



Machine Id
701032
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (25 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0122303	WC0875079	GFL0091060
Sample Date		Client Info		04 Jun 2024	28 Nov 2023	22 Aug 2023
Machine Age	kms	Client Info		90855	11043	90855
Oil Age	kms	Client Info		0	559	0
Filter Age	kms	Client Info		0	559	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>75	22	16	12
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	10	3	2
Lead	ppm	ASTM D5185(m)	>25	0	<1	0
Copper	ppm	ASTM D5185(m)	>100	1	1	<1
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

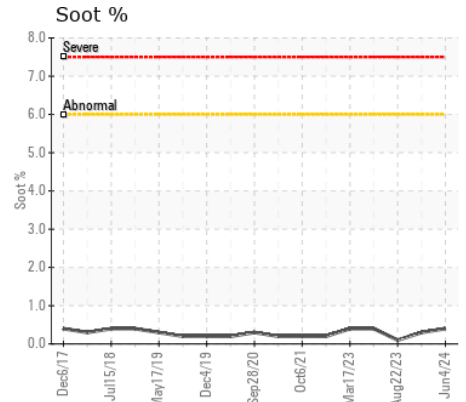
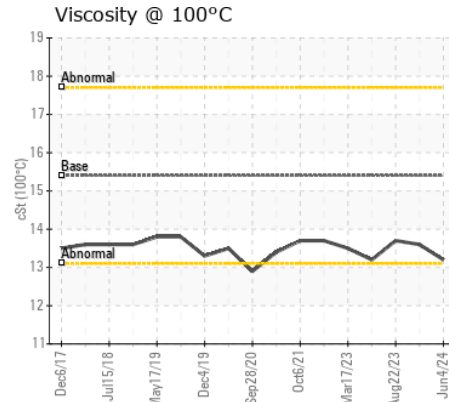
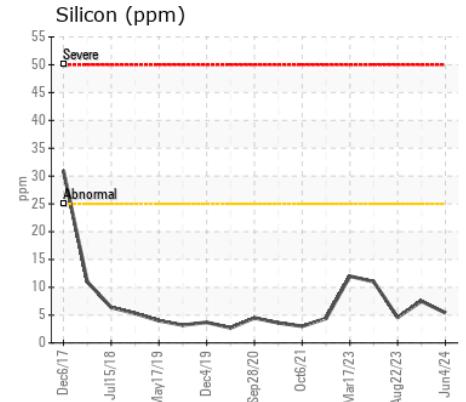
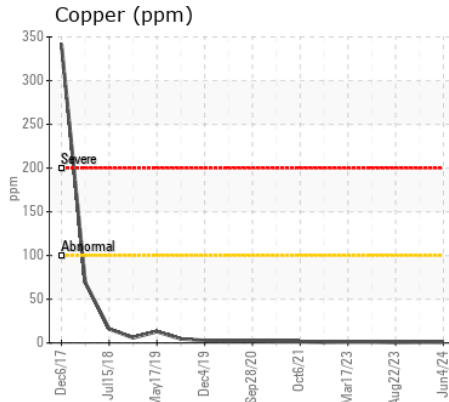
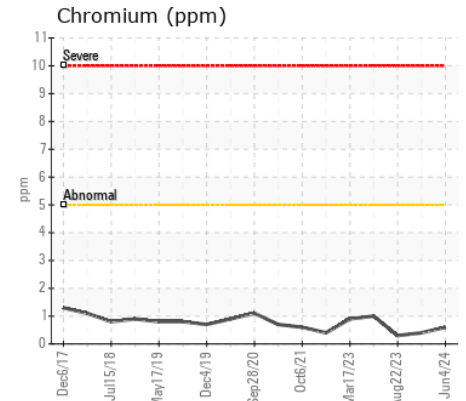
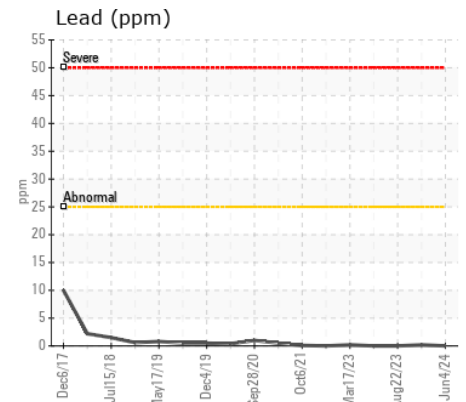
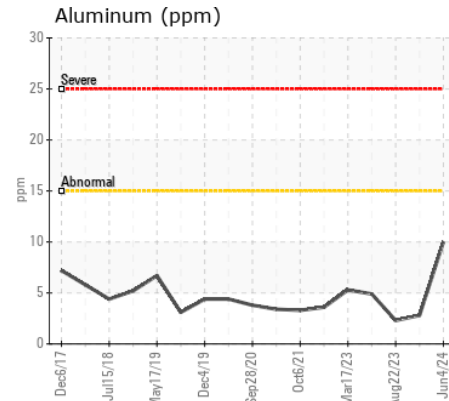
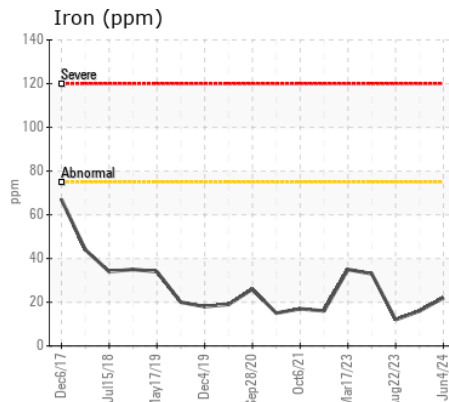
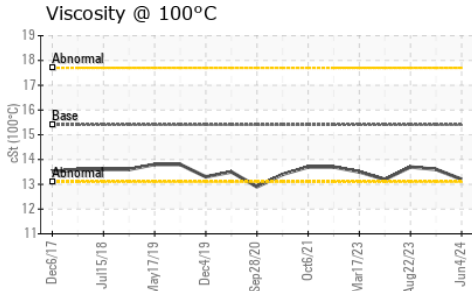
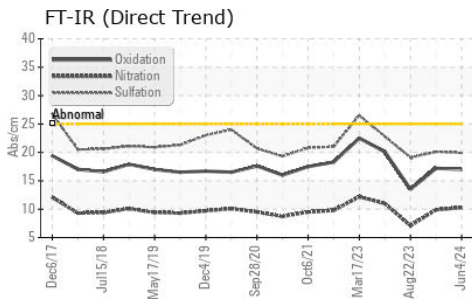
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	8	5
Potassium	ppm	ASTM D5185(m)	>20	18	2	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.4	0.3	0.1
Nitration	Abs/cm	ASTM D7624*	>20	10.3	9.9	7.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.9	20.1	19.1
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)		6	6	5
Boron	ppm	ASTM D5185(m)	0	5	2	6
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	59	58	58
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	931	932	939
Calcium	ppm	ASTM D5185(m)	1070	1040	1024	1031
Phosphorus	ppm	ASTM D5185(m)	1150	967	957	1011
Zinc	ppm	ASTM D5185(m)	1270	1164	1187	1149
Sulfur	ppm	ASTM D5185(m)	2060	2475	2401	2465
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.0	17.2	13.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.2	13.6	13.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0122303
Lab Number : 02640094
Unique Number : 5789256
Test Package : MOB 1 (Additional Tests: Visual)
Received : 06 Jun 2024
Tested : 06 Jun 2024
Diagnosed : 06 Jun 2024 - Wes Davis

GFL Environmental - 217 - Aurora
 14131 BAYVIEW AVE, AURORA YARD
 AURORA, ON
 CA L4G 0K6
 Contact: Mike Havens
 MHavens@gflenv.com
 T:
 F: (905)713-2445

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.