



# OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area  
**DAYTON FREIGHT**  
 Machine Id  
**DAYTON FREIGHT 423811**  
 Component  
**Front Differential**  
 Fluid  
**{not provided} (--- GAL)**



## DIAGNOSIS

**Recommendation**  
 No corrective action is recommended at this time. Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 There is a high amount of silt (particulates < 14 microns in size) 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>WC0900834</b>	WC0828704	---
Sample Date	Client Info		<b>07 Jan 2024</b>	23 Jun 2023	---
Machine Age	mls	Client Info	<b>54401</b>	51	---
Oil Age	mls	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>ABNORMAL</b>	ABNORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>500	<b>242</b>	16	---
Chromium	ppm	ASTM D5185m	>10	<b>3</b>	0	---
Nickel	ppm	ASTM D5185m	>10	<b>2</b>	0	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	0	---
Lead	ppm	ASTM D5185m	>25	<b>2</b>	0	---
Copper	ppm	ASTM D5185m	>100	<b>15</b>	0	---
Tin	ppm	ASTM D5185m	>10	<b>1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>101</b>	100	---
Barium	ppm	ASTM D5185m		<b>1</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Manganese	ppm	ASTM D5185m		<b>9</b>	1	---
Magnesium	ppm	ASTM D5185m		<b>165</b>	198	---
Calcium	ppm	ASTM D5185m		<b>12</b>	2	---
Phosphorus	ppm	ASTM D5185m		<b>1669</b>	1637	---
Zinc	ppm	ASTM D5185m		<b>7</b>	0	---
Sulfur	ppm	ASTM D5185m		<b>26321</b>	25056	---

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>75	<b>26</b>	4	---
Sodium	ppm	ASTM D5185m		<b>3</b>	0	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	---
Water	%	ASTM D6304	>.2	<b>0.030</b>	0.033	---
ppm Water	ppm	ASTM D6304	>2000	<b>307</b>	330.8	---

## FLUID CLEANLINESS

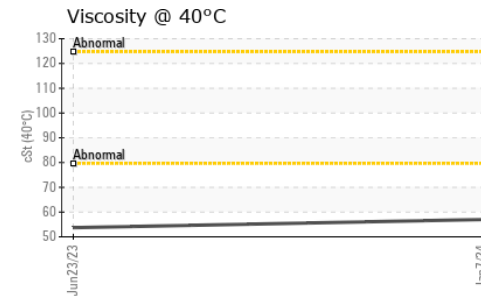
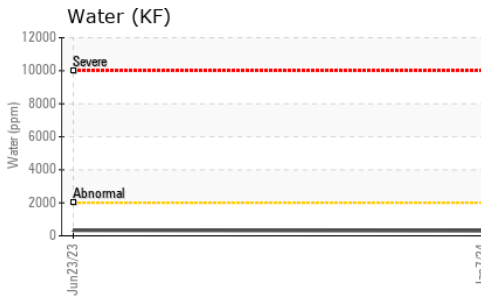
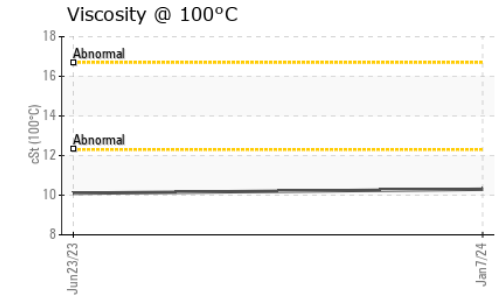
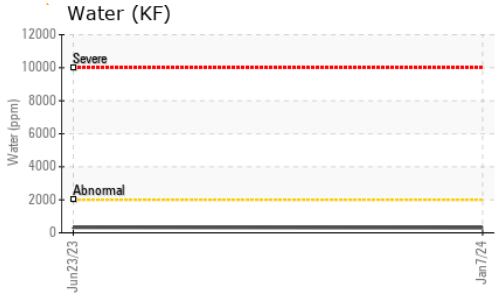
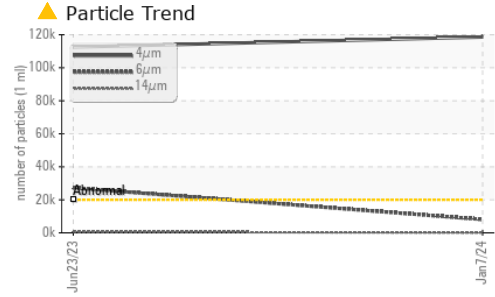
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>▲ 118604</b>	▲ 112497	---
Particles >6µm	ASTM D7647	>5000	<b>● 8083</b>	▲ 27229	---
Particles >14µm	ASTM D7647	>640	<b>86</b>	555	---
Particles >21µm	ASTM D7647	>160	<b>16</b>	98	---
Particles >38µm	ASTM D7647	>40	<b>1</b>	4	---
Particles >71µm	ASTM D7647	>10	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>▲ 24/20/14</b>	▲ 24/22/16	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.67</b>	0.69	---



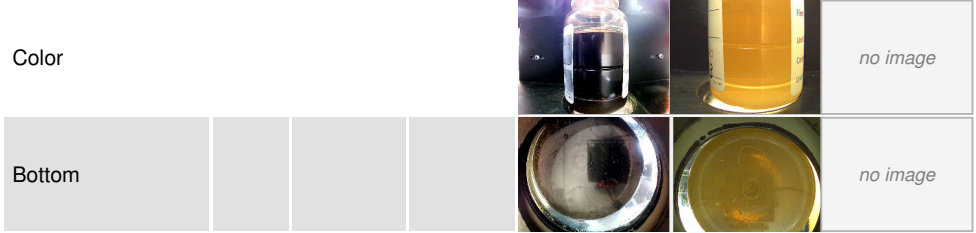
# OIL ANALYSIS REPORT



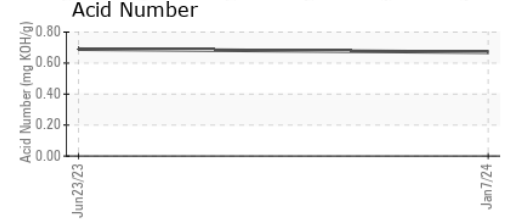
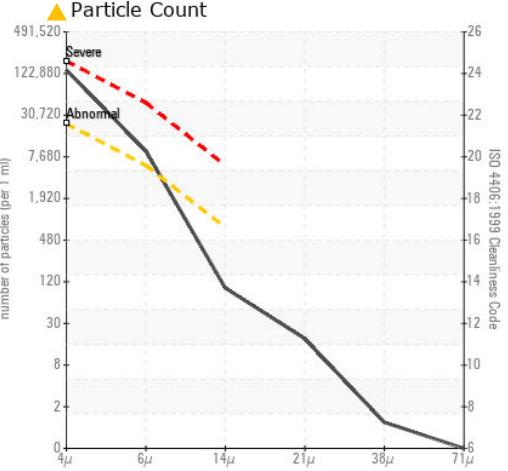
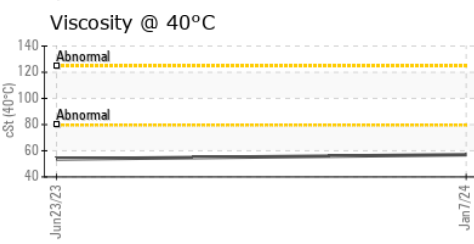
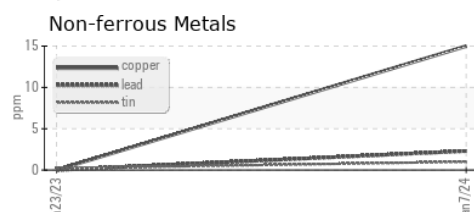
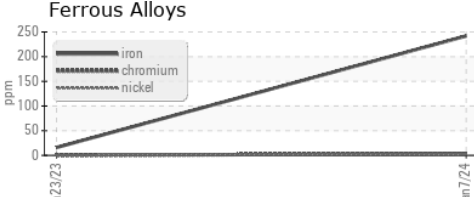
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	LIGHT	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	57.0	53.7	---
Visc @ 100°C	cSt	ASTM D445	10.3	10.1	---
Viscosity Index (VI)	Scale	ASTM D2270	171	178	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0900834 **Received** : 27 Mar 2024  
**Lab Number** : **06131402** **Tested** : 28 Mar 2024  
**Unique Number** : 10950867 **Diagnosed** : 02 Apr 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**BASF - GIANNA CREDAROLI**  
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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)