



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

Machine Id  
**928074-205262**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

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>GFL0118221</b>	GFL0118274	GFL0118162
Sample Date		Client Info		<b>22 May 2024</b>	05 May 2024	25 Apr 2024
Machine Age	hrs	Client Info		<b>19165</b>	19030	18874
Oil Age	hrs	Client Info		<b>600</b>	700	300
Filter Age	hrs	Client Info		<b>0</b>	700	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>ATTENTION</b>	NORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>40</b>	24	19
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	<1
Nickel	ppm	ASTM D5185m	>4	<b>1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	1	0
Aluminum	ppm	ASTM D5185m	>20	<b>14</b>	2	6
Lead	ppm	ASTM D5185m	>40	<b>0</b>	4	<1
Copper	ppm	ASTM D5185m	>330	<b>22</b>	2	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

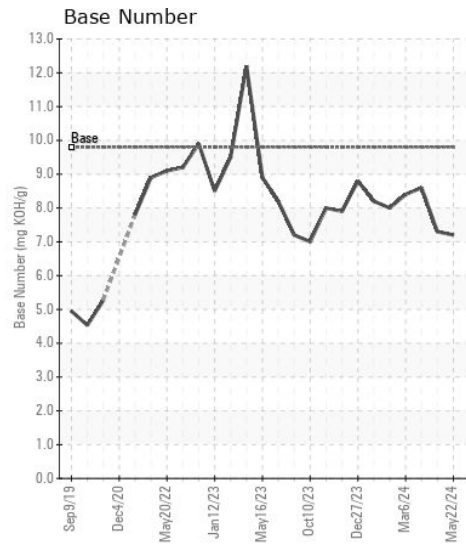
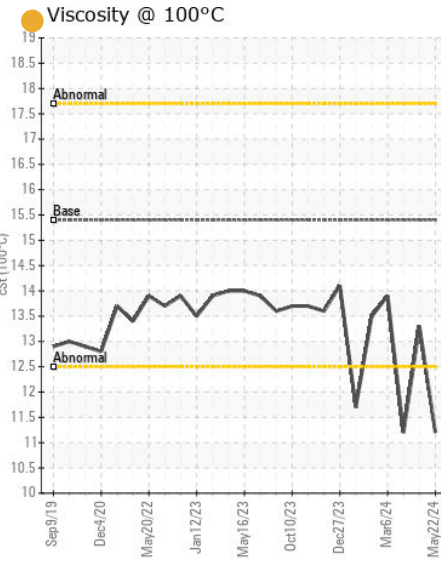
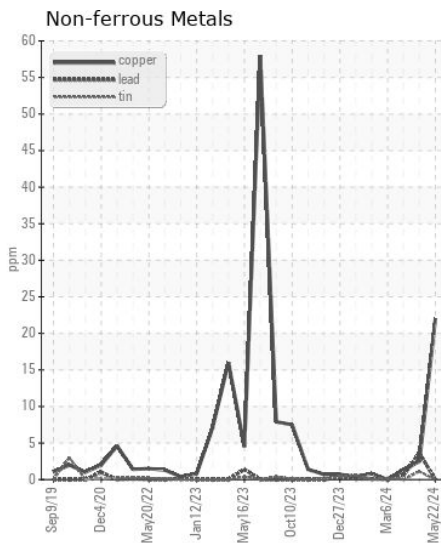
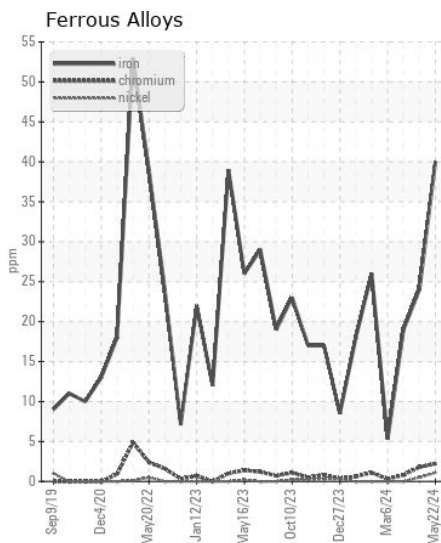
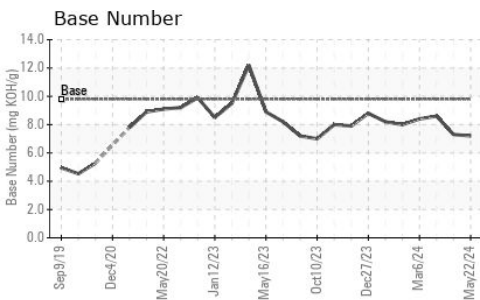
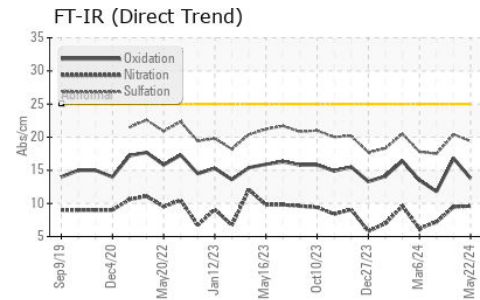
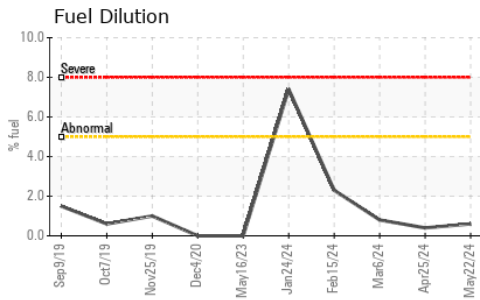
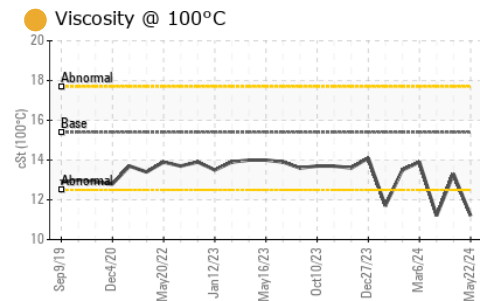
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>11</b>	6	8
Potassium	ppm	ASTM D5185m	>20	<b>21</b>	5	6
Fuel	%	ASTM D3524	>5	<b>0.6</b>	<1.0	0.4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.8</b>	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.6</b>	9.5	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	20.4	17.5
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>15</b>	13	7
Boron	ppm	ASTM D5185m	0	<b>54</b>	<1	87
Barium	ppm	ASTM D5185m	0	<b>10</b>	1	12
Molybdenum	ppm	ASTM D5185m	60	<b>6</b>	65	3
Manganese	ppm	ASTM D5185m	0	<b>4</b>	<1	2
Magnesium	ppm	ASTM D5185m	1010	<b>774</b>	997	801
Calcium	ppm	ASTM D5185m	1070	<b>1503</b>	1133	1442
Phosphorus	ppm	ASTM D5185m	1150	<b>783</b>	1008	819
Zinc	ppm	ASTM D5185m	1270	<b>890</b>	1275	927
Sulfur	ppm	ASTM D5185m	2060	<b>3568</b>	3063	4002
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.8</b>	16.8	11.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.2</b>	7.3	8.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>11.2</b>	13.3	11.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0118221 **Received** : 29 May 2024  
**Lab Number** : 06193511 **Tested** : 31 May 2024  
**Unique Number** : 11050263 **Diagnosed** : 31 May 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 822 - Springfield Hauling**  
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 Springfield, MO  
 US 65807  
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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)