



# OIL ANALYSIS REPORT

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

Area

## No Info On Sample

Machine Id

## [No Info On Sample] NOT GIVEN PCA0094929

Component

## Diesel Engine

Fluid

## CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)

### RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0011868</b>	PCA0094929	---
Sample Date		Client Info		<b>26 Apr 2023</b>	25 Apr 2023	---
Machine Age	mls	Client Info		<b>231</b>	80007	---
Oil Age	mls	Client Info		<b>5</b>	40000	---
Filter Age	mls	Client Info		<b>8</b>	40000	---
Oil Changed		Client Info		<b>Not Chngd</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>2</b>	33	---
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	3	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	21	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>67</b>	83	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	2	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

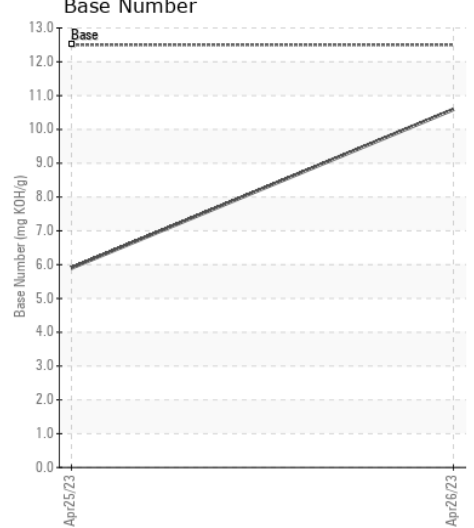
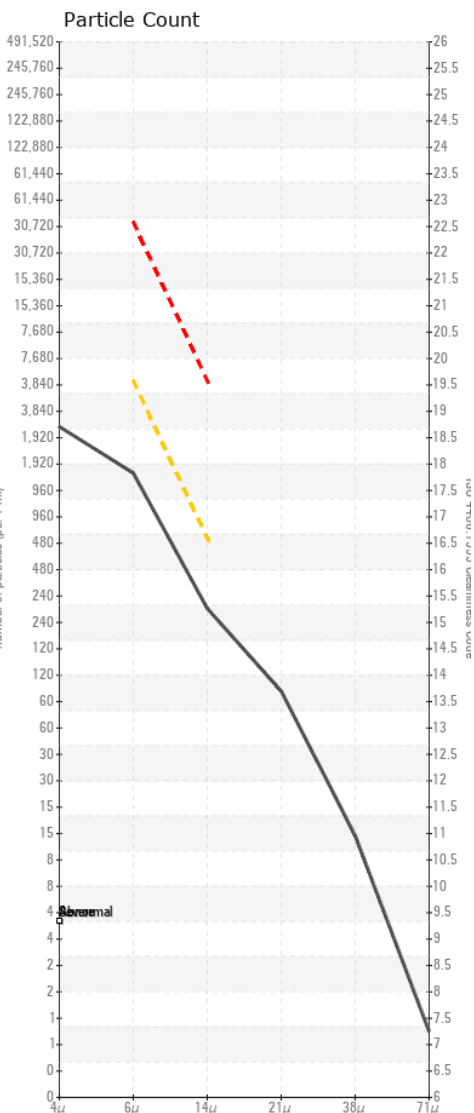
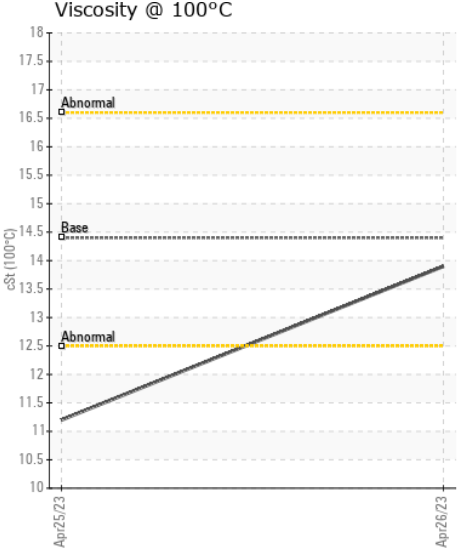
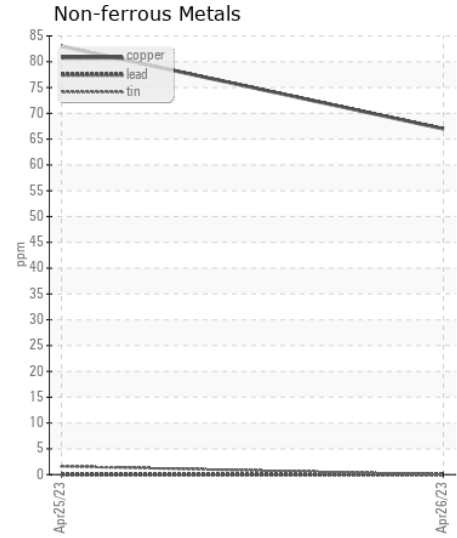
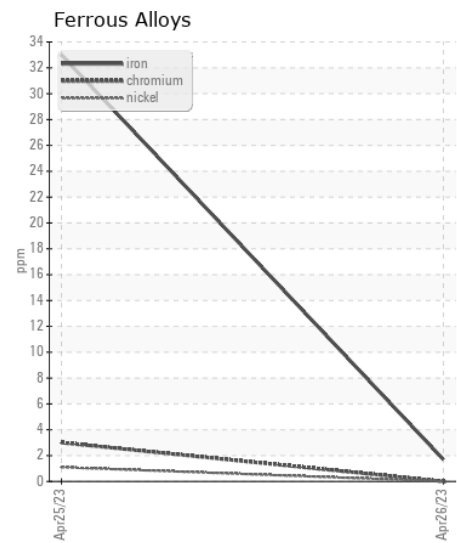
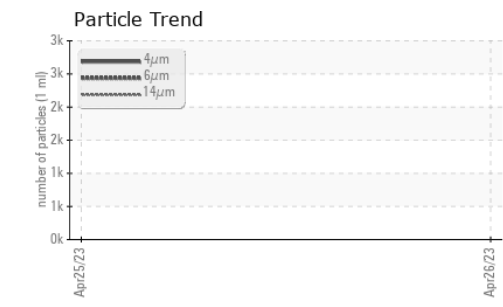
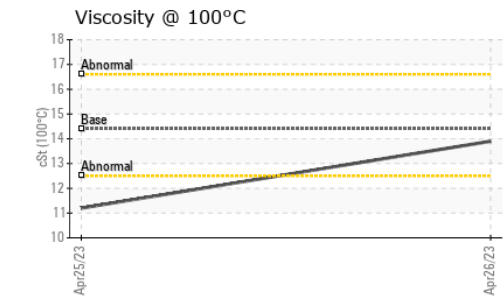
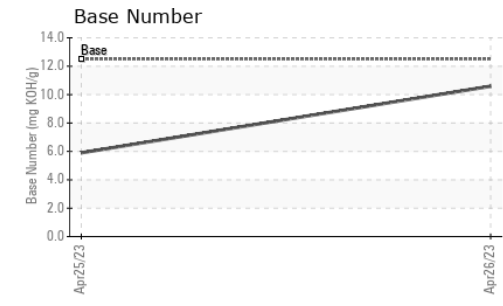
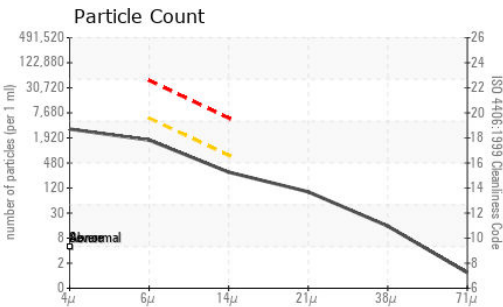
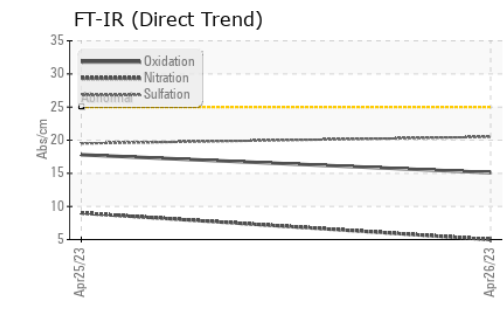
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	45	---
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	---
