



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

(YA146559)

Machine Id

10877C

Component

Natural Gas Engine

Fluid

PETRO CANADA DURON GEO LD 15W40 (30 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		GFL0123416	GFL0082414	GFL0050729
Sample Date		Client Info		18 Jun 2024	26 Oct 2023	16 Mar 2023
Machine Age	hrs	Client Info		12494	12494	12494
Oil Age	hrs	Client Info		12494	12494	1099
Filter Age	hrs	Client Info		12494	500	1099
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	19	12	18
Chromium	ppm	ASTM D5185m	>4	2	<1	3
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	2	4
Lead	ppm	ASTM D5185m	>30	3	0	2
Copper	ppm	ASTM D5185m	>35	▲ 144	0	<1
Tin	ppm	ASTM D5185m	>4	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

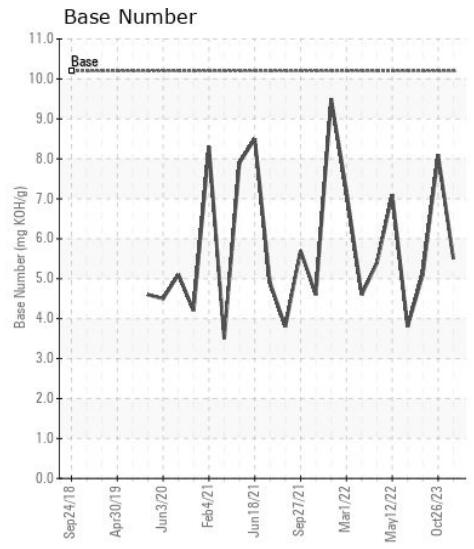
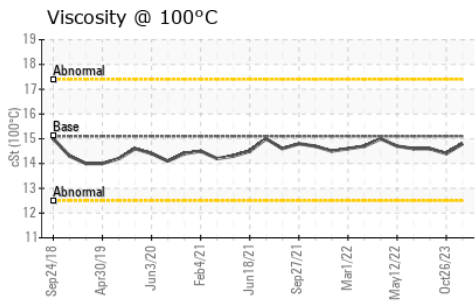
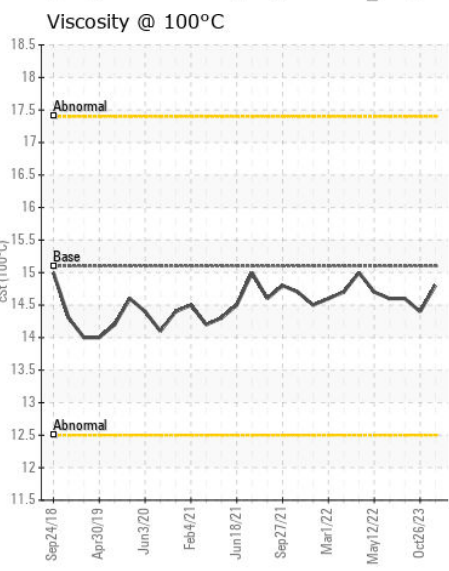
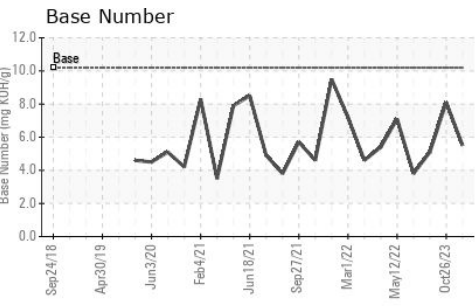
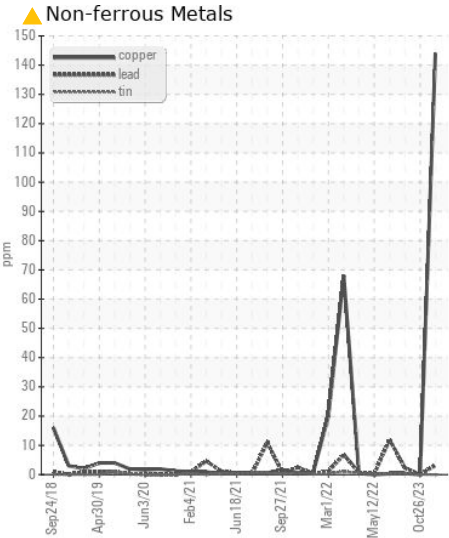
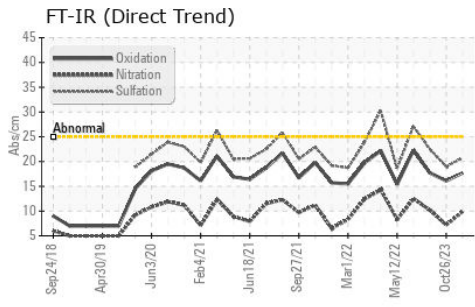
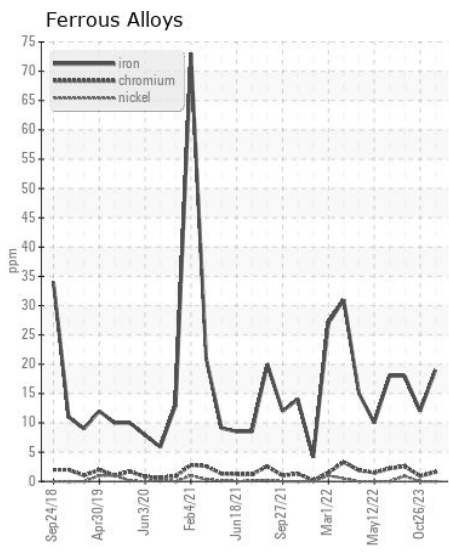
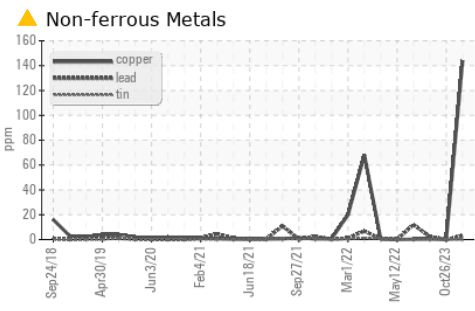
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	7	7	4
Potassium	ppm	ASTM D5185m	>20	4	4	1
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.9	7.2	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	19.0	22.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	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. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		6	5	7
Boron	ppm	ASTM D5185m	50	11	38	13
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	53	48	52
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	560	602	521	514
Calcium	ppm	ASTM D5185m	1510	1785	1543	1617
Phosphorus	ppm	ASTM D5185m	780	808	851	720
Zinc	ppm	ASTM D5185m	870	1011	897	961
Sulfur	ppm	ASTM D5185m	2040	2697	2348	2482
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	16.1	17.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	5.5	8.1	5.1
Visc @ 100°C	cSt	ASTM D445	15.1	14.8	14.4	14.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0123416 **Received** : 20 Jun 2024
Lab Number : 06215570 **Tested** : 21 Jun 2024
Unique Number : 11088434 **Diagnosed** : 21 Jun 2024 - Sean Felton
Test Package : FLEET

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

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)