



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



Area  
**(41001HA)**  
Machine Id  
**426025-4670**  
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>GFL0122011</b>	GFL0067855	---
Sample Date		Client Info		<b>25 Jun 2024</b>	08 Jun 2023	---
Machine Age	hrs	Client Info		<b>34069</b>	33118	---
Oil Age	hrs	Client Info		<b>34069</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Not Changd	---
Filter Changed		Client Info		<b>Changed</b>	Not Changd	---
Sample Status				<b>NORMAL</b>	NORMAL	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>21</b>	14	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	0	---
Lead	ppm	ASTM D5185m	>40	<b>2</b>	3	---
Copper	ppm	ASTM D5185m	>330	<b>3</b>	10	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

There is no indication of any contamination in the oil.

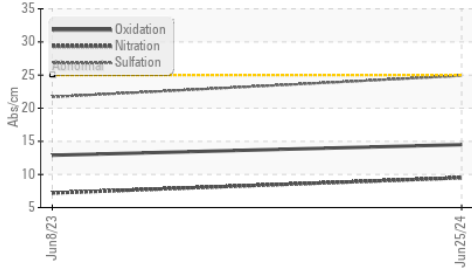
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	2	---
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	1	---
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>4	<b>3.4</b>	2.6	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.5</b>	7.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.9</b>	21.7	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

**FLUID CONDITION**

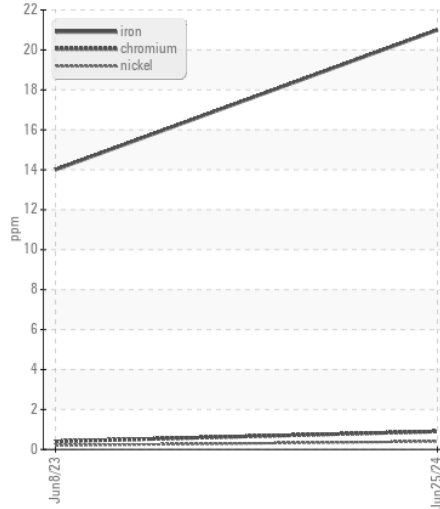
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>5</b>	0	---
Boron	ppm	ASTM D5185m	0	<b>5</b>	27	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	2	---
Molybdenum	ppm	ASTM D5185m	60	<b>57</b>	44	---
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	1010	<b>931</b>	583	---
Calcium	ppm	ASTM D5185m	1070	<b>1125</b>	780	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1042</b>	930	---
Zinc	ppm	ASTM D5185m	1270	<b>1272</b>	842	---
Sulfur	ppm	ASTM D5185m	2060	<b>3269</b>	4633	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	12.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.8</b>	6.5	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	13.9	---

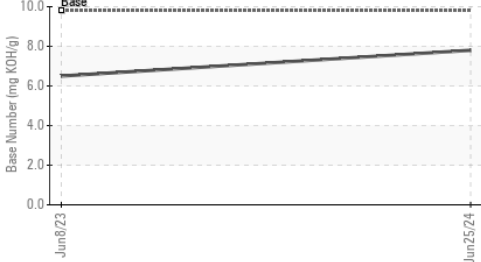
FT-IR (Direct Trend)



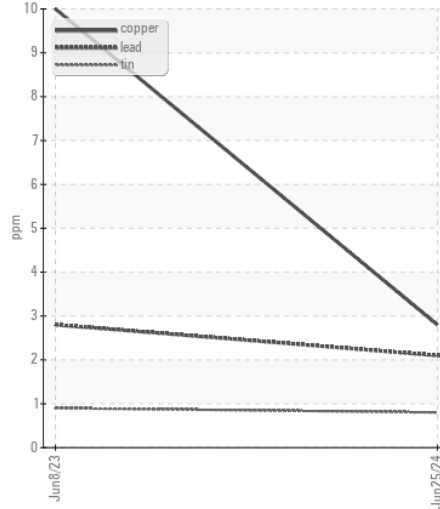
Ferrous Alloys



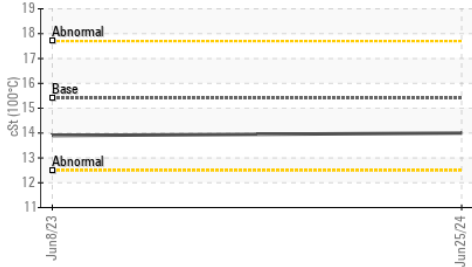
Base Number



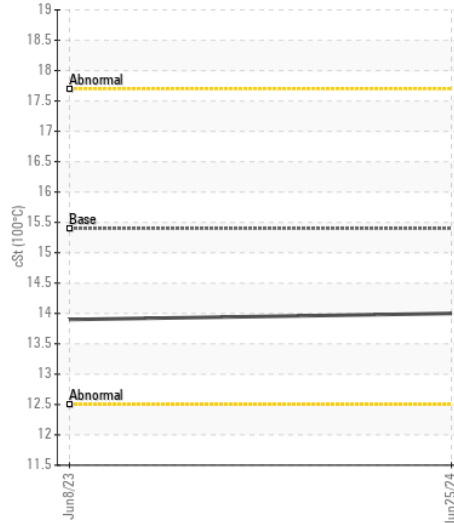
Non-ferrous Metals



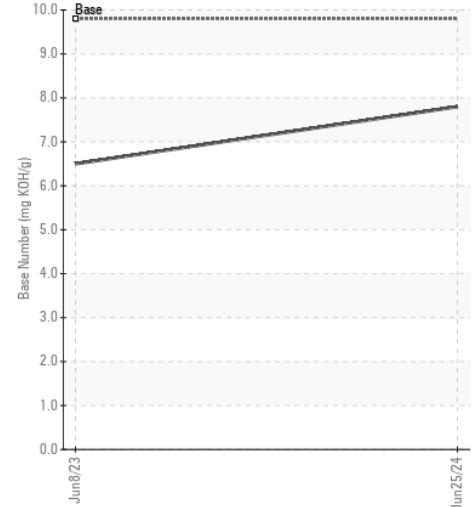
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0122011  
 Lab Number : 06222171  
 Unique Number : 11100368  
 Test Package : FLEET

Received : 27 Jun 2024  
 Tested : 28 Jun 2024  
 Diagnosed : 28 Jun 2024 - Wes Davis

GFL Environmental - 654S - Midlothian  
 12230 Deergrove Road  
 Midlothian, VA  
 US 23112  
 Contact: Corbin Umphlet  
 cumphlet@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)

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F: