



Machine Id  
**8422**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (20 LTR)**

**RECOMMENDATION**

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0110713</b>	GFL0097436	GFL0085687
Sample Date		Client Info		<b>29 Feb 2024</b>	04 Jan 2024	19 Sep 2023
Machine Age	hrs	Client Info		<b>535</b>	535	0
Oil Age	hrs	Client Info		<b>535</b>	535	0
Filter Age	hrs	Client Info		<b>535</b>	535	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>SEVERE</b>	ABNORMAL	ABNORMAL

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	<b>11</b>	6	17
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	1	<1
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

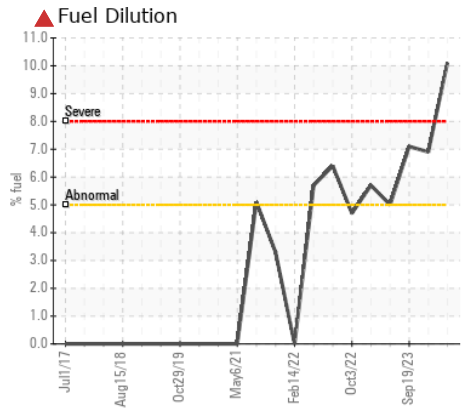
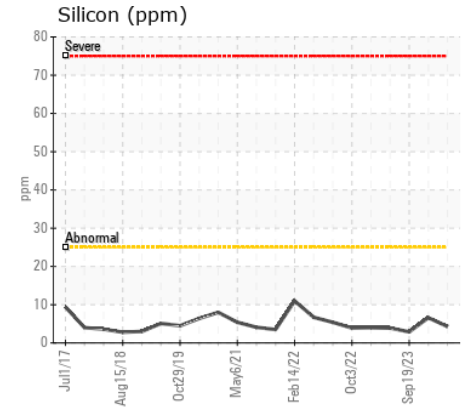
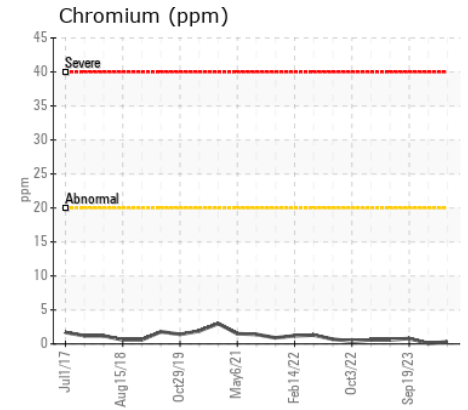
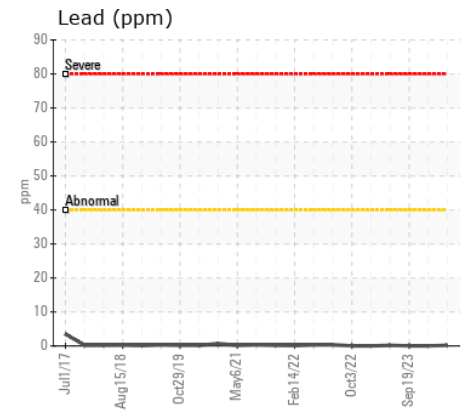
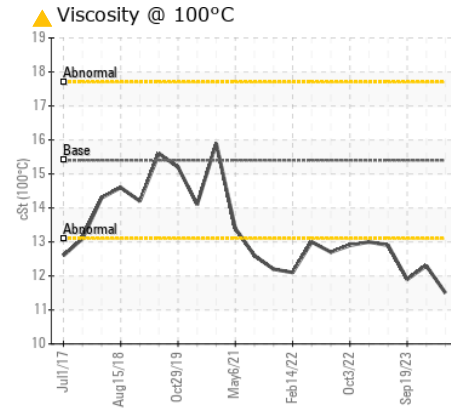
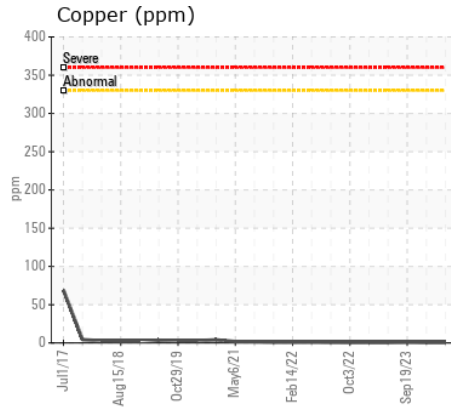
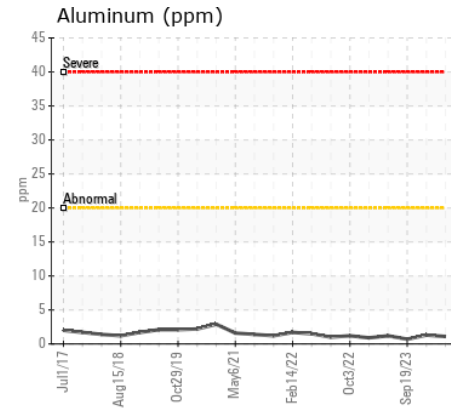
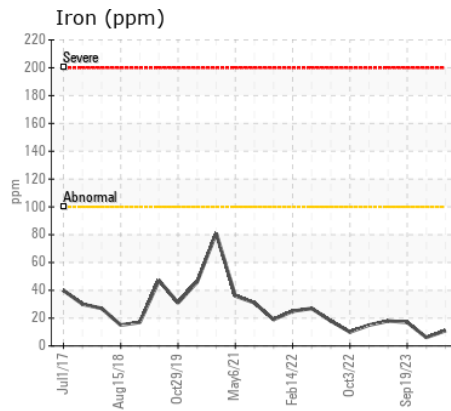
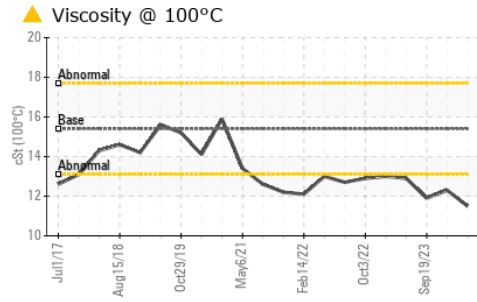
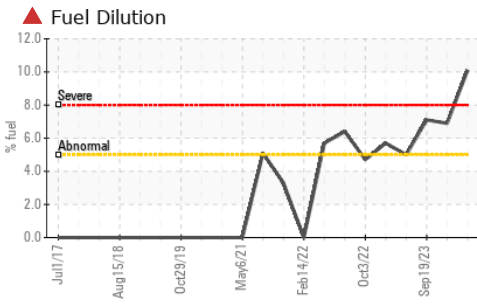
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	7	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Fuel	%	ASTM D7593*	>5	<b>▲ 10.1</b>	▲ 6.9	▲ 7.1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0.2</b>	0.1	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.8</b>	9.3	11.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.3</b>	19.4	22.7
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<b>1</b>	<1	2
Boron	ppm	ASTM D5185(m)	0	<b>1</b>	2	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>50</b>	52	54
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>820</b>	842	873
Calcium	ppm	ASTM D5185(m)	1070	<b>890</b>	925	943
Phosphorus	ppm	ASTM D5185(m)	1150	<b>874</b>	900	942
Zinc	ppm	ASTM D5185(m)	1270	<b>1019</b>	1046	1069
Sulfur	ppm	ASTM D5185(m)	2060	<b>2266</b>	2351	2220
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.1</b>	17.6	22.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>▲ 11.5</b>	▲ 12.3	▲ 11.9



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0110713 **Received** : 04 Mar 2024  
**Lab Number** : 02619487 **Tested** : 05 Mar 2024  
**Unique Number** : 5736597 **Diagnosed** : 05 Mar 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel )

**GFL Environmental - 221 - Windsor**  
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 Contact: Rhys Marotte  
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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.

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