



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

Machine Id  
**727107-361681**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Check for low coolant level. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0125211</b>	GFL0125211	GFL0114461
Sample Date		Client Info		<b>05 Jun 2024</b>	05 Jun 2024	27 Feb 2024
Machine Age	hrs	Client Info		<b>17726</b>	17726	17157
Oil Age	hrs	Client Info		<b>0</b>	0	17157
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>ABNORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>14</b>	48	10
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	0
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	4	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	8	0
Copper	ppm	ASTM D5185m	>330	<b>106</b>	<1	12
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

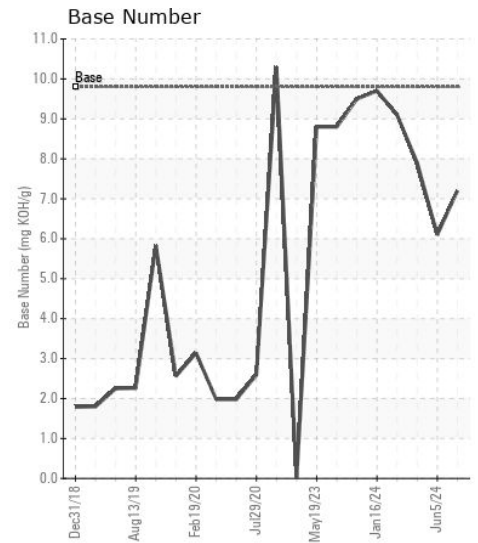
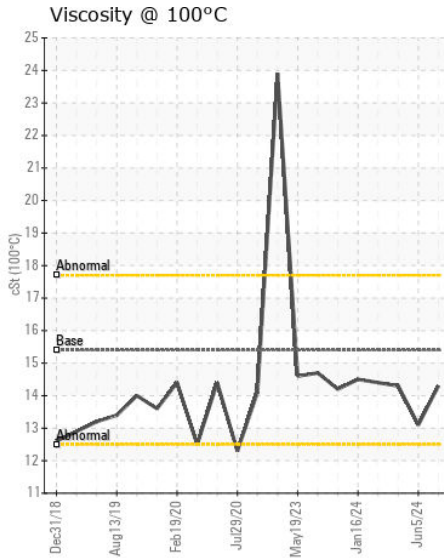
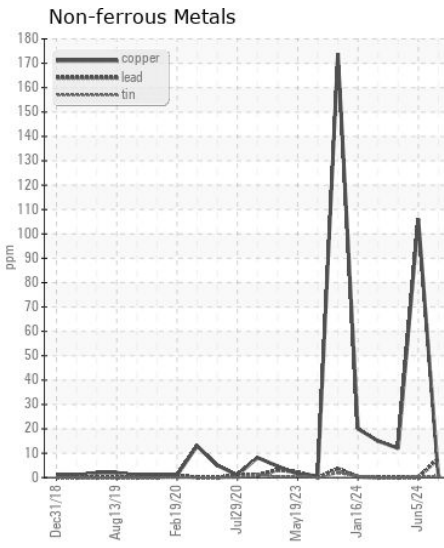
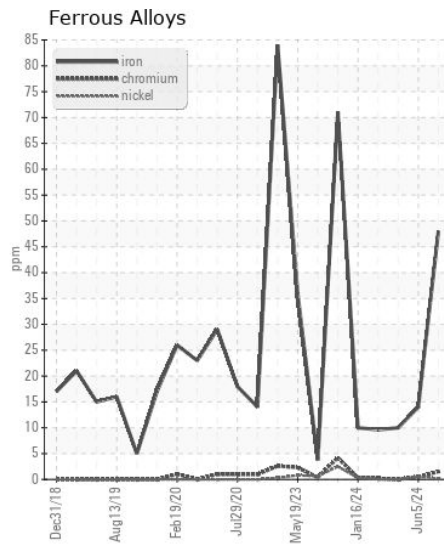
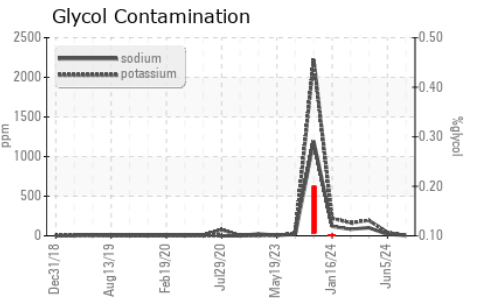
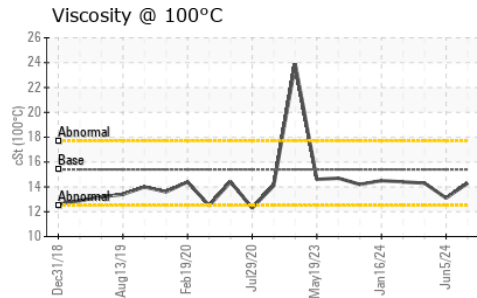
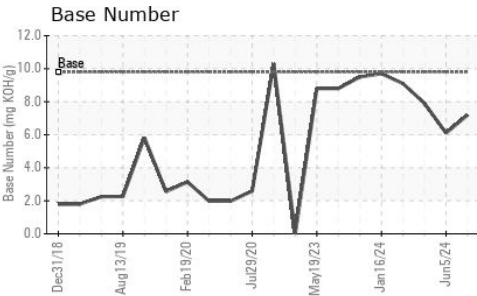
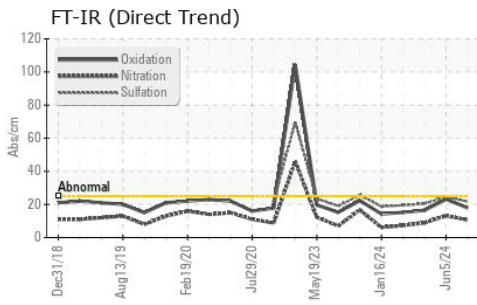
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	11	5
Potassium	ppm	ASTM D5185m	>20	<b>▲ 40</b>	7	▲ 195
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.6	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.6</b>	13.2	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.8</b>	24.5	20.5
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>18</b>	7	▲ 102
Boron	ppm	ASTM D5185m	0	<b>4</b>	10	9
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185m	60	<b>65</b>	54	80
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	0
Magnesium	ppm	ASTM D5185m	1010	<b>1018</b>	909	890
Calcium	ppm	ASTM D5185m	1070	<b>1096</b>	1125	1099
Phosphorus	ppm	ASTM D5185m	1150	<b>1074</b>	1050	1009
Zinc	ppm	ASTM D5185m	1270	<b>1370</b>	1246	1233
Sulfur	ppm	ASTM D5185m	2060	<b>3558</b>	3533	2724
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.9</b>	23.2	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.2</b>	6.1	7.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.3</b>	13.1	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0125211 **Received** : 21 Jun 2024  
**Lab Number** : 06217473 **Tested** : 25 Jun 2024  
**Unique Number** : 11090337 **Diagnosed** : 25 Jun 2024 - Sean Felton  
**Test Package** : FLEET ( Additional Tests: Glycol )

**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: