



# PROBLEM SUMMARY

Sample Rating Trend



DIRT



Machine Id

**G91**

Component

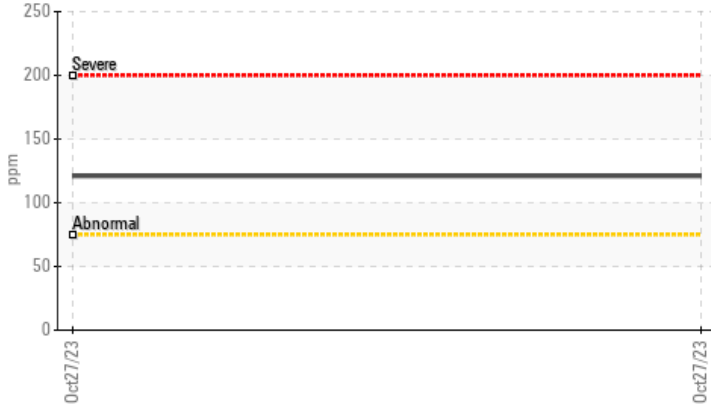
**Rear Differential**

Fluid

**GEAR OIL SAE 75W90 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Silicon (ppm)



## RECOMMENDATION

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. ( Customer Sample Comment: 75-90 full synthetic gear oil. )

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	---	---
Silicon	ppm	ASTM D5185m	>75	▲ 121	---	---

Customer Id: AVWHOM

Sample No.: WC0858121

Lab Number: 05993881

Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:

Sean Felton +1 919-379-4092

[sfelton@wearcheckusa.com](mailto:sfelton@wearcheckusa.com)

To change component or sample information:

Customer Service +1 1-800-237-1369

[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

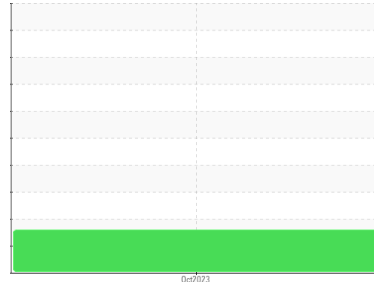
*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id

**G91**

Component

**Rear Differential**

Fluid

**GEAR OIL SAE 75W90 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. ( Customer Sample Comment: 75-90 full synthetic gear oil. )

### Wear

All component wear rates are normal.

### ▲ Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

### 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>WC0858121</b>	---	---
Sample Date	Client Info	<b>27 Oct 2023</b>	---	---
Machine Age	hrs Client Info	<b>10908</b>	---	---
Oil Age	hrs Client Info	<b>3300</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >500	<b>398</b>	---	---
Chromium ppm	ASTM D5185m >10	<b>2</b>	---	---
Nickel ppm	ASTM D5185m >10	<b>&lt;1</b>	---	---
Titanium ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Silver ppm	ASTM D5185m	<b>0</b>	---	---
Aluminum ppm	ASTM D5185m >25	<b>1</b>	---	---
Lead ppm	ASTM D5185m >25	<b>0</b>	---	---
Copper ppm	ASTM D5185m >100	<b>2</b>	---	---
Tin ppm	ASTM D5185m >10	<b>&lt;1</b>	---	---
Vanadium ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 400	<b>203</b>	---	---
Barium ppm	ASTM D5185m 200	<b>21</b>	---	---
Molybdenum ppm	ASTM D5185m 12	<b>&lt;1</b>	---	---
Manganese ppm	ASTM D5185m	<b>7</b>	---	---
Magnesium ppm	ASTM D5185m 12	<b>4</b>	---	---
Calcium ppm	ASTM D5185m 150	<b>25</b>	---	---
Phosphorus ppm	ASTM D5185m 1650	<b>1354</b>	---	---
Zinc ppm	ASTM D5185m 125	<b>46</b>	---	---
Sulfur ppm	ASTM D5185m 22500	<b>36789</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >75	<b>▲ 121</b>	---	---
Sodium ppm	ASTM D5185m	<b>11</b>	---	---
Potassium ppm	ASTM D5185m >20	<b>5</b>	---	---

