

Machine Id
930022
Component
Natural Gas 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		GFL0117258	GFL0099525	GFL0077584
Sample Date		Client Info		12 Jun 2024	13 Dec 2023	28 Jun 2023
Machine Age	hrs	Client Info		6623	0	4473
Oil Age	hrs	Client Info		0	113061	1071
Filter Age	hrs	Client Info		0	0	1071
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	22	16	15
Chromium	ppm	ASTM D5185(m)	>4	2	1	1
Nickel	ppm	ASTM D5185(m)	>2	<1	1	<1
Titanium	ppm	ASTM D5185(m)		<1	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	3	5	4
Lead	ppm	ASTM D5185(m)	>30	<1	4	2
Copper	ppm	ASTM D5185(m)	>35	1	<1	1
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

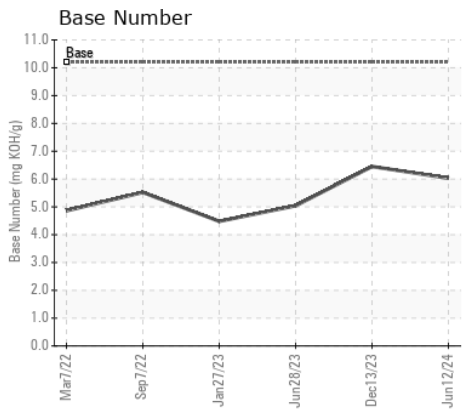
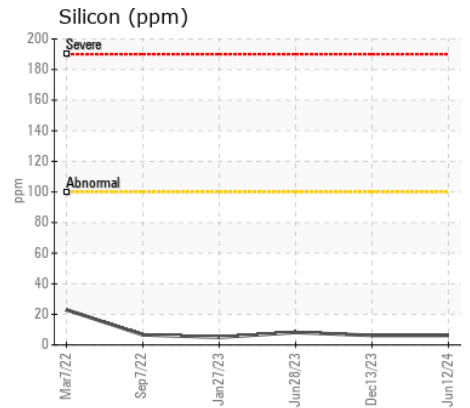
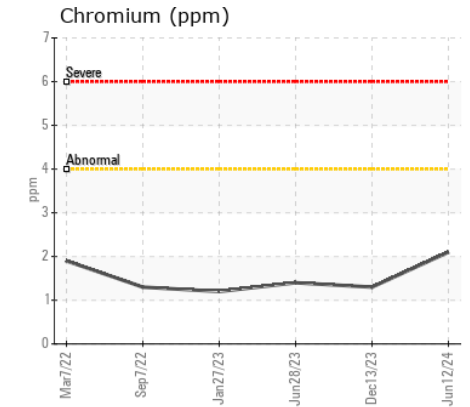
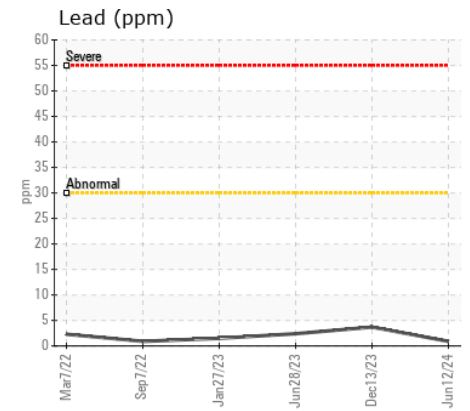
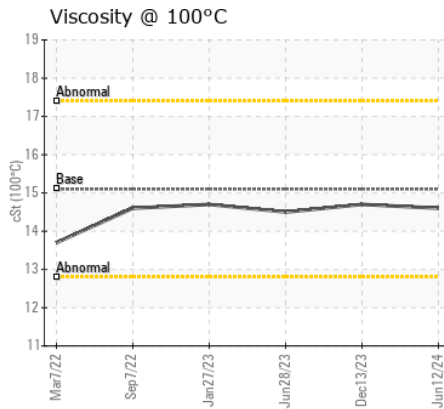
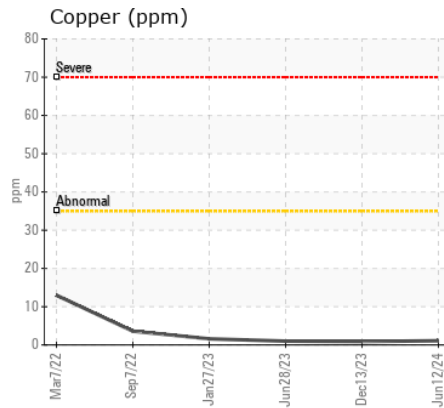
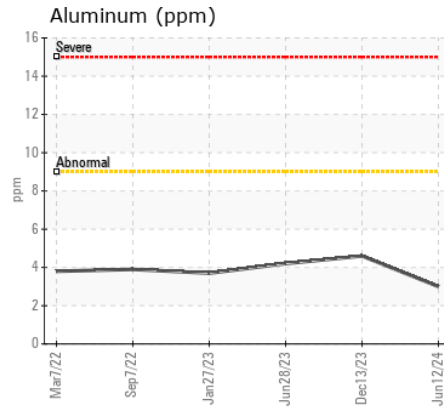
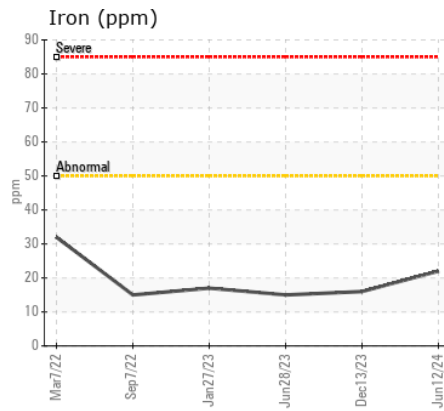
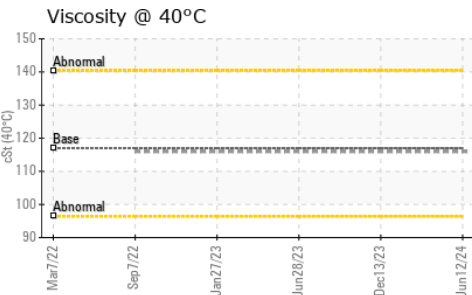
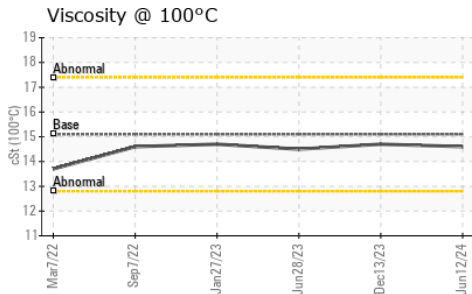
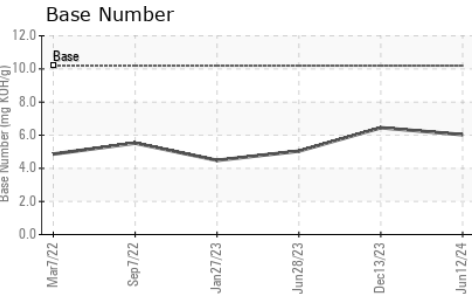
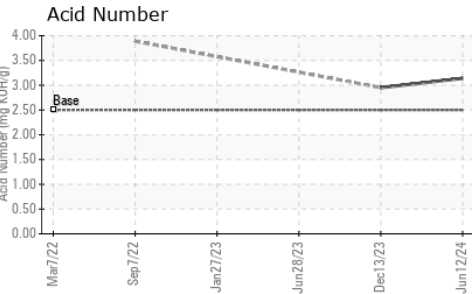
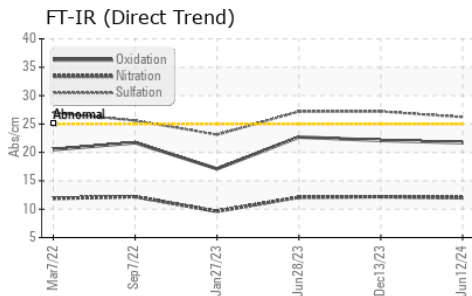
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>+100	6	6	8
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.0	12.2	12.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.2	27.2	27.2
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*	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		10	9	10
Boron	ppm	ASTM D5185(m)	50	8	8	6
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	55	56	58
Manganese	ppm	ASTM D5185(m)	0	1	<1	<1
Magnesium	ppm	ASTM D5185(m)	560	565	598	614
Calcium	ppm	ASTM D5185(m)	1510	1680	1671	1705
Phosphorus	ppm	ASTM D5185(m)	780	700	756	790
Zinc	ppm	ASTM D5185(m)	870	941	939	964
Sulfur	ppm	ASTM D5185(m)	2040	1989	2105	2070
Oxidation	Abs/.1mm	ASTM D7414*	>25	21.7	22.1	22.7
Acid Number (AN)	mg KOH/g	ASTM D974*	2.5	3.14	2.95	---
Base Number (BN)	mg KOH/g	ASTM D2896*	10.2	6.03	6.45	5.04
i-pH	Scale 0-14	ASTM D7946*	<4.5	4.94	4.66	---
Visc @ 40°C	cSt	ASTM D7279(m)	117.0	116	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.6	14.7	14.5
Viscosity Index (VI)	Scale	ASTM D2270*	134	128	---	---



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117258
Lab Number : 02642293
Unique Number : 5799832
Test Package : MOB 2 (Additional Tests: i-pH, KV40, TAN Auto, TAN Man, VI, Visual)

Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 18 Jun 2024 - Wes Davis

GFL Environmental - 550 - Rocky View County
 220 Carmek Blvd
 Rocky View County, AB
 CA T1X 1X1
 Contact: GFL Calgary
 calgarymaintenance@gflenv.com

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.

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