



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>ATTENTION</b>

Machine Id  
**RO 91038**  
Component  
**Rear Differential**  
Fluid  
**GEAR OIL SAE 85W140 (13 QTS)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0824089</b>	---	---
Sample Date		Client Info		<b>16 Feb 2024</b>	---	---
Machine Age	mls	Client Info		<b>146760</b>	---	---
Oil Age	mls	Client Info		<b>0</b>	---	---
Filter Age	mls	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>N/A</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

## WEAR

Gear wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>▲ 604</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>3</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>1</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>25	<b>▲ 11</b>	---	---
Lead	ppm	ASTM D5185m	>25	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>100	<b>2</b>	---	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

## CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	<b>▲ 108</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	---	---
Water		WC Method	>.2	<b>NEG</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>	---	---

## FLUID CONDITION

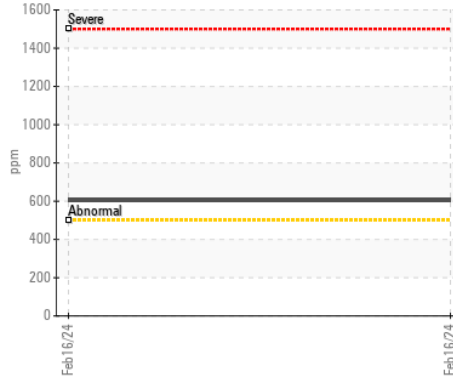
The oil viscosity is lower than normal. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>11</b>	---	---
Boron	ppm	ASTM D5185m	400	<b>85</b>	---	---
Barium	ppm	ASTM D5185m	200	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	12	<b>1</b>	---	---
Manganese	ppm	ASTM D5185m		<b>5</b>	---	---
Magnesium	ppm	ASTM D5185m	12	<b>10</b>	---	---
Calcium	ppm	ASTM D5185m	150	<b>28</b>	---	---
Phosphorus	ppm	ASTM D5185m	1650	<b>734</b>	---	---
Zinc	ppm	ASTM D5185m	125	<b>95</b>	---	---
Sulfur	ppm	ASTM D5185m	22500	<b>20128</b>	---	---
Visc @ 40°C	cSt	ASTM D445	368	<b>▲ 124</b>	---	---

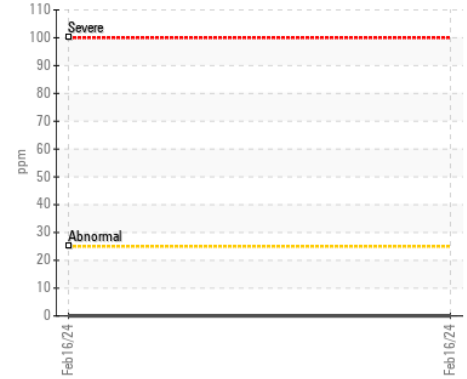
▲ Ferrous Alloys



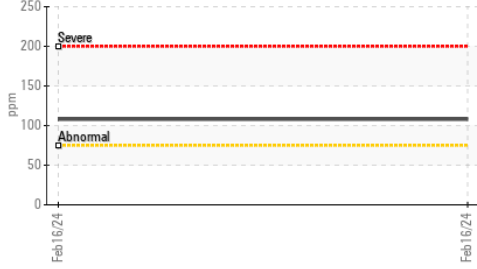
▲ Iron (ppm)



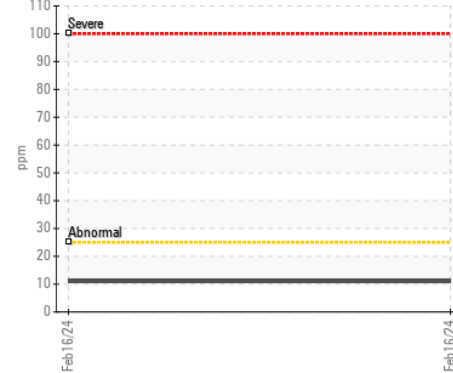
▲ Lead (ppm)



