



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

Machine Id  
**227011-1056**  
 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>GFL0054091</b>	GFL0054118	GFL0029253
Sample Date		Client Info		<b>25 Jun 2024</b>	01 Feb 2024	08 Jun 2022
Machine Age	hrs	Client Info		<b>11037</b>	11037	8391
Oil Age	hrs	Client Info		<b>11037</b>	1634	0
Filter Age	hrs	Client Info		<b>11037</b>	1634	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>29</b>	88	54
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	4	2
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	9	7
Lead	ppm	ASTM D5185m	>45	<b>2</b>	12	8
Copper	ppm	ASTM D5185m	>85	<b>2</b>	2	2
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	2	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

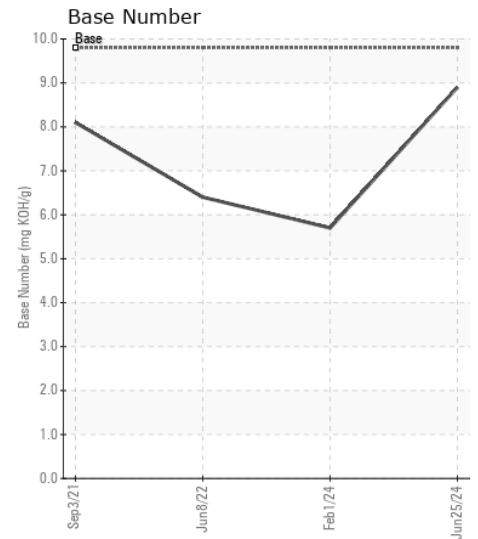
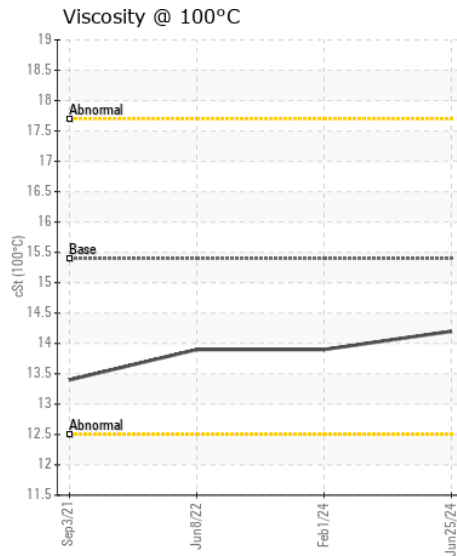
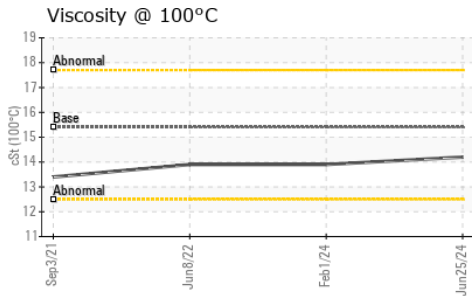
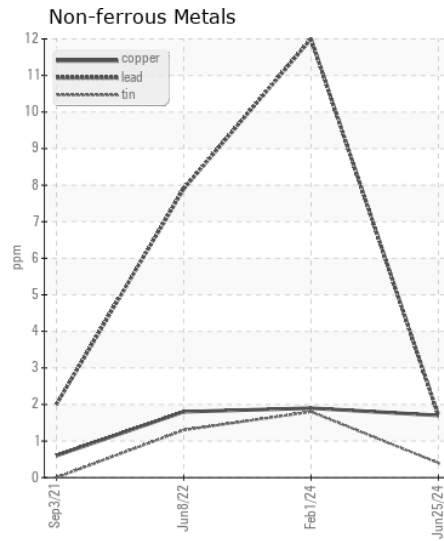
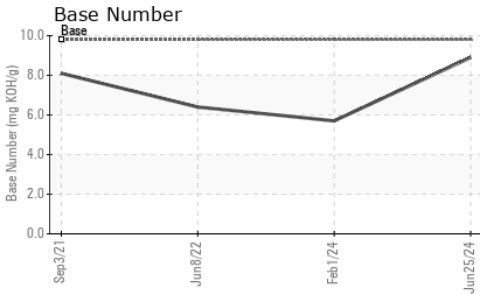
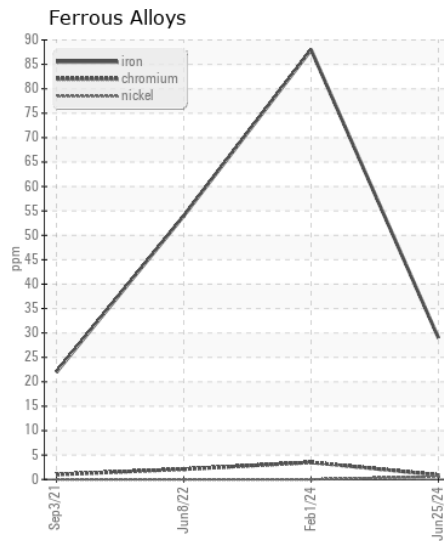
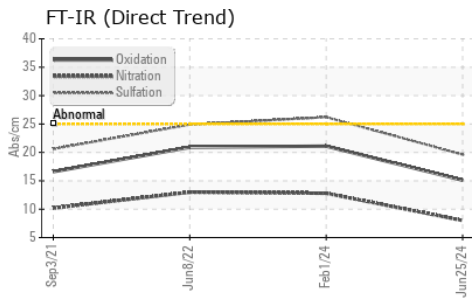
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>6</b>	15	8
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	18	16
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>0.5</b>	1.1	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.0</b>	12.8	13.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.6</b>	26.2	24.9
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>2</b>	3	3
Boron	ppm	ASTM D5185m	0	<b>14</b>	6	5
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>65</b>	67	71
Manganese	ppm	ASTM D5185m	0	<b>1</b>	2	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1051</b>	900	1056
Calcium	ppm	ASTM D5185m	1070	<b>1185</b>	1265	1253
Phosphorus	ppm	ASTM D5185m	1150	<b>1134</b>	1126	1166
Zinc	ppm	ASTM D5185m	1270	<b>1421</b>	1366	1424
Sulfur	ppm	ASTM D5185m	2060	<b>3974</b>	2854	3179
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	21.1	20.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.9</b>	5.7	6.4
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.2</b>	13.9	13.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0054091  
**Lab Number** : 06222956  
**Unique Number** : 11101153  
**Test Package** : FLEET  
**Received** : 27 Jun 2024  
**Tested** : 28 Jun 2024  
**Diagnosed** : 28 Jun 2024 - Wes Davis

**GFL Environmental - 630 - Northern A1 PA**  
 117 Moonlite Dr  
 Smithfield, PA  
 US 15478  
 Contact: MIKE NEWMAN  
 miken@northerna1.com  
 T: (231)564-2362  
 F:

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)