



Machine Id  
**701050**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (20 GAL)**

**RECOMMENDATION**

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0123455</b>	GFL0110714	GFL0097435
Sample Date		Client Info		<b>20 Jun 2024</b>	19 Mar 2024	04 Jan 2024
Machine Age	hrs	Client Info		<b>514</b>	514	514
Oil Age	hrs	Client Info		<b>514</b>	514	514
Filter Age	hrs	Client Info		<b>514</b>	514	514
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>MARGINAL</b>	SEVERE	MARGINAL

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>80	<b>26</b>	15	17
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	<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)	>30	<b>6</b>	6	3
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>150	<b>1</b>	<1	1
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

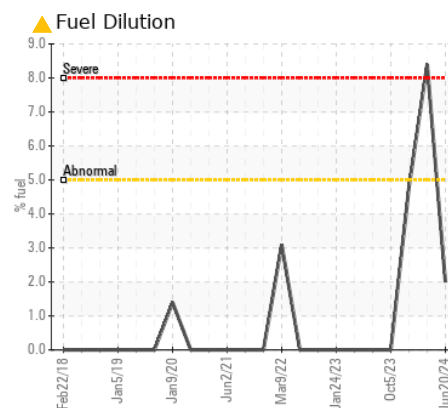
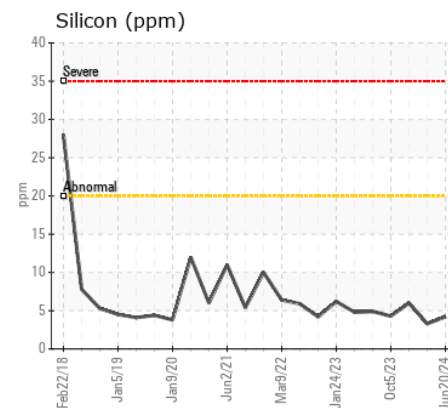
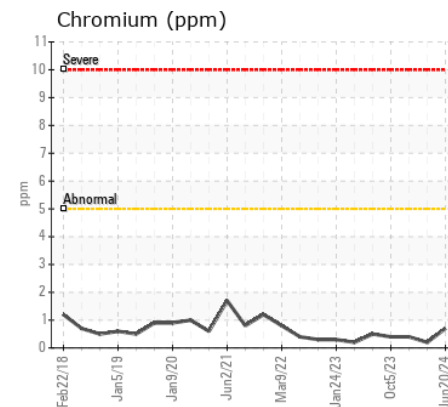
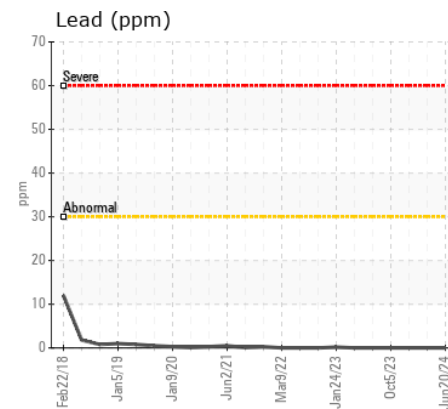
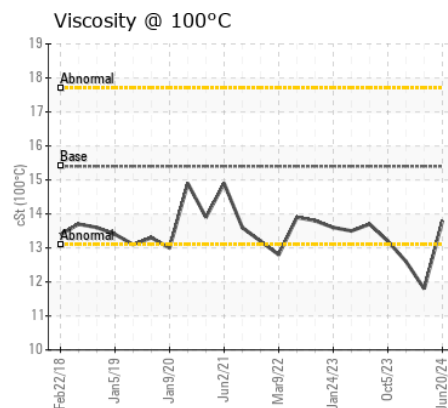
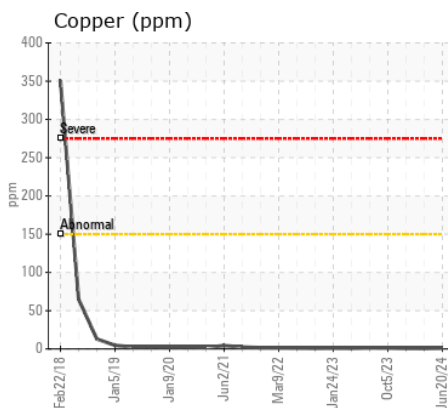
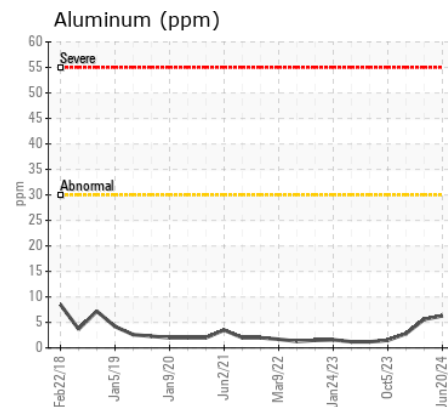
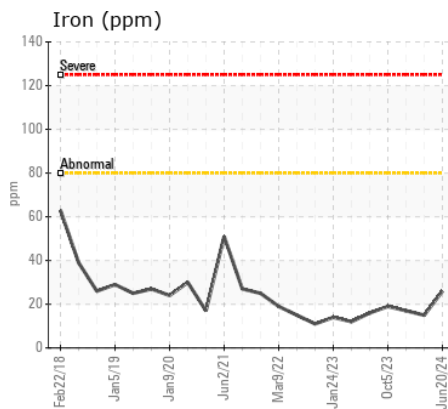
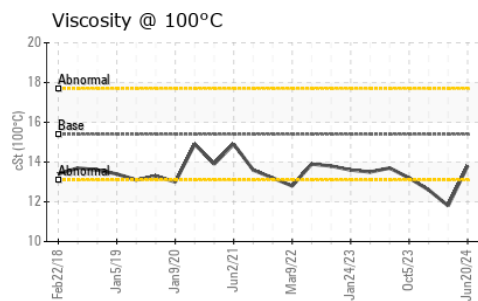
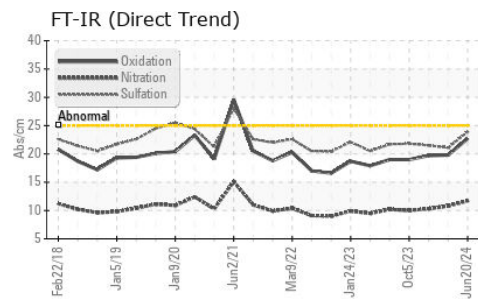
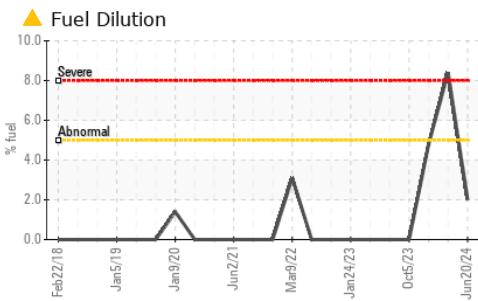
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>20	<b>4</b>	3	6
Potassium	ppm	ASTM D5185(m)	>20	<b>11</b>	11	5
Fuel	%	ASTM D7593*	>5	<b>▲ 2</b>	▲ 8.4	▲ 4.8
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0.5</b>	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.7</b>	10.8	10.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.9</b>	21.1	21.5
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Boron	ppm	ASTM D5185(m)	0	<b>2</b>	0	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>56</b>	51	55
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>888</b>	829	886
Calcium	ppm	ASTM D5185(m)	1070	<b>971</b>	897	981
Phosphorus	ppm	ASTM D5185(m)	1150	<b>915</b>	833	917
Zinc	ppm	ASTM D5185(m)	1270	<b>1127</b>	1026	1104
Sulfur	ppm	ASTM D5185(m)	2060	<b>2222</b>	2157	2318
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>22.7</b>	19.8	19.7
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>13.8</b>	▲ 11.8	12.6



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0123455  
**Lab Number** : 02643634  
**Unique Number** : 5801173  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel )

**Received** : 24 Jun 2024  
**Tested** : 25 Jun 2024  
**Diagnosed** : 25 Jun 2024 - Wes Davis

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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