



Area  
**(ML7006)**  
Machine Id  
**2687C**  
Component  
**Natural Gas Engine**  
Fluid  
**PETRO CANADA DURON GEO LD 15W40 (36 QTS)**

**RECOMMENDATION**

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0101762</b>	PCA0095834	PCA0095830
Sample Date		Client Info		<b>28 Feb 2024</b>	28 Aug 2023	27 Jun 2023
Machine Age	hrs	Client Info		<b>17254</b>	16063	15545
Oil Age	hrs	Client Info		<b>1191</b>	518	1759
Filter Age	hrs	Client Info		<b>1191</b>	518	1759
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>SEVERE</b>	NORMAL	NORMAL

**WEAR**

Cylinder, crank, or cam shaft wear is indicated. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>50	<b>▲ 66</b>	6	5
Chromium	ppm	ASTM D5185m	>4	<b>▲ 5</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>2</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>● 18</b>	2	2
Lead	ppm	ASTM D5185m	>30	<b>▲ 102</b>	7	<1
Copper	ppm	ASTM D5185m	>35	<b>▲ 21</b>	0	1
Tin	ppm	ASTM D5185m	>4	<b>▲ 9</b>	<1	0
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**

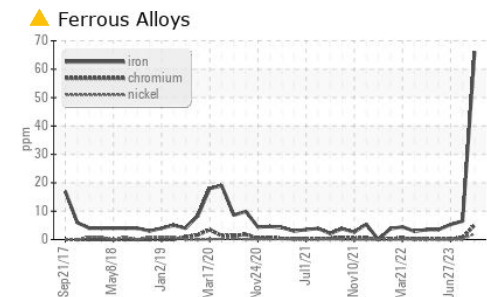
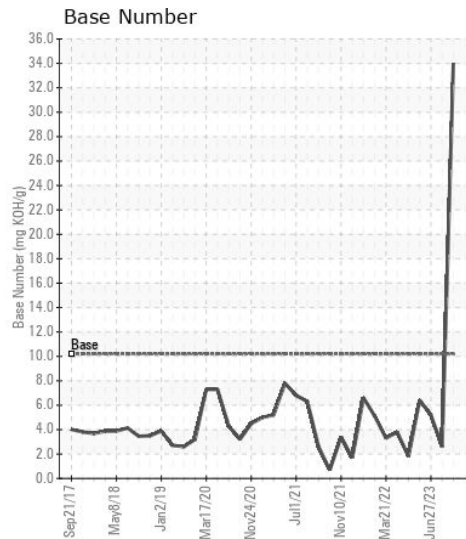
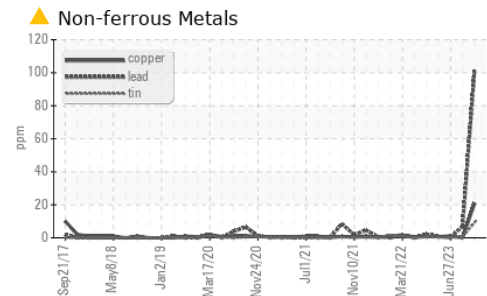
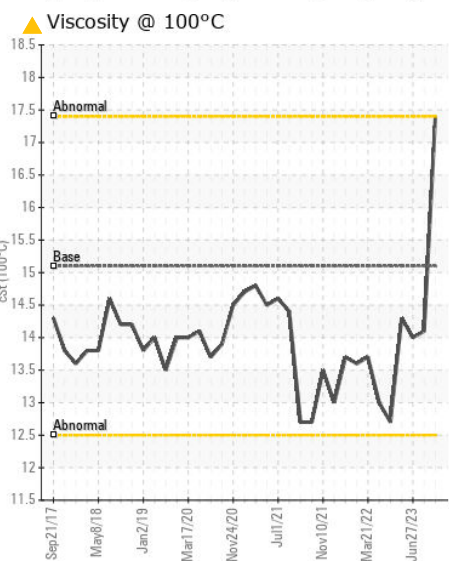
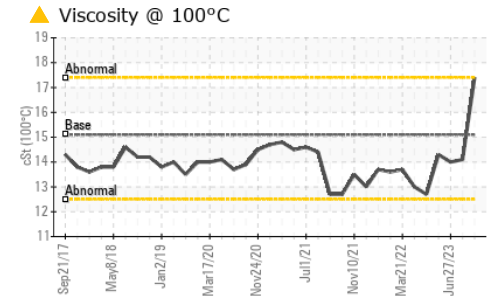
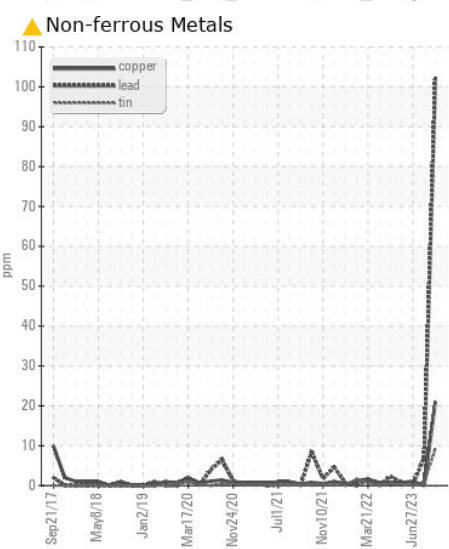
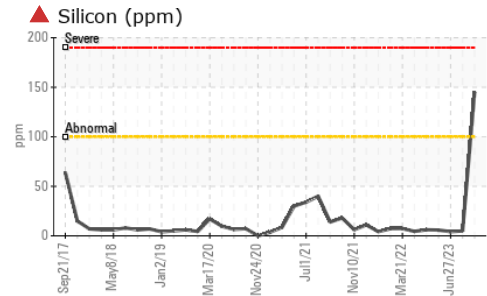
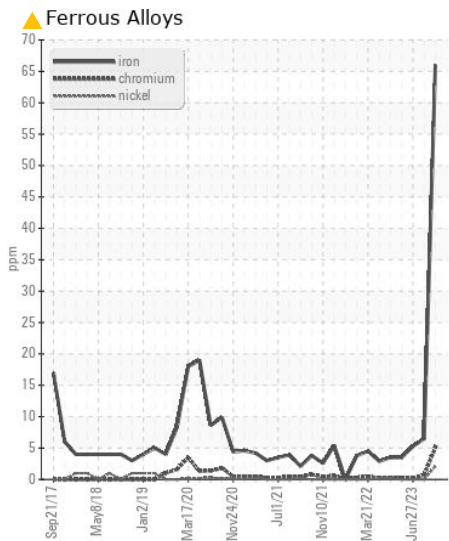
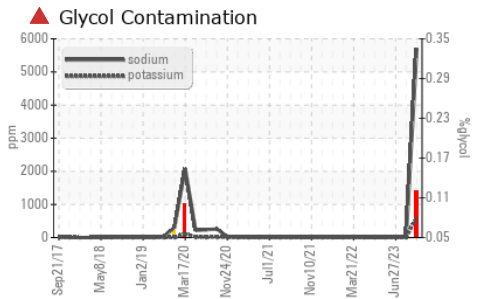
