



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH30 101514-1253**  
Component  
**Front Right Wheel Hub**  
Fluid  
**SUPER S 80W90 LS (--- GAL)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of metal. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0285566</b>	LH0272804	LH0235746
Sample Date		Client Info		<b>28 Jun 2024</b>	10 Jan 2024	25 Sep 2023
Machine Age	hrs	Client Info		<b>12588</b>	12010	11543
Oil Age	hrs	Client Info		<b>1000</b>	0	0
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	Not Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

High concentration of visible metal present. All component wear rates are normal.

Iron	ppm	ASTM D5185m	>450	<b>362</b>	▲ 467	▲ 581
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	2
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	2
Lead	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>4</b>	7	11
Tin	ppm	ASTM D5185m		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	▲ <b>HEAVY</b>	▲ HEAVY	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

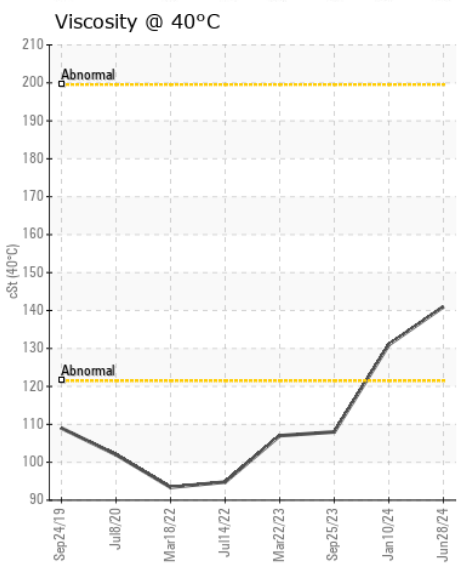
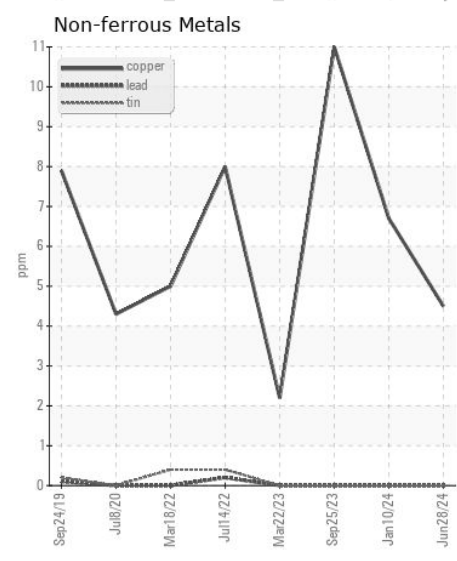
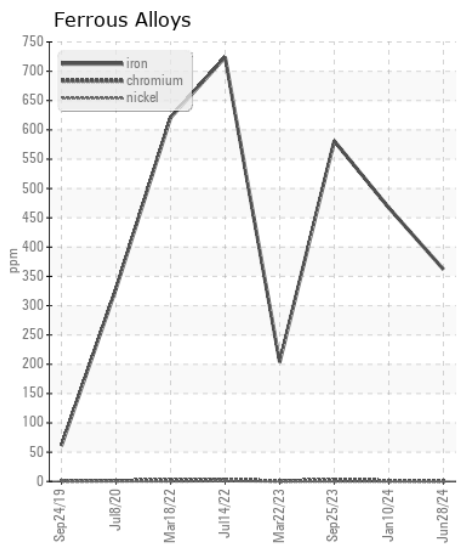
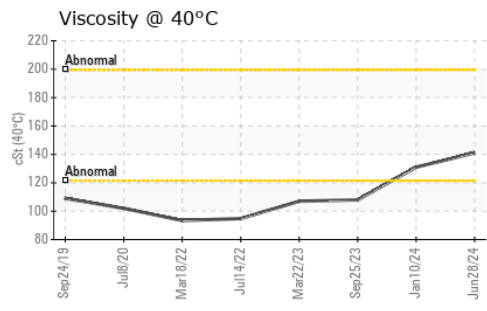
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	<b>5</b>	5	8
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	2
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	MODER	MODER
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>1</b>	1	3
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	3	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	1
Manganese	ppm	ASTM D5185m		<b>2</b>	3	4
Magnesium	ppm	ASTM D5185m		<b>4</b>	5	10
Calcium	ppm	ASTM D5185m		<b>46</b>	59	94
Phosphorus	ppm	ASTM D5185m		<b>282</b>	342	288
Zinc	ppm	ASTM D5185m		<b>22</b>	4	67
Sulfur	ppm	ASTM D5185m		<b>16881</b>	16074	14020
Visc @ 40°C	cSt	ASTM D445		<b>141</b>	131	108



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0285566  
**Lab Number** : 06227942  
**Unique Number** : 11111435  
**Test Package** : CONST  
**Received** : 03 Jul 2024  
**Tested** : 05 Jul 2024  
**Diagnosed** : 07 Jul 2024 - Don Baldrige

**SPARTAN RECYCLING**  
 3071 HOWARD ST  
 SPARTANBURG, SC  
 US 29303  
 Contact: SERVICE MANAGER

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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