



# OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Machine Id  
**2TM90011**

Component  
**Front Gearbox**

Fluid  
**GEAR OIL SAE 80W90 (--- LTR)**



## DIAGNOSIS

### Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm. Please specify the component make and model with your next sample.

### Wear

Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

### Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0402462</b>	---	---
Sample Date	Client Info		<b>04 Oct 2023</b>	---	---
Machine Age	hrs	Client Info	<b>0</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>SEVERE</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>119</b>	---	---
Iron	ppm	ASTM D5185(m) >200	<b>▲ 316</b>	---	---
Chromium	ppm	ASTM D5185(m) >10	<b>4</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>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185(m) >25	<b>&lt;1</b>	---	---
Lead	ppm	ASTM D5185(m) >50	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185(m) >200	<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) 400	<b>132</b>	---	---
Barium	ppm	ASTM D5185(m) 200	<b>6</b>	---	---
Molybdenum	ppm	ASTM D5185(m) 12	<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m)	<b>3</b>	---	---
Magnesium	ppm	ASTM D5185(m) 12	<b>4</b>	---	---
Calcium	ppm	ASTM D5185(m) 150	<b>15</b>	---	---
Phosphorus	ppm	ASTM D5185(m) 1650	<b>941</b>	---	---
Zinc	ppm	ASTM D5185(m) 125	<b>13</b>	---	---
Sulfur	ppm	ASTM D5185(m) 22500	<b>16795</b>	---	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

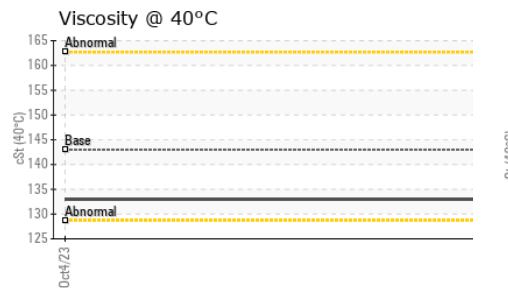
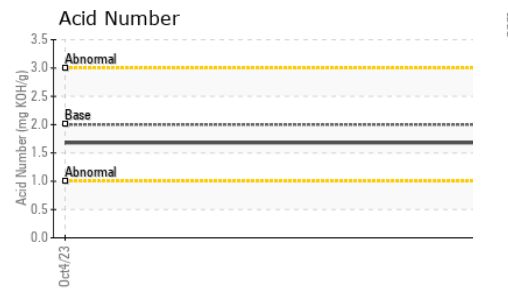
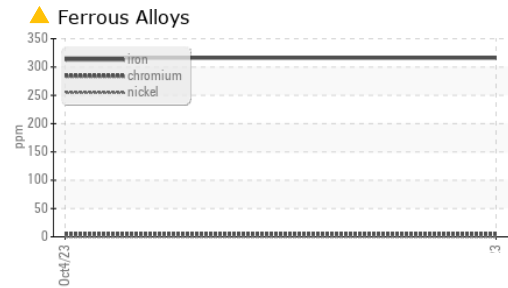
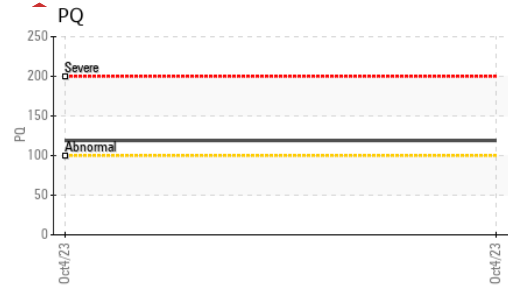
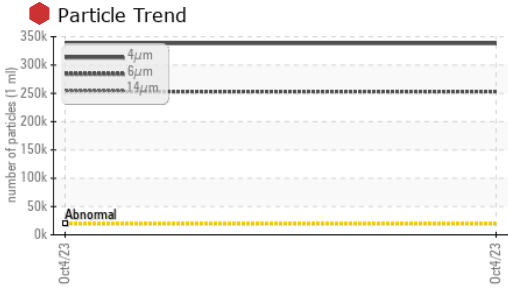
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	<b>9</b>	---	---
Sodium	ppm	ASTM D5185(m) >170	<b>6</b>	---	---
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---	---

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>● 338085</b>	---	---
Particles >6µm	ASTM D7647	>5000	<b>● 253035</b>	---	---
Particles >14µm	ASTM D7647	>640	<b>● 19297</b>	---	---
Particles >21µm	ASTM D7647	>160	<b>▲ 1137</b>	---	---
Particles >38µm	ASTM D7647	>40	<b>28</b>	---	---
Particles >71µm	ASTM D7647	>10	<b>1</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>● 26/25/21</b>	---	---



# OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	2.00	<b>1.68</b>	---	---

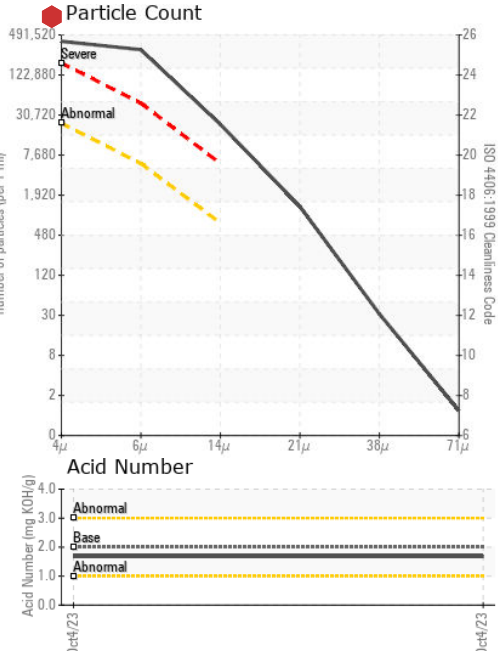
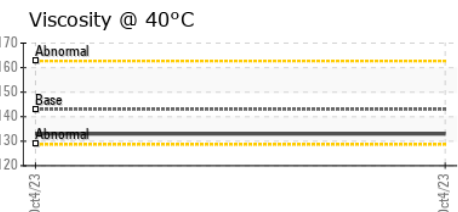
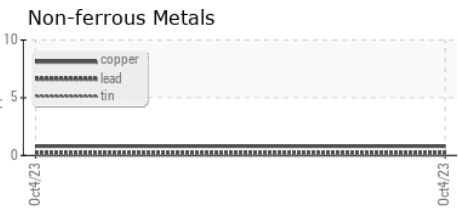
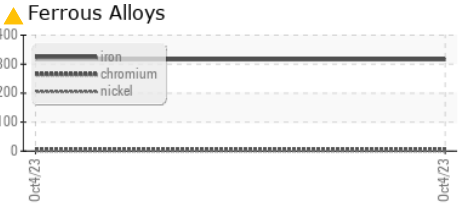
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
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*	>0.2	<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)	143	<b>133</b>	---	---

### SAMPLE IMAGES

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

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0402462 **Received** : 05 Oct 2023  
**Lab Number** : **02587325** **Diagnosed** : 06 Oct 2023  
**Unique Number** : 5656391 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 2 ( Additional Tests: PQ, PrtCount, TAN Man )

**Steve Dippel**  
 RR # 2  
 Ayton, ON  
 CA N0G 1C0  
 Contact: Service Manager

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.

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 F: