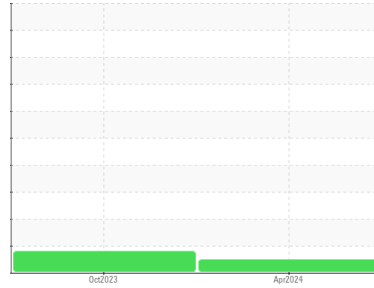




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

**2304**

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>WC0719989</b>	WC0720160	---
Sample Date	Client Info			<b>08 Apr 2024</b>	23 Oct 2023	---
Machine Age	mls	Client Info		<b>171138</b>	127261	---
Oil Age	mls	Client Info		<b>50000</b>	100000	---
Oil Changed	Client Info			<b>Not Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	ABNORMAL	---

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>72</b>	▲ 138	---
Chromium	ppm	ASTM D5185m	>20	<b>4</b>	6	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>63</b>	77	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	2	---
Copper	ppm	ASTM D5185m	>330	<b>82</b>	248	---
Tin	ppm	ASTM D5185m	>15	<b>2</b>	3	---
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	0	<b>0</b>	<1	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	100	<b>3</b>	5	---
Manganese	ppm	ASTM D5185m		<b>1</b>	3	---
Magnesium	ppm	ASTM D5185m	60	<b>36</b>	71	---
Calcium	ppm	ASTM D5185m	3050	<b>2530</b>	2252	---
Phosphorus	ppm	ASTM D5185m	1050	<b>929</b>	822	---
Zinc	ppm	ASTM D5185m	1200	<b>1123</b>	997	---
Sulfur	ppm	ASTM D5185m	12500	<b>3041</b>	2330	---

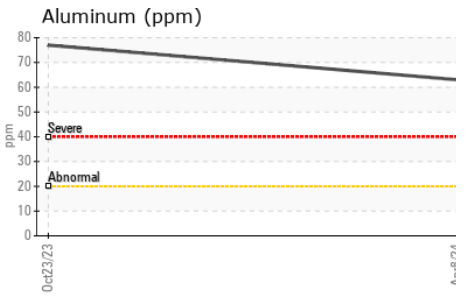
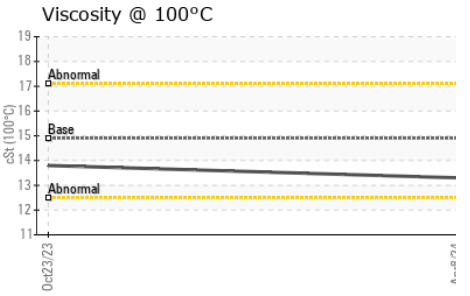
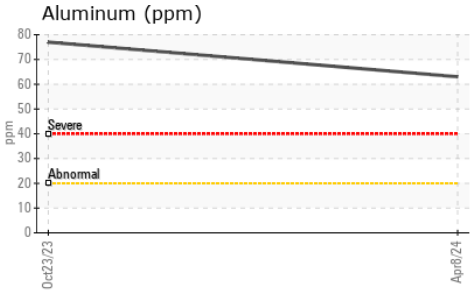
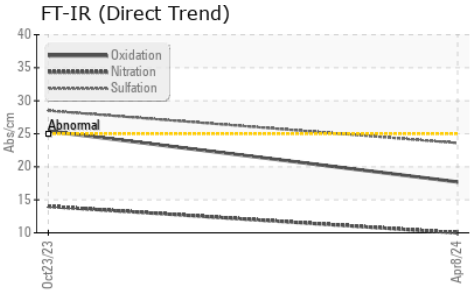
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	11	---
Sodium	ppm	ASTM D5185m		<b>3</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>180</b>	213	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>1</b>	1.7	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.0</b>	14.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.6</b>	28.5	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.7</b>	25.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>5.4</b>	5.2	---



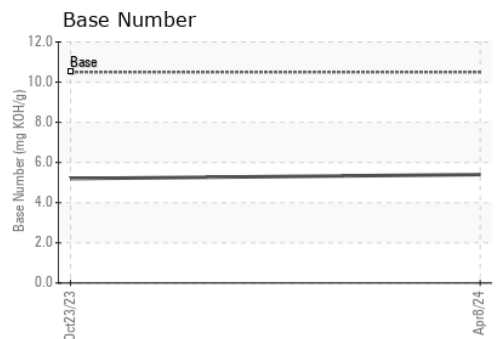
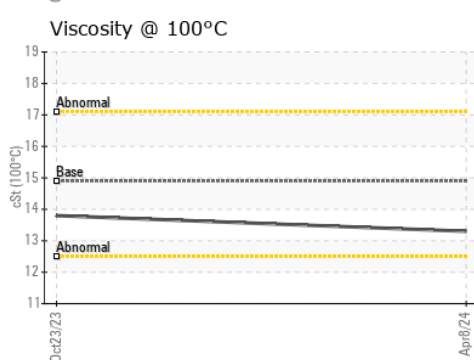
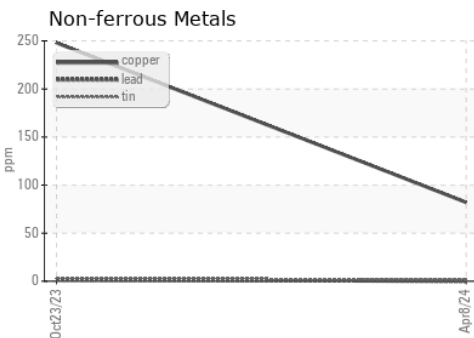
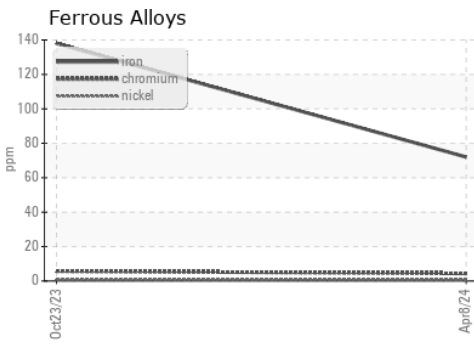
# OIL ANALYSIS REPORT



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	13.3	13.8

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0719989      **Received** : 09 May 2024  
**Lab Number** : 06174823      **Tested** : 10 May 2024  
**Unique Number** : 11020876      **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

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)