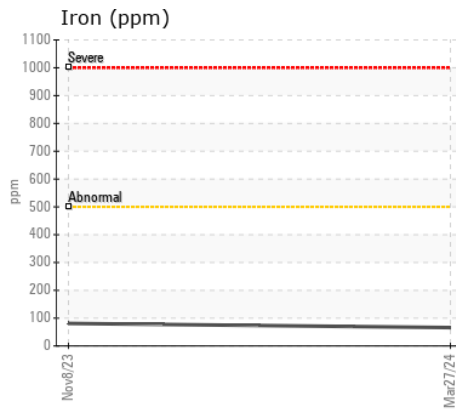
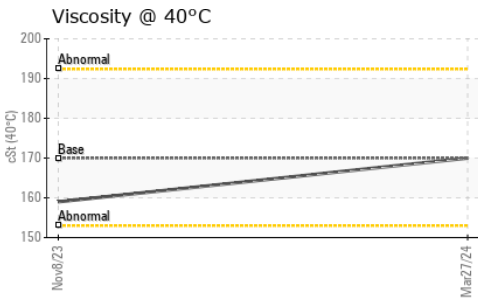
CONTAMINATION

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		DJJ0013956	DJJ0003543	---
Sample Date		Client Info		27 Mar 2024	08 Nov 2023	---
Machine Age	hrs	Client Info		1079	518	---
Oil Age	hrs	Client Info		500	518	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---
Iron	ppm	ASTM D5185m	>500	66	81	---
Chromium	ppm	ASTM D5185m	>8	0	0	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>5	2	2	---
Lead	ppm	ASTM D5185m	>5	0	0	---
Copper	ppm	ASTM D5185m	>50	15	25	---
Tin	ppm	ASTM D5185m		0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	16	19	---
Potassium	ppm	ASTM D5185m	>20	2	2	---
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	---
Sodium	ppm	ASTM D5185m		10	5	---
Boron	ppm	ASTM D5185m	0	2	1	---
Barium	ppm	ASTM D5185m	0	<1	0	---
Molybdenum	ppm	ASTM D5185m	0	<1	<1	---
Manganese	ppm	ASTM D5185m	0	3	2	---
Magnesium	ppm	ASTM D5185m	<1	0	<1	---
Calcium	ppm	ASTM D5185m	<1	93	86	---
Phosphorus	ppm	ASTM D5185m	2143	2112	1372	---
Zinc	ppm	ASTM D5185m	<1	25	29	---
Sulfur	ppm	ASTM D5185m	23468	29744	20422	---
Visc @ 40°C	cSt	ASTM D445	170	170	159	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0013956
Lab Number : 06147660
Unique Number : 10977738
Test Package : MOBCE

Received : 12 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 15 Apr 2024 - Wes Davis

ADVANTAGE METALS RECYCLING - MANCHESTER
 3005 MANCHESTER TRAFFICWAY
 KANSAS CITY, MO
 US 64129

Contact: STEVE BROWN
 steve.brown@advantagerecycling.com

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)

T: (816)922-5100
 F: (816)861-7670