



Machine Id  
**501060**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Check for low coolant level. 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>GFL0107341</b>	GFL0061856	GFL0050986
Sample Date		Client Info		<b>18 Apr 2024</b>	18 Nov 2022	30 May 2022
Machine Age	hrs	Client Info		<b>833178</b>	787602	780566
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>165	<b>54</b>	18	42
Chromium	ppm	ASTM D5185(m)	>5	<b>2</b>	<1	1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>14</b>	6	6
Lead	ppm	ASTM D5185(m)	>150	<b>13</b>	<1	2
Copper	ppm	ASTM D5185(m)	>90	<b>5</b>	3	7
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

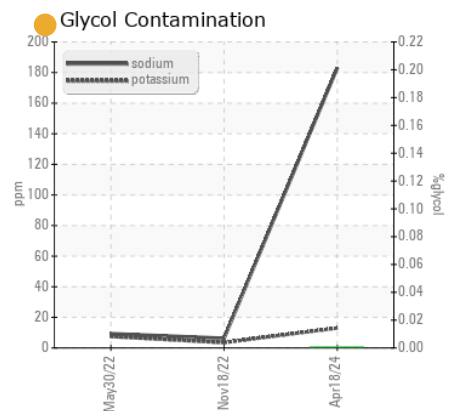
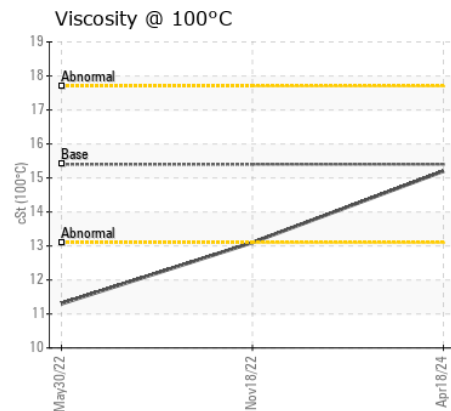
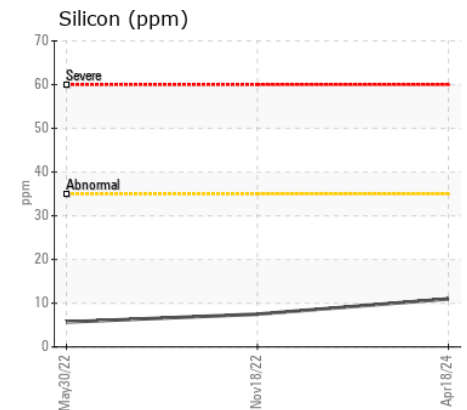
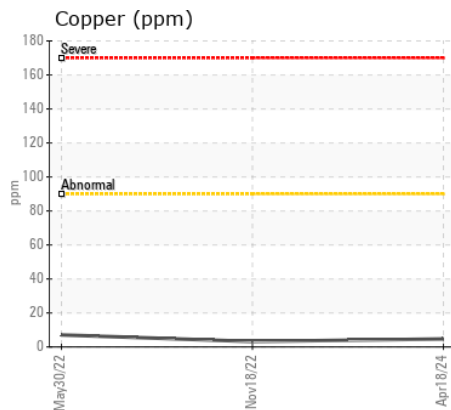
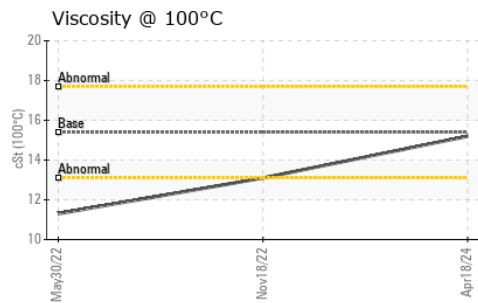
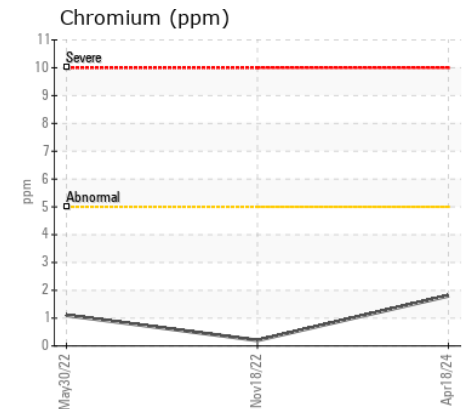
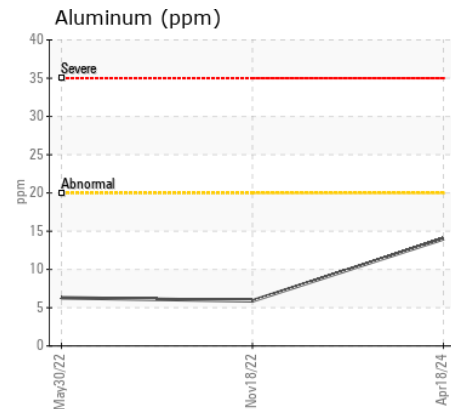
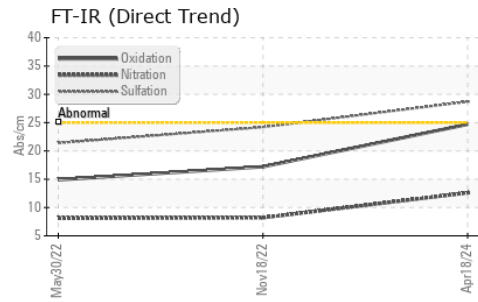
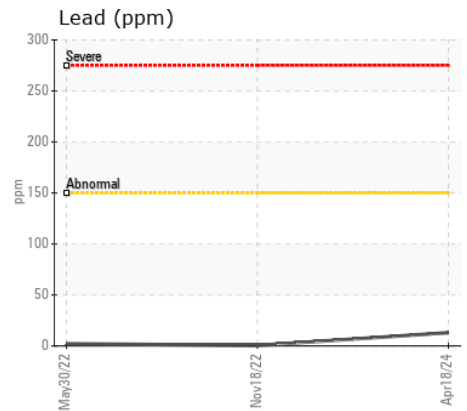
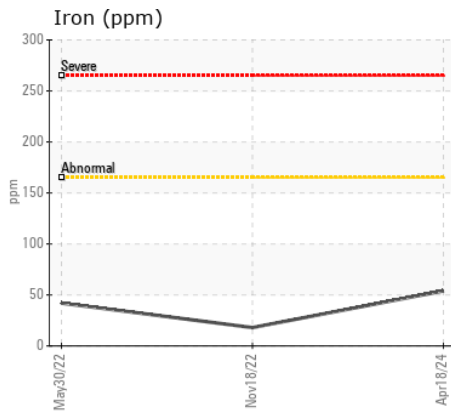
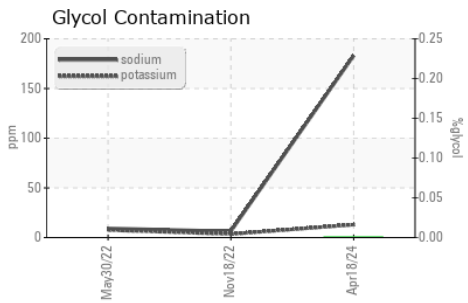
Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>35	<b>11</b>	8	6
Potassium	ppm	ASTM D5185(m)	>20	<b>13</b>	4	8
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	0.5
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.0</b>	NEG	NEG
Soot %	%	ASTM D7844*	>7.5	<b>0.5</b>	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.6</b>	8.2	8.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>28.7</b>	24.2	21.4
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 (see recommendation).

Sodium	ppm	ASTM D5185(m)		<b>183</b>	6	9
Boron	ppm	ASTM D5185(m)	0	<b>23</b>	227	10
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>99</b>	110	63
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>982</b>	709	1030
Calcium	ppm	ASTM D5185(m)	1070	<b>1489</b>	1421	1116
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1027</b>	783	1132
Zinc	ppm	ASTM D5185(m)	1270	<b>1227</b>	844	1291
Sulfur	ppm	ASTM D5185(m)	2060	<b>2404</b>	2141	2791
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>24.7</b>	17.2	14.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>15.2</b>	13.1	11.3



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0107341 **Received** : 19 Apr 2024  
**Lab Number** : 02630067 **Tested** : 19 Apr 2024  
**Unique Number** : 5763199 **Diagnosed** : 22 Apr 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol )

**GFL Environmental - 252 - GTA Hauling**  
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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.