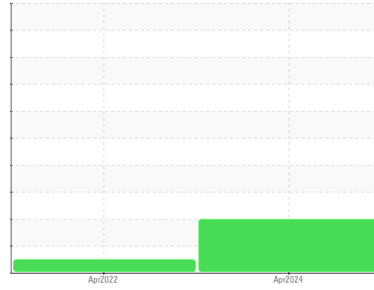




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Area  
**HOWARD SHEPPARD**  
 Machine Id  
**2562 HOWARD SHEPPARD**  
 Component  
**Rear Differential**  
 Fluid  
**{not provided} (--- GAL)**

### DIAGNOSIS

#### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. Please note that this is a corrected copy for laboratory data updates of elemental data and confirmation of viscosities.

#### Wear

An increase in the iron level is noted.

#### Contamination

There is a high amount of particulates present in the oil.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0934661</b>	WC0682434	---
Sample Date	Client Info			<b>12 Apr 2024</b>	03 Apr 2022	---
Machine Age	mls	Client Info		<b>110619</b>	369	---
Oil Age	mls	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>N/A</b>	N/A	---
Sample Status				<b>ABNORMAL</b>	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	<b>366</b>	1	---
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	0	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m	>25	<b>12</b>	<1	---
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>100	<b>2</b>	0	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>123</b>	104	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	---
Manganese	ppm	ASTM D5185m		<b>9</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>143</b>	197	---
Calcium	ppm	ASTM D5185m		<b>4</b>	0	---
Phosphorus	ppm	ASTM D5185m		<b>1634</b>	1753	---
Zinc	ppm	ASTM D5185m		<b>8</b>	0	---
Sulfur	ppm	ASTM D5185m		<b>27711</b>	22988	---

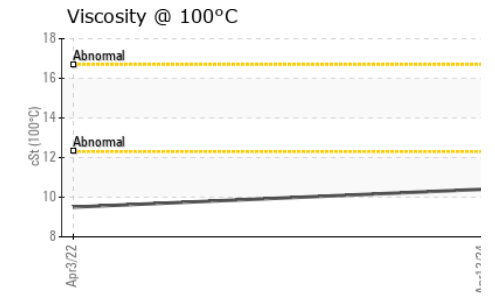
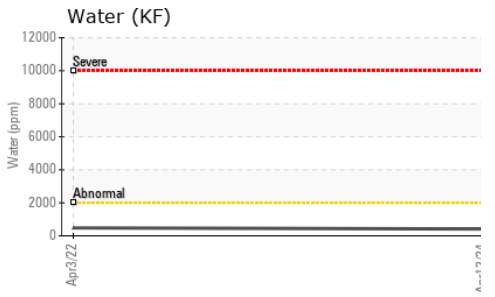
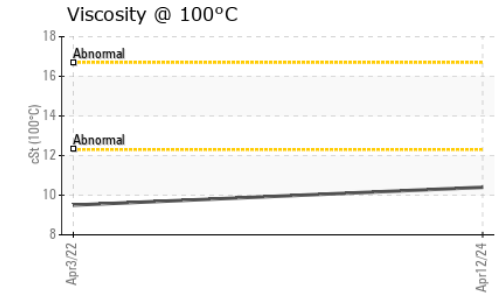
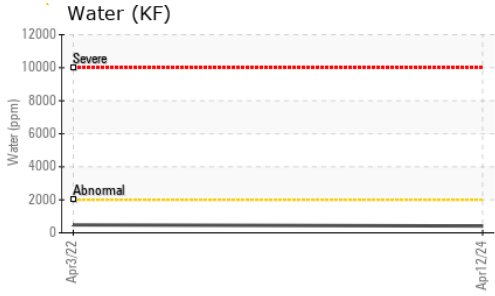
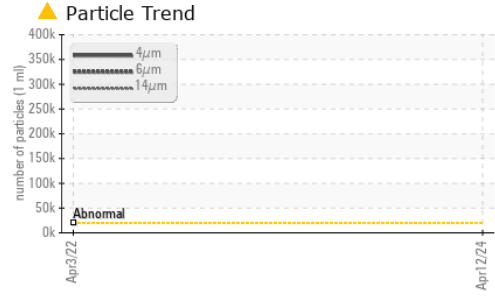
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	<b>39</b>	1	---
Sodium	ppm	ASTM D5185m		<b>6</b>	0	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	---
Water	%	ASTM D6304	>.2	<b>0.041</b>	0.048	---
ppm Water	ppm	ASTM D6304	>2000	<b>414</b>	485.0	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	<b>▲ 368696</b>	---	---
Particles >6µm		ASTM D7647	>5000	<b>▲ 217819</b>	---	---
Particles >14µm		ASTM D7647	>640	<b>▲ 6174</b>	---	---
Particles >21µm		ASTM D7647	>160	<b>▲ 292</b>	---	---
Particles >38µm		ASTM D7647	>40	<b>1</b>	---	---
Particles >71µm		ASTM D7647	>10	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>▲ 26/25/20</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.29</b>	0.75	---



