



# OIL ANALYSIS REPORT

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



Area  
**[MH-5]**  
 Machine Id  
**LIEBHERR R954C MH5 (S/N 034273-1381)**  
 Component  
**Diesel Engine**  
 Fluid  
**DURAMAX 15W40 (30 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0033014</b>	DC0022357	DC0019146
Sample Date		Client Info		<b>13 Feb 2024</b>	07 Apr 2023	15 Apr 2022
Machine Age	hrs	Client Info		<b>11300</b>	10745	10221
Oil Age	hrs	Client Info		<b>555</b>	524	550
Filter Age	hrs	Client Info		<b>555</b>	545	550
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>33</b>	51	29
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	3	2
Lead	ppm	ASTM D5185m	>30	<b>3</b>	0	3
Copper	ppm	ASTM D5185m	>125	<b>4</b>	5	5
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
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	NONE

## CONTAMINATION

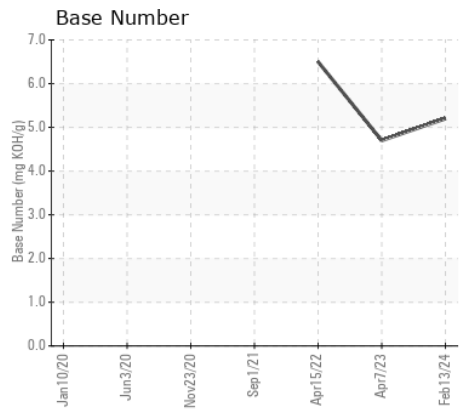
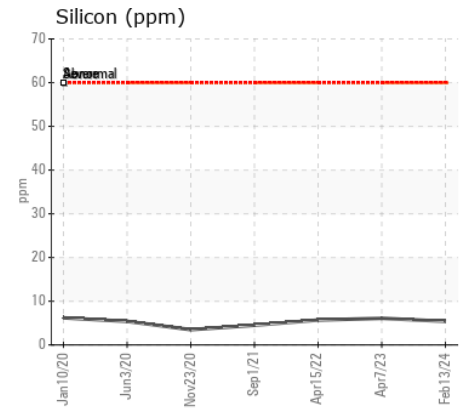
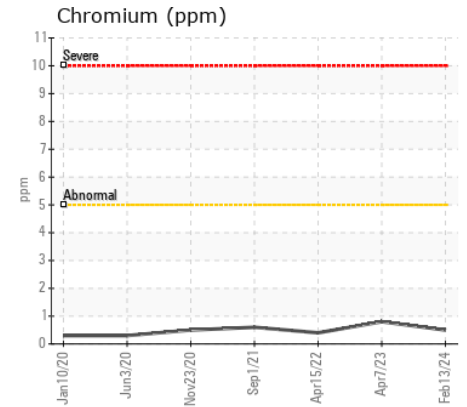
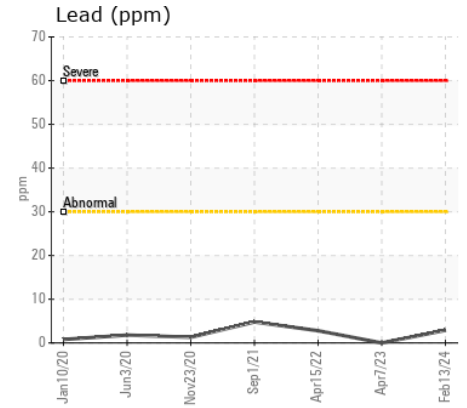
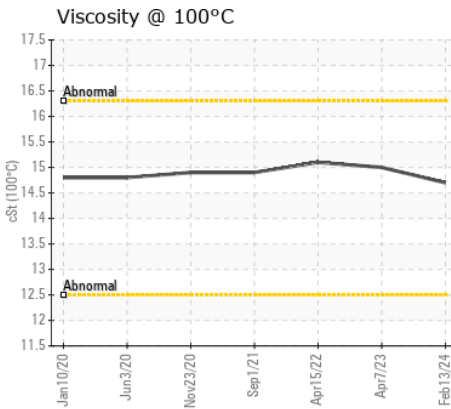
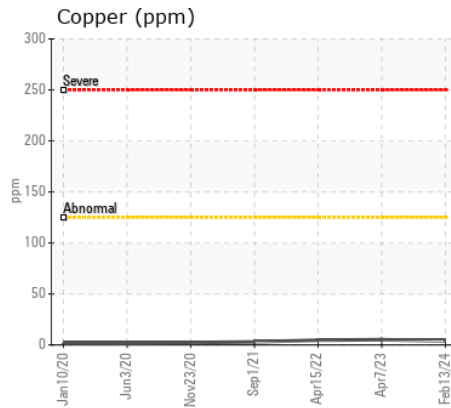
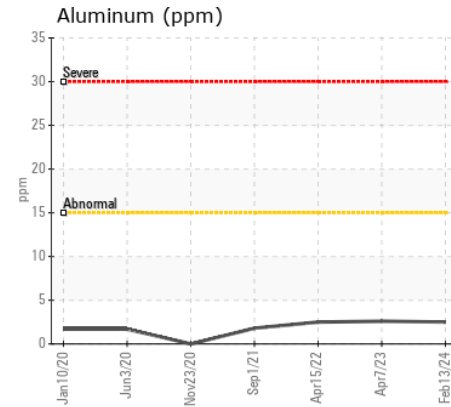
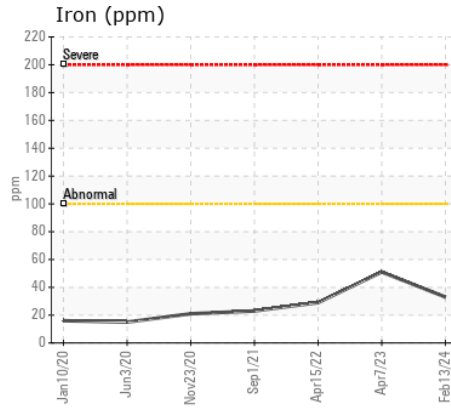
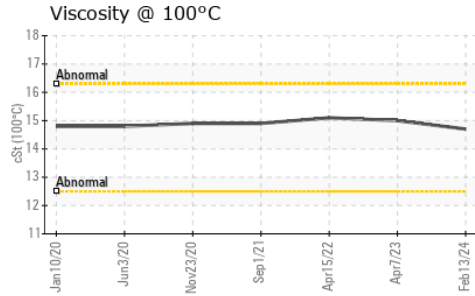
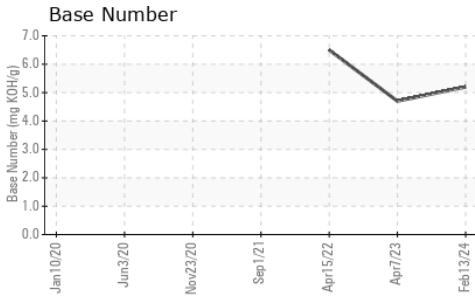
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	<b>5</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>2.1</b>	▲ 3.2	2.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	9.6	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.5</b>	26.6	28.3
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	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	2	3
Boron	ppm	ASTM D5185m		<b>5</b>	1	6
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>9</b>	4	4
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>64</b>	55	61
Calcium	ppm	ASTM D5185m		<b>2628</b>	2631	2750
Phosphorus	ppm	ASTM D5185m		<b>993</b>	943	994
Zinc	ppm	ASTM D5185m		<b>1241</b>	1184	1184
Sulfur	ppm	ASTM D5185m		<b>3676</b>	4374	3369
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.6</b>	12.3	13.8
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.2</b>	4.7	6.5
Visc @ 100°C	cSt	ASTM D445		<b>14.7</b>	15.0	15.1



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0033014 **Received** : 26 Feb 2024  
**Lab Number** : 06100668 **Tested** : 27 Feb 2024  
**Unique Number** : 10898898 **Diagnosed** : 27 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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

Certificate L2367  
 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