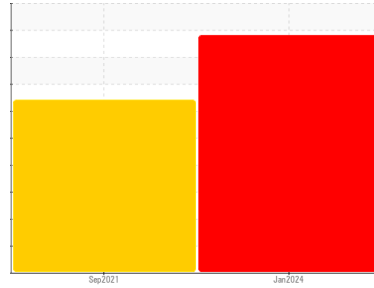




# PROBLEM SUMMARY

Sample Rating Trend

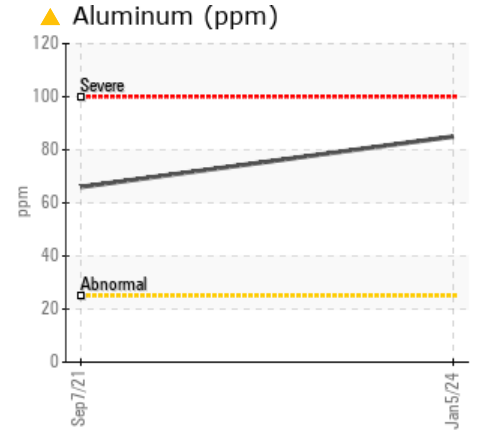
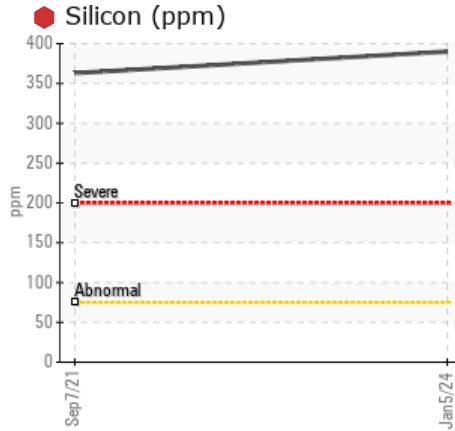
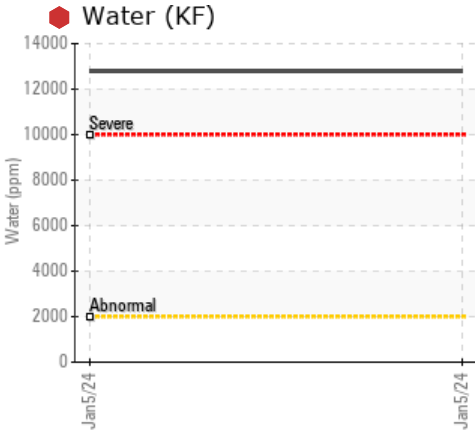


**DIRT**



Area  
**[18576]**  
 Machine Id  
**60-08L**  
 Component  
**Right Final Drive**  
 Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	---
Silicon	ppm	ASTM D5185m	>75	<b>390</b>	363	---
Water	%	ASTM D6304	>0.2	<b>1.28</b>	---	---
ppm Water	ppm	ASTM D6304	>2000	<b>12800</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>0.2%</b>	NEG	---

Customer Id: MANTUL  
 Sample No.: WC0836224  
 Lab Number: 06056089  
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

## HISTORICAL DIAGNOSIS

07 Sep 2021 Diag: Jonathan Hester

### DIRT



We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil is no longer serviceable due to the presence of contaminants.

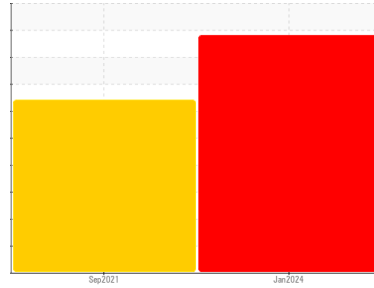
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Area  
**[18576]**  
 Machine Id  
**60-08L**  
 Component  
**Right Final Drive**  
 Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

## DIAGNOSIS

### Recommendation

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0836224</b>	WC0549020	---
Sample Date	Client Info		<b>05 Jan 2024</b>	07 Sep 2021	---
Machine Age	hrs	Client Info	<b>5860</b>	5106	---
Oil Age	hrs	Client Info	<b>652</b>	1020	---
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	---
Sample Status			<b>SEVERE</b>	SEVERE	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	<b>479</b>	▲ 536	---
Chromium	ppm	ASTM D5185m >10	<b>5</b>	7	---
Nickel	ppm	ASTM D5185m >10	<b>2</b>	3	---
Titanium	ppm	ASTM D5185m	<b>5</b>	4	---
Silver	ppm	ASTM D5185m	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >25	▲ <b>85</b>	▲ 66	---
Lead	ppm	ASTM D5185m >25	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m >50	<b>18</b>	58	---
Tin	ppm	ASTM D5185m >10	<b>3</b>	4	---
Antimony	ppm	ASTM D5185m >5	<b>---</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 400	<b>10</b>	15	---
Barium	ppm	ASTM D5185m 200	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m 12	<b>0</b>	2	---
Manganese	ppm	ASTM D5185m	<b>5</b>	6	---
Magnesium	ppm	ASTM D5185m 12	<b>17</b>	23	---
Calcium	ppm	ASTM D5185m 150	<b>80</b>	82	---
Phosphorus	ppm	ASTM D5185m 1650	<b>278</b>	376	---
Zinc	ppm	ASTM D5185m 125	<b>17</b>	34	---
Sulfur	ppm	ASTM D5185m 22500	<b>17750</b>	16768	---

## CONTAMINANTS

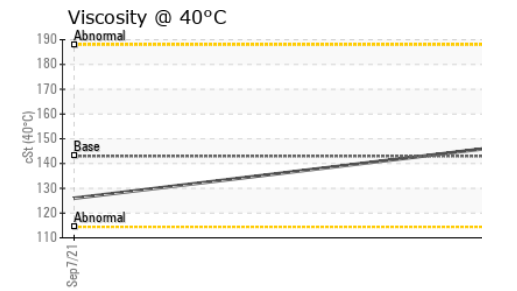
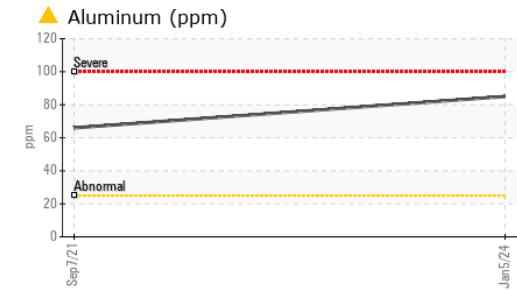
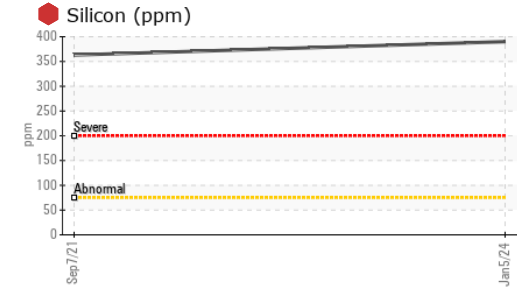
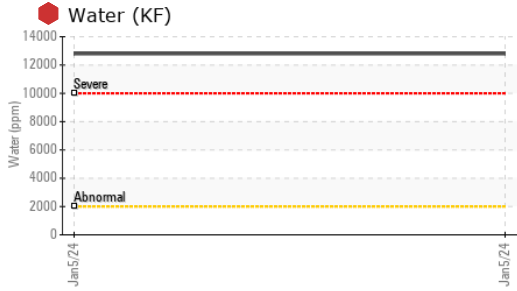
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	● <b>390</b>	● 363	---
Sodium	ppm	ASTM D5185m >170	<b>5</b>	8	---
Potassium	ppm	ASTM D5185m >20	<b>25</b>	19	---
Water	%	ASTM D6304 >0.2	● <b>1.28</b>	---	---
ppm Water	ppm	ASTM D6304 >2000	● <b>12800</b>	---	---

## VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>NONE</b>	LIGHT	---
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	*Visual NONE	<b>NONE</b>	NONE	---
Silt	scalar	*Visual NONE	<b>LIGHT</b>	NONE	---
Debris	scalar	*Visual NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual >0.2	● <b>0.2%</b>	NEG	---
Free Water	scalar	*Visual	<b>NEG</b>	NEG	---



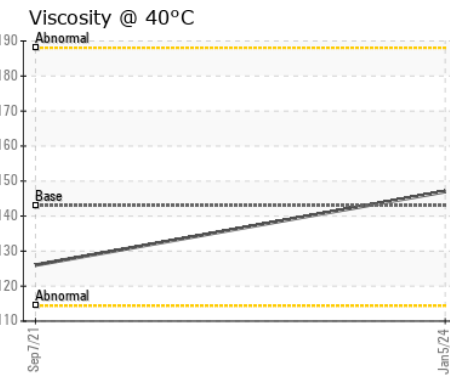
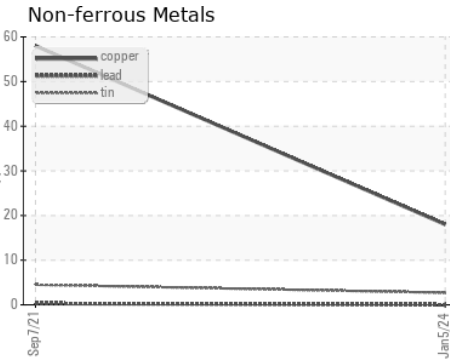
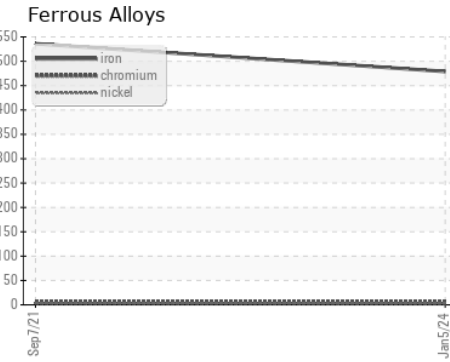
# OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	143	<b>147</b>	126	---

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.** : WC0836224 **Received** : 09 Jan 2024  
**Lab Number** : 06056089 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822038 **Diagnostician** : Jonathan Hester  
**Test Package** : CONST ( Additional Tests: KF )

**MANHATTAN ROAD AND BRIDGE**  
 5601 S 122ND E AVE  
 TULSA, OK  
 US 74146  
 Contact: BEN CALDWELL  
 kevin.marson@wearcheck.com  
 T: (918)728-5749  
 F:

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)