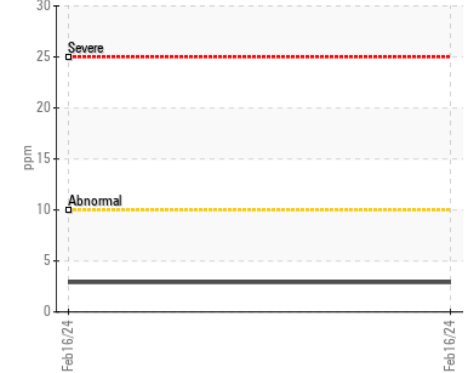
▲ Silicon (ppm)



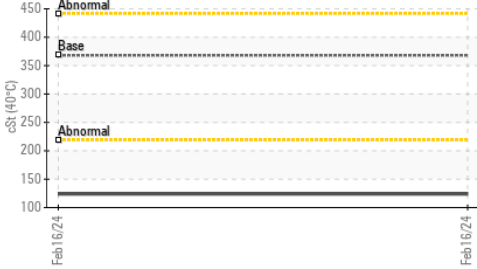
▲ Aluminum (ppm)



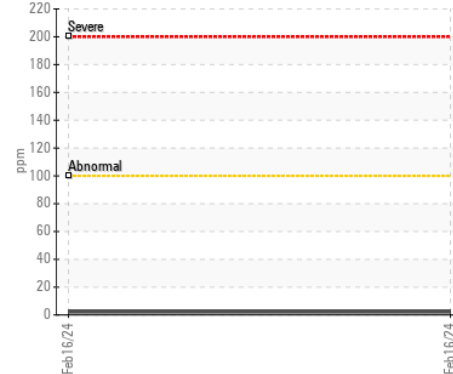
▲ Chromium (ppm)



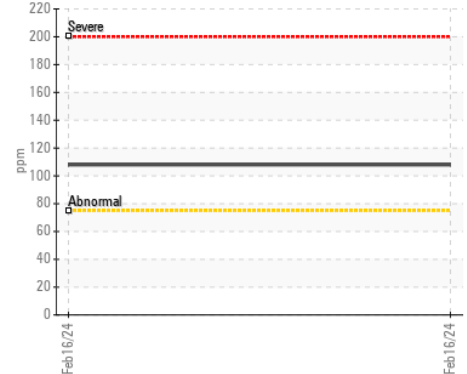
▲ Viscosity @ 40°C



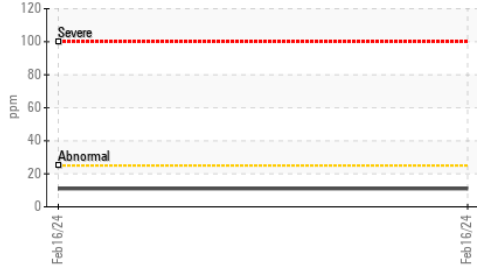
▲ Copper (ppm)



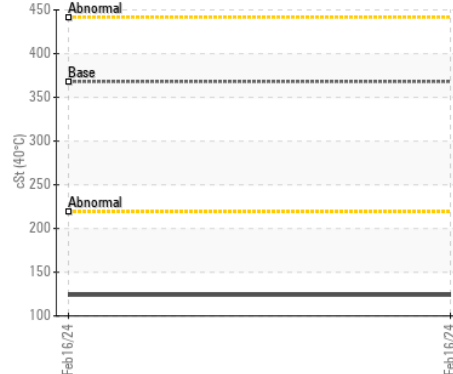
▲ Silicon (ppm)



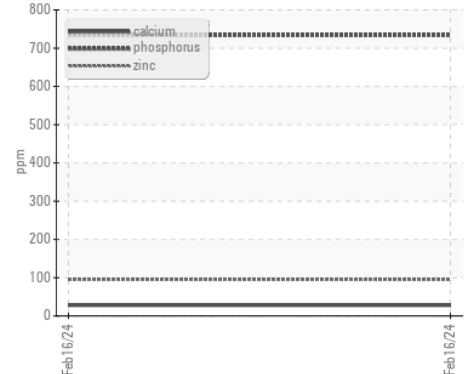
▲ Aluminum (ppm)



▲ Viscosity @ 40°C



▲ Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0824089

Lab Number : 06098033

Unique Number : 10896263

Test Package : MOB 1

Received : 22 Feb 2024

Tested : 23 Feb 2024

Diagnosed : 25 Feb 2024 - Don Baldrige

ATEL BUS & TRUCK

12120 CONWAY RD

BELTSVILLE, MD

US 20705

Contact: OSCAR ROMERO

oromero@atelbus.com

T:

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)