



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



Machine Id  
**727035**  
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>GFL0092812</b>	GFL0092777	GFL0080755
Sample Date		Client Info		<b>21 Feb 2024</b>	26 Oct 2023	28 Aug 2023
Machine Age	mls	Client Info		<b>358306</b>	0	358306
Oil Age	mls	Client Info		<b>47179</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	N/A	N/A
Filter Changed		Client Info		<b>Not Chngd</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>31</b>	98	112
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	3
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	1	3
Lead	ppm	ASTM D5185m	>40	<b>0</b>	11	13
Copper	ppm	ASTM D5185m	>330	<b>2</b>	20	18
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	3	3
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**

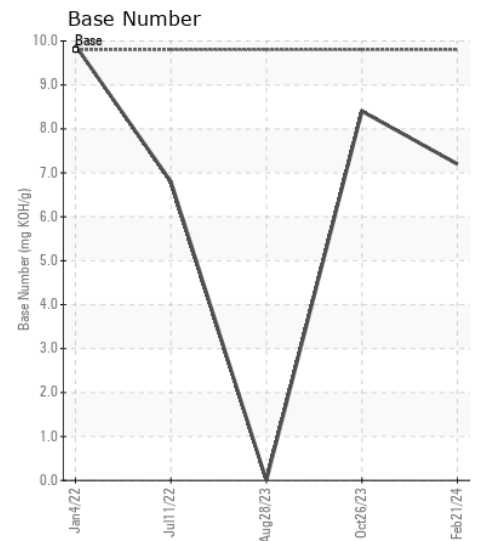
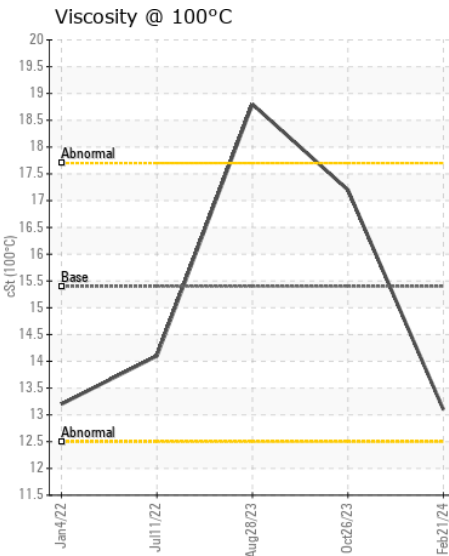
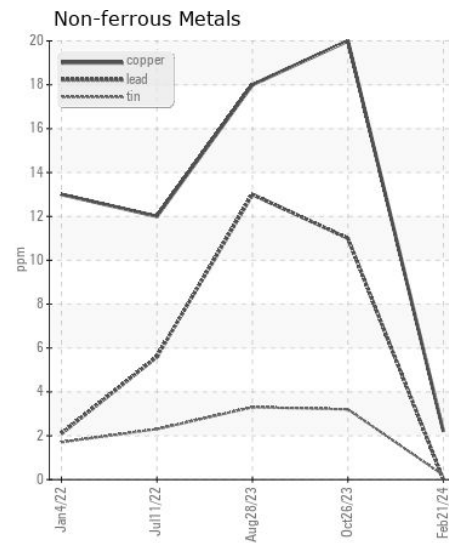
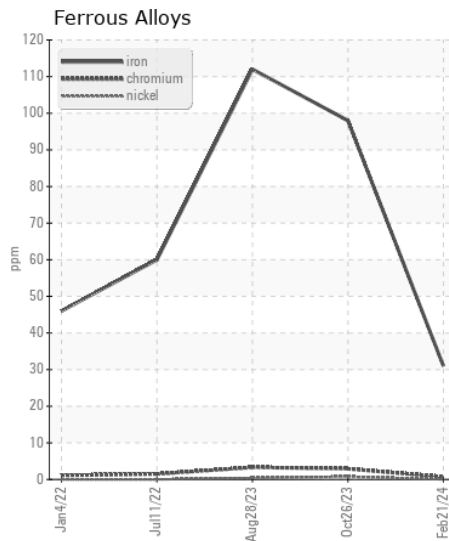
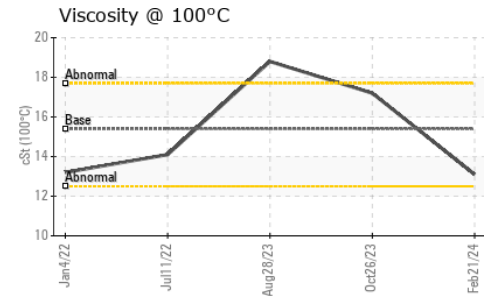
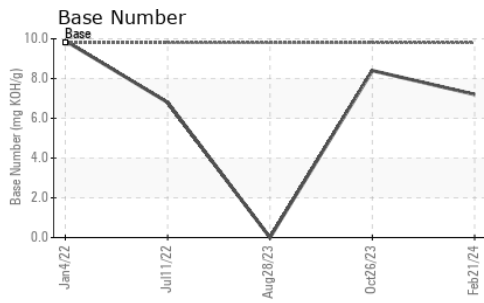
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	7	7
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	3
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>0.5</b>	0.2	9.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.4</b>	6.2	47.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.2</b>	18.4	80.2
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>	0	4
Boron	ppm	ASTM D5185m	0	<b>6</b>	2	1
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	4	0
Molybdenum	ppm	ASTM D5185m	60	<b>64</b>	55	54
Manganese	ppm	ASTM D5185m	0	<b>1</b>	1	2
Magnesium	ppm	ASTM D5185m	1010	<b>883</b>	744	840
Calcium	ppm	ASTM D5185m	1070	<b>1035</b>	913	976
Phosphorus	ppm	ASTM D5185m	1150	<b>945</b>	758	854
Zinc	ppm	ASTM D5185m	1270	<b>1114</b>	1020	1144
Sulfur	ppm	ASTM D5185m	2060	<b>2629</b>	2258	2802
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.2</b>	14.5	104.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.2</b>	8.4	0.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.1</b>	17.2	18.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092812  
**Lab Number** : 06099780  
**Unique Number** : 10898010  
**Test Package** : FLEET

**Received** : 26 Feb 2024  
**Tested** : 27 Feb 2024  
**Diagnosed** : 27 Feb 2024 - Wes Davis

**GFL Environmental - 455 - Flint**  
 2051 W. Bristol Rd  
 Flint Township, MI  
 US 48507  
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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)