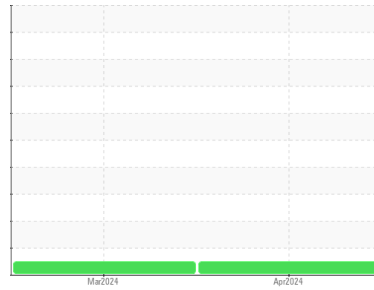




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

**2411**

Component

**Diesel Engine**

Fluid

**ROYAL PURPLE MOTOR OIL 15W40 (--- QTS)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

#### 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.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0720069</b>	WC0720080	---
Sample Date	Client Info		<b>26 Apr 2024</b>	01 Mar 2024	---
Machine Age	mls	Client Info	<b>123764</b>	69422	---
Oil Age	mls	Client Info	<b>100000</b>	44422	---
Oil Changed	Client Info		<b>Changed</b>	Not Changd	---
Sample Status			<b>NORMAL</b>	NORMAL	---

### CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	<b>91</b>	52	---
Chromium	ppm	ASTM D5185m	>20	<b>8</b>	5	---
Nickel	ppm	ASTM D5185m	>4	<b>4</b>	2	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>43</b>	33	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	---
Copper	ppm	ASTM D5185m	>330	<b>391</b>	413	---
Tin	ppm	ASTM D5185m	>15	<b>5</b>	2	---
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	0	<b>0</b>	<1	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	100	<b>7</b>	6	---
Manganese	ppm	ASTM D5185m		<b>2</b>	1	---
Magnesium	ppm	ASTM D5185m	60	<b>70</b>	70	---
Calcium	ppm	ASTM D5185m	3050	<b>2651</b>	2393	---
Phosphorus	ppm	ASTM D5185m	1050	<b>1007</b>	805	---
Zinc	ppm	ASTM D5185m	1200	<b>1174</b>	941	---
Sulfur	ppm	ASTM D5185m	12500	<b>2901</b>	2737	---

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>10</b>	7	---
Sodium	ppm	ASTM D5185m		<b>3</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>94</b>	69	---

### INFRA-RED

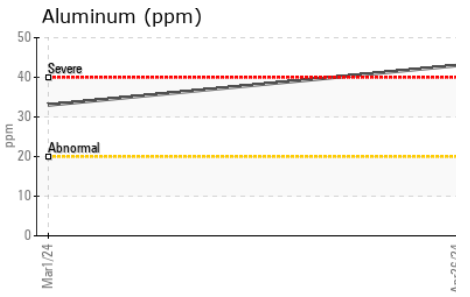
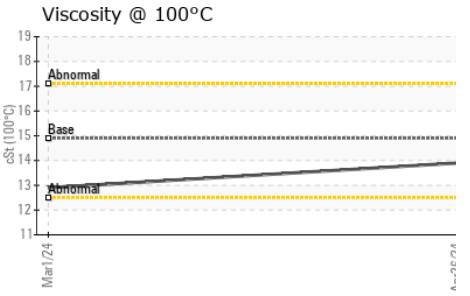
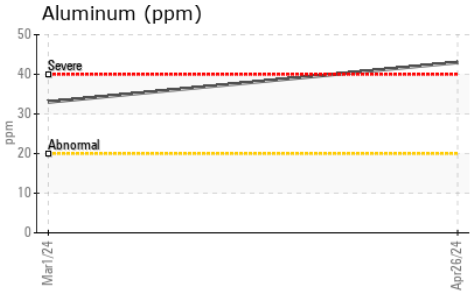
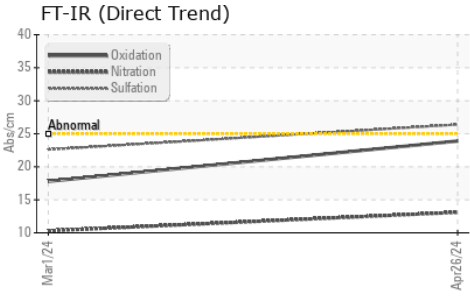
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>1.2</b>	0.7	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.1</b>	10.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.4</b>	22.6	---

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.9</b>	17.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>5.4</b>	6.0	---



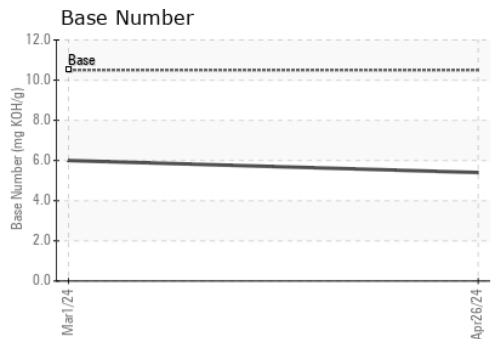
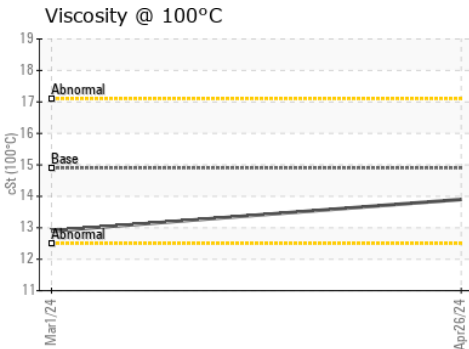
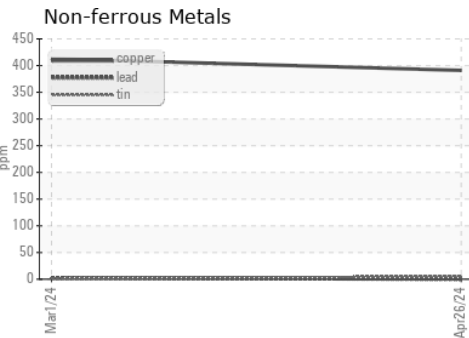
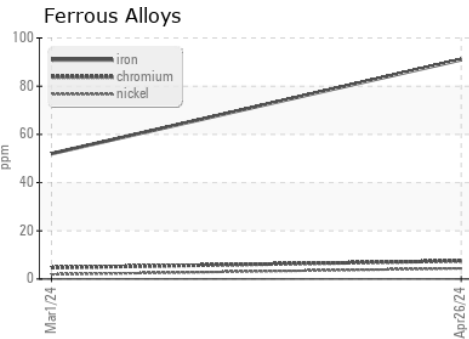
# OIL ANALYSIS REPORT



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	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.9	13.9	12.9

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0720069      **Received** : 09 May 2024  
**Lab Number** : 06174819      **Tested** : 10 May 2024  
**Unique Number** : 11020872      **Diagnosed** : 10 May 2024 - Wes Davis  
**Test Package** : FLEET

**DILLON TRANSPORTATION**  
 974 TN WALTZ PARKWAY  
 ASHLAND CITY, TN  
 US 37015

Contact: MASON NICHOLSON  
 M.NICHOLSON@DILLONTRANSPORTATION.COM  
 T: (615)792-5099  
 F: (615)469-4200

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)