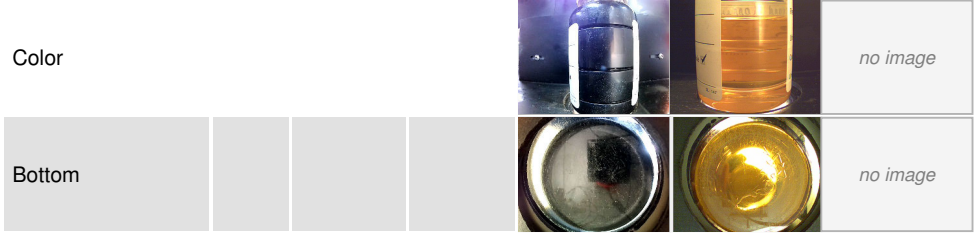
# OIL ANALYSIS REPORT



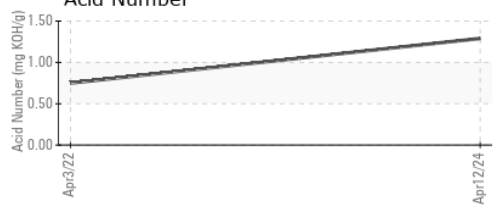
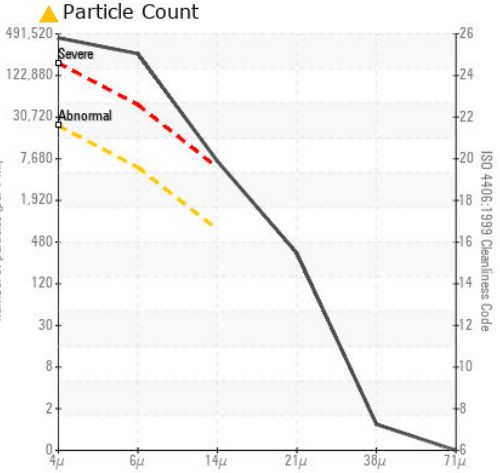
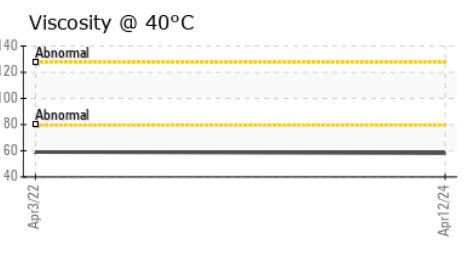
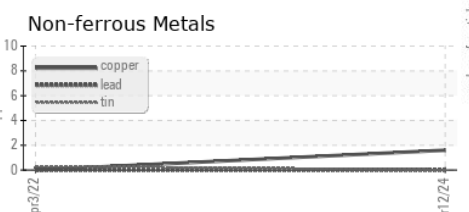
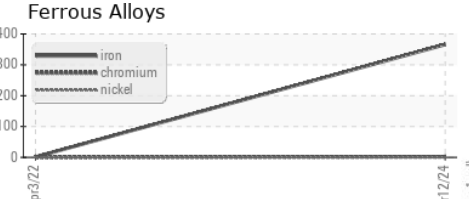
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	58.2	59	---
Visc @ 100°C	cSt	ASTM D445	10.4	9.5	---
Viscosity Index (VI)	Scale	ASTM D2270	169	143	---

### SAMPLE IMAGES



### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0934661      **Received** : 30 May 2024  
**Lab Number** : 06195920      **Tested** : 13 Jun 2024  
**Unique Number** : 11058043      **Diagnosed** : 13 Jun 2024 - Doug Bogart  
**Test Package** : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**BASF - GIANNA CREDAROLI**  
 500 WHITE PLAINS RD  
 TARRYTOWN, NY  
 US 10591  
 Contact: MIKE BARRY  
 mike.barry@basf.com

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: