



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

Area

**(N4933S)**

Machine Id

**426083**

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>GFL0119114</b>	GFL0106991	GFL0089746
Sample Date		Client Info		<b>19 Jun 2024</b>	01 Mar 2024	25 Nov 2023
Machine Age	hrs	Client Info		<b>21290</b>	21290	20923
Oil Age	hrs	Client Info		<b>21915</b>	367	351
Filter Age	hrs	Client Info		<b>21915</b>	367	351
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>22</b>	18	2
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	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>2</b>	<1	1
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>35	<b>1</b>	0	<1
Tin	ppm	ASTM D5185m	>4	<b>0</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.

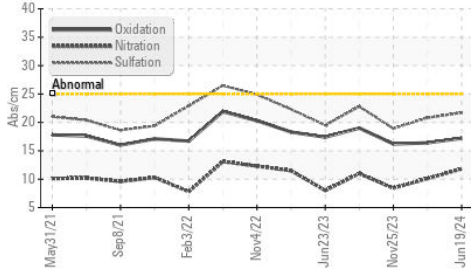
Silicon	ppm	ASTM D5185m	>+100	<b>4</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>21</b>	6	2
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>1.3</b>	1.5	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.8</b>	10.1	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	20.8	18.9
Silt	scalar	*Visual	NONE	<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**

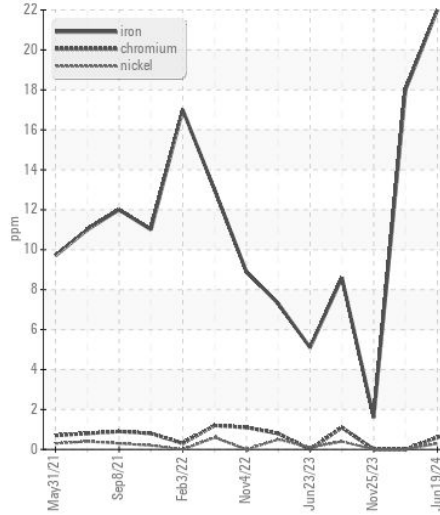
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>27</b>	17	6
Boron	ppm	ASTM D5185m	50	<b>5</b>	2	23
Barium	ppm	ASTM D5185m	5	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	50	<b>60</b>	58	46
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	560	<b>877</b>	888	550
Calcium	ppm	ASTM D5185m	1510	<b>1275</b>	1029	1407
Phosphorus	ppm	ASTM D5185m	780	<b>896</b>	1017	744
Zinc	ppm	ASTM D5185m	870	<b>1233</b>	1206	905
Sulfur	ppm	ASTM D5185m	2040	<b>2730</b>	2677	2301
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.2</b>	16.4	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>8.4</b>	8.7	8.0
Visc @ 100°C	cSt	ASTM D445	15.1	<b>13.9</b>	12.7	14.4

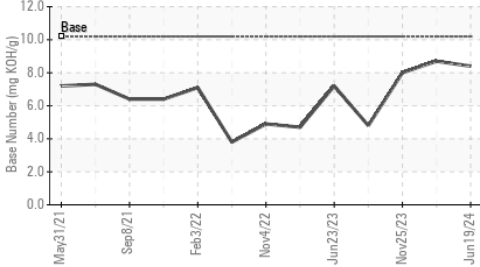
**FT-IR (Direct Trend)**



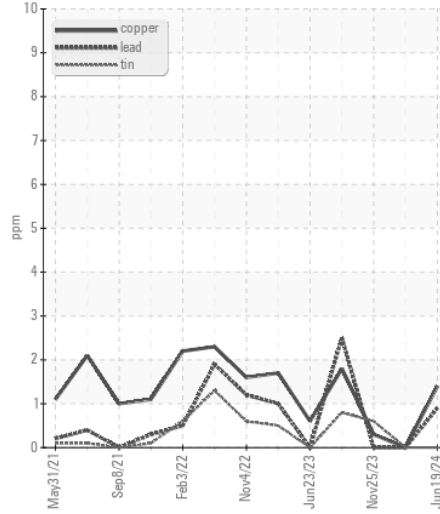
**Ferrous Alloys**



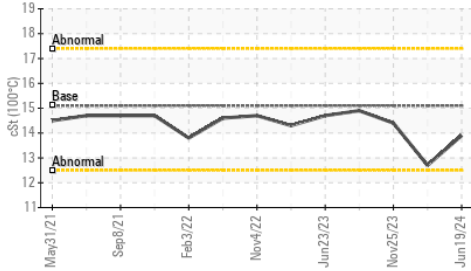
**Base Number**



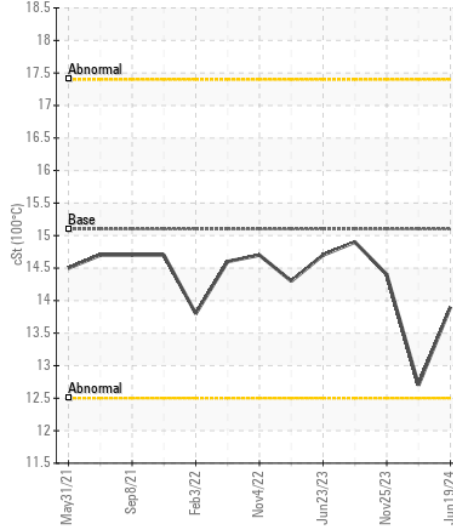
**Non-ferrous Metals**



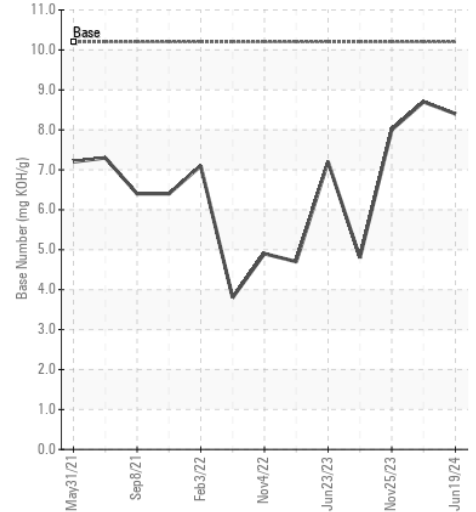
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0119114  
**Lab Number** : 06216611  
**Unique Number** : 11089475  
**Test Package** : FLEET

**Received** : 21 Jun 2024  
**Tested** : 24 Jun 2024  
**Diagnosed** : 24 Jun 2024 - Wes Davis

**GFL Environmental - 882 - Gainesville**  
 5002 SW 41st Blvd  
 Gainesville, FL  
 US 32608  
 Contact: ROBERT CLARK  
 robert.clark@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: