



# OIL ANALYSIS REPORT

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



Area  
**AMR-St Joe**  
Machine Id  
**115441 LIEBHERR LH50 115441**  
Component  
**Swing Drive**  
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>DJJ0018512</b>	DJJ0018475	DJJ0018537
Sample Date		Client Info		<b>18 Jun 2024</b>	10 Jan 2024	30 May 2023
Machine Age	hrs	Client Info		<b>1999</b>	1496	998
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
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	>1450	<b>313</b>	327	702
Chromium	ppm	ASTM D5185m	>11	<b>3</b>	2	4
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>4	<b>0</b>	2	0
Lead	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>542	<b>52</b>	42	86
Tin	ppm	ASTM D5185m	>38	<b>6</b>	4	4
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER

## CONTAMINATION

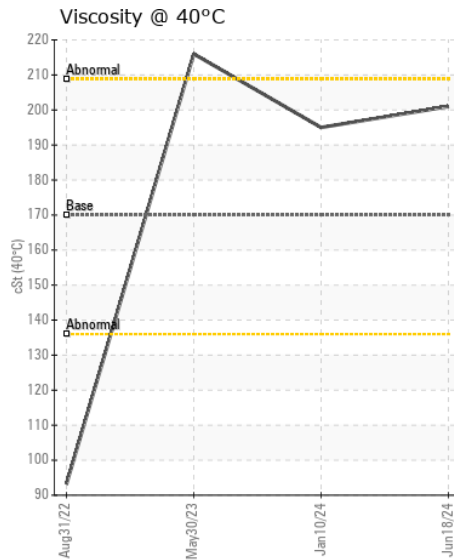
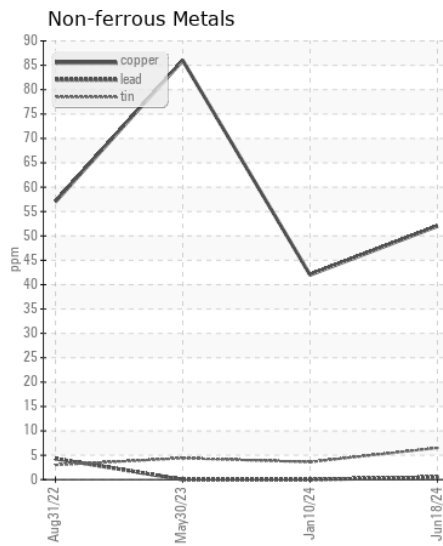
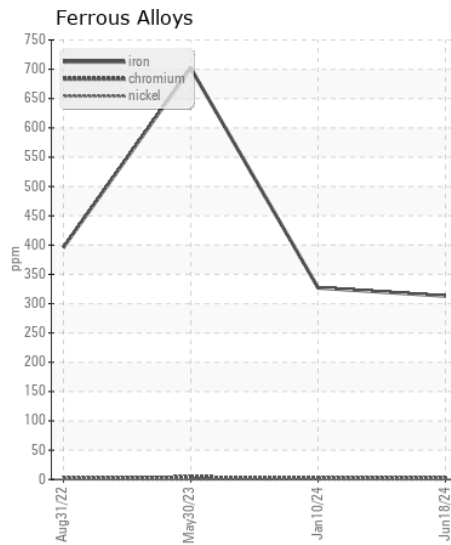
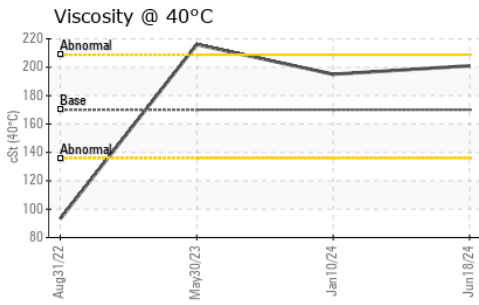
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	3
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	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>	LIGHT	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	0.2%

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>4</b>	1	4
Boron	ppm	ASTM D5185m	0	<b>2</b>	2	1
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	11	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m	0	<b>3</b>	2	6
Magnesium	ppm	ASTM D5185m	<1	<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185m	<1	<b>10</b>	12	55
Phosphorus	ppm	ASTM D5185m	2143	<b>2152</b>	2142	2066
Zinc	ppm	ASTM D5185m	<1	<b>20</b>	0	15
Sulfur	ppm	ASTM D5185m	23468	<b>29420</b>	28977	25056
Visc @ 40°C	cSt	ASTM D445	170	<b>201</b>	195	216



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0018512  
**Lab Number** : 06222935  
**Unique Number** : 11101132  
**Test Package** : CONST

**Received** : 27 Jun 2024  
**Tested** : 28 Jun 2024  
**Diagnosed** : 28 Jun 2024 - Wes Davis

**ADVANTAGE METALS RECYCLING - ST JOSEPH**  
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 US 64501

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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)