

Area
[1289877]
Machine Id
512020
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0118541	GFL0102742	GFL0094506
Sample Date		Client Info		05 Jun 2024	15 Feb 2024	10 Oct 2023
Machine Age	hrs	Client Info		4566	4114	3546
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	10	12	12
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	4	5
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

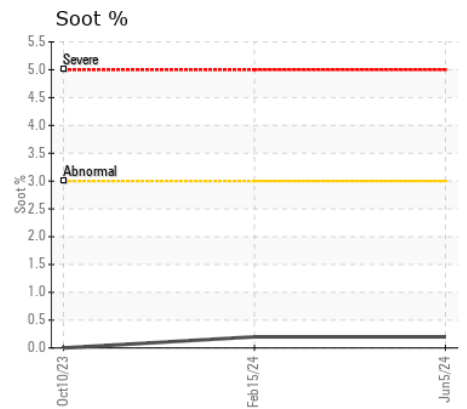
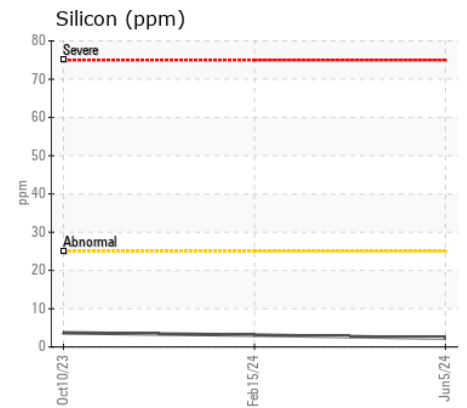
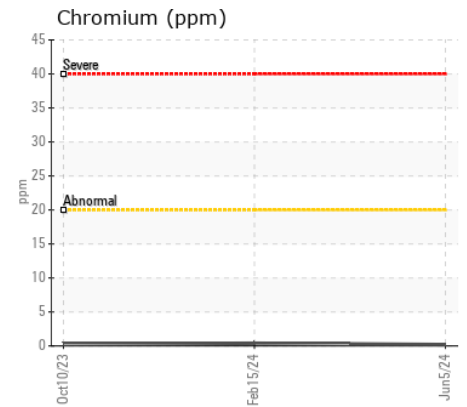
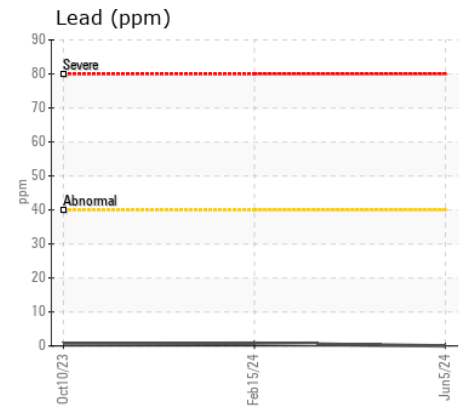
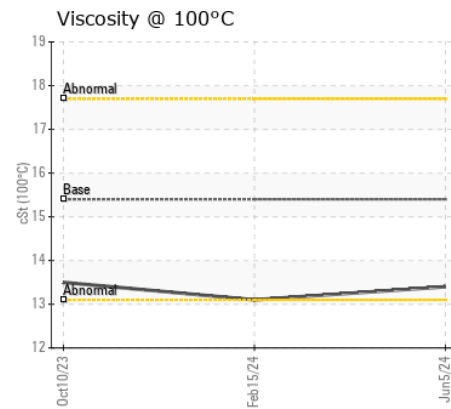
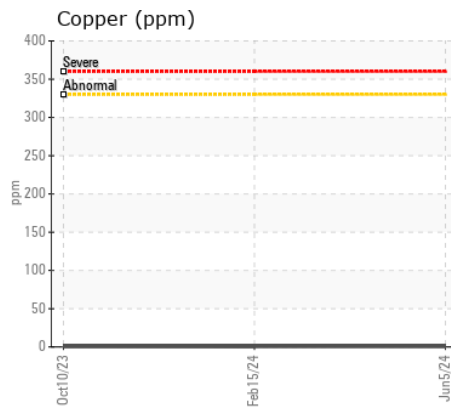
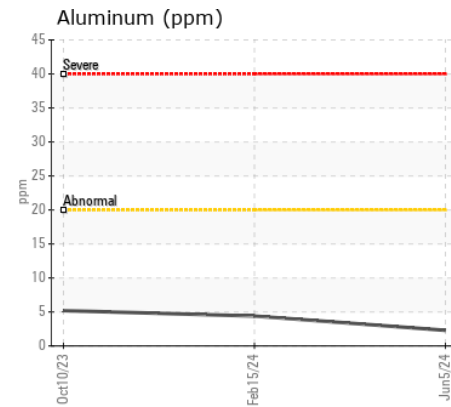
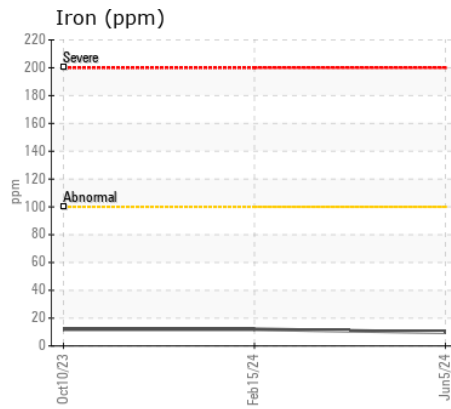
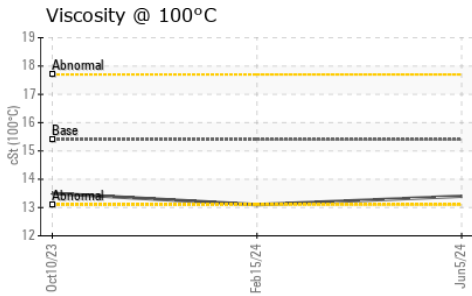
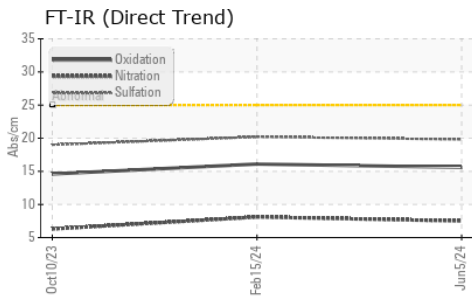
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	5	9	14
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.2	0.2	0
Nitration	Abs/cm	ASTM D7624*	>20	7.5	8.1	6.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.8	20.2	19.0
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)		4	4	4
Boron	ppm	ASTM D5185(m)	0	2	1	2
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	60	59	61
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	982	957	960
Calcium	ppm	ASTM D5185(m)	1070	1045	1072	1046
Phosphorus	ppm	ASTM D5185(m)	1150	973	1004	1001
Zinc	ppm	ASTM D5185(m)	1270	1182	1173	1189
Sulfur	ppm	ASTM D5185(m)	2060	2466	2662	2562
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.6	16.1	14.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.4	13.1	13.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118541
Lab Number : 02640438
Unique Number : 5789600
Test Package : MOB 1
Received : 07 Jun 2024
Tested : 07 Jun 2024
Diagnosed : 07 Jun 2024 - Wes Davis

GFL Environmental - 207 - Pickering SW
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 PICKERING, ON
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 Contact: Ian Patton
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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.