



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



Area  
**(42KM3B) GFL837**  
Machine Id  
**834049**  
Component  
**Natural Gas Engine**  
Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0118763</b>	GFL0114117	GFL0108072
Sample Date		Client Info		<b>16 Apr 2024</b>	21 Mar 2024	19 Feb 2024
Machine Age	hrs	Client Info		<b>1155</b>	1155	1016
Oil Age	hrs	Client Info		<b>1155</b>	1155	1016
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>73</b>	80	64
Chromium	ppm	ASTM D5185m	>4	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m	>2	<b>3</b>	3	1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>9	<b>6</b>	6	5
Lead	ppm	ASTM D5185m	>30	<b>3</b>	3	2
Copper	ppm	ASTM D5185m	>35	<b>17</b>	18	15
Tin	ppm	ASTM D5185m	>4	<b>2</b>	2	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	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.

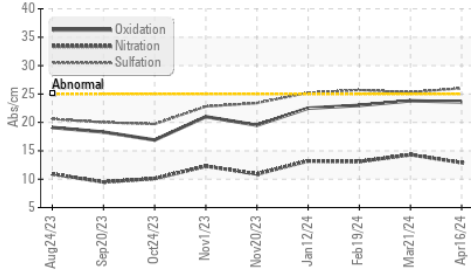
Silicon	ppm	ASTM D5185m	>+100	<b>26</b>	29	28
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	13	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.9</b>	14.3	13.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.0</b>	25.3	25.7
Silt	scalar	*Visual	NONE	<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	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

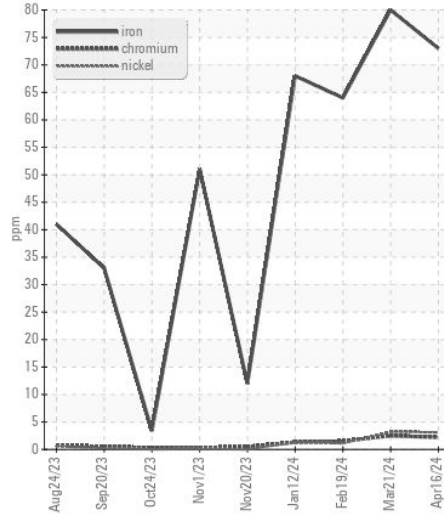
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	4	7
Boron	ppm	ASTM D5185m	50	<b>10</b>	10	4
Barium	ppm	ASTM D5185m	5	<b>3</b>	4	3
Molybdenum	ppm	ASTM D5185m	50	<b>62</b>	63	55
Manganese	ppm	ASTM D5185m	0	<b>13</b>	15	13
Magnesium	ppm	ASTM D5185m	560	<b>734</b>	778	744
Calcium	ppm	ASTM D5185m	1510	<b>1371</b>	1425	1214
Phosphorus	ppm	ASTM D5185m	780	<b>825</b>	787	697
Zinc	ppm	ASTM D5185m	870	<b>976</b>	1001	912
Sulfur	ppm	ASTM D5185m	2040	<b>2580</b>	2516	2127
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.6</b>	23.8	23.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>3.8</b>	4.0	3.6
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.4</b>	14.1	14.2

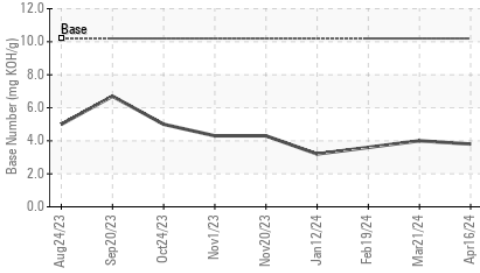
**FT-IR (Direct Trend)**



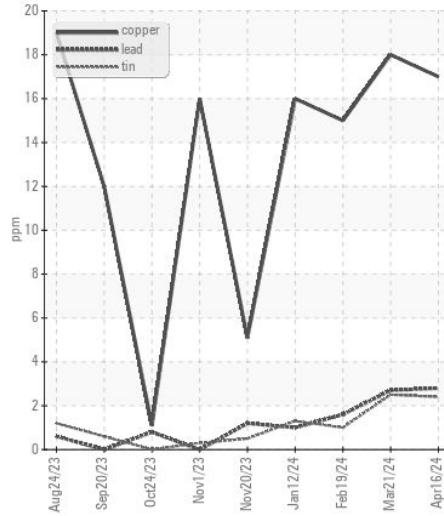
**Ferrous Alloys**



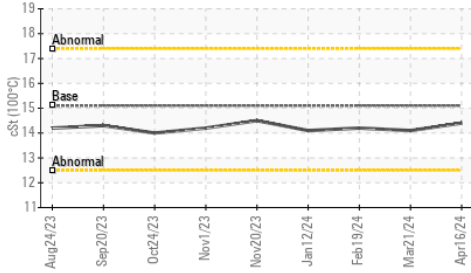
**Base Number**



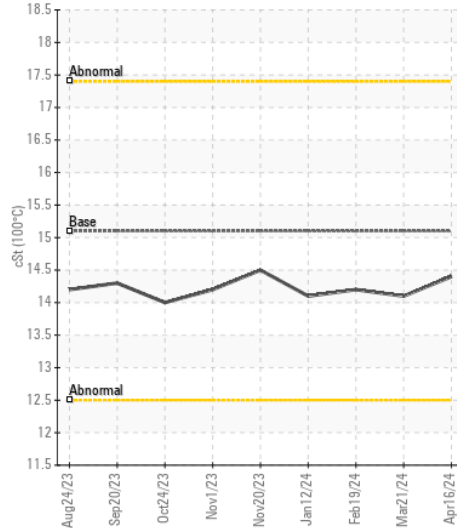
**Non-ferrous Metals**



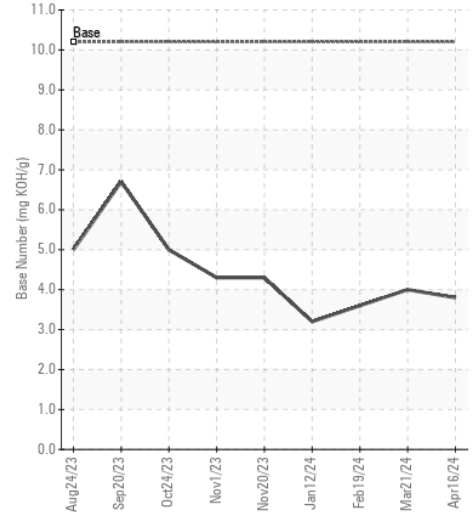
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0118763  
**Lab Number** : 06156768  
**Unique Number** : 10992191  
**Test Package** : FLEET

**Received** : 22 Apr 2024  
**Tested** : 23 Apr 2024  
**Diagnosed** : 24 Apr 2024 - Sean Felton

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Loyce Stewart  
 loyce.stewart@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: