



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

Machine Id  
**826035-586**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (22 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0110350</b>	GFL0110309	GFL0102782
Sample Date		Client Info		<b>16 Mar 2024</b>	08 Mar 2024	27 Nov 2023
Machine Age	hrs	Client Info		<b>10804</b>	10804	10804
Oil Age	hrs	Client Info		<b>590</b>	317	317
Filter Age	hrs	Client Info		<b>590</b>	317	317
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	>80	<b>66</b>	78	28
Chromium	ppm	ASTM D5185m	>5	<b>3</b>	2	1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>5</b>	5	3
Lead	ppm	ASTM D5185m	>30	<b>9</b>	9	1
Copper	ppm	ASTM D5185m	>150	<b>3</b>	2	<1
Tin	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

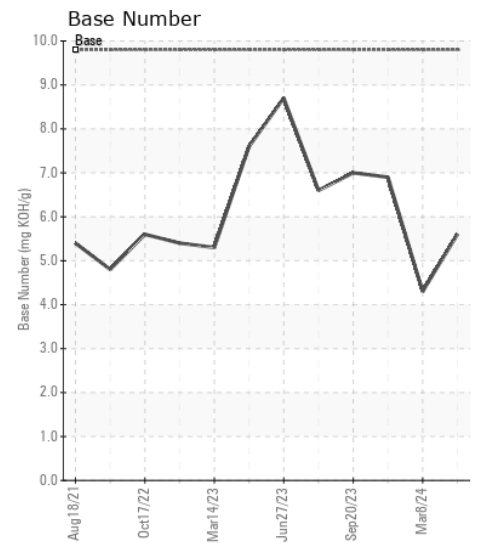
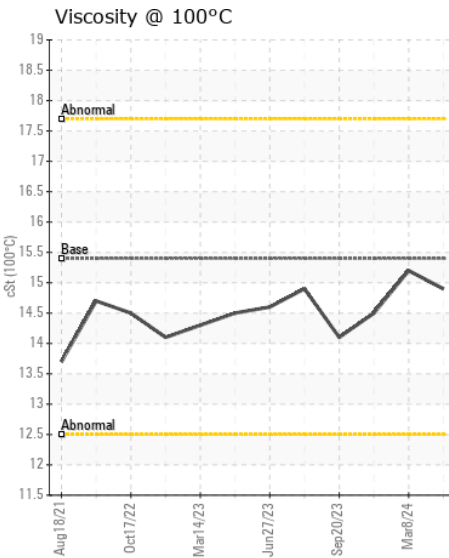
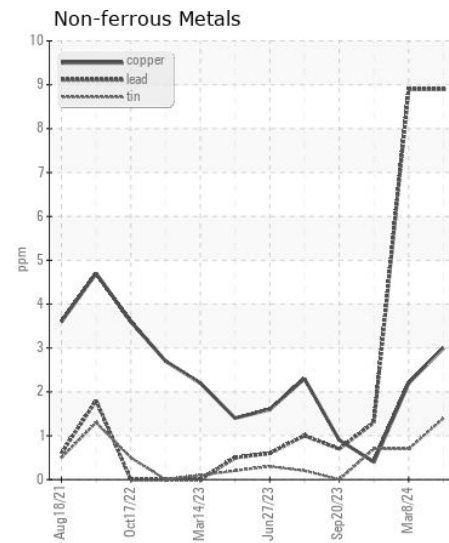
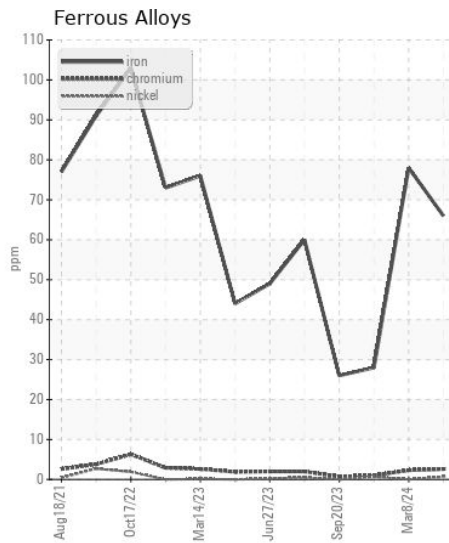
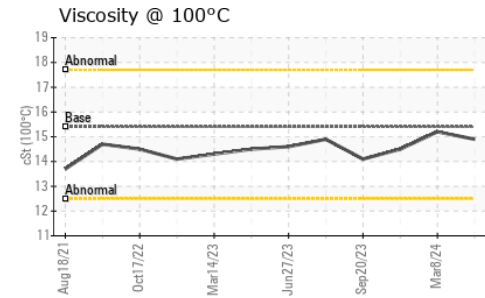
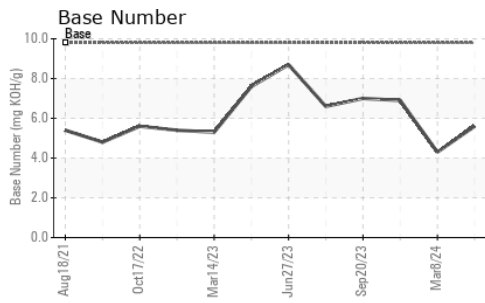
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>8</b>	7	6
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	2
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>0.9</b>	1.1	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.4</b>	15.8	11.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>28.2</b>	31.0	23.9
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>4</b>	4	3
Boron	ppm	ASTM D5185m	0	<b>8</b>	0	9
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>74</b>	73	69
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1112</b>	1116	1016
Calcium	ppm	ASTM D5185m	1070	<b>1363</b>	1365	1196
Phosphorus	ppm	ASTM D5185m	1150	<b>1358</b>	1225	1174
Zinc	ppm	ASTM D5185m	1270	<b>1512</b>	1527	1423
Sulfur	ppm	ASTM D5185m	2060	<b>3504</b>	3385	3231
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>27.6</b>	31.6	22.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>5.6</b>	4.3	6.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.9</b>	15.2	14.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110350  
**Lab Number** : 06125430  
**Unique Number** : 10939581  
**Test Package** : FLEET

**Received** : 21 Mar 2024  
**Tested** : 22 Mar 2024  
**Diagnosed** : 25 Mar 2024 - Don Baldrige

**GFL Environmental - 622 - Traverse City Hauling**  
 160 Hughes Dr  
 Traverse City, MI  
 US 49686  
 Contact: GARY BREWER

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)

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F: