



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Area  
**[Z20128]**  
 Machine Id  
**DAF LEB876**  
 Component  
**Diesel Engine**  
 Fluid  
**CASTROL 10W40 (40 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC06223291</b>	WC06094699	WC06010281
Sample Date		Client Info		<b>14 Jun 2024</b>	07 Feb 2024	08 Nov 2023
Machine Age	kms	Client Info		<b>415202</b>	392366	375470
Oil Age	kms	Client Info		<b>39732</b>	16896	44012
Filter Age	kms	Client Info		<b>39732</b>	16896	44012
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>8</b>	4	5
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	4
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>3</b>	2	3
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	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 oil.

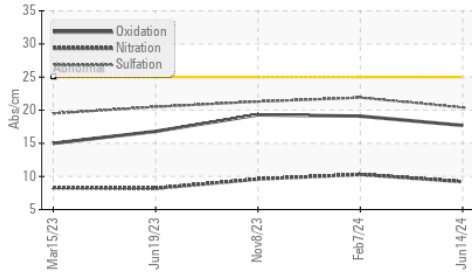
Silicon	ppm	ASTM D5185m	>25	<b>12</b>	10	11
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.6	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.2</b>	10.3	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.4</b>	21.9	21.3
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</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	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

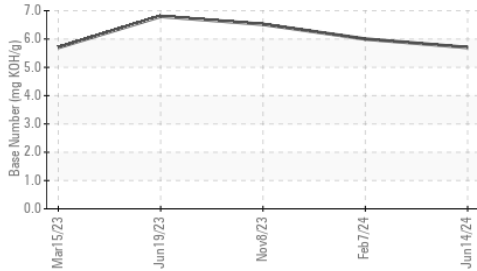
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>1</b>	<1	<1
Boron	ppm	ASTM D5185m		<b>229</b>	341	218
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>207</b>	189	87
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>622</b>	568	378
Calcium	ppm	ASTM D5185m		<b>2147</b>	1798	1922
Phosphorus	ppm	ASTM D5185m		<b>814</b>	744	601
Zinc	ppm	ASTM D5185m		<b>1012</b>	907	722
Sulfur	ppm	ASTM D5185m		<b>3945</b>	3175	2577
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.7</b>	19.1	19.3
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.7</b>	6.0	6.52
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.0</b>	13.1	12.7

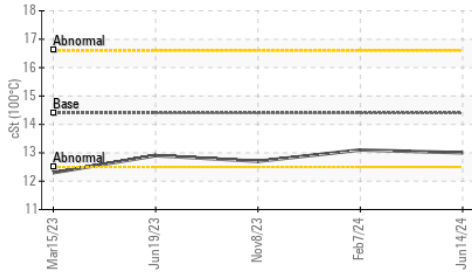
**FT-IR (Direct Trend)**



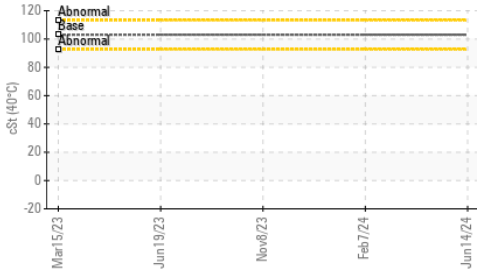
**Base Number**



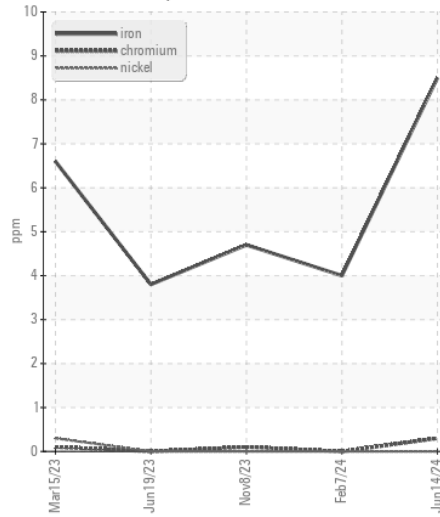
**Viscosity @ 100°C**



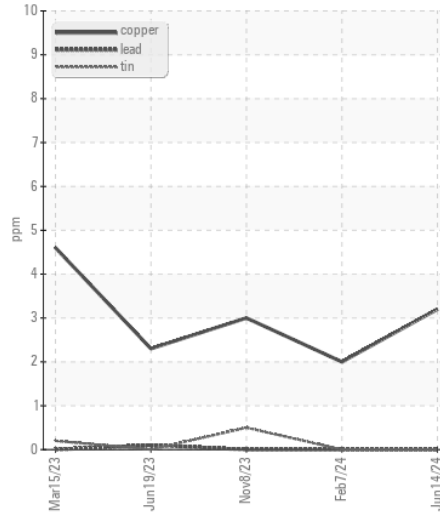
**Viscosity @ 40°C**



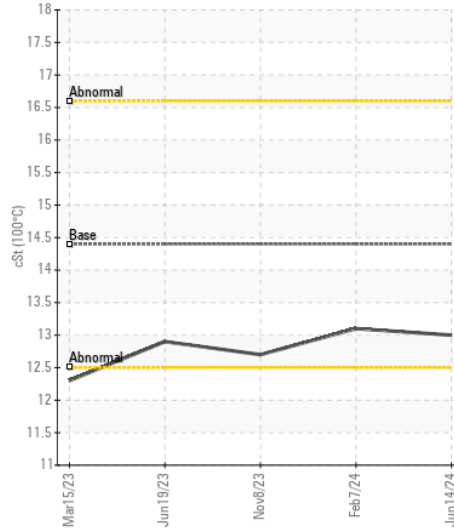
**Ferrous Alloys**



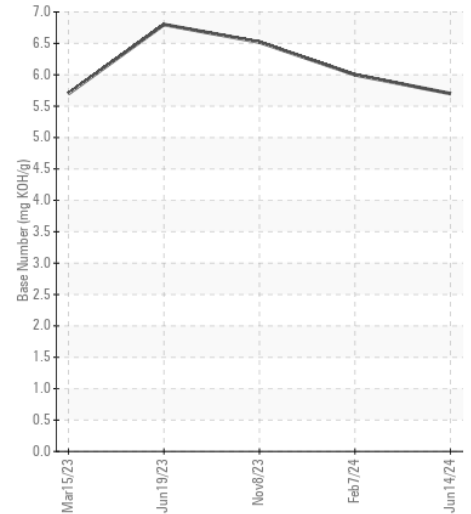
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06223291 **Received** : 28 Jun 2024  
**Lab Number** : 06223291 **Tested** : 01 Jul 2024  
**Unique Number** : 11101488 **Diagnosed** : 01 Jul 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: KV40 )

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)

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