



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

Machine Id  
**926031-152524**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0106060</b>	GFL0106199	GFL0106117
Sample Date		Client Info		<b>09 Jul 2024</b>	20 Mar 2024	14 Mar 2024
Machine Age	hrs	Client Info		<b>12482</b>	12052	0
Oil Age	hrs	Client Info		<b>0</b>	0	600
Filter Age	hrs	Client Info		<b>0</b>	0	600
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>11</b>	7	77
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	2
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	2	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	3	4
Lead	ppm	ASTM D5185m	>45	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m	>85	<b>2</b>	33	▲ 80
Tin	ppm	ASTM D5185m	>4	<b>&lt;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.

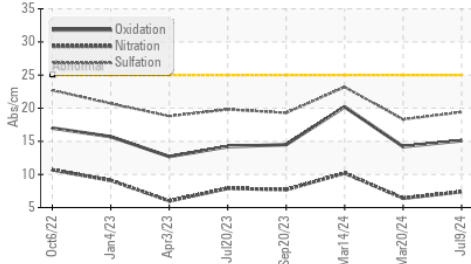
Silicon	ppm	ASTM D5185m	>30	<b>11</b>	4	18
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	3
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	0.9
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	6.4	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	18.3	23.2
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**

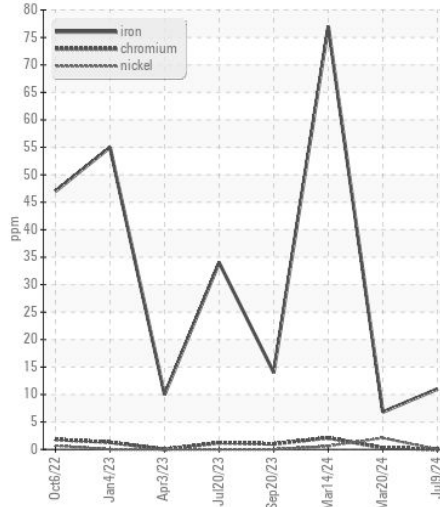
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	0	27
Boron	ppm	ASTM D5185m	0	<b>9</b>	16	17
Barium	ppm	ASTM D5185m	0	<b>0</b>	1	4
Molybdenum	ppm	ASTM D5185m	60	<b>63</b>	69	59
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	4
Magnesium	ppm	ASTM D5185m	1010	<b>877</b>	893	716
Calcium	ppm	ASTM D5185m	1070	<b>1160</b>	1272	1540
Phosphorus	ppm	ASTM D5185m	1150	<b>1055</b>	1124	1167
Zinc	ppm	ASTM D5185m	1270	<b>1258</b>	1292	1392
Sulfur	ppm	ASTM D5185m	2060	<b>3553</b>	3624	3228
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	14.2	20.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.1</b>	8.4	9.4
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.9</b>	13.8	● 12.3

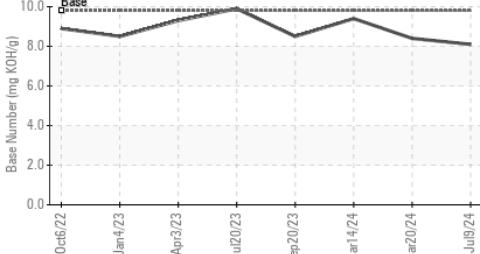
**FT-IR (Direct Trend)**



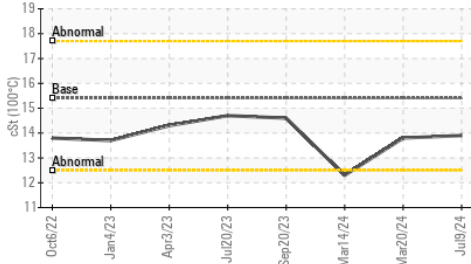
**Ferrous Alloys**



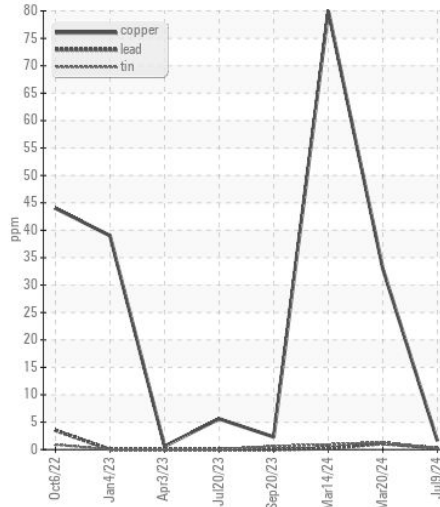
**Base Number**



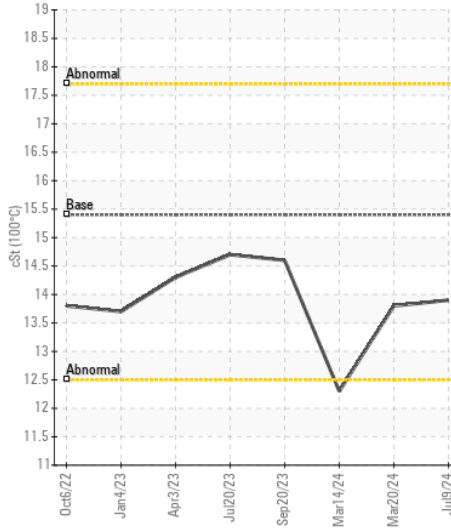
**Viscosity @ 100°C**



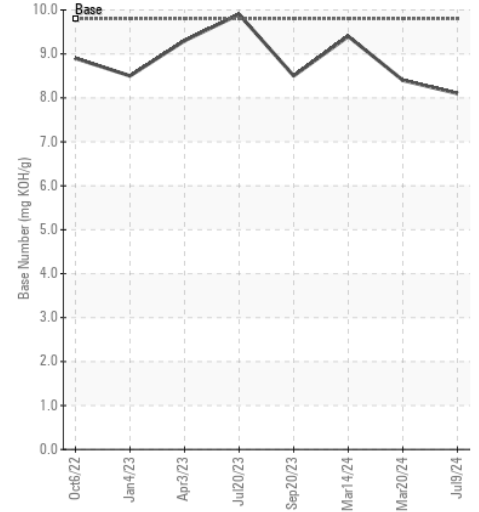
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0106060  
**Lab Number** : 06235368  
**Unique Number** : 11124202  
**Test Package** : FLEET

**GFL Environmental - 152 - Jacksonville**  
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 Jacksonville, FL  
 US 32256  
 Contact: GRANVILLE CARROLL  
 gcarroll@gflenv.com  
 T: 1(904)252-6815  
 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)