## VISUAL

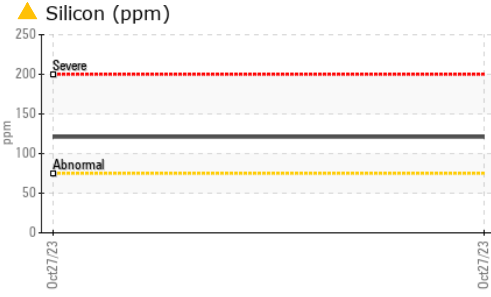
method	limit/base	current	history1	history2
White Metal scalar	*Visual NONE	<b>NONE</b>	---	---
Yellow Metal scalar	*Visual NONE	<b>NONE</b>	---	---
Precipitate scalar	*Visual NONE	<b>NONE</b>	---	---
Silt scalar	*Visual NONE	<b>NONE</b>	---	---
Debris scalar	*Visual NONE	<b>NONE</b>	---	---
Sand/Dirt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

## FLUID PROPERTIES

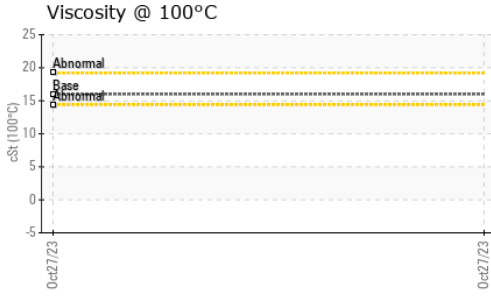
method	limit/base	current	history1	history2
Visc @ 40°C cSt	ASTM D445 109	<b>86.2</b>	---	---



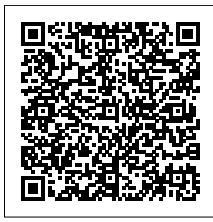
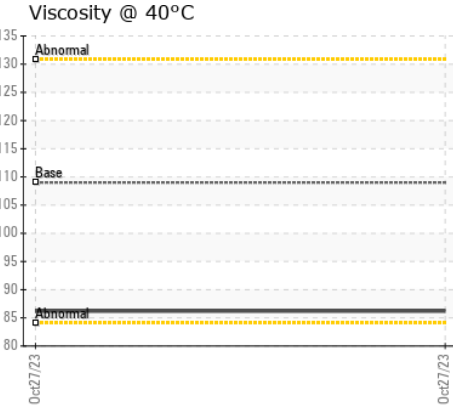
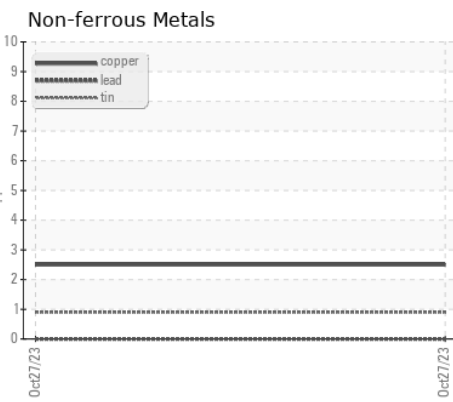
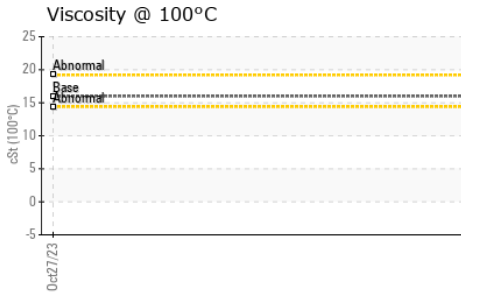
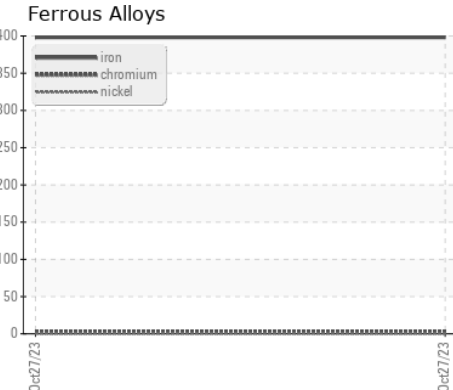
# OIL ANALYSIS REPORT



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



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0858121      **Received** : 30 Oct 2023  
**Lab Number** : 05993881      **Diagnosed** : 01 Nov 2023  
**Unique Number** : 10722241      **Diagnostician** : Sean Felton  
**Test Package** : CONST ( Additional Tests: FT-IR, KV100 )

**Apple Valley Waste - Hometown Location**  
 155 Airport Road  
 Selinsgrove, PA  
 US 17870  
 Contact: Service Manager

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:  
F: