



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Area  
**NR**  
 Machine Id  
**[NR] 812**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0843767</b>	WC0747793	---
Sample Date		Client Info		<b>05 Jan 2024</b>	25 Jan 2023	---
Machine Age	mls	Client Info		<b>10470</b>	9762	---
Oil Age	mls	Client Info		<b>708</b>	9762	---
Filter Age	mls	Client Info		<b>708</b>	9762	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>18</b>	37	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>1</b>	9	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>11</b>	20	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>3</b>	3	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

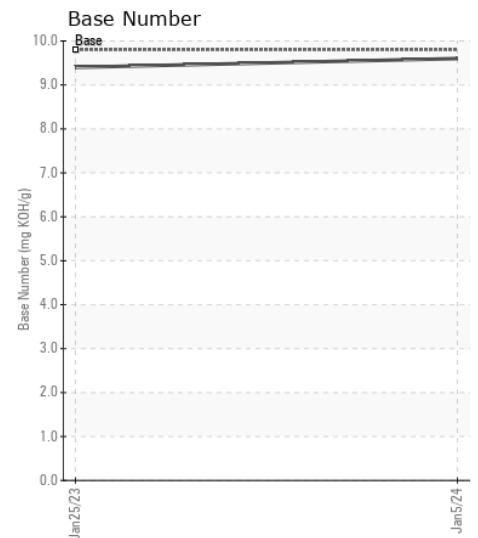
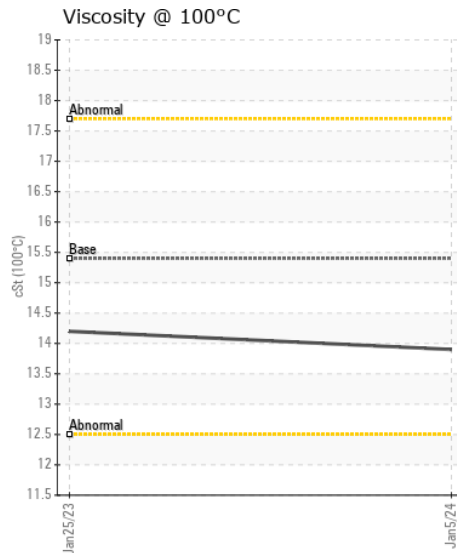
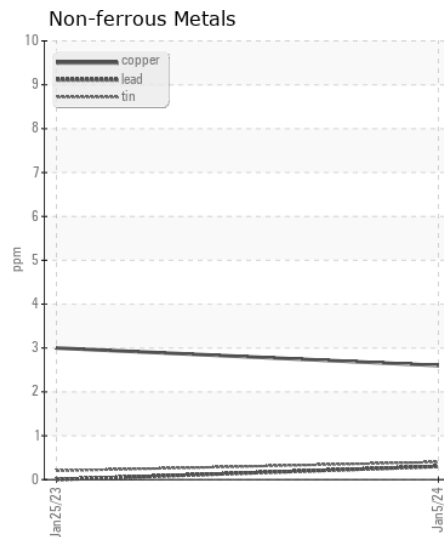
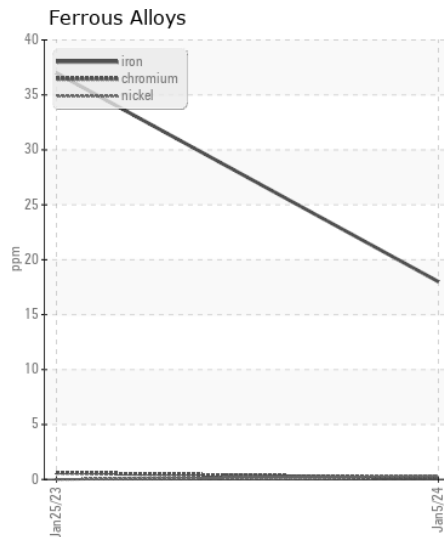
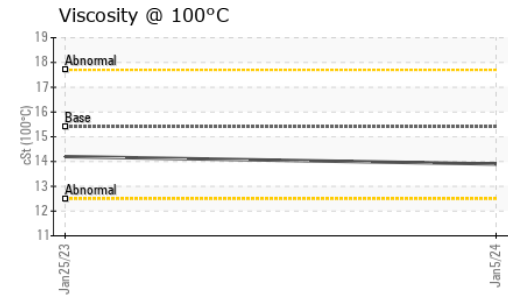
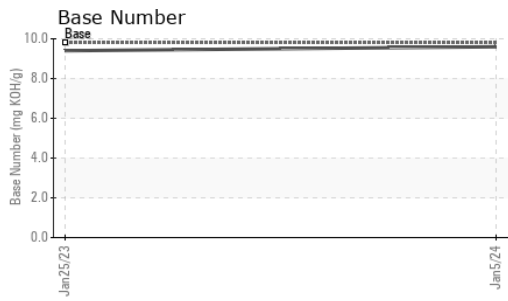
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	6	---
Potassium	ppm	ASTM D5185m	>20	<b>26</b>	48	---
Fuel		WC Method	>2.0	<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>0.1</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.0</b>	5.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.1</b>	17.4	---
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>	1	---
Boron	ppm	ASTM D5185m	0	<b>14</b>	20	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	60	<b>59</b>	54	---
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	1010	<b>968</b>	858	---
Calcium	ppm	ASTM D5185m	1070	<b>1047</b>	1085	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1135</b>	975	---
Zinc	ppm	ASTM D5185m	1270	<b>1305</b>	1168	---
Sulfur	ppm	ASTM D5185m	2060	<b>3348</b>	3672	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.3</b>	13.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.6</b>	9.4	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.9</b>	14.2	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0843767 **Received** : 17 Jan 2024  
**Lab Number** : 06063360 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10834742 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**HUMBOLDT TRANSIT AUTHORITY**  
 133 V ST  
 EUREKA, CA  
 US 95501  
 Contact: KELLY MASTERSON  
 kelly@hta.org  
 T:  
 F:

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)