



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

Machine Id  
**AUTOCAR 812013**  
 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>GFL0087447</b>	GFL0087463	GFL0087545
Sample Date		Client Info		<b>10 Jan 2024</b>	11 Oct 2023	14 Sep 2023
Machine Age	hrs	Client Info		<b>4991</b>	4524	4355
Oil Age	hrs	Client Info		<b>1000</b>	533	533
Filter Age	hrs	Client Info		<b>1000</b>	533	533
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>16</b>	5	13
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>11</b>	2	12
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	0	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

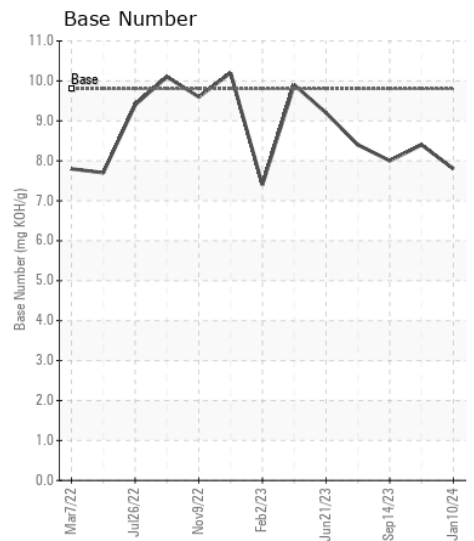
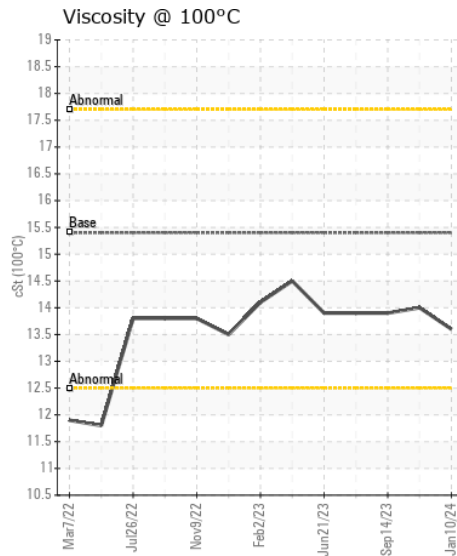
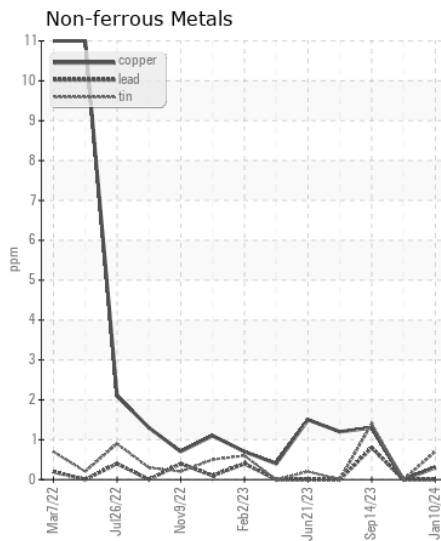
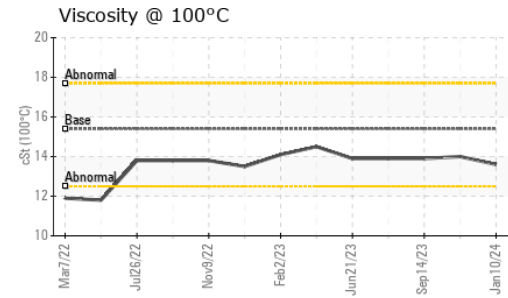
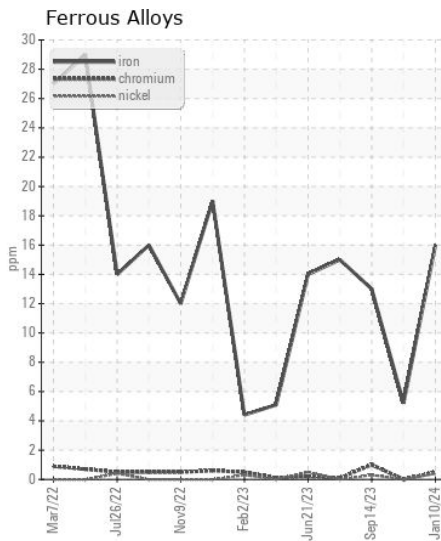
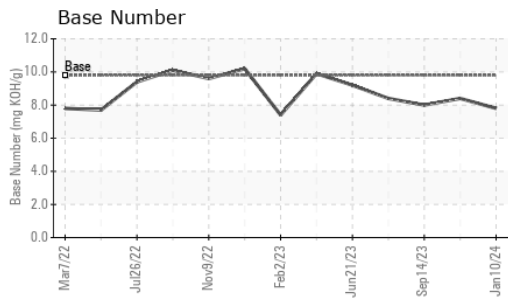
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	3	5
Potassium	ppm	ASTM D5185m	>20	<b>14</b>	6	50
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	0.0
Soot %	%	*ASTM D7844	>6	<b>0.3</b>	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	5.4	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.3</b>	17.1	19.0
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	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>6</b>	4	39
Boron	ppm	ASTM D5185m	0	<b>8</b>	13	4
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	44
Molybdenum	ppm	ASTM D5185m	60	<b>64</b>	62	59
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	1
Magnesium	ppm	ASTM D5185m	1010	<b>922</b>	868	845
Calcium	ppm	ASTM D5185m	1070	<b>1164</b>	1195	1084
Phosphorus	ppm	ASTM D5185m	1150	<b>1037</b>	964	929
Zinc	ppm	ASTM D5185m	1270	<b>1311</b>	1205	1168
Sulfur	ppm	ASTM D5185m	2060	<b>2998</b>	3024	3175
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.3</b>	12.9	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.8</b>	8.4	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	14.0	13.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0087447 **Received** : 11 Jan 2024  
**Lab Number** : 06057830 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10829212 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 331 - Columbus**  
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 Columbus, NC  
 US 28722  
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 T: (800)207-6618  
 F: (252)617-2494

Certificate L2367  
 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)