



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

Machine Id  
**927080-260332**

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>GFL0109143</b>	GFL0109208	GFL0098324
Sample Date		Client Info		<b>19 Mar 2024</b>	25 Jan 2024	04 Jan 2024
Machine Age	hrs	Client Info		<b>0</b>	16363	16180
Oil Age	hrs	Client Info		<b>0</b>	150	600
Filter Age	hrs	Client Info		<b>0</b>	150	0
Oil Changed		Client Info		<b>N/A</b>	Not Changd	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>26</b>	14	51
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	3
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>7</b>	7	56
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

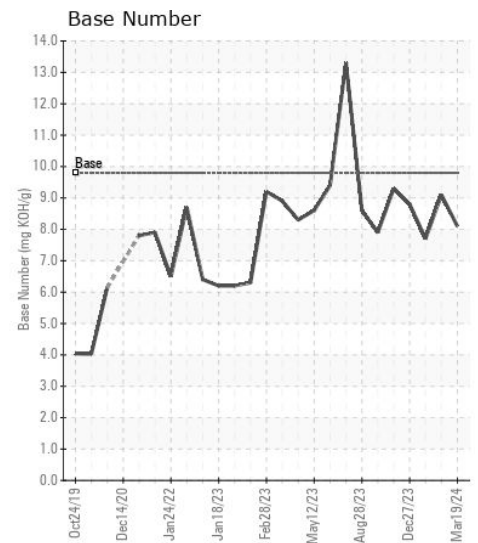
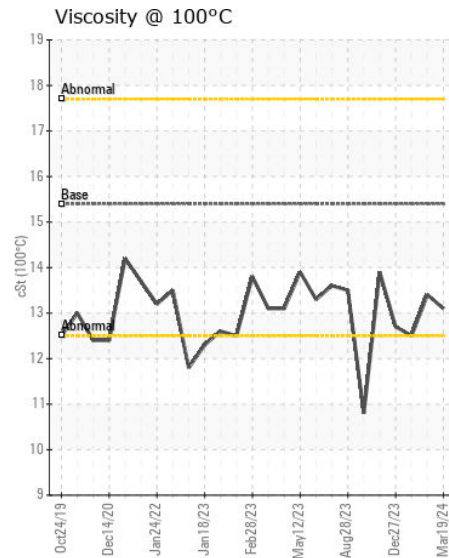
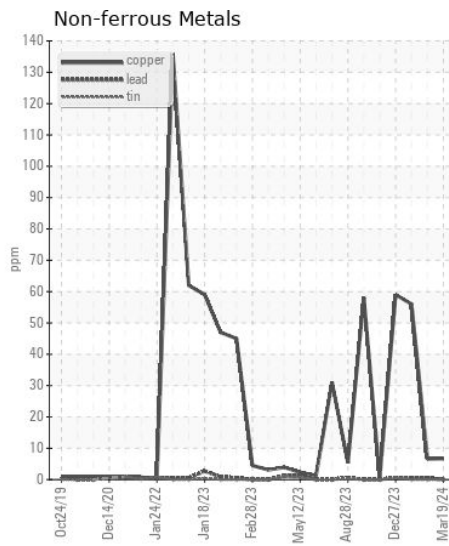
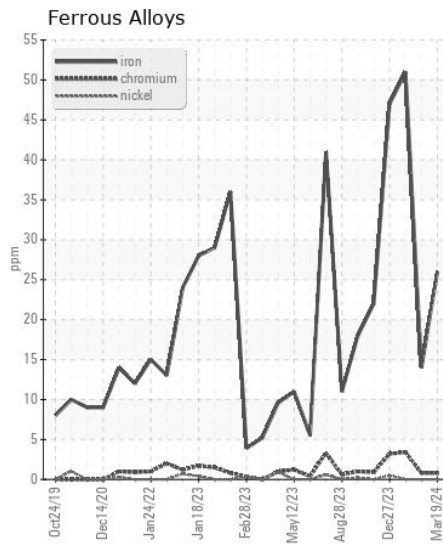
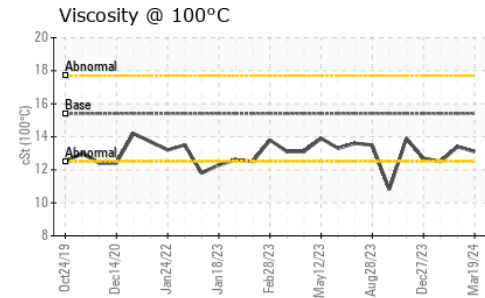
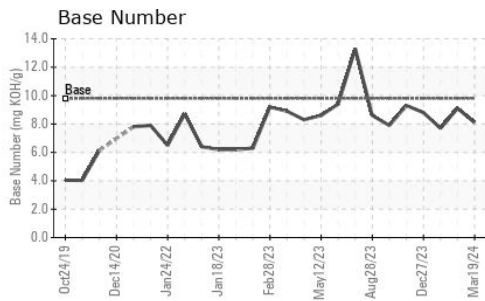
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	6
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	4	7
Fuel		WC Method	>5	<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	NEG
Soot %	%	*ASTM D7844	>3	<b>1</b>	0.5	2.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.4</b>	7.2	14.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.4</b>	19.2	26.1
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	15
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	56	54
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1024</b>	925	936
Calcium	ppm	ASTM D5185m	1070	<b>1140</b>	995	1029
Phosphorus	ppm	ASTM D5185m	1150	<b>1100</b>	991	934
Zinc	ppm	ASTM D5185m	1270	<b>1353</b>	1242	1192
Sulfur	ppm	ASTM D5185m	2060	<b>3594</b>	3022	2635
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.8</b>	14.6	22.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.1</b>	9.1	7.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.1</b>	13.4	12.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0109143  
**Lab Number** : 06123363  
**Unique Number** : 10937514  
**Test Package** : FLEET

**Received** : 20 Mar 2024  
**Tested** : 21 Mar 2024  
**Diagnosed** : 21 Mar 2024 - Wes Davis

**GFL Environmental - 822 - Springfield Hauling**  
 2120 West Bennett Street  
 Springfield, MO  
 US 65807

Contact: Dennis Moore  
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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)