



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

Machine Id  
**749000**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0121832</b>	GFL0106757	GFL0092052
Sample Date		Client Info		<b>09 Jul 2024</b>	28 Mar 2024	14 Dec 2023
Machine Age	hrs	Client Info		<b>16103</b>	15505	14860
Oil Age	hrs	Client Info		<b>600</b>	600	600
Filter Age	hrs	Client Info		<b>600</b>	600	600
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	>50	<b>10</b>	11	8
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>30	<b>0</b>	<1	1
Copper	ppm	ASTM D5185m	>35	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</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.

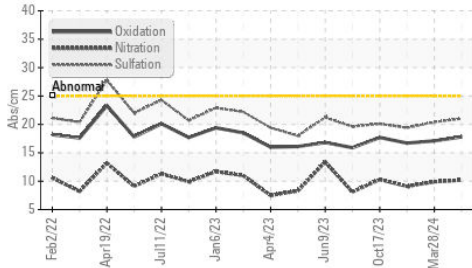
Silicon	ppm	ASTM D5185m	>+100	<b>3</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	11	14
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.2</b>	9.9	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.0</b>	20.4	19.4
Silt	scalar	*Visual	NONE	<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**

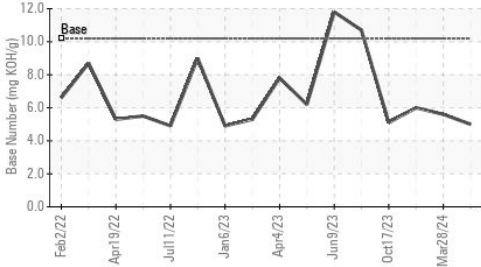
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>14</b>	14	18
Boron	ppm	ASTM D5185m	50	<b>6</b>	12	18
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	50	<b>55</b>	54	52
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	560	<b>535</b>	629	550
Calcium	ppm	ASTM D5185m	1510	<b>1641</b>	1651	1541
Phosphorus	ppm	ASTM D5185m	780	<b>695</b>	813	734
Zinc	ppm	ASTM D5185m	870	<b>926</b>	1067	962
Sulfur	ppm	ASTM D5185m	2040	<b>2150</b>	3250	2443
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.8</b>	17.1	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>5.0</b>	5.6	6.0
Visc @ 100°C	cSt	ASTM D445	15.1	<b>15.0</b>	14.8	14.9

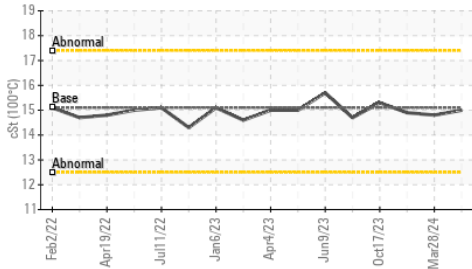
**FT-IR (Direct Trend)**



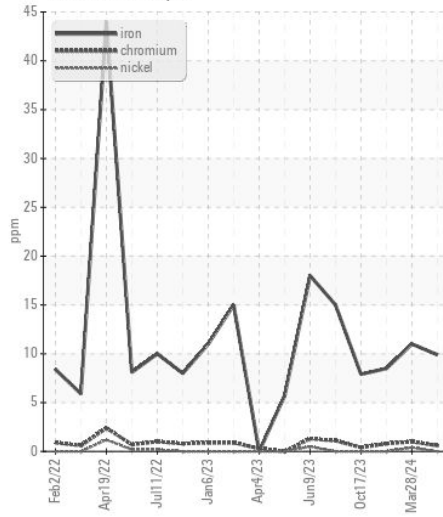
**Base Number**



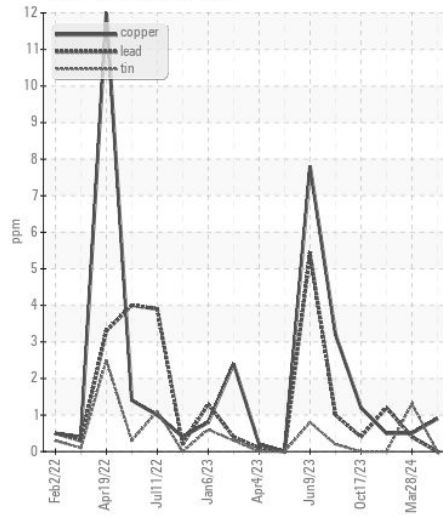
**Viscosity @ 100°C**



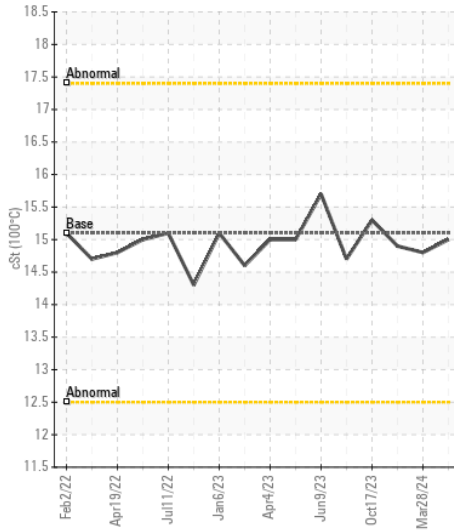
**Ferrous Alloys**



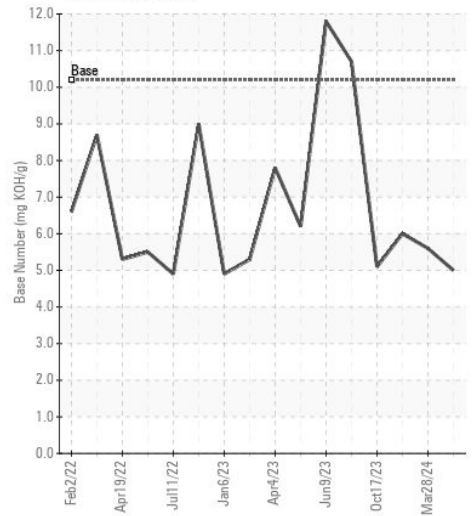
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : GFL0121832

**Lab Number** : 06234676

**Unique Number** : 11123510

**Test Package** : FLEET

**Received** : 12 Jul 2024

**Tested** : 15 Jul 2024

**Diagnosed** : 15 Jul 2024 - Wes Davis

**GFL Environmental - 856 - Houston South**

8515 Highway 6 South

Houston, TX

US 77083

Contact: Jose Gonzalez

jgonzalez2@gflenv.com

T:

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)