



# OIL ANALYSIS REPORT

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



Area  
**[MH-4]**  
Machine Id  
**LIEBHERR R954B MH-4 (S/N 015630-629)**  
Component  
**Hydraulic System**  
Fluid  
**DURALENE ZFH HVI 68 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0027584</b>	---	---
Sample Date		Client Info		<b>21 Dec 2023</b>	---	---
Machine Age	hrs	Client Info		<b>12300</b>	---	---
Oil Age	hrs	Client Info		<b>2000</b>	---	---
Filter Age	hrs	Client Info		<b>1000</b>	---	---
Oil Changed		Client Info		<b>Not Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>9</b>	---	---
Chromium	ppm	ASTM D5185m	>15	<b>2</b>	---	---
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>34</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>8	<b>2</b>	---	---
Lead	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>15	<b>6</b>	---	---
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

## CONTAMINATION

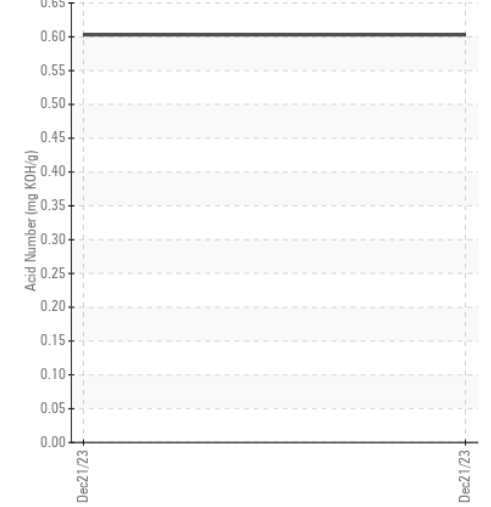
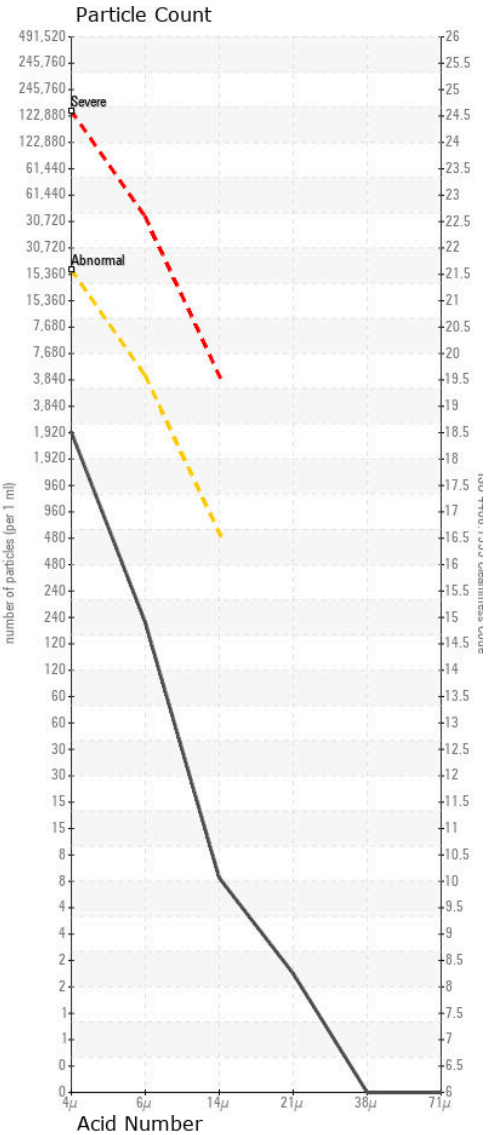
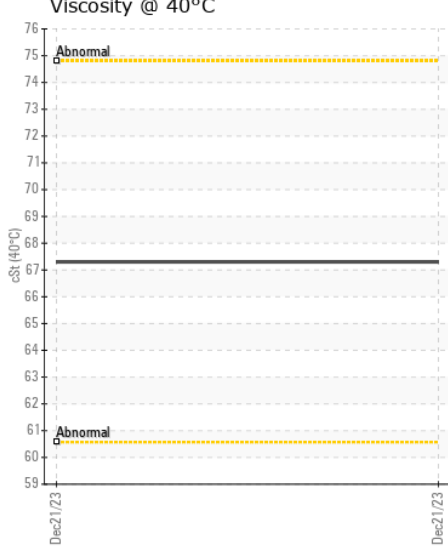
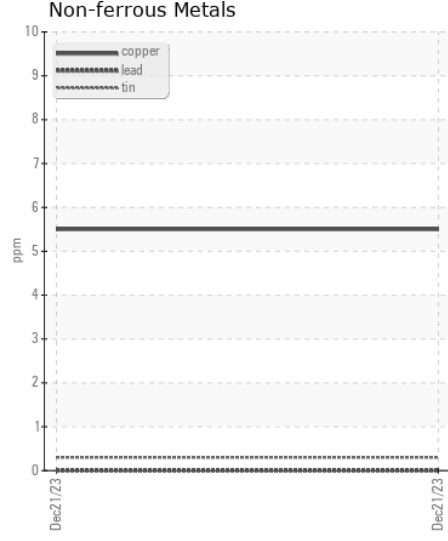
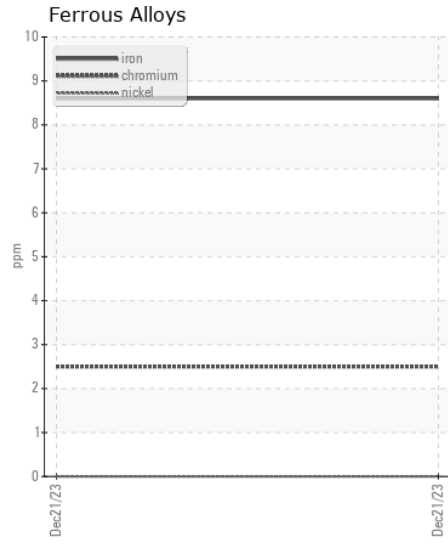
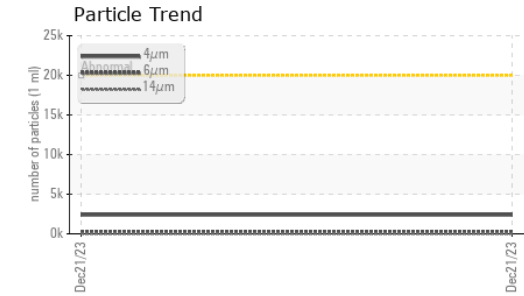
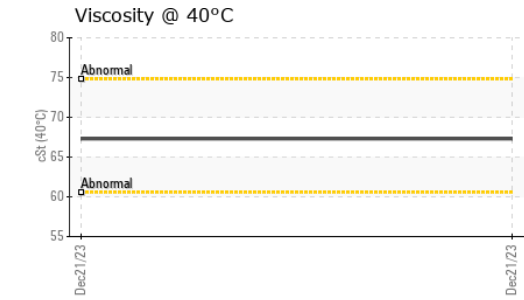
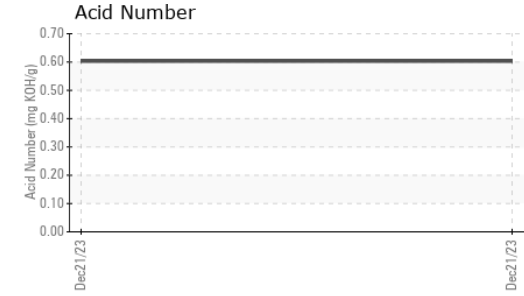
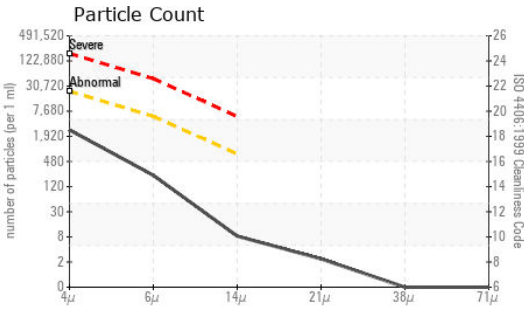
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Particles >4µm		ASTM D7647	>20000	<b>2391</b>	---	---
Particles >6µm		ASTM D7647	>5000	<b>198</b>	---	---
Particles >14µm		ASTM D7647	>640	<b>7</b>	---	---
Particles >21µm		ASTM D7647	>160	<b>2</b>	---	---
Particles >38µm		ASTM D7647	>40	<b>0</b>	---	---
Particles >71µm		ASTM D7647	>10	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>18/15/10</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	---	---

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	---	---
Boron	ppm	ASTM D5185m		<b>65</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>5</b>	---	---
Manganese	ppm	ASTM D5185m		<b>0</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>187</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1029</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>646</b>	---	---
Zinc	ppm	ASTM D5185m		<b>681</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>3542</b>	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.603</b>	---	---
Visc @ 40°C	cSt	ASTM D445		<b>67.3</b>	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0027584 **Received** : 11 Jan 2024  
**Lab Number** : 06058722 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10830104 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2

**CONSERVIT INC.**  
 PO BOX 1517  
 HAGERSTOWN, MD  
 US 21740  
 Contact: DON LONG

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)

T: (301)791-0100  
 F: (301)739-8548