Sodium and/or potassium levels are high. Test for glycol is positive. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>+100	<b>▲ 145</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>▲ 622</b>	1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>▲ 0.12</b>	---	---
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>25.9</b>	11.4	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>30.3</b>	26.3	21.8
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 oil viscosity is higher than normal. The oil is no longer serviceable.

Sodium	ppm	ASTM D5185m		<b>▲ 5708</b>	14	7
Boron	ppm	ASTM D5185m	50	<b>30</b>	8	13
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	50	<b>300</b>	51	55
Manganese	ppm	ASTM D5185m	0	<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m	560	<b>563</b>	599	640
Calcium	ppm	ASTM D5185m	1510	<b>1568</b>	1704	1491
Phosphorus	ppm	ASTM D5185m	780	<b>857</b>	781	782
Zinc	ppm	ASTM D5185m	870	<b>1019</b>	1018	1031
Sulfur	ppm	ASTM D5185m	2040	<b>2856</b>	3166	3235
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.5</b>	23.7	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>34.0</b>	2.6	5.2
Visc @ 100°C	cSt	ASTM D445	15.1	<b>▲ 17.4</b>	14.1	14.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0101762 **Received** : 29 Feb 2024  
**Lab Number** : 06104051 **Tested** : 01 Mar 2024  
**Unique Number** : 10902281 **Diagnosed** : 02 Mar 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 002 - Vance-Granville**  
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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)