



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

Machine Id  
**944015-260210**  
 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>GFL0106752</b>	GFL0092106	GFL0092022
Sample Date		Client Info		<b>09 Apr 2024</b>	06 Dec 2023	09 Nov 2023
Machine Age	hrs	Client Info		<b>20793</b>	68	8361
Oil Age	hrs	Client Info		<b>600</b>	68	31307
Filter Age	hrs	Client Info		<b>600</b>	68	31307
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**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>50	<b>8</b>	9	22
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
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>	4	8
Lead	ppm	ASTM D5185m	>30	<b>1</b>	0	1
Copper	ppm	ASTM D5185m	>35	<b>&lt;1</b>	0	0
Tin	ppm	ASTM D5185m	>4	<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.

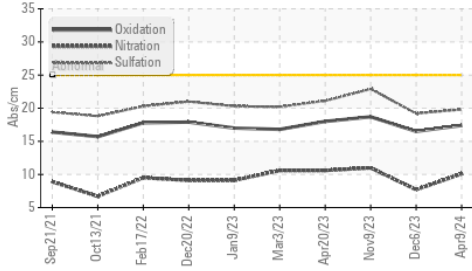
Silicon	ppm	ASTM D5185m	>+100	<b>5</b>	5	11
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.1</b>	7.7	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.8</b>	19.2	22.9
Silt	scalar	*Visual	NONE	<b>NONE</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**

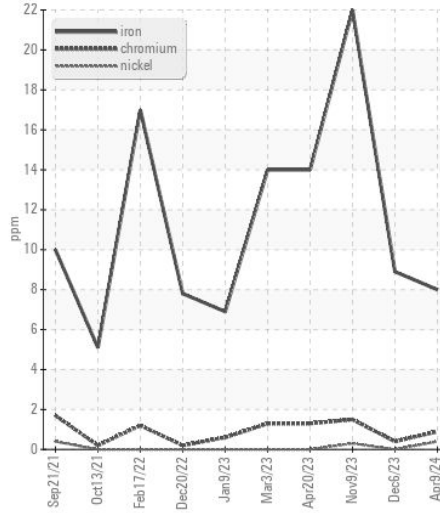
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	6	2
Boron	ppm	ASTM D5185m	50	<b>14</b>	31	9
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	50	<b>53</b>	52	51
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	560	<b>532</b>	552	589
Calcium	ppm	ASTM D5185m	1510	<b>1627</b>	1519	1616
Phosphorus	ppm	ASTM D5185m	780	<b>814</b>	733	724
Zinc	ppm	ASTM D5185m	870	<b>965</b>	950	1002
Sulfur	ppm	ASTM D5185m	2040	<b>2832</b>	2297	2448
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.4</b>	16.5	18.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>5.3</b>	7.5	3.7
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.4</b>	14.5	14.6

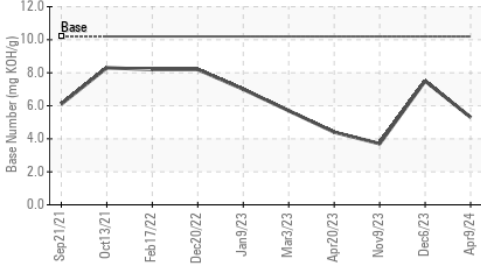
**FT-IR (Direct Trend)**



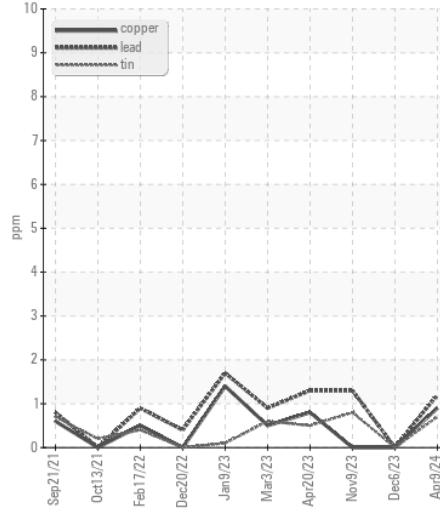
**Ferrous Alloys**



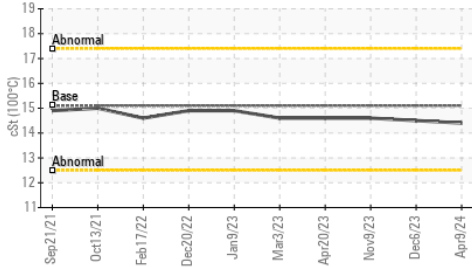
**Base Number**



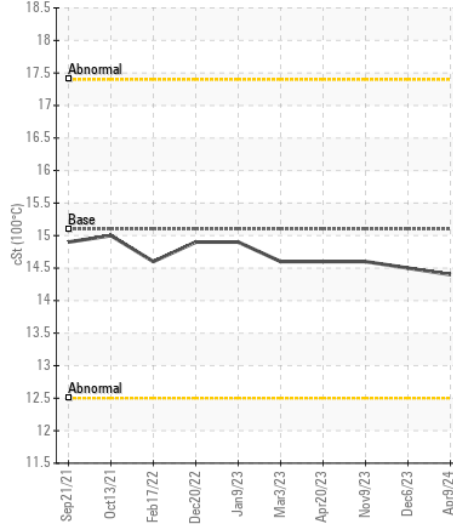
**Non-ferrous Metals**



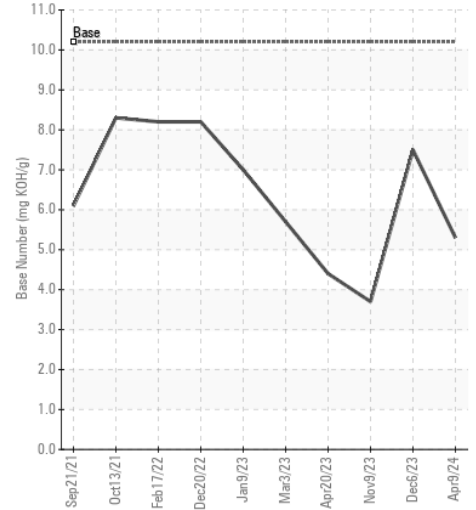
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0106752  
**Lab Number** : 06148452  
**Unique Number** : 10978530  
**Test Package** : FLEET

**Received** : 15 Apr 2024  
**Tested** : 16 Apr 2024  
**Diagnosed** : 16 Apr 2024 - Wes Davis

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX  
 US 77083  
 Contact: Apolinar Zacarias  
 pzacariascano@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: