



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

Machine Id  
**813015**  
 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>GFL0103117</b>	GFL0103098	GFL0075046
Sample Date		Client Info		<b>09 Feb 2024</b>	24 Nov 2023	23 Aug 2023
Machine Age	hrs	Client Info		<b>2646</b>	2186	1702
Oil Age	hrs	Client Info		<b>600</b>	484	549
Filter Age	hrs	Client Info		<b>600</b>	484	549
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>15</b>	23	21
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m	>5	<b>8</b>	▲ 32	2
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	<1	4
Lead	ppm	ASTM D5185m	>40	<b>1</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>4</b>	17	80
Tin	ppm	ASTM D5185m	>15	<b>2</b>	2	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

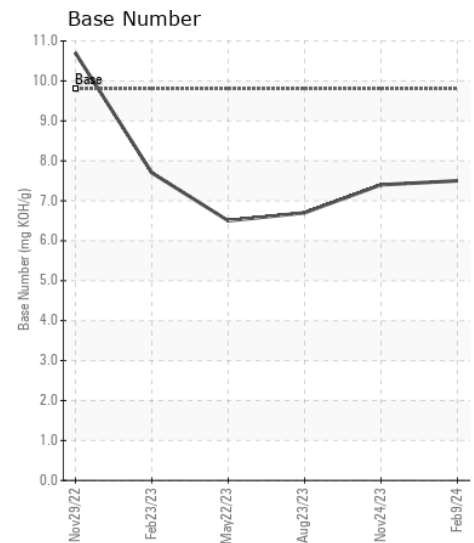
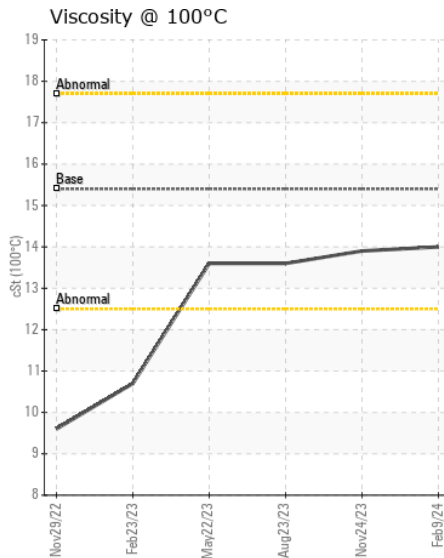
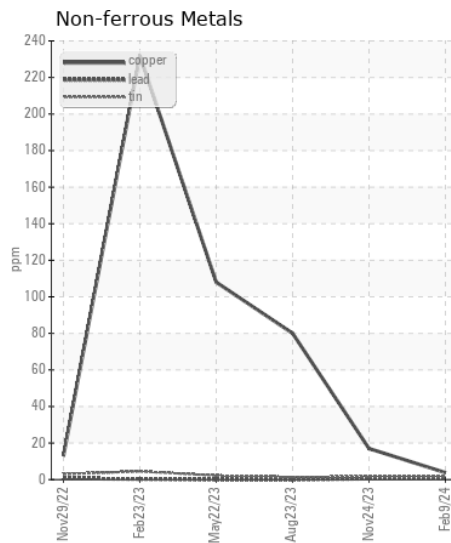
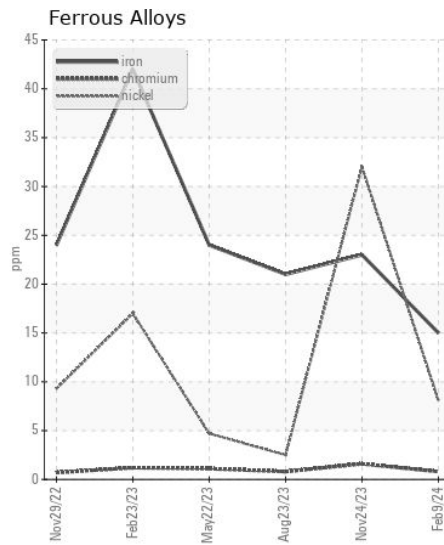
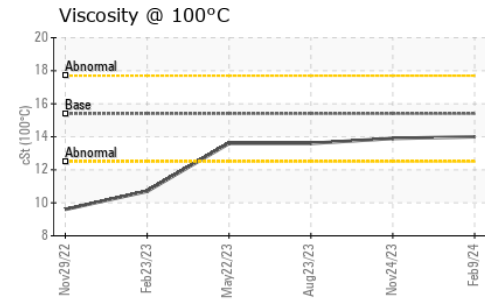
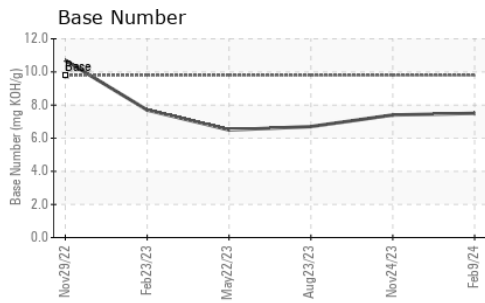
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	8	7
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	<1
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	NEG
Soot %	%	*ASTM D7844	>4	<b>0.7</b>	0.8	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	9.0	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.1</b>	20.2	20.8
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>&lt;1</b>	3	4
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	3	5
Barium	ppm	ASTM D5185m	0	<b>13</b>	<1	0
Molybdenum	ppm	ASTM D5185m	60	<b>58</b>	61	64
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>892</b>	954	1019
Calcium	ppm	ASTM D5185m	1070	<b>1017</b>	1070	1151
Phosphorus	ppm	ASTM D5185m	1150	<b>991</b>	941	1025
Zinc	ppm	ASTM D5185m	1270	<b>1136</b>	1205	1316
Sulfur	ppm	ASTM D5185m	2060	<b>3221</b>	3070	3114
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	16.3	16.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.5</b>	7.4	6.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	13.9	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103117  
**Lab Number** : 06085678  
**Unique Number** : 10873123  
**Test Package** : FLEET

**Received** : 12 Feb 2024  
**Tested** : 12 Feb 2024  
**Diagnosed** : 12 Feb 2024 - Wes Davis

**GFL Environmental - 683 - Ruckersville Hauling**  
 261 INDUSTRIAL DR  
 Ruckersville, VA  
 US 22698  
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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)