Soot %	%	*ASTM D7844	>3	<b>0</b>	0.6	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.0</b>	9.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.5</b>	19.5	---
Particles >4µm		ASTM D7647		<b>2740</b>	---	---
Particles >6µm		ASTM D7647	>5000	<b>1493</b>	---	---
Particles >14µm		ASTM D7647	>640	<b>254</b>	---	---
Particles >21µm		ASTM D7647	>160	<b>86</b>	---	---
Particles >38µm		ASTM D7647	>40	<b>13</b>	---	---
Particles >71µm		ASTM D7647	>10	<b>1</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>19/16	<b>18/15</b>	---	---
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>0</b>	2	---
Boron	ppm	ASTM D5185m	151	<b>384</b>	4	---
Barium	ppm	ASTM D5185m	0.4	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	250	<b>114</b>	59	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	2	---
Magnesium	ppm	ASTM D5185m	0	<b>674</b>	923	---
Calcium	ppm	ASTM D5185m	2046	<b>1581</b>	1239	---
Phosphorus	ppm	ASTM D5185m	1043	<b>774</b>	880	---
Zinc	ppm	ASTM D5185m	943	<b>919</b>	1169	---
Sulfur	ppm	ASTM D5185m	5012	<b>3211</b>	2449	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	17.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	<b>10.59</b>	5.9	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.9</b>	11.2	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0011868 **Received** : 04 May 2023  
**Lab Number** : 05838596 **Tested** : 08 May 2023  
**Unique Number** : 10457399 **Diagnosed** : 08 May 2023 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

**RIVANNA WATER & SEWER AUTHORITY**  
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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)