



Machine Id  
**3597C**  
Component  
**Natural Gas Engine**  
Fluid  
**PETRO CANADA DURON GEO LD 15W40 (7 GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0119066</b>	GFL0052187	GFL0052170
Sample Date		Client Info		<b>22 May 2024</b>	20 Sep 2022	02 Aug 2022
Machine Age	hrs	Client Info		<b>18565</b>	18565	18565
Oil Age	hrs	Client Info		<b>18565</b>	21436	20906
Filter Age	hrs	Client Info		<b>0</b>	530	1425
Oil Changed		Client Info		<b>N/A</b>	Not Changd	Changed
Filter Changed		Client Info		<b>N/A</b>	Not Changd	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

**WEAR**

An increase in the copper level is noted. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>8</b>	5	6
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>9	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>35	<b>29</b>	0	<1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

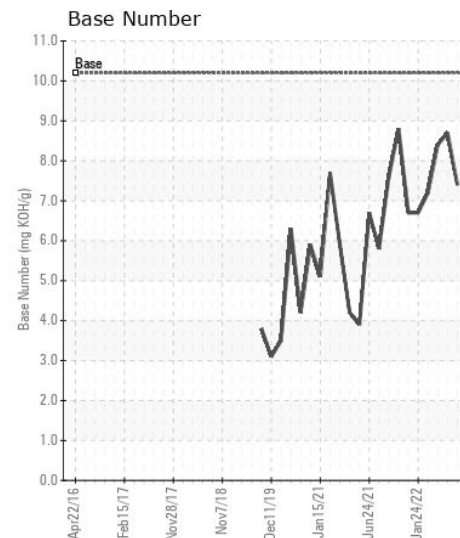
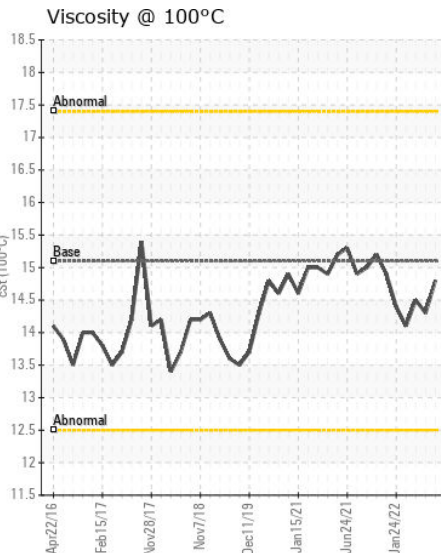
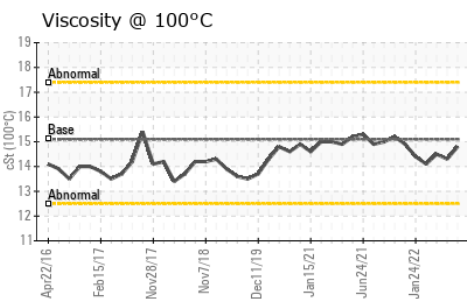
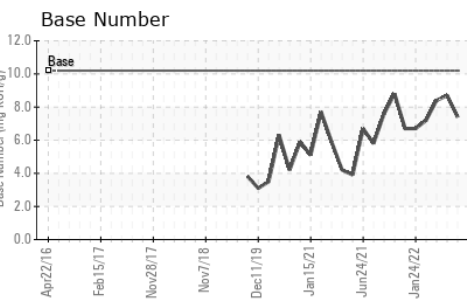
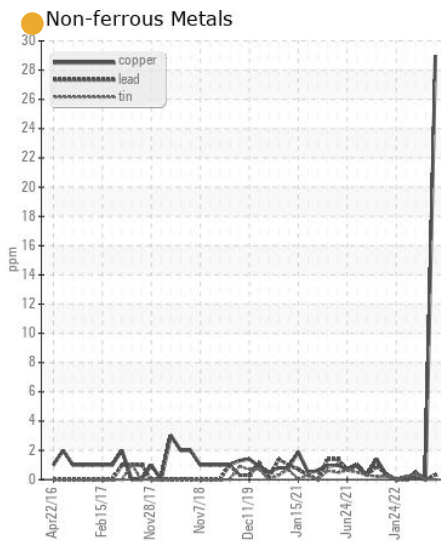
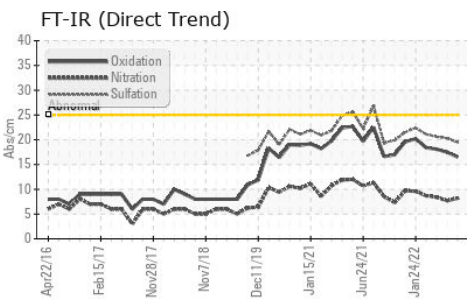
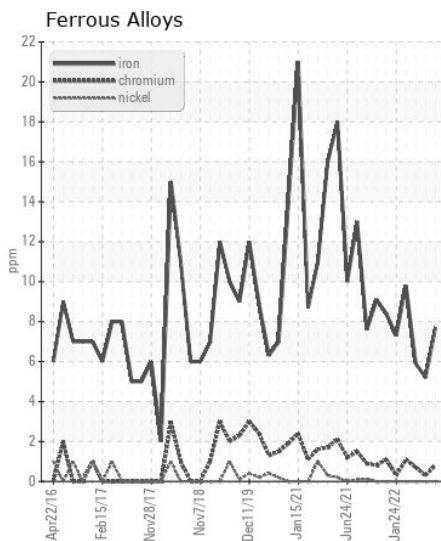
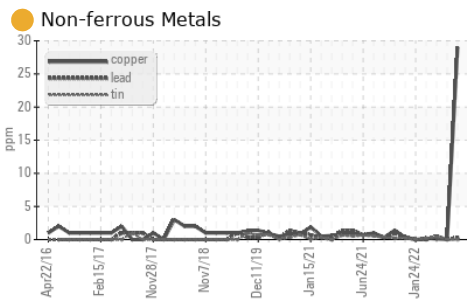
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	<b>4</b>	3	9
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	7.7	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.5</b>	20.3	20.6
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>5</b>	3	3
Boron	ppm	ASTM D5185m	50	<b>23</b>	34	36
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	50	<b>50</b>	48	46
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	560	<b>597</b>	479	528
Calcium	ppm	ASTM D5185m	1510	<b>1578</b>	1424	1431
Phosphorus	ppm	ASTM D5185m	780	<b>840</b>	708	693
Zinc	ppm	ASTM D5185m	870	<b>975</b>	851	843
Sulfur	ppm	ASTM D5185m	2040	<b>2886</b>	2719	2362
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.5</b>	17.5	18.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>7.4</b>	8.7	8.4
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.8</b>	14.3	14.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0119066  
**Lab Number** : 06191441  
**Unique Number** : 11048193  
**Test Package** : FLEET

**Received** : 24 May 2024  
**Tested** : 29 May 2024  
**Diagnosed** : 29 May 2024 - Sean Felton

**GFL Environmental - 045 - Tidewater**  
 3821 Cook Blvd.  
 Chesapeake, VA  
 US 23323

Contact: ELVIN RODRIGUEZ  
 elvinrodriguez@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: