



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**AMR-Cheyenne**  
 Machine Id  
**143343-1217 LIEBHERR LH60M 143343-1217**  
 Component  
**Front Left Wheel Hub**  
 Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DJJ0020045</b>	DJJ0017315	DJJ0017300
Sample Date		Client Info		<b>21 Jun 2024</b>	19 Mar 2024	09 Dec 2023
Machine Age	hrs	Client Info		<b>3196</b>	2527	1893
Oil Age	hrs	Client Info		<b>0</b>	500	500
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>650	<b>26</b>	31	27
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	2	0
Lead	ppm	ASTM D5185m	>4	<b>0</b>	1	0
Copper	ppm	ASTM D5185m	>60	<b>4</b>	3	1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

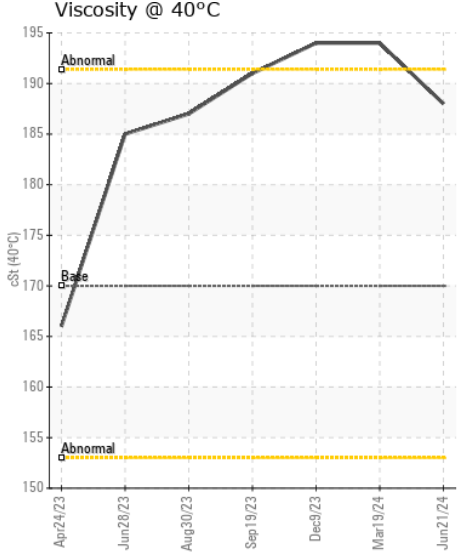
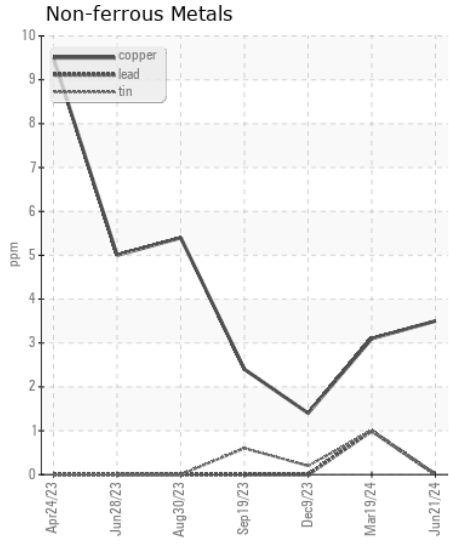
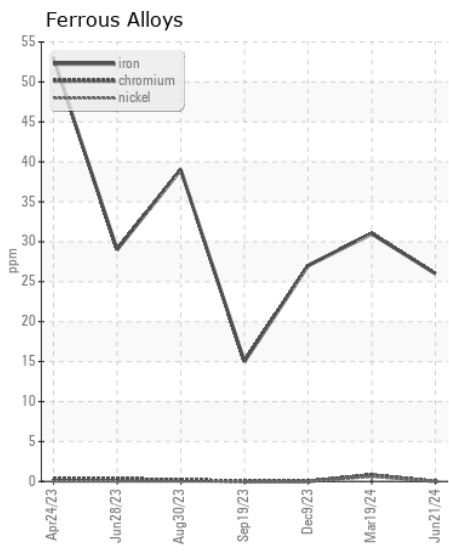
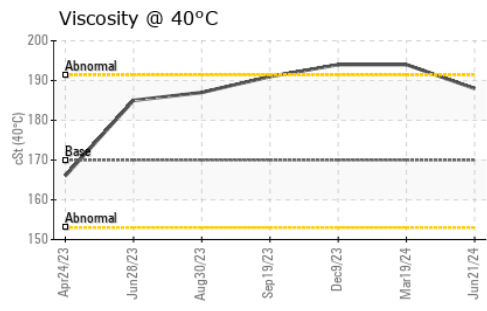
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>0</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>3</b>	0	<1
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	<1	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m	<1	<b>6</b>	7	0
Phosphorus	ppm	ASTM D5185m	2143	<b>2376</b>	2249	2339
Zinc	ppm	ASTM D5185m	<1	<b>9</b>	7	0
Sulfur	ppm	ASTM D5185m	23468	<b>29654</b>	28195	28065
Visc @ 40°C	cSt	ASTM D445	170	<b>188</b>	194	194



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0020045  
**Lab Number** : 06222923  
**Unique Number** : 11101120  
**Test Package** : CONST  
**Received** : 27 Jun 2024  
**Tested** : 28 Jun 2024  
**Diagnosed** : 28 Jun 2024 - Wes Davis

**ADVANTAGE METALS RECYCLING - CHEYENNE**  
 1015 S. PACKARD ST  
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 US 66105  
 Contact: BRIAN JACOBS  
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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)