



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**TMR-Fort Myers**  
 Machine Id  
**611188 HITACHI ZW180 RYVPD860KH8405351**  
 Component  
**Rear Differential**  
 Fluid  
**TDTO FLUID SAE 50 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DJJ0020482</b>	DJJ0020461	DJJ0008625
Sample Date		Client Info		<b>08 May 2024</b>	14 Dec 2023	06 Apr 2023
Machine Age	hrs	Client Info		<b>3960</b>	3551	2590
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>131</b>	105	48
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>25	<b>0</b>	2	0
Copper	ppm	ASTM D5185m	>100	<b>0</b>	<1	0
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

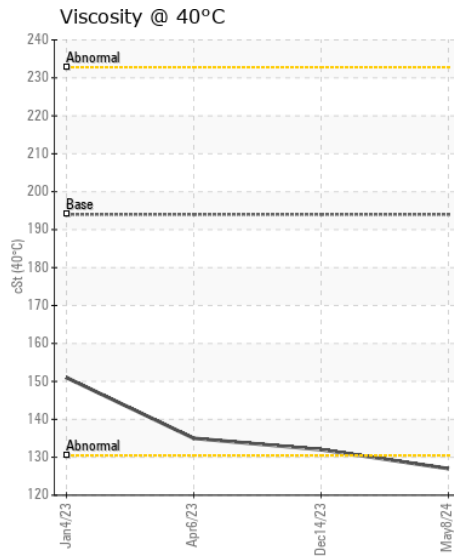
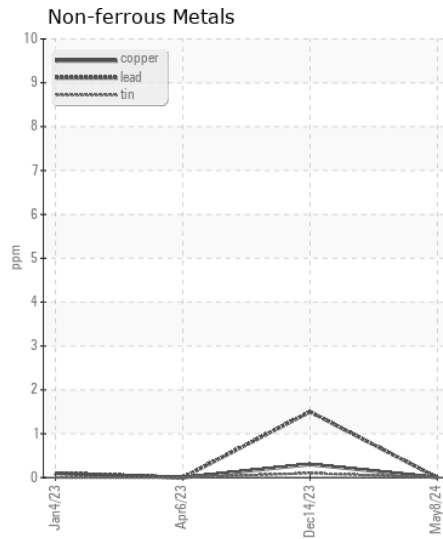
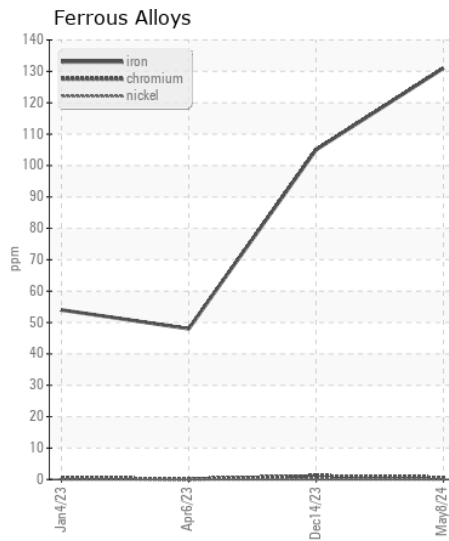
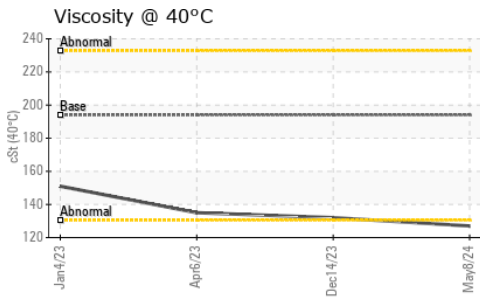
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185m	>75	<b>25</b>	24	24
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The condition of the fluid is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>5</b>	3	4
Boron	ppm	ASTM D5185m	37	<b>133</b>	149	129
Barium	ppm	ASTM D5185m	7	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	5	<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>1</b>	1	1
Magnesium	ppm	ASTM D5185m	40	<b>25</b>	11	24
Calcium	ppm	ASTM D5185m	2650	<b>7217</b>	6882	6394
Phosphorus	ppm	ASTM D5185m	1050	<b>2271</b>	2092	1969
Zinc	ppm	ASTM D5185m	1075	<b>2664</b>	2637	2539
Sulfur	ppm	ASTM D5185m	5750	<b>9152</b>	7743	8276
Visc @ 40°C	cSt	ASTM D445	194	<b>127</b>	132	135



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0020482  
**Lab Number** : 06186564  
**Unique Number** : 11043316  
**Test Package** : CONST

**Received** : 21 May 2024  
**Tested** : 22 May 2024  
**Diagnosed** : 23 May 2024 - Sean Felton

**TRADEMARK METALS RECYCLING - FORT MYERS**  
 3350 OLD METRO PKWY  
 FORT MYERS, FL  
 US 33916  
 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: