

Machine Id  
**410015**  
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>GFL0098016</b>	GFL0082130	---
Sample Date		Client Info		<b>12 Feb 2024</b>	08 Jul 2023	---
Machine Age	hrs	Client Info		<b>5367</b>	4584	---
Oil Age	hrs	Client Info		<b>483</b>	705	---
Filter Age	hrs	Client Info		<b>483</b>	705	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>30</b>	16	---
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>5</b>	3	---
Lead	ppm	ASTM D5185(m)	>40	<b>2</b>	<1	---
Copper	ppm	ASTM D5185(m)	>330	<b>7</b>	3	---
Tin	ppm	ASTM D5185(m)	>15	<b>1</b>	<1	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

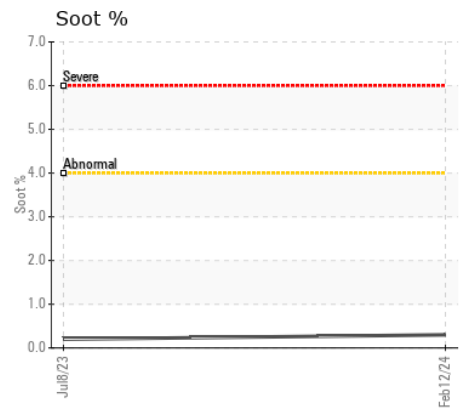
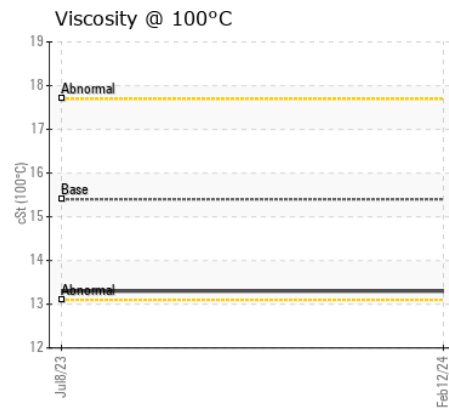
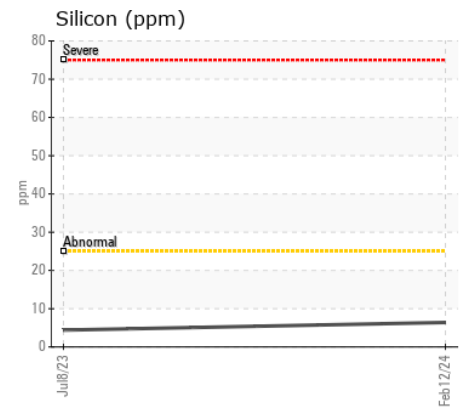
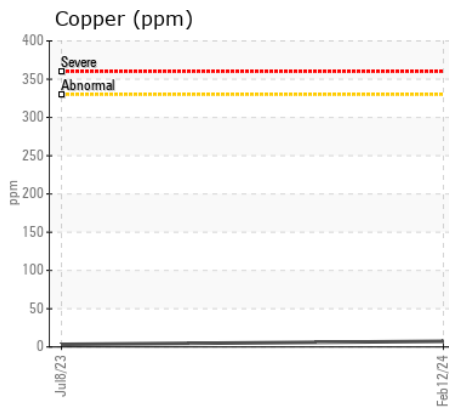
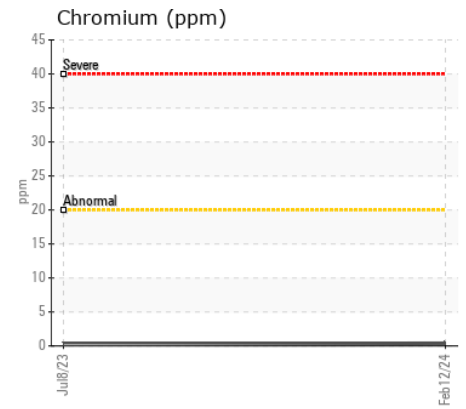
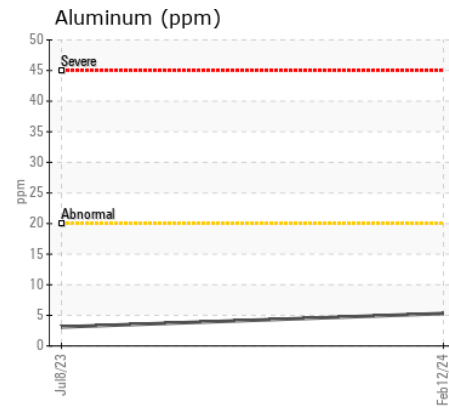
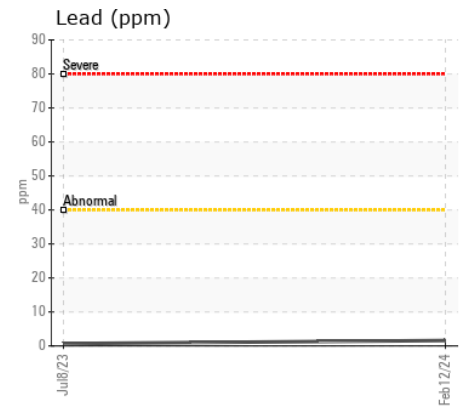
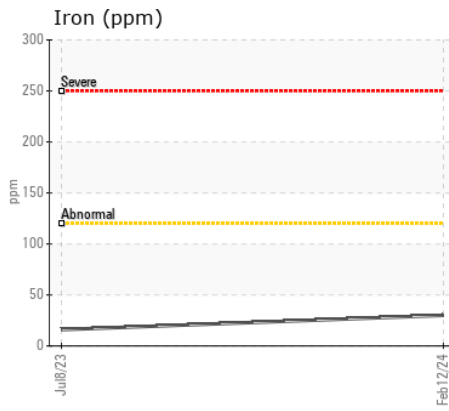
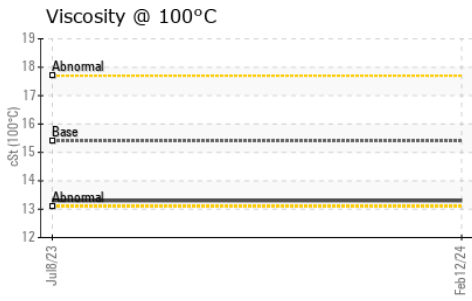
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	4	---
Potassium	ppm	ASTM D5185(m)	>20	<b>9</b>	4	---
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	ASTM D7844*	>4	<b>0.3</b>	0.2	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.9</b>	9.3	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.8</b>	22.1	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	---

**FLUID CONDITION**

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>6</b>	4	---
Boron	ppm	ASTM D5185(m)	0	<b>4</b>	6	---
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)	60	<b>55</b>	53	---
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185(m)	1010	<b>896</b>	916	---
Calcium	ppm	ASTM D5185(m)	1070	<b>1130</b>	1116	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>893</b>	982	---
Zinc	ppm	ASTM D5185(m)	1270	<b>1105</b>	1123	---
Sulfur	ppm	ASTM D5185(m)	2060	<b>2384</b>	2361	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.3</b>	17.8	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>13.3</b>	13.3	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0098016 **Received** : 26 Feb 2024  
**Lab Number** : 02617940 **Tested** : 26 Feb 2024  
**Unique Number** : 5735050 **Diagnosed** : 26 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**GFL Environmental - 593**  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.