



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



Machine Id  
**420056**  
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>GFL0097808</b>	GFL0097815	GFL0085314
Sample Date		Client Info		<b>26 Feb 2024</b>	22 Nov 2023	26 Jul 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>580</b>	600	611
Filter Age	hrs	Client Info		<b>580</b>	600	611
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>15</b>	19	8
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Lead	ppm	ASTM D5185m	>40	<b>1</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>5</b>	4	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	<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**

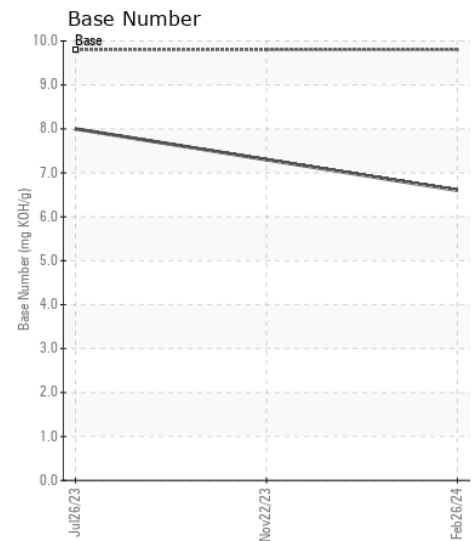
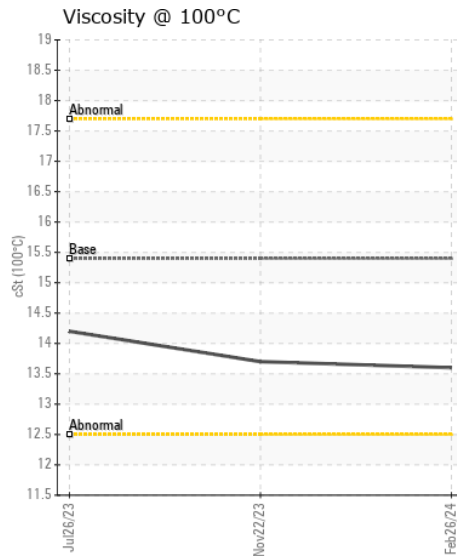
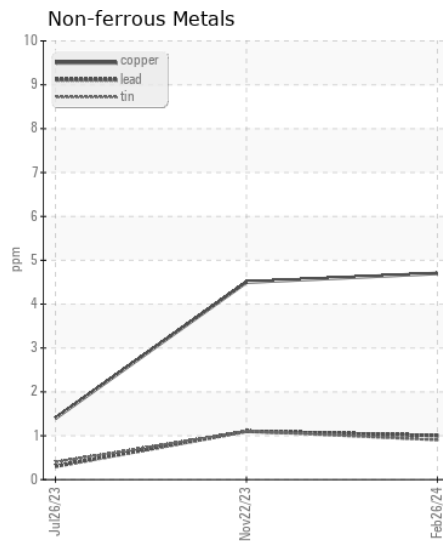
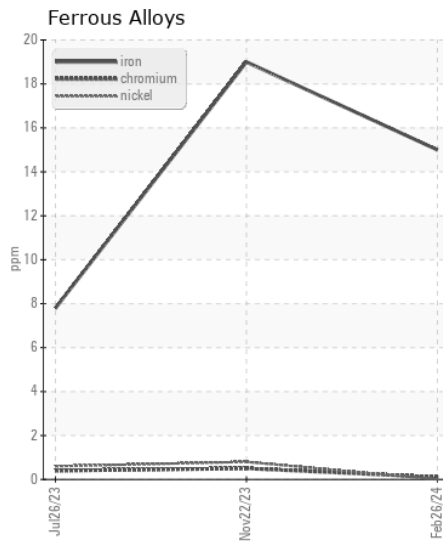
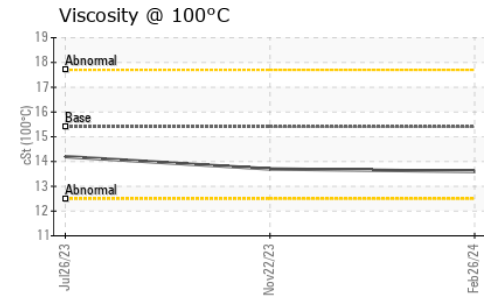
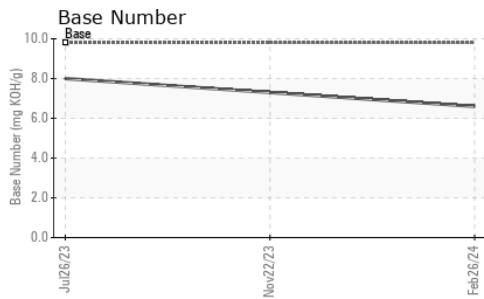
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	7	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	6	2
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>	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.4</b>	9.2	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.8</b>	21.6	18.9
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>	3	1
Boron	ppm	ASTM D5185m	0	<b>3</b>	3	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>57</b>	82	57
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>909</b>	1351	898
Calcium	ppm	ASTM D5185m	1070	<b>995</b>	1484	999
Phosphorus	ppm	ASTM D5185m	1150	<b>1018</b>	1312	970
Zinc	ppm	ASTM D5185m	1270	<b>1242</b>	1695	1152
Sulfur	ppm	ASTM D5185m	2060	<b>2827</b>	4626	3074
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.5</b>	18.7	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.6</b>	7.3	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.7	14.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0097808  
**Lab Number** : 06105067  
**Unique Number** : 10903297  
**Test Package** : FLEET

**Received** : 29 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - Wes Davis

**GFL Environmental - 958 - Tri County HC Morton**  
 1090 W. Jefferson St.  
 Morton, IL  
 US 61550  
 Contact: Bryan Link  
 blink@gflenv.com

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: