



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

Machine Id  
**811041-101310**

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>GFL0082645</b>	GFL0074701	GFL0074732
Sample Date		Client Info		<b>14 Jun 2023</b>	06 Apr 2023	14 Mar 2023
Machine Age	hrs	Client Info		<b>3530</b>	3374	3197
Oil Age	hrs	Client Info		<b>0</b>	0	203
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>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>61</b>	39	27
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	2	2
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>16</b>	7	10
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

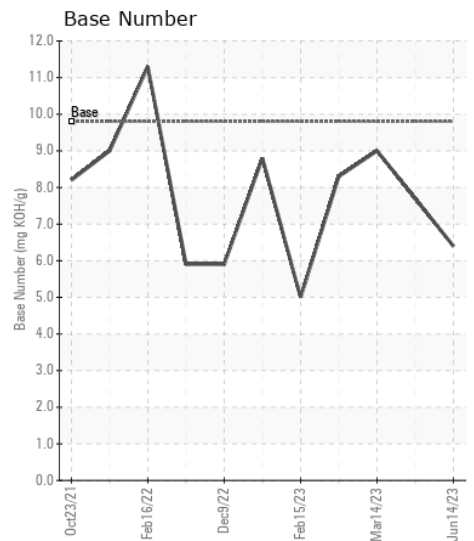
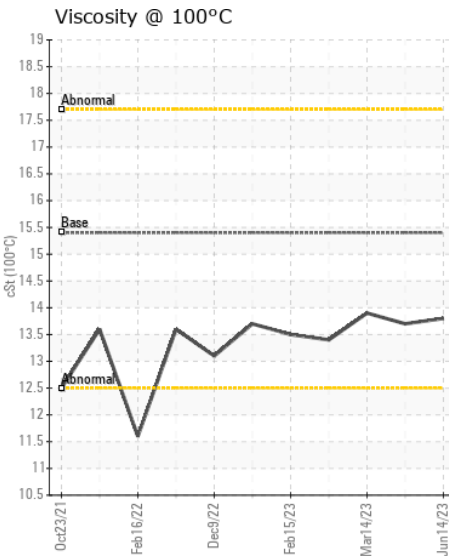
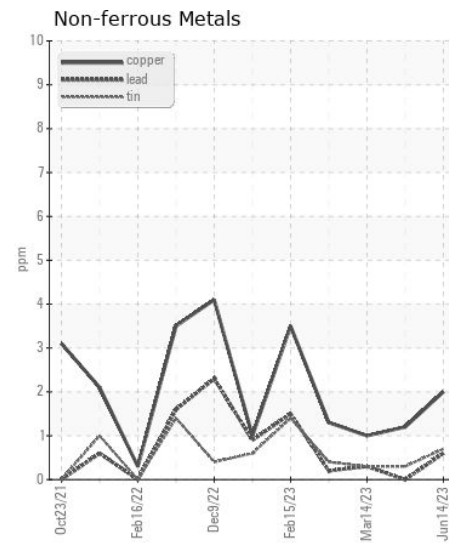
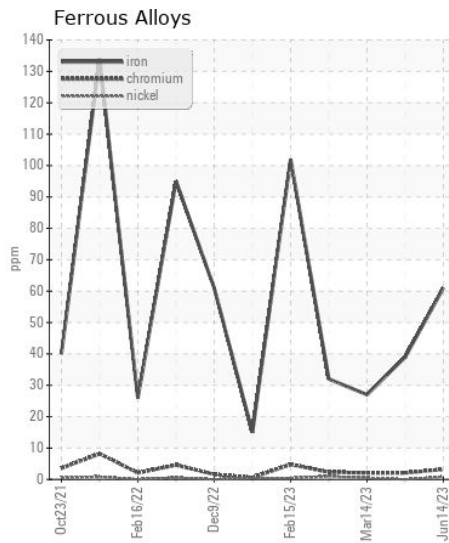
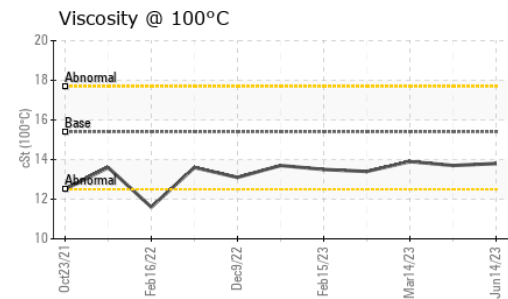
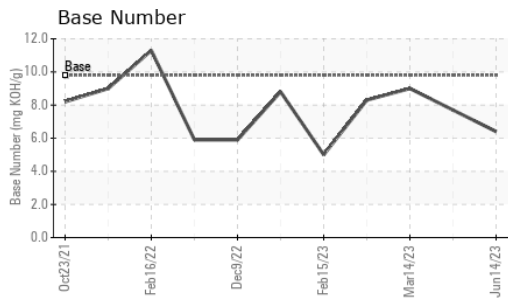
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>12</b>	10	8
Potassium	ppm	ASTM D5185m	>20	<b>30</b>	24	19
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>1.2</b>	0.9	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.1</b>	10.0	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.9</b>	21.3	20.2
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>12</b>	13	22
Barium	ppm	ASTM D5185m	0	<b>2</b>	2	0
Molybdenum	ppm	ASTM D5185m	60	<b>89</b>	79	78
Manganese	ppm	ASTM D5185m	0	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>973</b>	933	915
Calcium	ppm	ASTM D5185m	1070	<b>1180</b>	1138	1108
Phosphorus	ppm	ASTM D5185m	1150	<b>1041</b>	1010	977
Zinc	ppm	ASTM D5185m	1270	<b>1284</b>	1234	1180
Sulfur	ppm	ASTM D5185m	2060	<b>3186</b>	2948	2922
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.4</b>	17.9	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.4</b>	7.7	9.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.8</b>	13.7	13.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0082645 **Received** : 21 Jun 2023  
**Lab Number** : 05880196 **Diagnosed** : 23 Jun 2023  
**Unique Number** : 10525299 **Diagnostician** : Don Baldridge  
**Test Package** : FLEET

**GFL Environmental - 814 - Little Rock Hauling**  
 4005 Hwy 161 N.  
 Little Rock, AR  
 US 72117  
 Contact: Brad Koenig  
 bkoenig@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)