



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

Machine Id  
**211005-632125**  
 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>GFL0125184</b>	GFL0114441	GFL0114467
Sample Date		Client Info		<b>06 Jul 2024</b>	29 Mar 2024	23 Feb 2024
Machine Age	mls	Client Info		<b>176957</b>	4211	4034
Oil Age	mls	Client Info		<b>0</b>	0	4034
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>26</b>	12	67
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	2
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	5	▲ 33
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

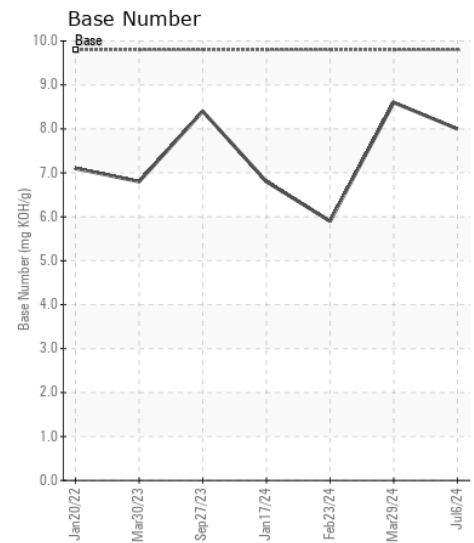
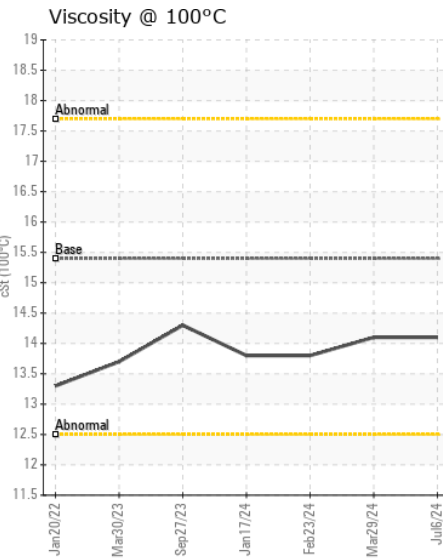
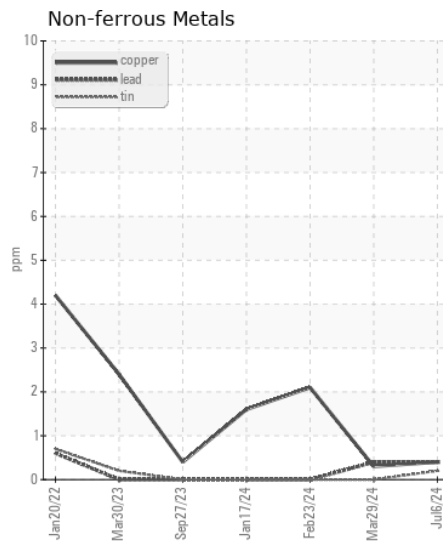
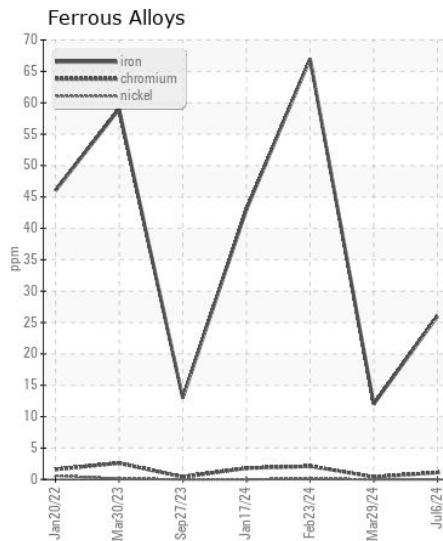
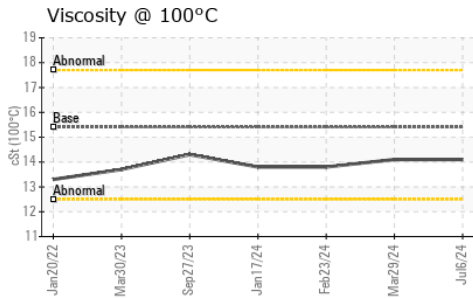
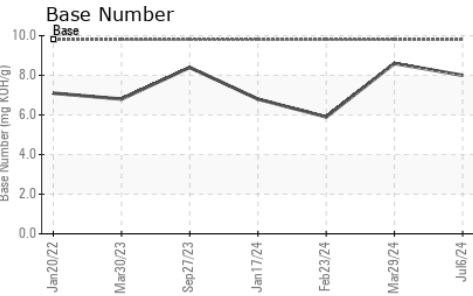
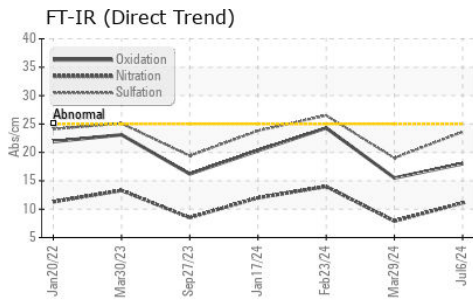
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	3	9
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	5	30
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.6</b>	0.5	1.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.1</b>	7.9	14.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.6</b>	19.0	26.5
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>5</b>	0	2
Boron	ppm	ASTM D5185m	0	<b>5</b>	1	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>58</b>	53	62
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	1
Magnesium	ppm	ASTM D5185m	1010	<b>920</b>	979	1149
Calcium	ppm	ASTM D5185m	1070	<b>1048</b>	1115	1266
Phosphorus	ppm	ASTM D5185m	1150	<b>1058</b>	912	1167
Zinc	ppm	ASTM D5185m	1270	<b>1243</b>	1312	1451
Sulfur	ppm	ASTM D5185m	2060	<b>3425</b>	3640	3206
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.0</b>	15.5	24.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.0</b>	8.6	5.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.1</b>	14.1	13.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0125184  
**Lab Number** : 06239665  
**Unique Number** : 11128499  
**Test Package** : FLEET

**Received** : 17 Jul 2024  
**Tested** : 18 Jul 2024  
**Diagnosed** : 18 Jul 2024 - Wes Davis

**GFL Environmental - 865 - East Mount Hauling**  
 7213 East Mount Houston Road  
 Houston, TX  
 US 77050

Contact: Saul Castillo  
 saul.castillo@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: