



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



Area  
**(61AATE6)**  
Machine Id  
**214010**  
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>GFL0115834</b>	GFL0115848	GFL0113712
Sample Date		Client Info		<b>01 May 2024</b>	10 Apr 2024	29 Mar 2024
Machine Age	hrs	Client Info		<b>677</b>	666	531
Oil Age	hrs	Client Info		<b>146</b>	0	531
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	<b>14</b>	6	66
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	2
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	<1	6
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>4</b>	2	77
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</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.

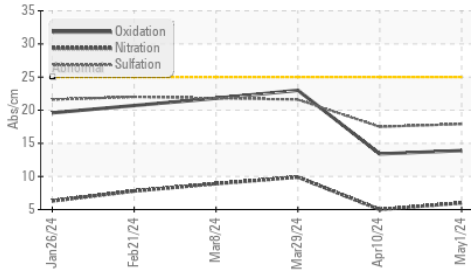
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	25
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	0	8
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.1</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.0</b>	5.0	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.9</b>	17.5	21.6
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**

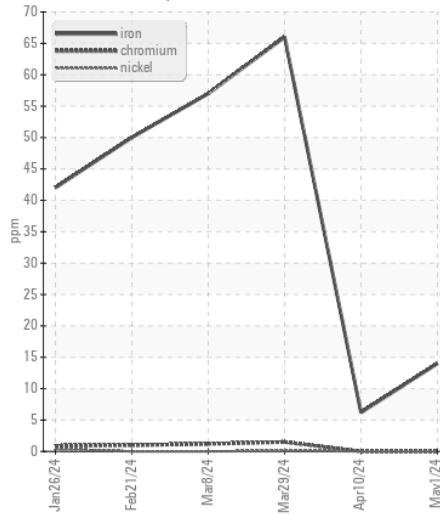
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	0	6
Boron	ppm	ASTM D5185m	0	<b>9</b>	12	41
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>61</b>	59	42
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	5
Magnesium	ppm	ASTM D5185m	1010	<b>879</b>	829	581
Calcium	ppm	ASTM D5185m	1070	<b>1107</b>	1030	1661
Phosphorus	ppm	ASTM D5185m	1150	<b>1004</b>	979	791
Zinc	ppm	ASTM D5185m	1270	<b>1182</b>	1100	934
Sulfur	ppm	ASTM D5185m	2060	<b>3340</b>	3111	2624
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.9</b>	13.4	23.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.7</b>	8.3	7.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.3</b>	13.7	11.3

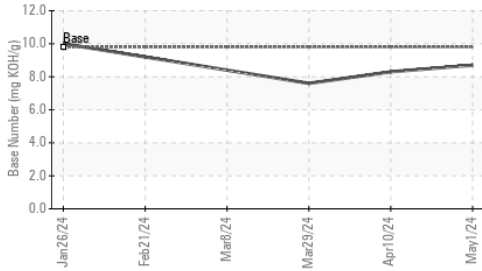
**FT-IR (Direct Trend)**



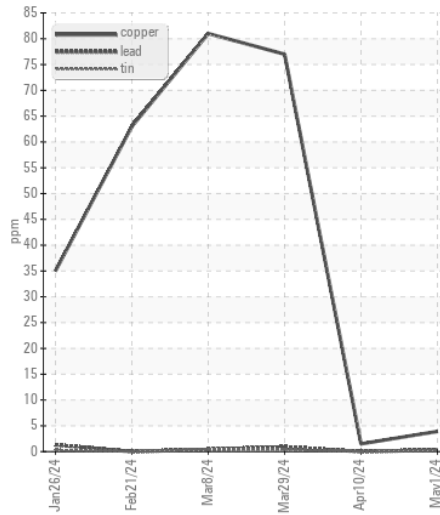
**Ferrous Alloys**



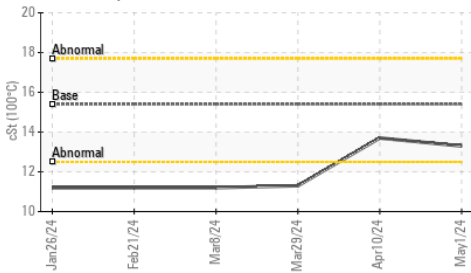
**Base Number**



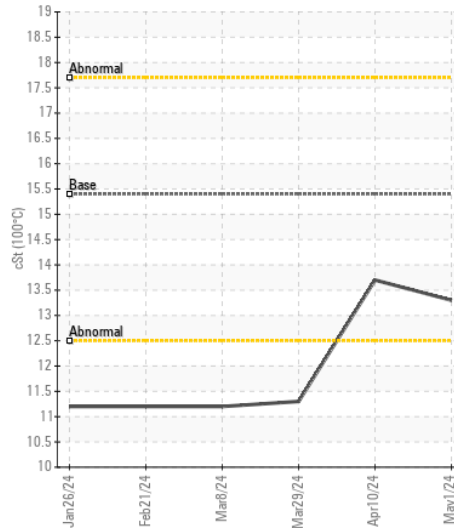
**Non-ferrous Metals**



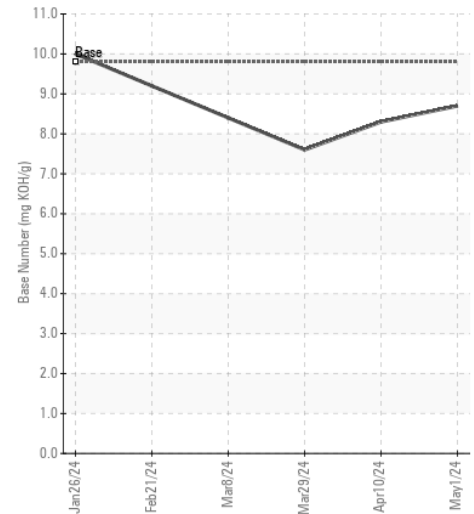
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0115834  
**Lab Number** : 06175179  
**Unique Number** : 11021232  
**Test Package** : FLEET

**Received** : 10 May 2024  
**Tested** : 11 May 2024  
**Diagnosed** : 11 May 2024 - Wes Davis

GFL Environmental - 868 - Childersburg Fines Hauling (Alpine)  
 13737 Plant Rd  
 Childersburg, AL  
 US 35044

Contact: JONATHAN WILLIAMS  
 jonathan.williams@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)

T:  
F: