



Area

(YA154613)

Machine Id

10368C

Component

Natural Gas Engine

Fluid

PETRO CANADA DURON GEO LD 15W40 (30 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0123439	GFL0082468	GFL0050741
Sample Date		Client Info		18 Jun 2024	17 Jul 2023	16 Mar 2023
Machine Age	hrs	Client Info		86539	4723	3559
Oil Age	hrs	Client Info		86539	1176	1200
Filter Age	hrs	Client Info		0	1176	1200
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				SEVERE	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	19	27	19
Chromium	ppm	ASTM D5185m	>4	2	4	4
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	4	4
Lead	ppm	ASTM D5185m	>30	2	3	3
Copper	ppm	ASTM D5185m	>35	1	1	1
Tin	ppm	ASTM D5185m	>4	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

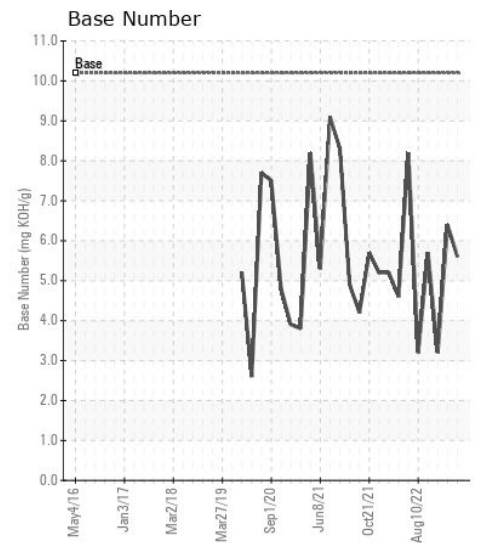
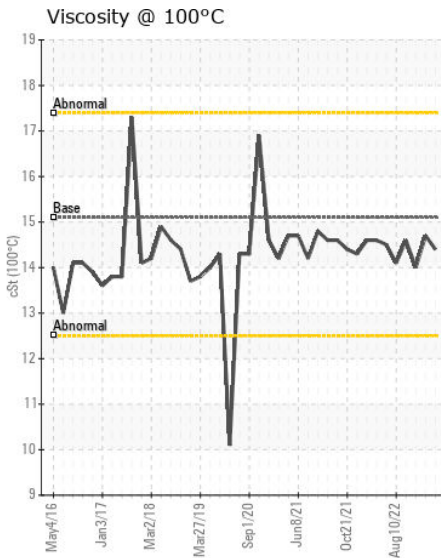
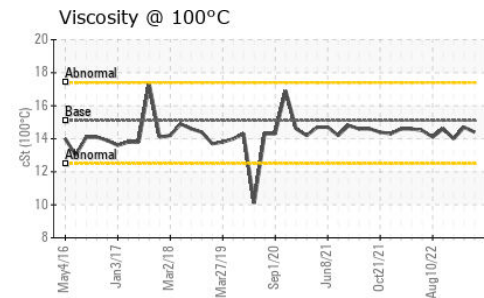
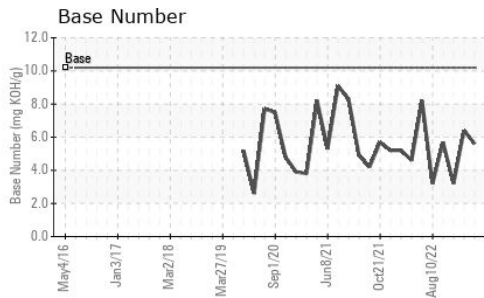
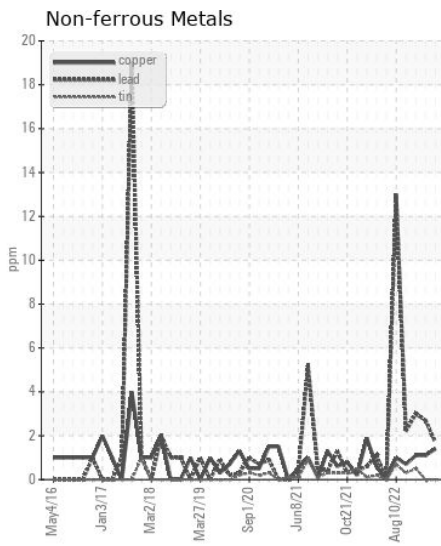
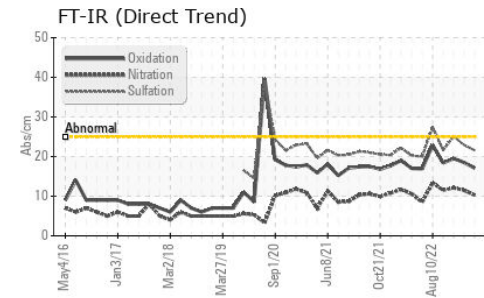
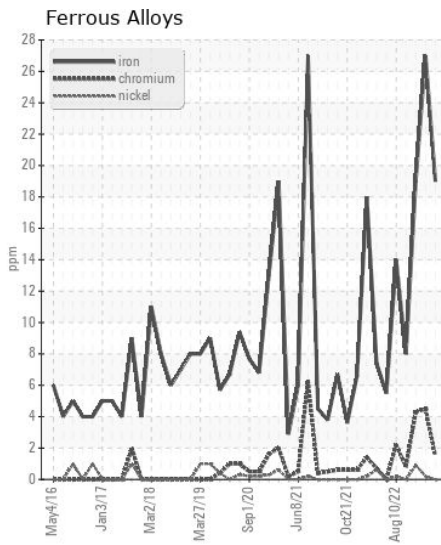
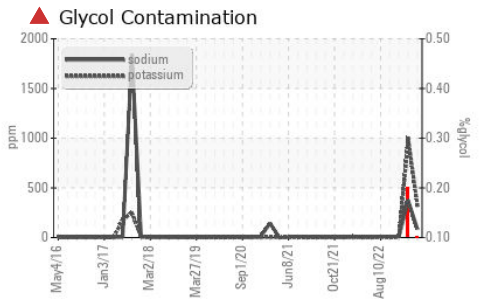
Sodium and/or potassium levels are high. Test for glycol is positive.

Silicon	ppm	ASTM D5185m	>+100	5	7	5
Potassium	ppm	ASTM D5185m	>20	324	991	4
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.10	0.20	---
Soot %	%	*ASTM D7844		0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	10.3	11.5	12.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	22.9	25.1
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		85	374	10
Boron	ppm	ASTM D5185m	50	13	0	4
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	62	67	56
Manganese	ppm	ASTM D5185m	0	<1	2	<1
Magnesium	ppm	ASTM D5185m	560	589	533	525
Calcium	ppm	ASTM D5185m	1510	1786	1652	1734
Phosphorus	ppm	ASTM D5185m	780	804	696	700
Zinc	ppm	ASTM D5185m	870	1104	992	996
Sulfur	ppm	ASTM D5185m	2040	3186	3059	2515
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	18.5	19.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	5.6	6.4	3.2
Visc @ 100°C	cSt	ASTM D445	15.1	14.4	14.7	14.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0123439
Lab Number : 06215660
Unique Number : 11088524
Test Package : FLEET

Received : 20 Jun 2024
Tested : 24 Jun 2024
Diagnosed : 24 Jun 2024 - Jonathan Hester

GFL Environmental - 007 - Brunswick
 2809 Galloway Road
 Bolivia, NC
 US 28422
 Contact: DONALD CRAVEN
 dcraven@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: (910)253-4179