



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

Machine Id  
**421050**  
 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>GFL0106940</b>	GFL0098801	GFL0073254
Sample Date		Client Info		<b>18 Jun 2024</b>	27 Oct 2023	07 Jun 2023
Machine Age	hrs	Client Info		<b>14150</b>	13515	1800
Oil Age	hrs	Client Info		<b>506</b>	569	300
Filter Age	hrs	Client Info		<b>506</b>	569	300
Oil Changed		Client Info		<b>Changed</b>	Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>30</b>	30	9
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	3	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	4	3
Lead	ppm	ASTM D5185m	>40	<b>2</b>	2	3
Copper	ppm	ASTM D5185m	>330	<b>27</b>	83	2
Tin	ppm	ASTM D5185m	>15	<b>1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

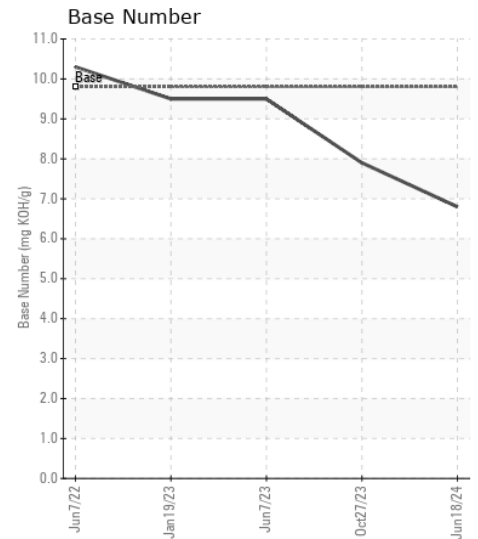
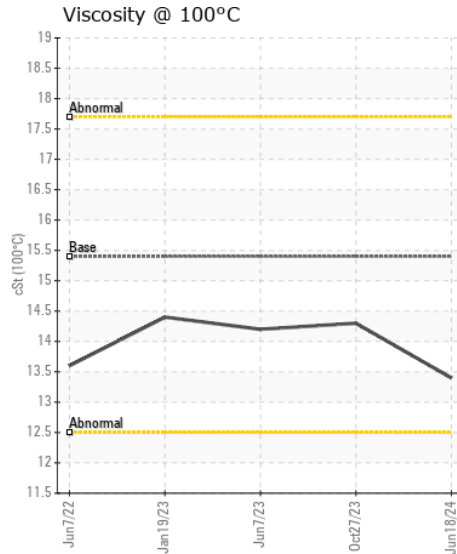
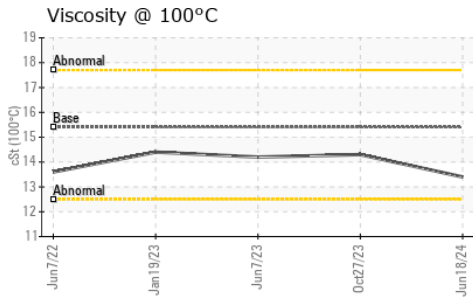
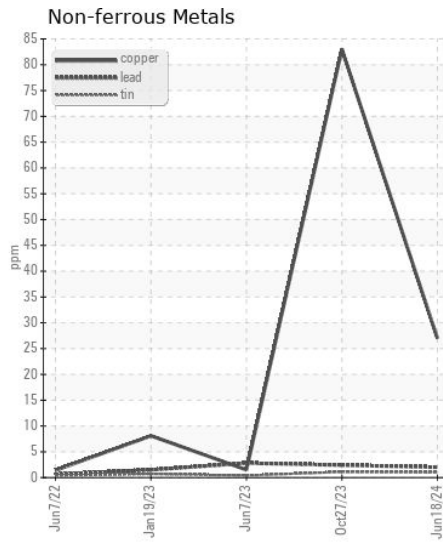
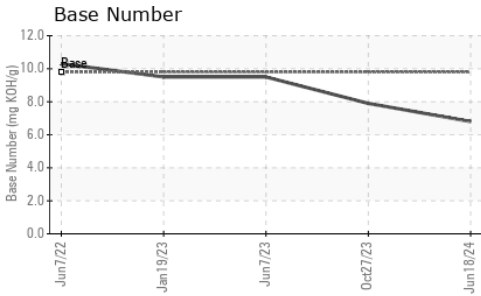
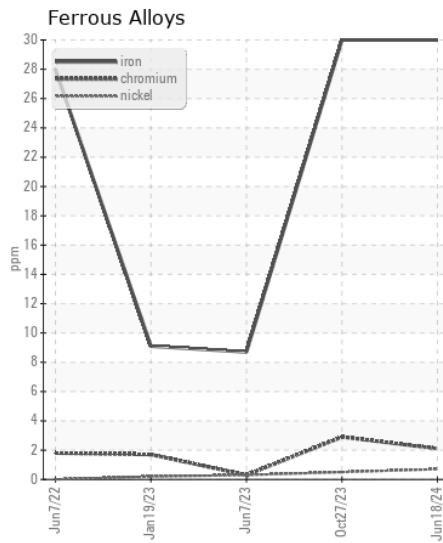
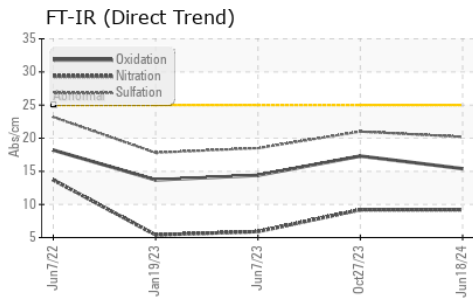
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	7	4
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	8	3
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>0.9</b>	0.6	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.2</b>	9.2	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.2</b>	21.0	18.5
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>11</b>	10	2
Boron	ppm	ASTM D5185m	0	<b>9</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>70</b>	78	60
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>964</b>	1142	1040
Calcium	ppm	ASTM D5185m	1070	<b>1097</b>	1301	1169
Phosphorus	ppm	ASTM D5185m	1150	<b>1096</b>	1213	1058
Zinc	ppm	ASTM D5185m	1270	<b>1318</b>	1508	1371
Sulfur	ppm	ASTM D5185m	2060	<b>3504</b>	3963	3931
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.4</b>	17.3	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.8</b>	7.9	9.5
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	14.3	14.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0106940  
**Lab Number** : 06215430  
**Unique Number** : 11088294  
**Test Package** : FLEET

**Received** : 20 Jun 2024  
**Tested** : 21 Jun 2024  
**Diagnosed** : 21 Jun 2024 - Wes Davis

**GFL Environmental - 097 - Knoxville Hauling**  
 1901 Sutherland Ave  
 Knoxville, TN  
 US 37921  
 Contact: RICKY DUNLAP

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: