

Machine Id
420061
Component
Diesel Engine
Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112446	GFL0099541	GFL0084334
Sample Date		Client Info		20 Jun 2024	27 Dec 2023	10 Aug 2023
Machine Age	hrs	Client Info		5834	0	0
Oil Age	hrs	Client Info		736	183746	98546
Filter Age	hrs	Client Info		736	0	0
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)	>100	76	56	22
Chromium	ppm	ASTM D5185(m)	>20	2	2	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	11	15	6
Lead	ppm	ASTM D5185(m)	>40	1	1	0
Copper	ppm	ASTM D5185(m)	>330	5	5	3
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

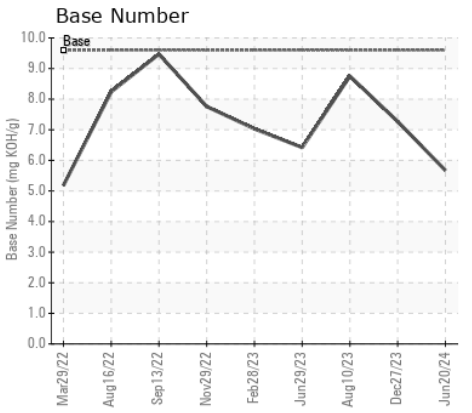
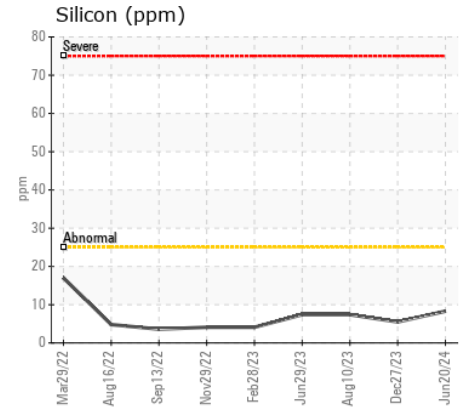
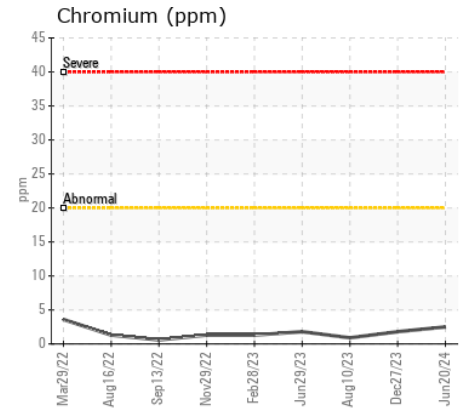
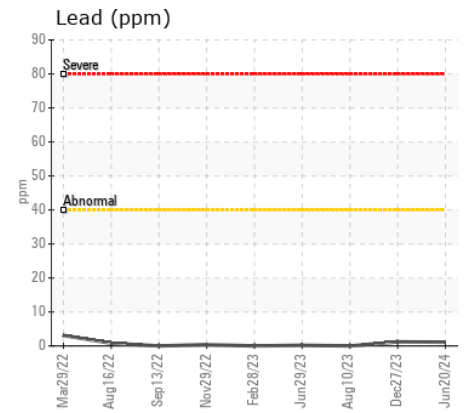
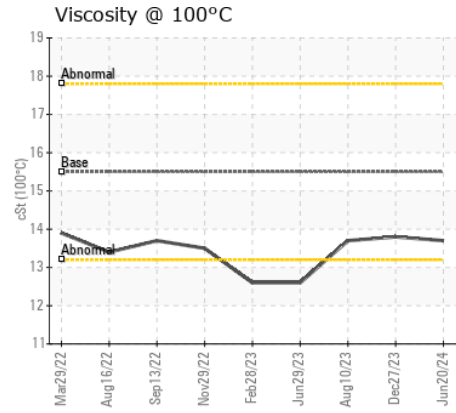
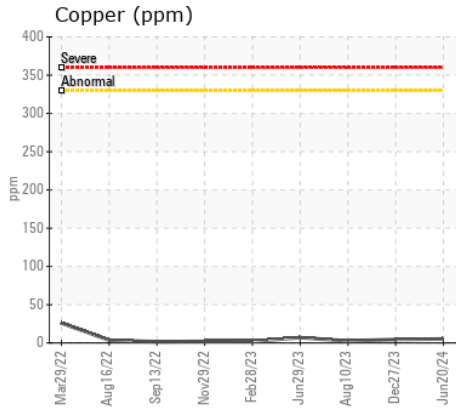
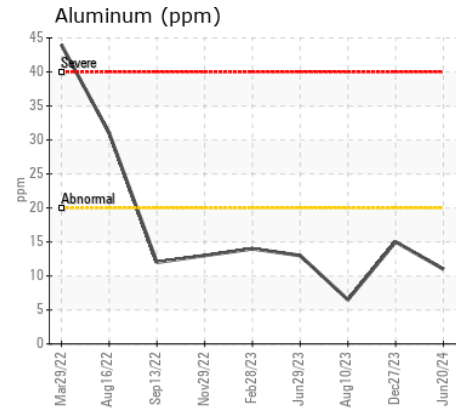
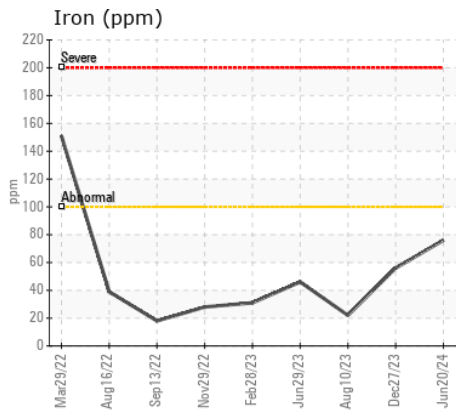
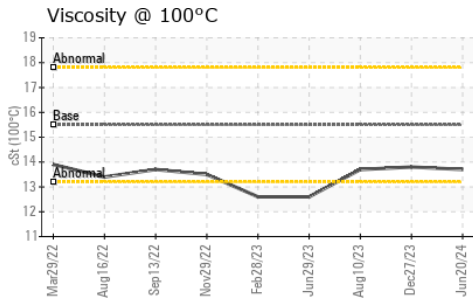
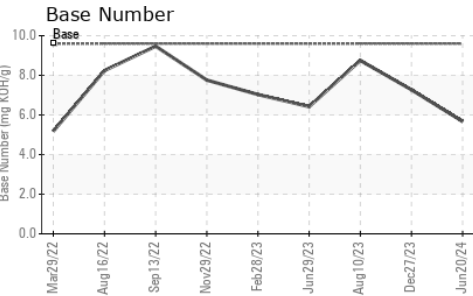
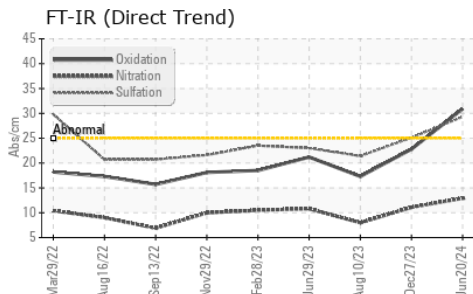
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	8	6	7
Potassium	ppm	ASTM D5185(m)	>20	14	6	9
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	1.3	1.1	0.4
Nitration	Abs/cm	ASTM D7624*	>20	12.9	11.1	8.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	29.3	25.1	21.4
Emulsified Water	scalar	Visual*	>0.2	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 D5185(m)		9	7	5
Boron	ppm	ASTM D5185(m)	1	2	2	2
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	56	57	56
Manganese	ppm	ASTM D5185(m)	1	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	930	904	920
Calcium	ppm	ASTM D5185(m)	1070	1030	1086	986
Phosphorus	ppm	ASTM D5185(m)	1150	912	952	1002
Zinc	ppm	ASTM D5185(m)	1270	1028	1141	1128
Sulfur	ppm	ASTM D5185(m)	2060	2010	2371	2418
Oxidation	Abs/.1mm	ASTM D7414*	>25	30.9	22.8	17.3
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	5.67	7.27	8.75
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	13.7	13.8	13.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112446
Lab Number : 02643949
Unique Number : 5801488
Test Package : MOB 2
Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 26 Jun 2024 - Kevin Marson

GFL Environmental - 550 - Rocky View County
 220 Carmek Blvd
 Rocky View County, AB
 CA T1X 1X1
 Contact: GFL Calgary
 calgarymaintenance@gflenv.com
 T:
 F: (403)369-6163

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.