



Machine Id
901091
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		GFL0090390	GFL0093791	GFL0088919
Sample Date		Client Info		01 Jan 2024	20 Sep 2023	17 Jul 2023
Machine Age	hrs	Client Info		15032	229786	13735
Oil Age	hrs	Client Info		0	0	110
Filter Age	hrs	Client Info		0	0	110
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)	>120	9	8	10
Chromium	ppm	ASTM D5185(m)	>20	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<1	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

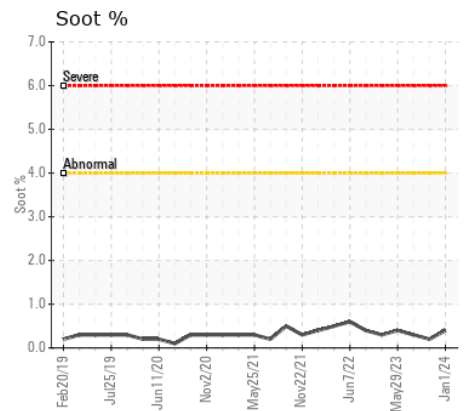
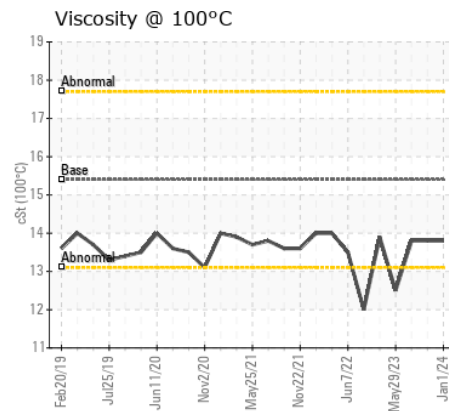
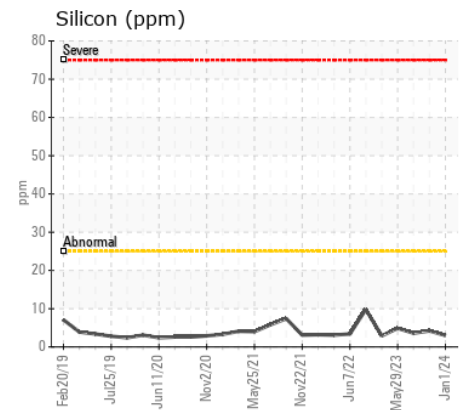
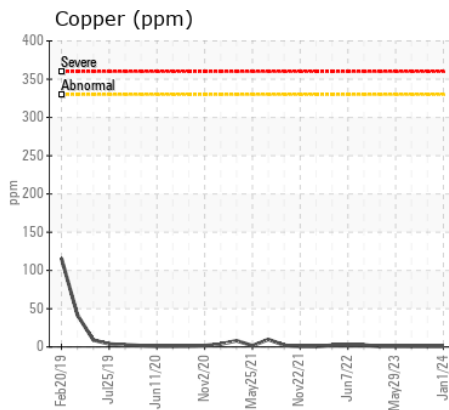
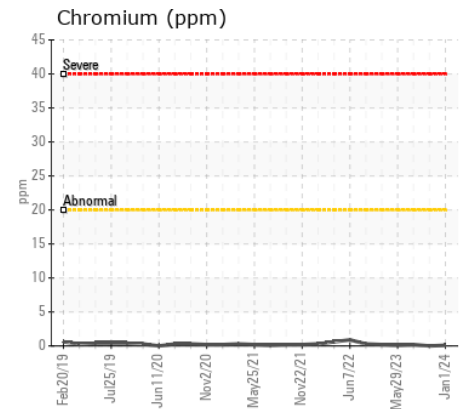
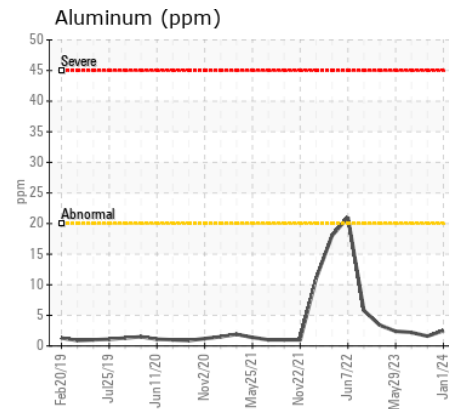
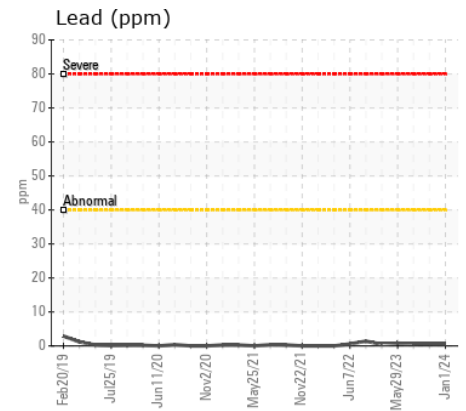
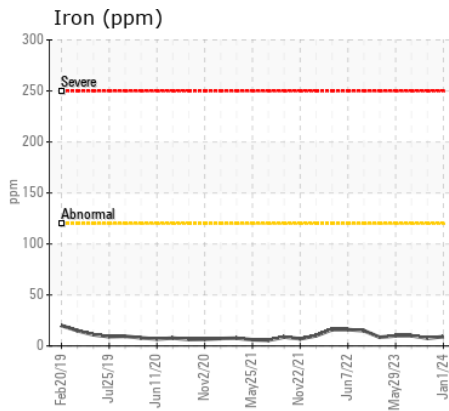
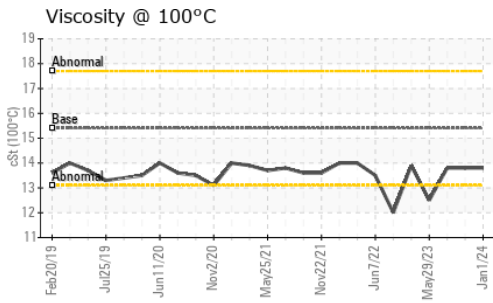
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	4	4
Potassium	ppm	ASTM D5185(m)	>20	4	<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	0.4	0.2	0.3
Nitration	Abs/cm	ASTM D7624*	>20	8.9	7.4	7.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.7	19.5	20.5
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)		3	5	4
Boron	ppm	ASTM D5185(m)	0	2	4	5
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	58	59	57
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	958	944	969
Calcium	ppm	ASTM D5185(m)	1070	1072	1053	1079
Phosphorus	ppm	ASTM D5185(m)	1150	967	950	1004
Zinc	ppm	ASTM D5185(m)	1270	1168	1170	1170
Sulfur	ppm	ASTM D5185(m)	2060	2368	2303	2329
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.9	15.3	16.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.8	13.8	13.8



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0090390 **Received** : 11 Jan 2024
Lab Number : 02608096 **Diagnosed** : 11 Jan 2024
Unique Number : 5709182 **Diagnostician** : Wes Davis
Test Package : MOB 1

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

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F: