



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

Area  
**(YA133456) [oil service]**

Machine Id  
**10640C**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (36 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0124481</b>	GFL0111060	GFL0098517
Sample Date		Client Info		<b>21 Jun 2024</b>	06 Mar 2024	18 Dec 2023
Machine Age	hrs	Client Info		<b>21331</b>	20445	19825
Oil Age	hrs	Client Info		<b>886</b>	620	3003
Filter Age	hrs	Client Info		<b>0</b>	620	0
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>11</b>	14	19
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>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>2</b>	3	6
Lead	ppm	ASTM D5185m	>30	<b>2</b>	2	<1
Copper	ppm	ASTM D5185m	>35	<b>1</b>	2	2
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</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.

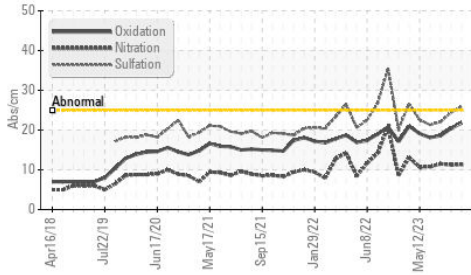
Silicon	ppm	ASTM D5185m	>+100	<b>5</b>	10	8
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	22	10
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.3</b>	11.2	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.9</b>	24.4	22.1
Silt	scalar	*Visual	NONE	<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**

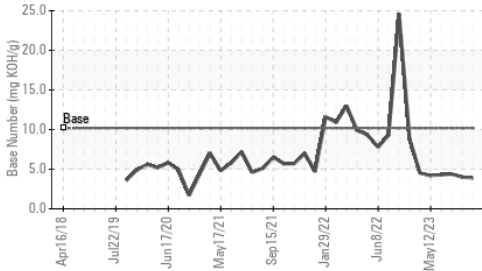
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>10</b>	10	2
Boron	ppm	ASTM D5185m	50	<b>8</b>	10	183
Barium	ppm	ASTM D5185m	5	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	50	<b>58</b>	55	122
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	<1
Magnesium	ppm	ASTM D5185m	560	<b>655</b>	579	756
Calcium	ppm	ASTM D5185m	1510	<b>1902</b>	1561	1645
Phosphorus	ppm	ASTM D5185m	780	<b>888</b>	766	724
Zinc	ppm	ASTM D5185m	870	<b>1109</b>	993	942
Sulfur	ppm	ASTM D5185m	2040	<b>2824</b>	2296	2782
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.8</b>	20.4	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>3.9</b>	4.0	4.4
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.2</b>	14.3	14.2

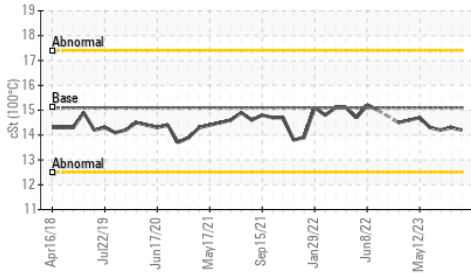
**FT-IR (Direct Trend)**



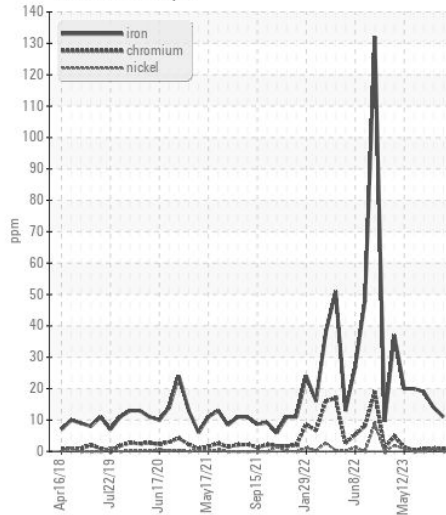
**Base Number**



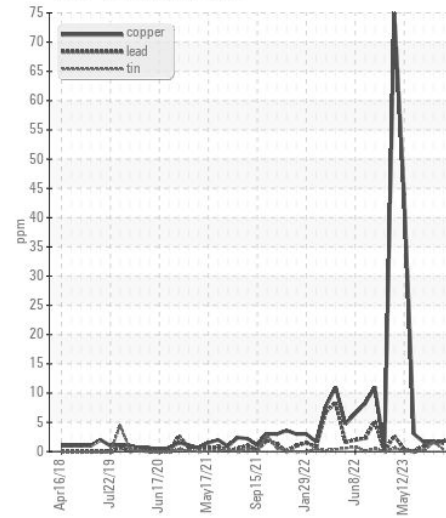
**Viscosity @ 100°C**



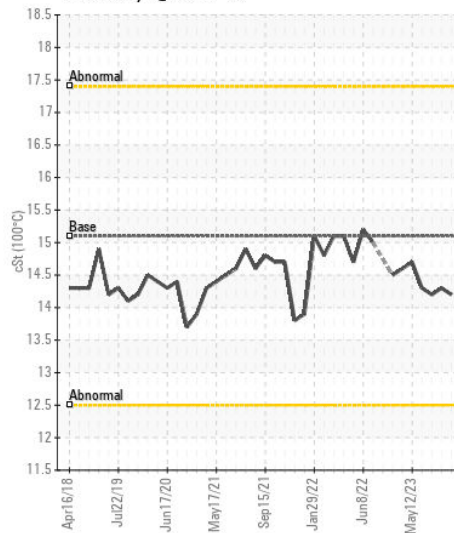
**Ferrous Alloys**



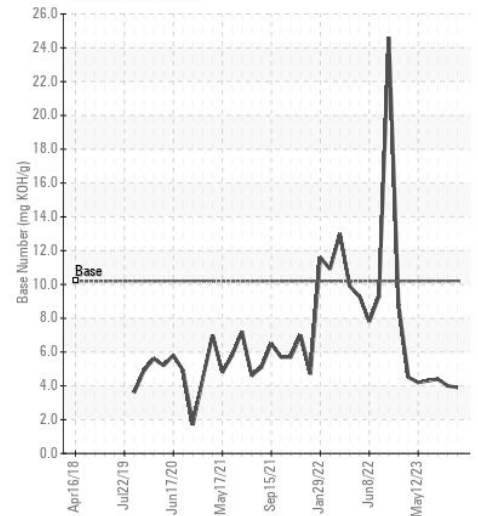
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0124481  
**Lab Number** : 06217928  
**Unique Number** : 11096125  
**Test Package** : FLEET

**Received** : 24 Jun 2024  
**Tested** : 25 Jun 2024  
**Diagnosed** : 25 Jun 2024 - Wes Davis

**GFL Environmental - 006 - Wilmington**  
 3618 US Highway 421 N  
 Wilmington, NC  
 US 28401

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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)