



# OIL ANALYSIS REPORT

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

Area  
**AMR-Sedalia**  
 Machine Id  
**567149 LIEBHERR LH50 124549**  
 Component  
**Front Differential**  
 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>DJJ0018456</b>	DJJ0018637	DJJ0019057
Sample Date		Client Info		<b>15 Mar 2024</b>	14 Nov 2023	14 Jul 2023
Machine Age	hrs	Client Info		<b>4584</b>	4066	3531
Oil Age	hrs	Client Info		<b>500</b>	1000	500
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>&lt;1</b>	4	2
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	1	0
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>100	<b>0</b>	2	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	▲ HEAVY
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

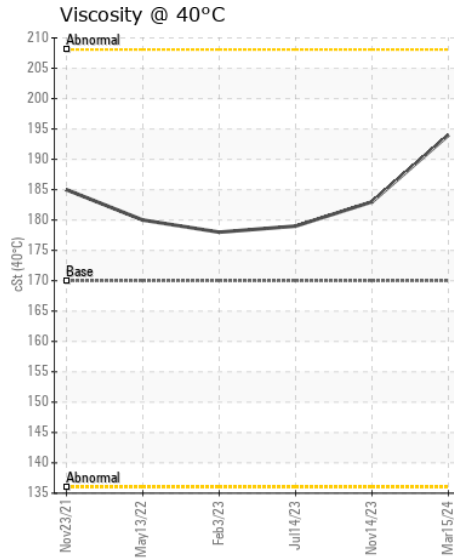
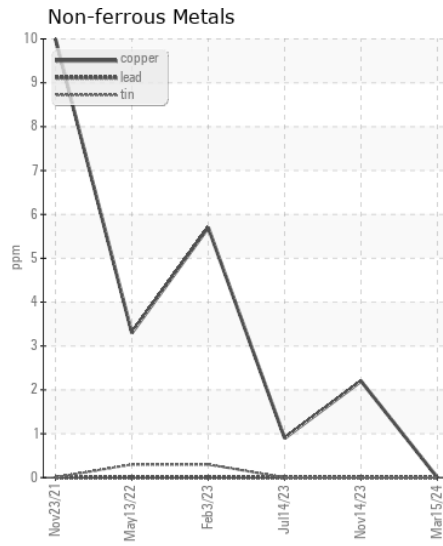
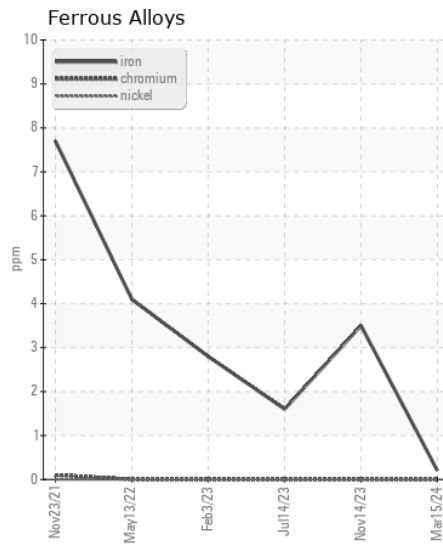
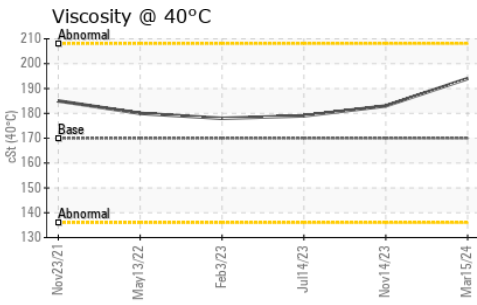
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	<1
Water		WC Method	>.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	>.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>1</b>	0	<1
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	<1	<b>0</b>	<1	<1
Calcium	ppm	ASTM D5185m	<1	<b>5</b>	30	28
Phosphorus	ppm	ASTM D5185m	2143	<b>2468</b>	2329	2279
Zinc	ppm	ASTM D5185m	<1	<b>3</b>	2	10
Sulfur	ppm	ASTM D5185m	23468	<b>32332</b>	30812	33894
Visc @ 40°C	cSt	ASTM D445	170	<b>194</b>	183	179



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0018456  
**Lab Number** : 06125184  
**Unique Number** : 10939335  
**Test Package** : CONST

**Received** : 21 Mar 2024  
**Tested** : 24 Mar 2024  
**Diagnosed** : 24 Mar 2024 - Wes Davis

**ADVANTAGE METALS RECYCLING - SEDALIA**  
 300 N IRON AVE  
 SEDALIA, MO  
 US 65301

Contact: SCOTT TUTTLE  
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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)

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