



Machine Id
901089
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112002	GFL0111992	GFL0090419
Sample Date		Client Info		27 Jun 2024	28 Mar 2024	17 Oct 2023
Machine Age	kms	Client Info		224667	215697	200128
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	7	12	6
Chromium	ppm	ASTM D5185(m)	>20	<1	0	0
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	2	1
Lead	ppm	ASTM D5185(m)	>40	0	0	<1
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

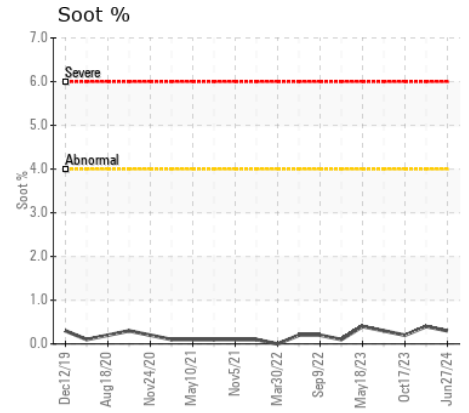
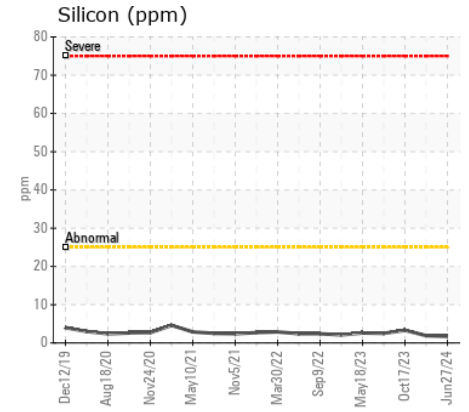
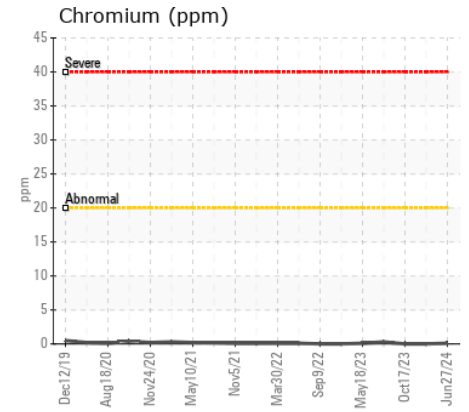
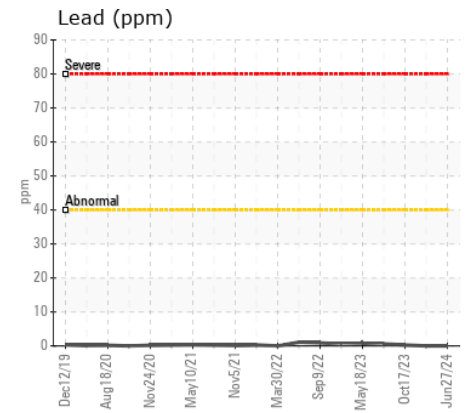
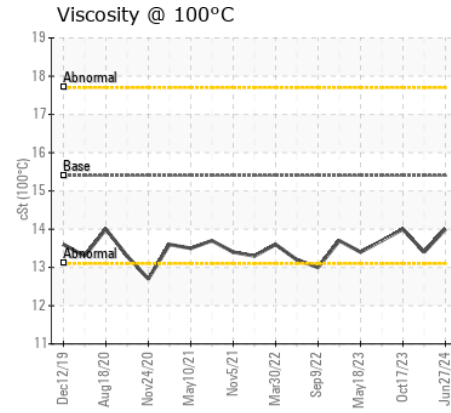
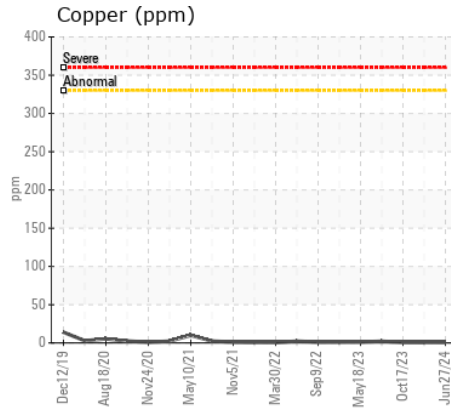
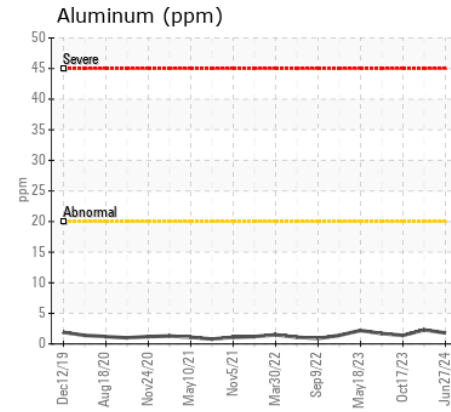
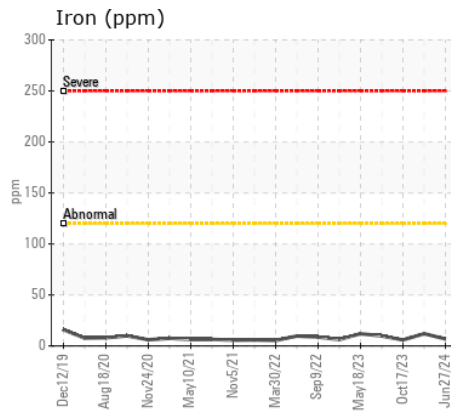
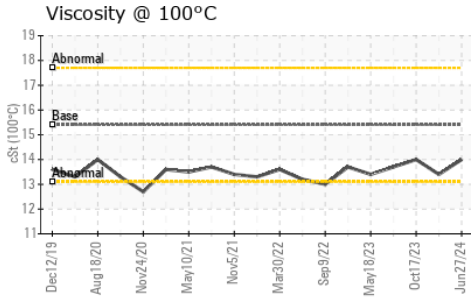
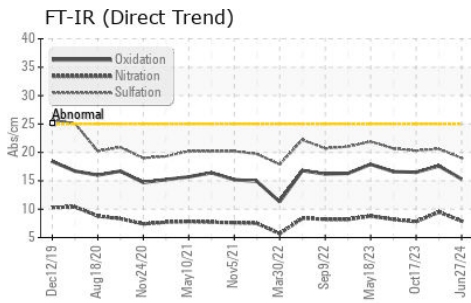
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	2	3
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	1
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*	>4	0.3	0.4	0.2
Nitration	Abs/cm	ASTM D7624*	>20	7.9	9.5	7.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.0	20.6	20.3
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)		2	4	4
Boron	ppm	ASTM D5185(m)	0	2	2	21
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	58	60	50
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	951	988	816
Calcium	ppm	ASTM D5185(m)	1070	1063	1102	1420
Phosphorus	ppm	ASTM D5185(m)	1150	978	969	1007
Zinc	ppm	ASTM D5185(m)	1270	1200	1205	1275
Sulfur	ppm	ASTM D5185(m)	2060	2499	2328	2506
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.3	17.6	16.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.0	13.4	14.0



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112002
Lab Number : 02645389
Unique Number : 5802928
Test Package : MOB 1
Received : 04 Jul 2024
Tested : 04 Jul 2024
Diagnosed : 04 Jul 2024 - Wes Davis

GFL Environmental - 216M
 2475 Beryl Drive
 Oakville, ON
 CA L6J 7X4
 Contact: Matthew Guinness
 mgunness@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.