



# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**HITACHI HITACHI ZW220-SB**

Component

**Front Differential**

Fluid

{not provided} (--- GAL)

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0967064</b>	---	---
Sample Date	Client Info			<b>17 Jul 2024</b>	---	---
Machine Age	hrs	Client Info		<b>7689</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed	Client Info			<b>N/A</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>.2	<b>NEG</b>	---	---

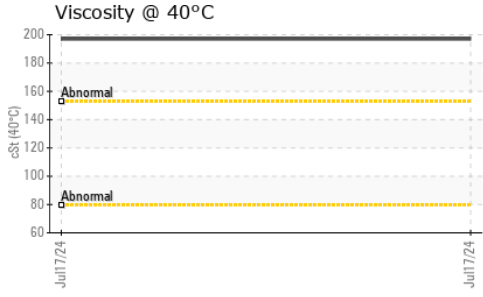
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>500	<b>176</b>	---	---
Chromium	ppm	ASTM D5185(m)	>10	<b>1</b>	---	---
Nickel	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>25	<b>1</b>	---	---
Lead	ppm	ASTM D5185(m)	>25	<b>0</b>	---	---
Copper	ppm	ASTM D5185(m)	>100	<b>&lt;1</b>	---	---
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	---	---
Antimony	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>2</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>7</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>3276</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>917</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>1029</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>10314</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>75	<b>7</b>	---	---
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---



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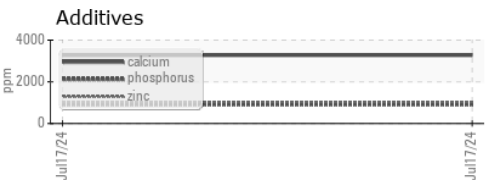
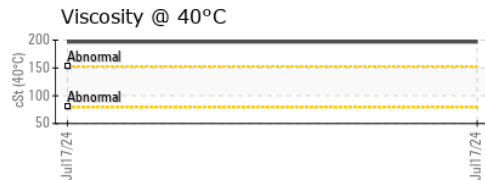
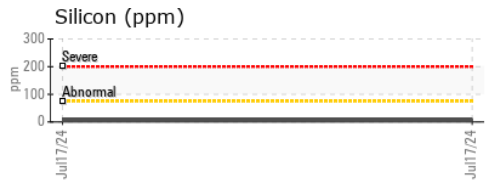
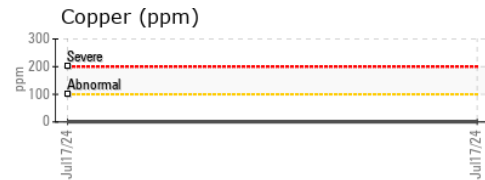
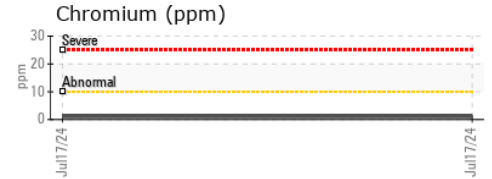
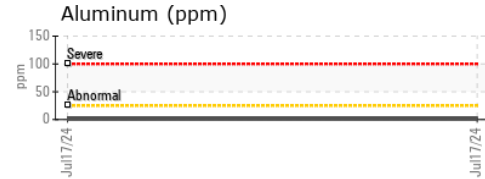
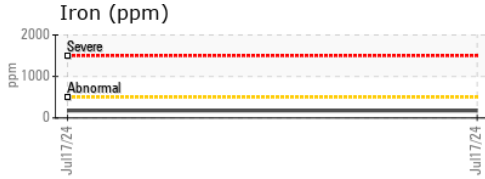
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---
Emulsified Water	scalar	Visual*	>.2	<b>NEG</b>	---
Free Water	scalar	Visual*		<b>NEG</b>	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	<b>197</b>	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image
Bottom				no image	no image

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0967064      **Received** : 18 Jul 2024  
**Lab Number** : **02648741**      **Tested** : 18 Jul 2024  
**Unique Number** : 5814293      **Diagnosed** : 19 Jul 2024 - Kevin Marson  
**Test Package** : MOB 1

**DEWITT EQUIPMENT**  
 1793 LINE 13  
 GILFORD, ON  
 CA L0L 1R0  
 Contact: Matthew DeWitt  
 matt@dewittequipment.com  
 T: (905)330-2656  
 F:

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.