



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
GFL216
Machine Id
413136
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0108427	GFL0099658	GFL0089249
Sample Date		Client Info		05 Jan 2024	19 Oct 2023	20 Jul 2023
Machine Age	kms	Client Info		39842	31182	20302
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>120	11	15	17
Chromium	ppm	ASTM D5185(m)	>20	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	1
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	1	4	12
Copper	ppm	ASTM D5185(m)	>330	23	142	494
Tin	ppm	ASTM D5185(m)	>15	<1	<1	1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

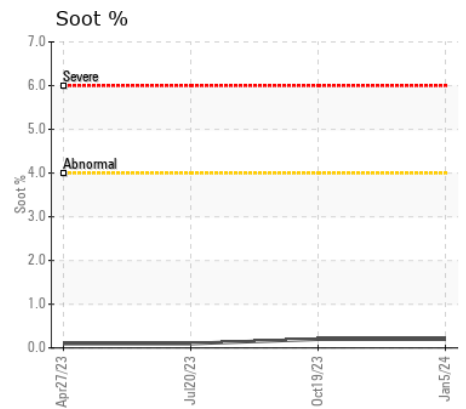
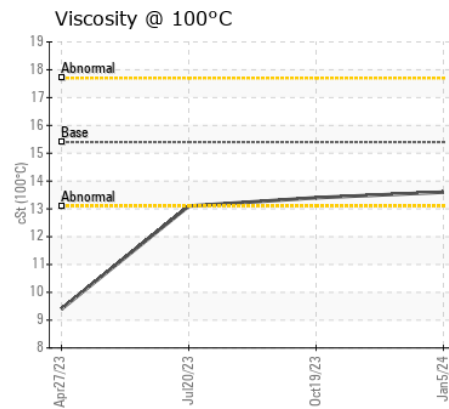
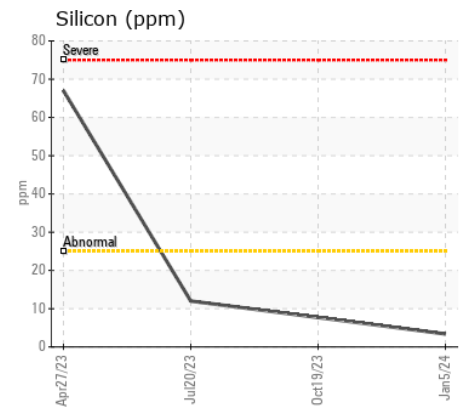
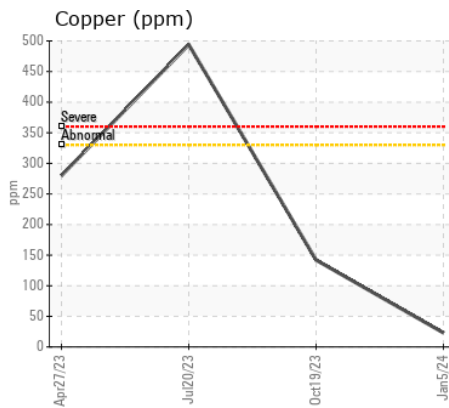
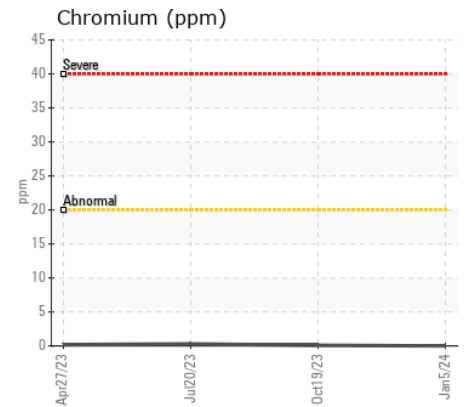
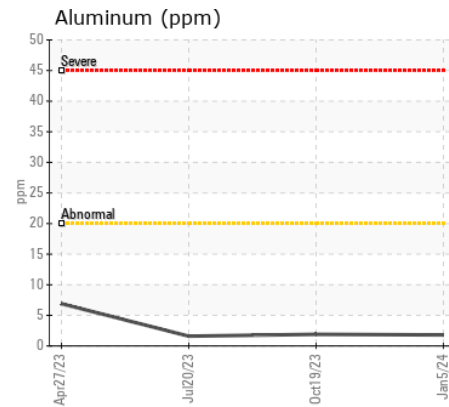
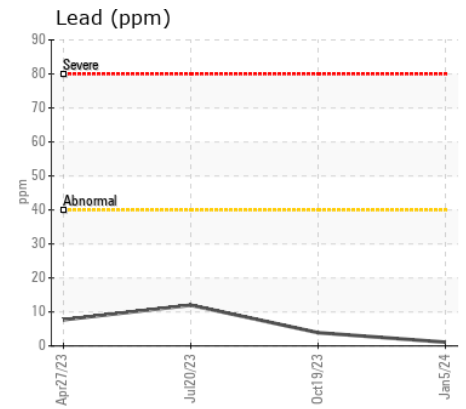
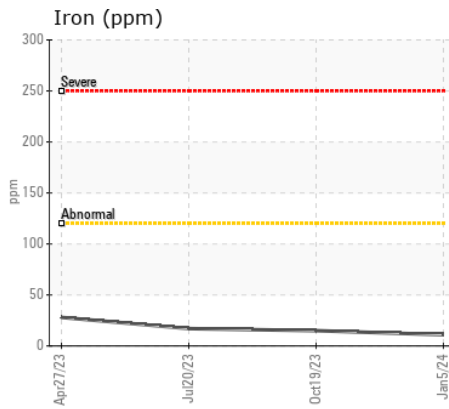
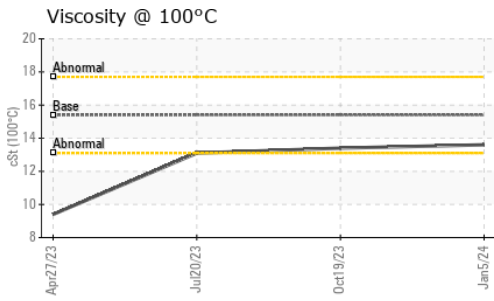
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	8	12
Potassium	ppm	ASTM D5185(m)	>20	4	3	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*	>4	0.2	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	8.1	8.2	7.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.5	20.0	19.7
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)		<1	1	2
Boron	ppm	ASTM D5185(m)	0	2	5	19
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	59	62	67
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	961	963	933
Calcium	ppm	ASTM D5185(m)	1070	1051	1063	1083
Phosphorus	ppm	ASTM D5185(m)	1150	993	975	1018
Zinc	ppm	ASTM D5185(m)	1270	1185	1170	1148
Sulfur	ppm	ASTM D5185(m)	2060	2583	2231	2323
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.1	15.8	15.0
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.6	13.4	13.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 252 - GTA Hauling
Sample No. : GFL0108427 **Received** : 10 Jan 2024 3668 Weston Road
Lab Number : 02607696 **Diagnosed** : 10 Jan 2024 North York, ON
Unique Number : 5708782 **Diagnostician** : Wes Davis CA M9L 1W2
Test Package : MOB 1

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.

Contact: Tom Hatzioannidis
 thatzioannidis@gflenv.com
 T: (416)406-2040
 F: