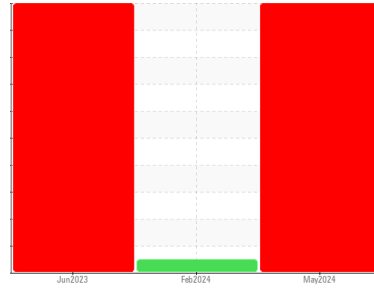




PROBLEM SUMMARY

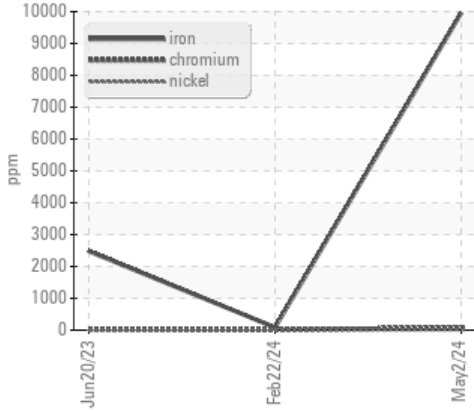
Area
[23256]
 Machine Id
40-235
 Component
Left Final Drive
 Fluid
SHELL ROTELLA T 15W40 (14 QTS)

Sample Rating Trend

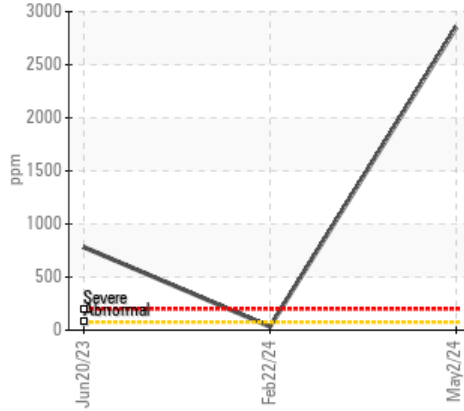


COMPONENT CONDITION SUMMARY

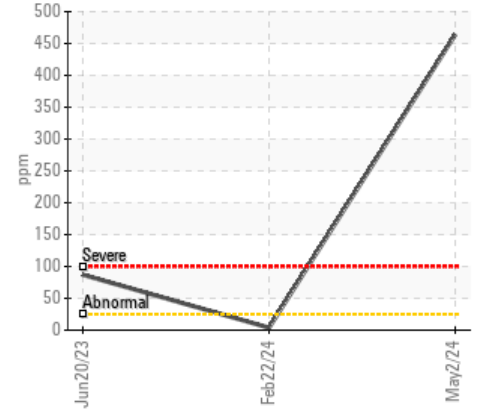
▲ Ferrous Alloys



▲ Silicon (ppm)



● Aluminum (ppm)



RECOMMENDATION

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 advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	SEVERE
Iron	ppm	ASTM D5185m	>500	▲ 9964	85	▲ 2480
Chromium	ppm	ASTM D5185m	>10	▲ 84	3	▲ 24
Nickel	ppm	ASTM D5185m	>10	▲ 14	1	▲ 4
Silicon	ppm	ASTM D5185m	>75	▲ 2851	33	▲ 782

Customer Id: MANTUL
 Sample No.: WC0923311
 Lab Number: 06218603
 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

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
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.

HISTORICAL DIAGNOSIS

NORMAL



22 Feb 2024 Diag: Jonathan Hester

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

[view report](#)



WEAR



20 Jun 2023 Diag: Sean Felton

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 advise that you inspect for the source(s) of wear. 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 as a result of the abnormal and/or severe wear.

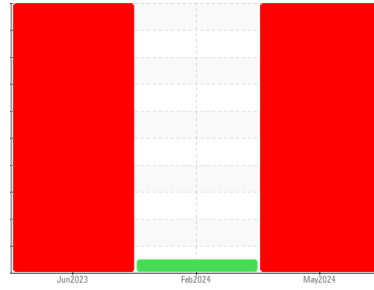
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
[23256]

Machine Id
40-235

Component
Left Final Drive

Fluid
SHELL ROTELLA T 15W40 (14 QTS)

DIAGNOSIS

▲ Recommendation

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 advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

▲ Wear

Gear wear is indicated.

▲ Contamination

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		WC0923311	WC0836079	WC0818772
Sample Date	Client Info		02 May 2024	22 Feb 2024	20 Jun 2023
Machine Age	hrs	Client Info	7304	6585	6286
Oil Age	hrs	Client Info	2000	2000	2286
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	NORMAL	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>500	▲ 9964	85	▲ 2480
Chromium	ppm	ASTM D5185m	>10	▲ 84	3	▲ 24
Nickel	ppm	ASTM D5185m	>10	▲ 14	1	4
Titanium	ppm	ASTM D5185m		32	1	14
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	● 464	4	● 87
Lead	ppm	ASTM D5185m	>25	2	<1	<1
Copper	ppm	ASTM D5185m	>50	44	3	8
Tin	ppm	ASTM D5185m	>10	0	1	<1
Vanadium	ppm	ASTM D5185m		5	<1	<1
Cadmium	ppm	ASTM D5185m		1	<1	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	316	131	20	12
Barium	ppm	ASTM D5185m	0.0	27	0	13
Molybdenum	ppm	ASTM D5185m	1.2	15	7	4
Manganese	ppm	ASTM D5185m		67	2	16
Magnesium	ppm	ASTM D5185m	24	101	26	53
Calcium	ppm	ASTM D5185m	2292	511	3464	3441
Phosphorus	ppm	ASTM D5185m	1064	905	878	839
Zinc	ppm	ASTM D5185m	1160	87	1084	909
Sulfur	ppm	ASTM D5185m	4996	50662	6015	7114

CONTAMINANTS

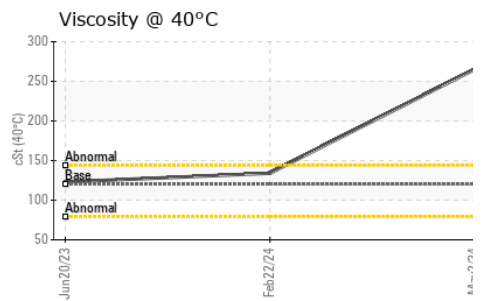
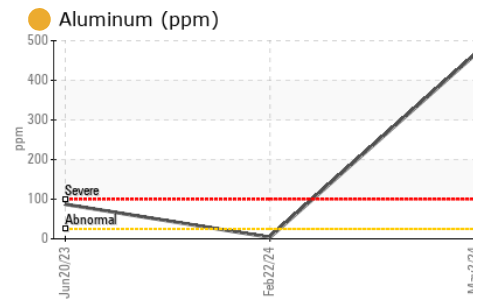
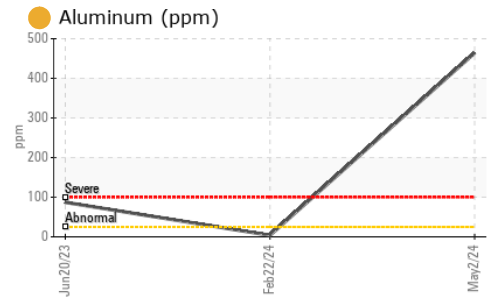
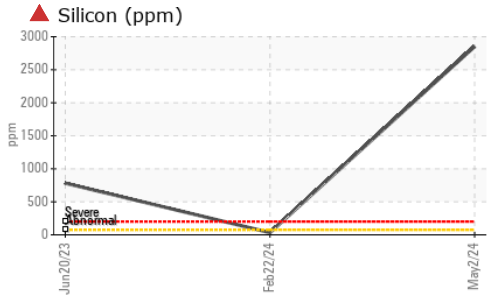
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>75	▲ 2851	33	▲ 782
Sodium	ppm	ASTM D5185m		79	0	13
Potassium	ppm	ASTM D5185m	>20	150	3	30

VISUAL

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



OIL ANALYSIS REPORT

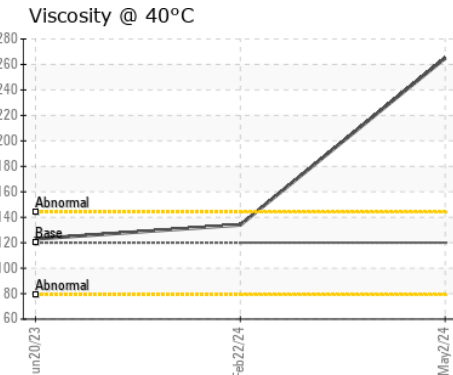
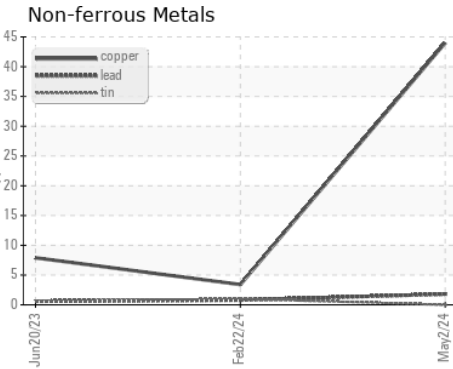
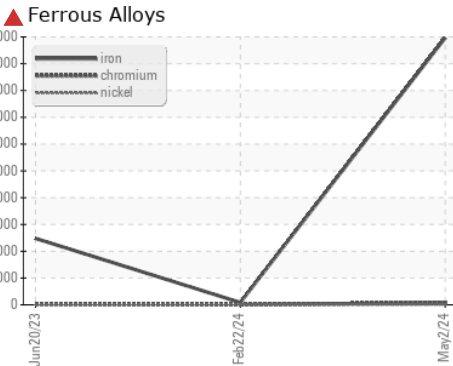


FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	120.	265	134	123

SAMPLE IMAGES	method	limit/base	current	history1	history2
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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. : WC0923311
Lab Number : 06218603
Unique Number : 11096800
Test Package : CONST

Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 26 Jun 2024 - Sean Felton

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)