



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

Machine Id  
**819014**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

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>GFL0125520</b>	GFL0100644	GFL0077040
Sample Date		Client Info		<b>28 Jun 2024</b>	01 Jan 2024	23 Jun 2023
Machine Age	kms	Client Info		<b>76682</b>	65505	5214
Oil Age	kms	Client Info		<b>0</b>	0	0
Filter Age	kms	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>ABNORMAL</b>	NORMAL	NORMAL

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>75	<b>30</b>	12	36
Chromium	ppm	ASTM D5185(m)	>5	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>15	<b>4</b>	3	5
Lead	ppm	ASTM D5185(m)	>25	<b>0</b>	<1	0
Copper	ppm	ASTM D5185(m)	>100	<b>2</b>	2	3
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

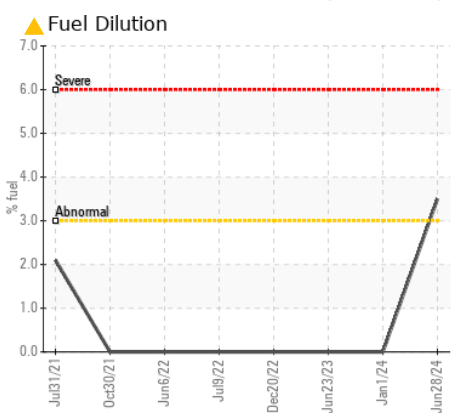
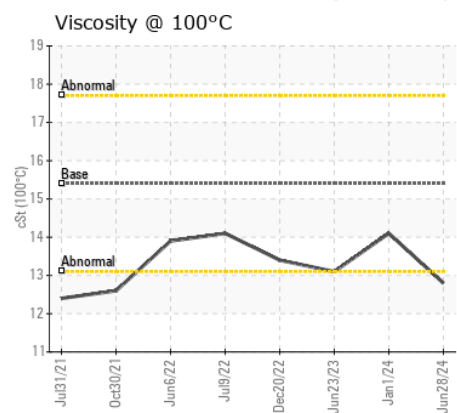
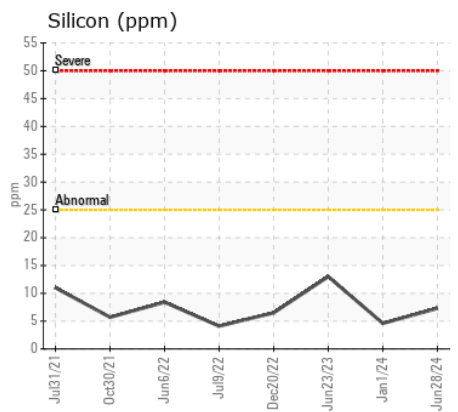
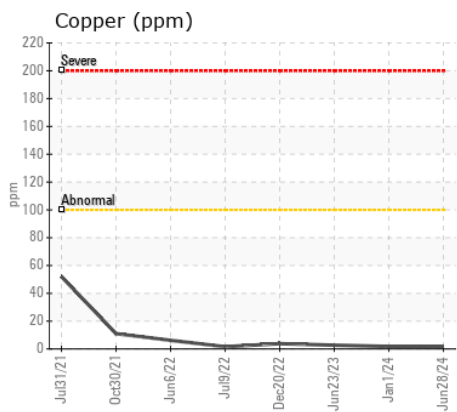
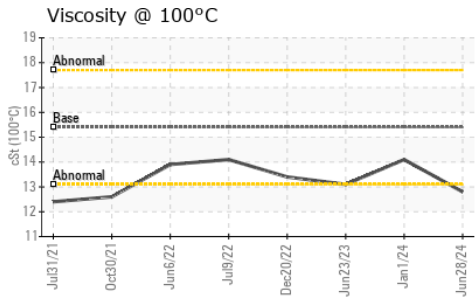
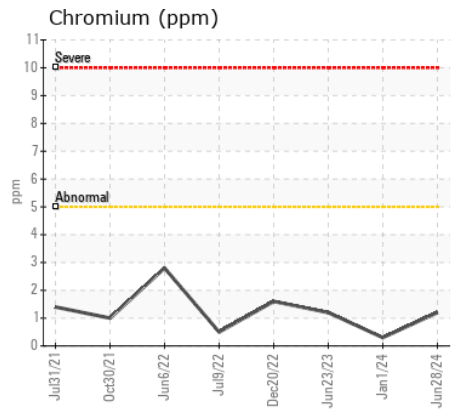
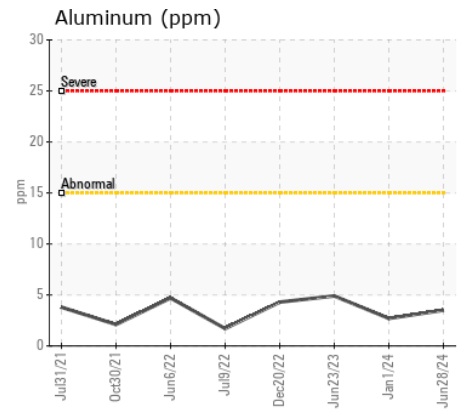
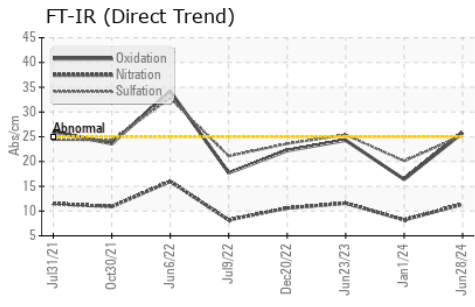
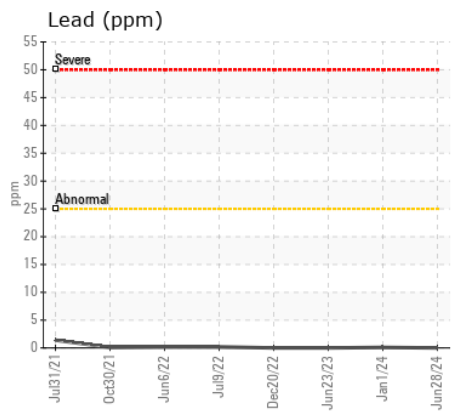
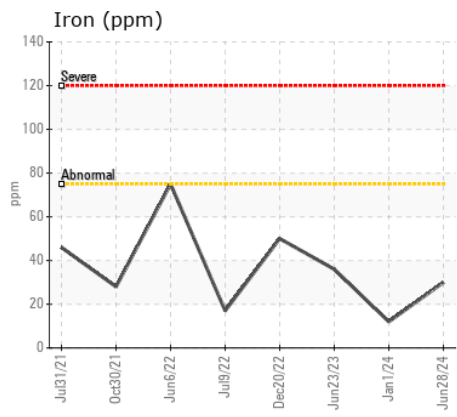
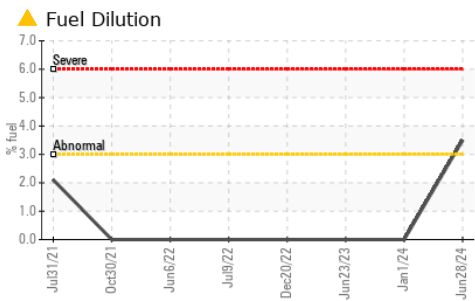
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>7</b>	5	13
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	2	5
Fuel	%	ASTM D7593*	>3.0	<b>▲ 3.5</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	0.0
Soot %	%	ASTM D7844*	>6	<b>0.6</b>	0.3	0.9
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.4</b>	8.2	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>25.3</b>	20.1	25.4
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	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The oil viscosity is lower than typical, possibly indicating the addition of lighter grade oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<b>10</b>	6	11
Boron	ppm	ASTM D5185(m)	0	<b>2</b>	2	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>55</b>	59	60
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>905</b>	947	950
Calcium	ppm	ASTM D5185(m)	1070	<b>988</b>	1048	1040
Phosphorus	ppm	ASTM D5185(m)	1150	<b>905</b>	981	999
Zinc	ppm	ASTM D5185(m)	1270	<b>1135</b>	1160	1180
Sulfur	ppm	ASTM D5185(m)	2060	<b>2167</b>	2611	2162
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>25.8</b>	16.4	24.3
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>12.8</b>	14.1	13.1



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0125520  
**Lab Number** : 02644746  
**Unique Number** : 5802285  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, Visual )  
**Received** : 02 Jul 2024  
**Tested** : 03 Jul 2024  
**Diagnosed** : 03 Jul 2024 - Kevin Marson

**GFL Environmental - 575 - Squamish 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.