



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH50 14791**  
Component  
**Transmission (Manual)**  
Fluid  
**IRVING IDO PREMIUM PLUS 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0180265</b>	LH	LH0260761
Sample Date		Client Info		<b>09 Jan 2024</b>	27 Dec 2023	10 Oct 2023
Machine Age	hrs	Client Info		<b>16000</b>	22000	21000
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>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	<b>11</b>	10	12
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>7	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	<b>4</b>	3	3
Lead	ppm	ASTM D5185(m)	>45	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185(m)	>225	<b>3</b>	4	5
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

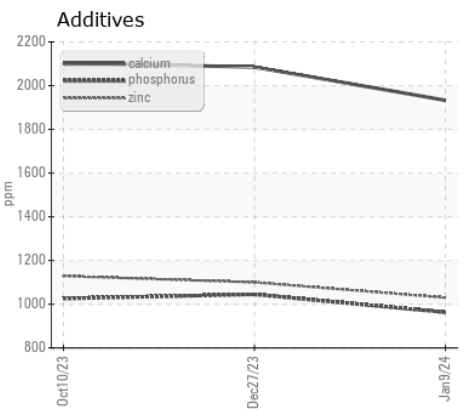
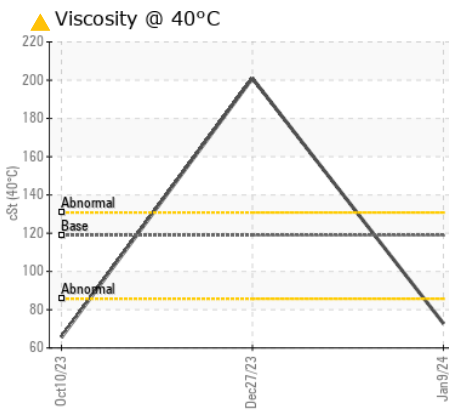
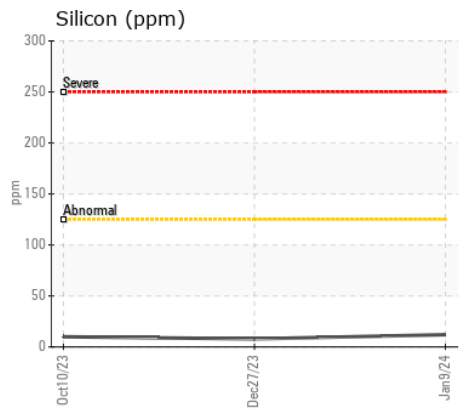
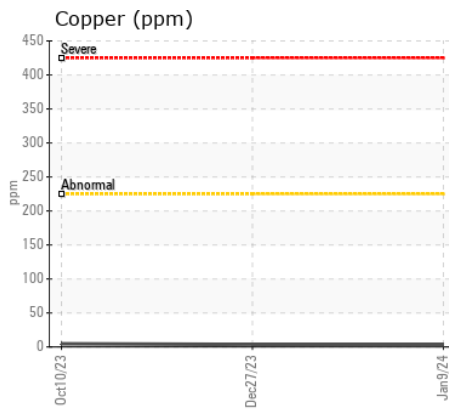
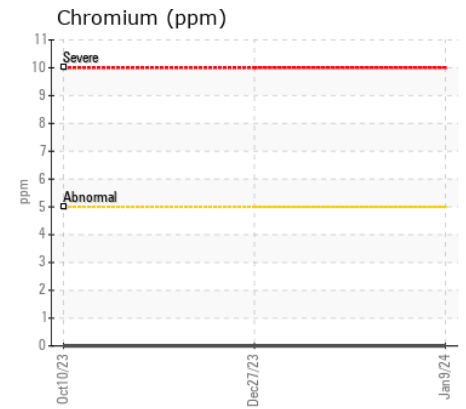
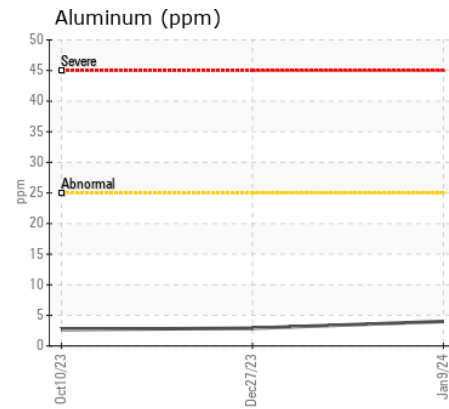
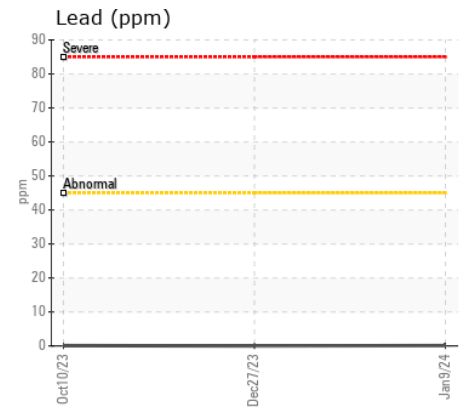
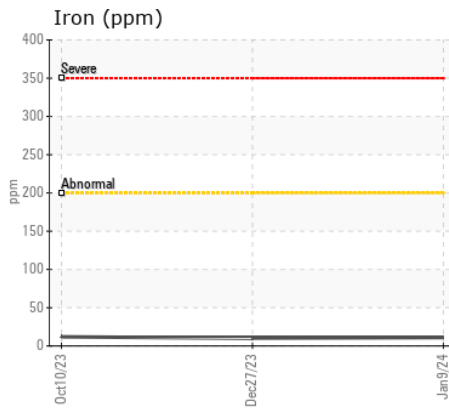
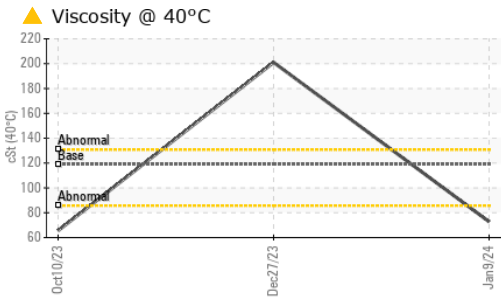
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185(m)	>125	<b>12</b>	8	10
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>VLITE</b>	VLITE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the fluid is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>1</b>	2	2
Boron	ppm	ASTM D5185(m)		<b>81</b>	90	89
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)		<b>8</b>	9	8
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>72</b>	81	74
Calcium	ppm	ASTM D5185(m)		<b>1933</b>	2085	2105
Phosphorus	ppm	ASTM D5185(m)		<b>963</b>	1045	1026
Zinc	ppm	ASTM D5185(m)		<b>1030</b>	1100	1129
Sulfur	ppm	ASTM D5185(m)		<b>3595</b>	3831	3509
Visc @ 40°C	cSt	ASTM D7279(m)	118.9	<b>▲ 72.8</b>	▲ 201	65.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0180265 **Received** : 15 Jan 2024  
**Lab Number** : 02608749 **Diagnosed** : 15 Jan 2024  
**Unique Number** : 5709835 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1

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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.