



# OIL ANALYSIS REPORT

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



Machine Id  
**CATERPILLAR 1041**  
Component  
**Diesel Engine**  
Fluid  
**DYNAGUARD 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0859415</b>	WC0859390	---
Sample Date		Client Info		<b>22 May 2024</b>	18 Nov 2023	---
Machine Age	hrs	Client Info		<b>15400</b>	14422	---
Oil Age	hrs	Client Info		<b>300</b>	250	---
Filter Age	hrs	Client Info		<b>300</b>	250	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>13</b>	6	---
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	0	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m	>2	<b>9</b>	24	---
Silver	ppm	ASTM D5185m	>2	<b>1</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>8</b>	6	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>3</b>	<1	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

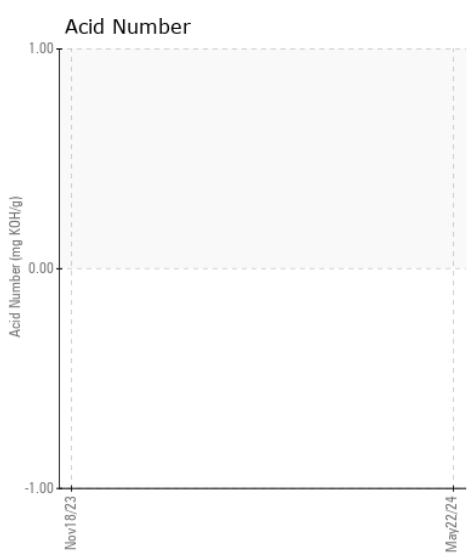
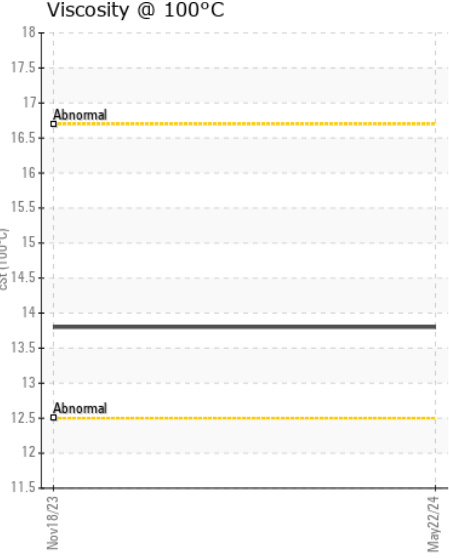
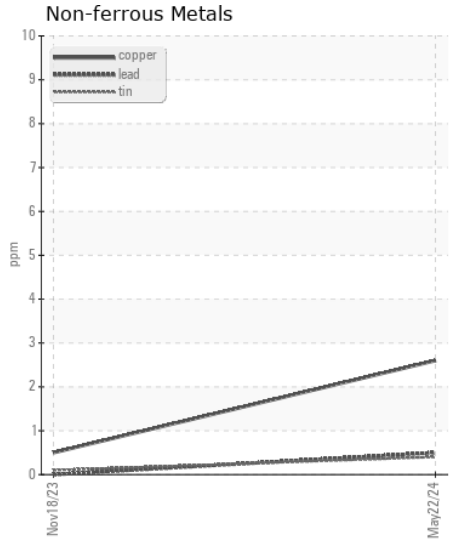
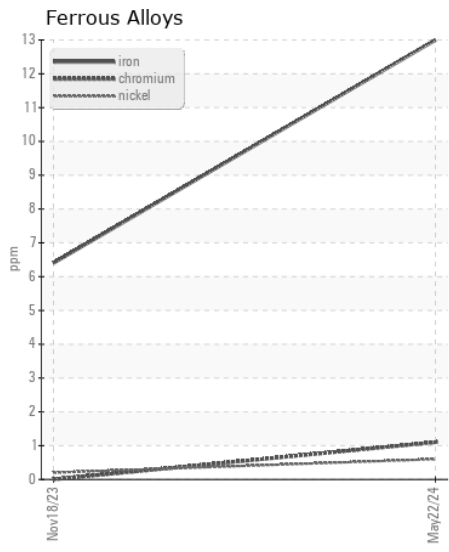
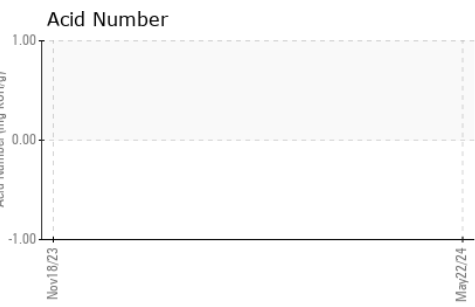
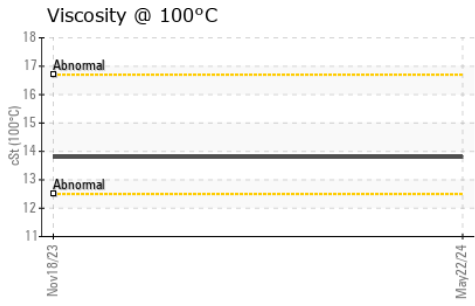
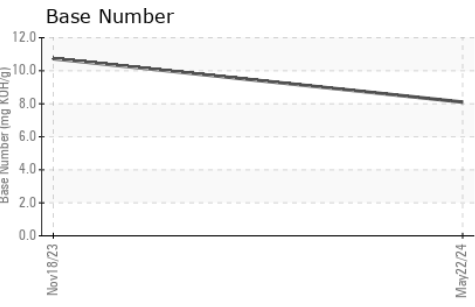
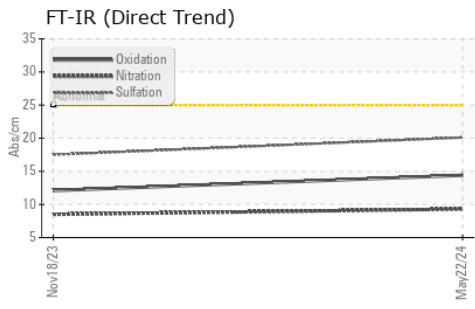
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	6	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water	%	ASTM D6304	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.3</b>	8.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.1</b>	17.5	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>2</b>	2	---
Boron	ppm	ASTM D5185m		<b>24</b>	80	---
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>69</b>	67	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>100</b>	190	---
Calcium	ppm	ASTM D5185m		<b>1762</b>	1943	---
Phosphorus	ppm	ASTM D5185m		<b>866</b>	1033	---
Zinc	ppm	ASTM D5185m		<b>1053</b>	1239	---
Sulfur	ppm	ASTM D5185m		<b>3364</b>	3940	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.4</b>	12.1	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.10</b>	10.73	---
Visc @ 100°C	cSt	ASTM D445		<b>13.8</b>	13.8	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0859415 **Received** : 28 May 2024  
**Lab Number** : 06193021 **Tested** : 30 May 2024  
**Unique Number** : 11049773 **Diagnosed** : 30 May 2024 - Sean Felton  
**Test Package** : PLANT ( Additional Tests: FT-IR, KV100, TBN )

**KERSEY VALLEY LANDFILL**  
 3940 KIVETT DRIVE  
 JAMSTOWN, NC  
 US 27282  
 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)

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F: