



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
401169
Component
Diesel Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0096821	GFL0073119	GFL0057555
Sample Date		Client Info		03 Jun 2024	14 Mar 2023	27 Oct 2022
Machine Age	kms	Client Info		793497	666705	647153
Oil Age	kms	Client Info		0	0	1200
Filter Age	kms	Client Info		0	0	1200
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	20	24	17
Chromium	ppm	ASTM D5185(m)	>20	1	2	1
Nickel	ppm	ASTM D5185(m)	>4	<1	1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	1	2	3
Lead	ppm	ASTM D5185(m)	>40	28	36	31
Copper	ppm	ASTM D5185(m)	>330	93	58	53
Tin	ppm	ASTM D5185(m)	>15	0	1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	VLITE	---	---

CONTAMINATION

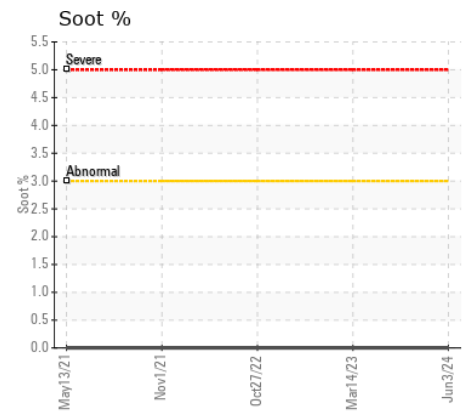
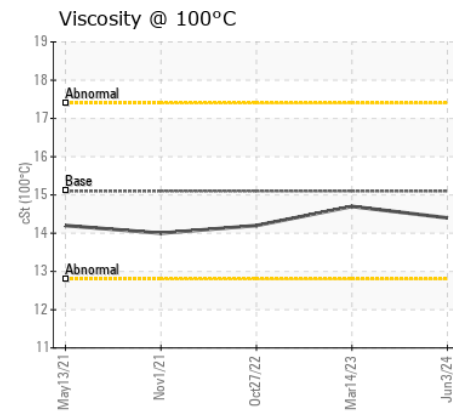
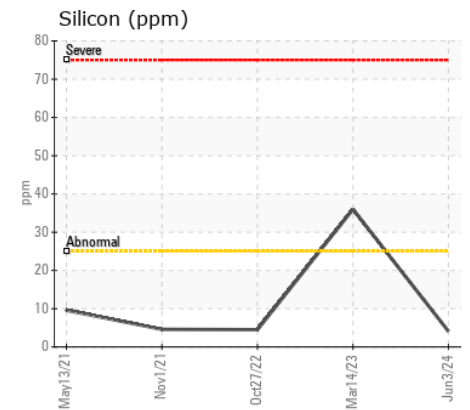
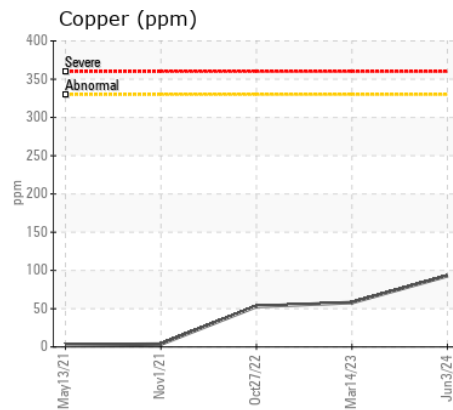
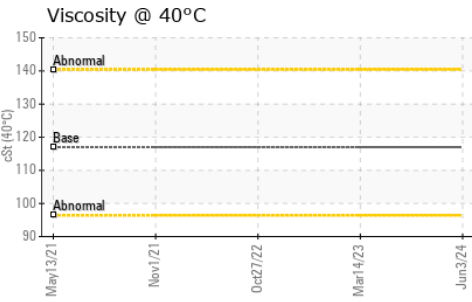
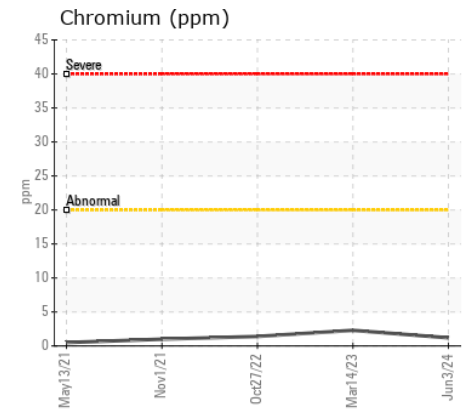
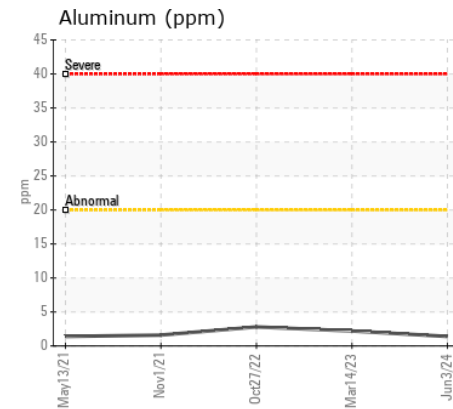
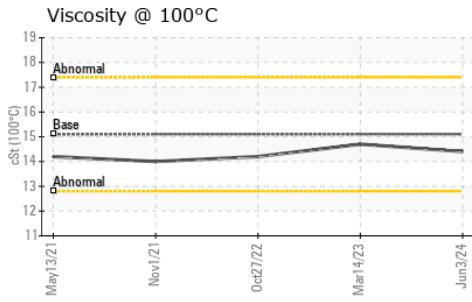
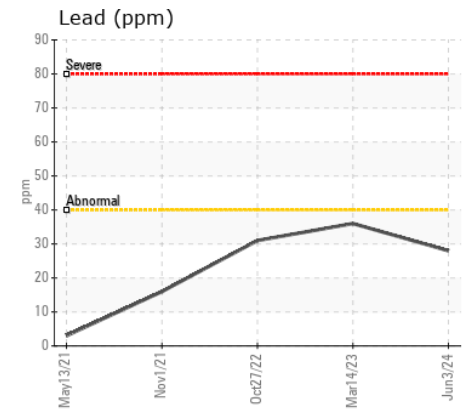
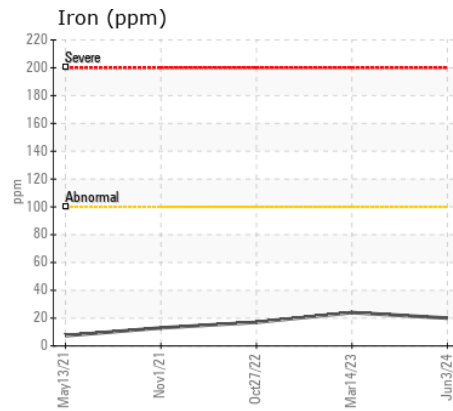
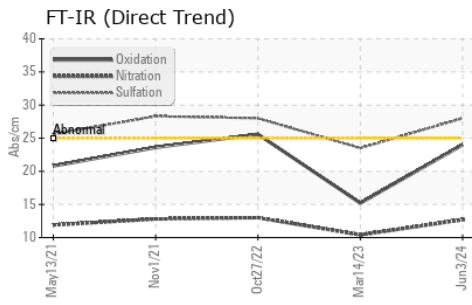
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	▲ 36	4
Potassium	ppm	ASTM D5185(m)	>20	3	▲ 560	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.7	10.4	13.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	28.0	23.5	28.0
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		29	● 636	11
Boron	ppm	ASTM D5185(m)	50	10	6	9
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	53	86	50
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	560	600	532	580
Calcium	ppm	ASTM D5185(m)	1510	1654	1669	1659
Phosphorus	ppm	ASTM D5185(m)	780	722	774	786
Zinc	ppm	ASTM D5185(m)	870	938	863	898
Sulfur	ppm	ASTM D5185(m)	2040	2056	2192	1955
Oxidation	Abs/.1mm	ASTM D7414*	>25	24.0	15.2	25.6
Visc @ 40°C	cSt	ASTM D7279(m)	117.0	115	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.4	14.7	14.2
Viscosity Index (VI)	Scale	ASTM D2270*	134	126	---	---



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0096821
Lab Number : 02642256
Unique Number : 5799795
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

GFL Environmental - 574 - Coquitlam
 70 Golden Drive,
 Coquitlam, BC
 CA V3K 6B5
 Contact: Sanjay Kisun
 skisun@gflenv.com
 T: (604)529-4030
 F: (604)529-4026

*To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.*